

# Boat Fee Revenues & Expenditures

Fiscal Year 2020 Report

**.08**

**DON'T  
GO OVERBOARD**

Know your alcohol limit when boating.



**STOP AQUATIC  
HITCHHIKERS!**

Prevent the transport of nuisance species.  
Clean all recreational equipment.

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INFORMATION ABOUT  
THE DANGERS OF  
LOW HEAD DAMS,  
VISIT OUR WEBSITE:

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Department of Natural Resources  
Conservation and Recreation Division  
December 31, 2020  
Kayla Lyon, Director



## EXECUTIVE SUMMARY

In 2005, the Iowa General Assembly amended Iowa Code Chapter 462A.52 to increase boat registration fees for all types of watercraft, to change the registration cycle, and to require the Iowa Department of Natural Resources (DNR) to report on the increased revenues due to the fee increase and how they are expended. This is the fourteenth such annual report and includes data for FY20 compared to the base year in 2006.

The increased fees are required to be used to control the spread of aquatic invasive species, the administration and enforcement of navigation laws, and water safety education. The mandate required the Department to submit a report to the General Assembly by each year beginning in 2007. It was directed that the report contain summaries of the activities of the Department for the following:

1. Administering and enforcing programs to control aquatic invasive species
2. Administering and enforcing navigation laws and water safety
3. Amount of revenues collected as a result of fee increases
4. Detail of how the boat fee revenues were expended
5. Amount and source of all other boating related funds expended

### Revenues: Comparisons and projections

When boat fees were increased in the 2005 legislative session, the registration period also was changed from two years to three years. For planning purposes, the Iowa Department of Natural Resources now plans revenues over three years.

**Table 1 Previous Revenues Under Two-year Registration Periods**

|                | <b>FY03</b> | <b>FY04</b> | <b>FY05</b> | <b>FY06</b> |
|----------------|-------------|-------------|-------------|-------------|
| Boat fees      | \$2,563,493 | \$372,481   | \$2,611,295 | \$387,908   |
| Federal match  | \$1,298,443 | \$1,296,070 | \$1,411,585 | \$1,533,266 |
| Total Revenues | \$3,861,936 | \$1,668,551 | \$4,022,880 | \$1,921,174 |

Boat fees generated an average of \$1,483,794 per year (calculated from Table 1 above) during the last four years of the two-year registration cycle.

**Table 2 Collected Revenues Under Three-year Registration Period