# MINNESOTA STATE REPORT

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**Legislative Update/Fishing and Hunting Fee Increase**

In the Spring of 2017, to address a looming $4 million structural deficit, the Minnesota Legislature passed a modest fee increase for select angling and hunting licenses, effective March 1st, 2018. The department was challenged with several needed fee increases this year including state park permits, motorized recreation licenses, and others. Minnesota does have constitutionally dedicated funds for fish and wildlife habitat, clean water, and parks and trails, however operational costs are not an allowable use of those funds. Staff pursued a fee increase by talking to stakeholders, holding various meetings around the state, and gaining support from multiple angling and wildlife organizations. Up until the final days of the 5 month of legislative session, there was little legislative support. Hunters and anglers were key in providing vocal support to legislators for the angling and hunting fee increases and we were fortunate to have strong support from Trout Unlimited and Minnesota Outdoor Heritage Alliance to organize support from dozens of sporting groups. The last increase was five years ago and we anticipate the new revenue will fund current levels of service for several years. Resident angling licenses will increase from $22 to $25; resident deer licenses will increase from $30 to $34, with comparable increases for non-resident licenses.

## Mille Lacs Lake Management

## Conservation concerns are elevated on Mille Lacs Lake as a declining trend in walleye continues. Mille Lacs’ 2017 walleye safe harvest level is 44,800 pounds for the State’s portion of the Tribal-State shared regulated harvest. Mille Lacs Lake anglers will be required to immediately release all walleye, an extended night fishing closure will again be in effect, and the lake will have a 21-day walleye fishing closure from July 7 – July 27. Walleye fishing will also be closed after Labor Day.

Extensive work is underway to better understand several fish community changes that may be partly driven by altered physical and chemical dynamics, notably clearer water that started with clean water legislation twenty years ago, longer growing seasons, and several aquatic invasive species, including Eurasian watermilfoil, spiny water flea and zebra mussels. A trend in increasing juvenile walleye mortality has now been documented, while northern pike and smallmouth bass abundance have increased. An extensive predator diet study and bioenergetics analysis was completed to determine potential causal mechanisms to explain elevated juvenile walleye mortality. DNR completed a hooking mortality study in 2016 catching and releasing 1,800 walleye of specific sizes throughout the fishing season and under a variety of environmental conditions and fishing methods.

DNR continues to meet with a 16-member Mille Lacs Fisheries Advisory Committee comprised of local and statewide fishing interest, business owners, local government officials, and an academic representative. The committee meets approximately bi-monthly to discuss and advise on fisheries management topics, such as creel surveys, hooking mortality, stocking, treaty management and fishing regulations. Thus far the committee has recommended several areas for improvement that are currently being implemented by DNR, including conducting studies and altering creel survey questions to refine estimates of hooking mortality.

Mille Lacs hosted the $1 million Bassmaster Angler of the Year Championship in September 2016, and is scheduled to host it again in September 2017. The lake continues to gain national recognition as one of the best smallmouth bass fisheries in the country.

## Bighead, Black, Grass and Silver Carp

 In May/June 2015, six adult bighead carp were caught in the St. Croix River, just south of Stillwater. A grass carp, December 2015, and bighead carp, February 2016, were captured in the Minnesota River marking the first time invasive carp have been documented in the river. Most recently, an adult bighead carp was captured in the Minnesota River 80 miles upstream from the 2016 capture site. All fish captured have been adults and to date there is no evidence of reproduction in Minnesota. With invasive carps not yet established, MN DNR continues to intensively monitor and to evaluate the population status of invasive carp in Minnesota waters using traditional fisheries programs, targeted carp sampling (all life stages), telemetry, public reports, and eDNA (conducted by USFWS).

With populations still at very low levels, the DNR continues to work on preventative actions. The Upper Saint Anthony Falls Lock was closed in June of 2015, protecting a large portion of the Mississippi River watershed including Mille Lacs. A suite of projects in the Missouri River watershed to limit invasive carp expansion was completed in November 2015. The DNR is now focusing on efforts to protect the lower portion of the Mississippi River, St. Croix River, and Minnesota River. The DNR currently has collaborative projects with the Minnesota Aquatic Invasive Species Research Center and Minnesota State – Mankato exploring deterrence measures. A contract for a feasibility study on an acoustic deterrent at Lock and Dam 5 is in the process of being awarded. The MN DNR continues to participate in Regional efforts including: Asian Carp Regional Coordinating Committee, Upper Mississippi River Invasive Carp Workgroup, Great Lakes ANS Panel, Mississippi River ANS Panel, Upper Mississippi River Conservation Committee, and Mississippi Interstate Cooperative Resource Association.

## Prairie Plan Implementation and Governor’s Pheasant Summit

 In 2013-14, ten local technical teams (LTTs) were formed across Minnesota’s western landscape to implement the Minnesota Prairie Conservation Plan. LTTs are composed of local resource managers from partner agencies. For more information, <http://www.dnr.state.mn.us/prairieplan/index.html>.

Minnesota is currently finishing the first planned review and revision of the Prairie Conservation Plan. We have already completed a mapping exercise realigning some of the core and corridor areas on the map to take advantage of new information since the original mapping effort.

We are in the third year of the Pheasant Summit Action Plan. The second PheasantPlan Report Card was released this spring.  **http://www.dnr.state.mn.us/pheasantaction/index.html**  The Action Plan priorities are in five main focus areas:

* Enforcing existing laws - buffers, roadsides, easements;
* Increasing bonding funds for Wildlife Management Area acquisition;
* Targeting funding to specific high-quality habitat areas through state, local, and federal cost-share programs;
* Increasing state and local funding; and
* Creating competitive compensation for long-term/perpetual conservation practices.

##  The DNR’s partner agency, the Board of Water and Soil Resources (BWSR), was awarded a 60,000 acre CREP (Conservation Reserve Enhancement Program) in the fall of 2016.

**Farming Practices Review**

In a letter to cooperating producers last summer (2016), the DNR informed them that neonictinoid treated seed would no longer be permitted on DNR lands. We will be phasing in additional reforms such as fertilizer application, cover cropping, and tillage practices. This year we will continue to work on reform efforts such as developing guidelines for determining if a food plot is needed on a unit as well as the size and location within the unit.

**Climate Change Adaptation and Mitigation**

 To support implementation of the Department-wide directive on Climate Change Adaptation and Mitigation in Natural Resource Management, the Division of Fish and Wildlife have provided staff with detailed guidance on how to address climate change in management plans, technical consultations, infrastructure, land acquisition, and habitat management. To support staff in implementing this new policy, the Division developed the *Climate Change Handbook* with information on climate change, effects on fish, wildlife and ecosystems, adaptation, mitigation, training opportunities, case studies, recommended resources, and contacts. Trainings continue to be offered to staff to help them more effectively integrate climate adaptation into their work. A division climate change working group publishes a monthly climate change e-newsletter for staff, and is currently developing recommendations to leadership, based on a staff survey, to improve our ability to adapt to climate change now and into the future.

## Aquatic Habitat Implementation

 The strategic framework for habitat protection outlined in the [aquatic habitat strategic plan](http://files.dnr.state.mn.us/fish_wildlife/fisheries/habitat/2013_fishhabitatplan.pdf) is being incorporated into funding proposals for protection, enhancement and restoration of aquatic habitat. The plan puts an emphasis on working with partners and using GIS-based tools to identify priorities. Fisheries staff are participating in comprehensive watershed planning led by the MN Pollution Control Agency to identify impairments and prioritize projects to restore and protect water quality. The fisheries component of the Index of Biotic Integrity (IBI) developed by the Fisheries Section is an important indicator used in watershed planning. Refinement of the IBI for most lake classes is complete, and work on coldwater lakes of NE MN is underway. Stakeholder concerns about narrow leaf and hybrid cattails continue to be an issue, although Aquatic Plant Management administrative rules permit flexibility in dealing with nuisance levels of hybrid and narrow leaf cattail. Management of Aquatic Management Areas has been improved, including eliminating a backlog of conservation easement monitoring visits and reports, and accelerating assessments and site-level management plans for state-owned properties.

## Moose

The 2016 annual aerial helicopter survey revealed a point estimate of 4,020 moose in northeastern Minnesota; slightly above the 2015 estimate of 3,450. While the long-term data indicates a significant population decline, the surveys over the last few years have been relatively consistent. Radio-collared moose data collected as part of the adult and calf mortality studies and overall population trend data suggests the population is still in decline. For the first time in several years, all Tribes in moose range held conservative hunting seasons. Research projects are ongoing investigating the causes of adult moose mortality, calf mortality, calf survival, moose use of existing habitat, and habitat quality. During the first four years of the adult moose mortality study, a total of 54 collared moose died. Annual mortality rates were 19%, 12%, 14% and 15% in 2013, 2014, 2015 and 2016 respectively. Wolf-related mortalities have caused 18 deaths (33%). Health-related mortalities have caused 36 deaths (67%), these included parasites (16 moose), bacterial infections (12 moose), an accident (2 moose), tribal hunter-harvest (n=1) and undetermined health issues (5 moose). Parasites that have caused mortalities include brainworm (Parelaphostrongylus tenuis), winter ticks (Dermacentor albipictus), liver flukes (Fascioloides magna), and tapeworms (Echinococcosis granulosis). Bacterial infections have been caused by predator-related injuries, trauma, fighting, heart and kidney disease. See DNR’s moose webpage for more information.

**White-tailed Deer**

The winter of 2016/17 was again mild, and coupled with the mild winter the previous year, deer populations have increased significantly. Numerous deer permit areas are once again above population goals following multiple conservative antlerless deer harvest. The 2017 deer season will see increased opportunities to harvest antlerless deer throughout most of the state, and total harvest is likely to be significantly higher than the past 3 years.

In fall, 2016, DNR began a process to draft its first-ever statewide deer management plan, including convening a 20-member citizen advisory committee comprised of representatives of hunting, agriculture, forestry, public health and conservation organizations, a tribal representative, and several “at-large” members that will advise Wildlife staff for the duration of the planning process. DNR also held public input meetings around the state in winter 2017 to seek feedback on a draft plan outline. The Deer Plan will address topics including herd health; habitat; population management; communication, education and public engagement; funding; impacts of deer on other resources; and additional topics as needed. The plan is expected to be completed in spring of 2018.

Chronic wasting disease was again discovered in wild deer in Minnesota. A total of 11 deer tested positive in a small geographic area of SE Minnesota after testing 4,141 deer from the regular hunting season, extended seasons, and deer removal efforts by Wildlife Services. Minnesota has implemented an aggressive strategy to contain the disease including liberalized hunting in 2017.

## Northern Long-Eared Bat

DNR continues research to better understand the distribution, abundance, and roosting habits of this species in the state, and is working with other Lake States to develop a Habitat Conservation Plan in the event NLEB status changes to Endangered or additional bat species are listed. Unfortunately, WNS has now been confirmed in six counties in MN. Recent bat surveys recorded declines ranging from 31 to 73 percent, following the pattern in neighboring states.

## Rusty Patched Bumble Bee

##  The listing of the Rusty Patched Bumble Bee (RPBB) as a federally endangered species became effective March 31, 2017. DNR has been working with USFWS staff to comply with Endangered Species Act Section 7 compliance. DNR feels it is well positioned after 2013 legislation directed us to develop and use pollinator best management practices for all habitat enhancement or restoration of lands under the Commissioner’s control.

**Highly Pathogenic Avian Influenza**

The MNDNR participated in the 2016 USDA National Avian Influenza surveillance plan, which called for sampling of 1,040 dabbling ducks (live or dead) during the summer, fall, and winter of 2016 and spread across 6 watersheds in Minnesota. We nearly fulfilled the entire quota, and were short 29 samples for the Minnesota watershed, nine for the Red watershed, and seven for the Upper Mississippi – Black Root; however, we exceeded the sample quota by 62 samples for the Mississippi Headwaters (some of these will be allocated to the Minnesota watershed), six samples for the St. Croix watershed, and two samples for the Western Lake Superior watershed. We did not detect HPAI virus from any samples, and sample prevalence of type-A influenza was approximately 17%, which is not surprising given past data.

In fall 2016, we began a year-long project examining the impacts of avian influenza virus infections in Minnesota’s ring-billed (*Larus delawarensis*) gulls. Through this project, we hope to determine the health impacts and potential role these gulls played in the deadly highly pathogenic AI (HPAI) H5 outbreak in Minnesota in 2015 by testing gulls for AI during 2017 spring and fall migrations and while in their summer breeding colonies. While dabbling ducks are thought to be the major reservoir species and can survive infections (depending on HPAI strain) and potentially distribute virus, there is a major gap in our surveillance and understanding of AI dynamics in other birds such as gulls. Our goals of this project are to determine: 1) if gulls played a role in the 2015 outbreak; 2) the presence or distribution of AI in gulls and the evolutionary potential of AI viruses in MN gulls; and 3) if there are any negative effects of AI infection in the migratory or breeding gulls of MN.

## Update on Constitutionally Dedicated Legacy Funding

 Since 2008, a portion of Minnesota’s sales tax is directed to protect, restore, and enhance forests, prairies, wetlands, and habitat for fish, game, and wildlife via the Outdoor Heritage Fund (OHF). The funding must supplement, not substitute for, work done with traditional sources of funding. The MN DNR, along with other agencies and organizations, applies for these funds on a competitive basis. The ninth year of funding will be appropriated in July 2017, with $31 million slated to come to DNR and $72.4 million to other agencies or partner organizations. Additionally, DNR administers the Conservation Partners Legacy (CPL) small grants program, which awards competitive and non-competitive grants of $5,000 -$400,000 to conservation groups, NGOs, and local governments for habitat projects. In the first 8 years of OHF, over $47 million was appropriated to the CPL grant program, with an additional $9.3 million slated for the 9th year. This program has improved or protected over 255,000 acres of habitat with 475 CPL grants. CPL has leveraged over $13.6 million in non-state funding from 165 conservation clubs and government entities throughout Minnesota.

**Roving Crew Habitat Update**

 Through the Outdoor Heritage Fund (OHF), the DNR now employs three roving crews totaling 24 staff. These crews are dedicated to conducting habitat work. They spend approximately ¾ of their time on grasslands and ¼ on wetlands. Prescribed fire is the primary habitat management tool they use, but the crews also have specialized equipment and training to conduct more complex management tasks. The Roving Crew concept has been popular among decision makers for the dedicated funding source. Because the crews are supported by the OHF, they are very focused on habitat and cannot be diverted to other priorities or emergencies that come up. The result is high powered crews that perform high level habitat enhancement without distraction.

**Recruitment, Retention, and Reactivation of Hunters and Anglers (R3)**

Established capacity-building grant program and implemented three rounds of funding. Over $475,000 were awarded to 35 projects throughout Minnesota. The following additional activities were funded by an additional one-time appropriation from the 2015 Legislature for hunter and angler recruitment and retention activities:

Formed a DNR Commissioner’s Council initiative to effectively deliver R3 programs. Conducted one on one R3 Workshops with seven different organizations with 35 participants, hosted an R3 Summit that was held August 26-27, 2016 with 140 attendees, development of an R3 Toolkit that has been recognized nationally, and a partnership with ExploreMinnesota.com to promote and support an inclusive web listing of MN DNR and partner hunting and fishing events across the country.

## Marketing to hunters and anglers

 MN DNR continues to formally partner with Explore Minnesota Tourism for creating impactful hunting and fishing content written by outdoor writers on the abundant hunting and fishing resources and opportunities across the state of Minnesota. From grouse and turkey to bass and trout fishing Minnesota has vast public access and nationally renowned opportunity which is shared through a story writing format that highlights the experience and the resources. These stories are used in national print magazines like Pheasants Forever, Rough Grouse Society, Grays Sporting Journal and also used as advertorials through online media reaching across the states of WI, ND, and IA. Additionally, the Outreach Marketing continues to send seasonal email reminders of hunting and fishing openers to current and lapsed license holders which has proven to be statistically helpful in keeping up license sales. A new R3 grant was awarded by Recreational Boating and Fishing Foundation in 2017 to test a promotional effort of MN lifetime fishing licenses. Results will be available in late 2017.

## Minnesota State Wildlife Action Plan Review and Revision

Minnesota Wildlife Action Plan 2015-25 (MN WAP) focuses on a habitat and species approach to the conservation of Species in Greatest Conservation Need (SGCN). The habitat approach is a landscape-scale approach to sustaining and enhancing terrestrial and aquatic habitats for Species in Greatest Conservation Need (SGCN) and other wildlife within a prioritized Wildlife Action Network (WAN). The Wildlife Action Network is available as a shape file on the MN WAP website (mndnr.gov/mnwap) and is being incorporated into a number of conservation projects including watershed plans and MNDNR’s Watershed Health Assessment Tool and Wildlife’s Strategic Wildlife Acquisition Team prioritization process. The species approach addresses SGCN for which a habitat approach alone is not enough and specific conservation actions, including improved knowledge, are required.

## State Wildlife Grants

MN DNR has thirteen active state wildlife grant (SWG) projects, including six SWG competitive grants. Examples of active SWG projects include grassland monitoring for Minnesota’s Wildlife Action Plan, the development of occupancy models to inform the restoration of oak savanna, prairie and woodlands, an animal and native plant community survey project, and monitoring and restoration of native mussel populations. SWG competitive projects include bluffland habitat restoration on private and public lands in southeast MN, the assessment and improvement of river turtle habitat, restoration of barrens for Karner blue butterfly and survey and restoration of Topeka shiner habitat in southwest MN.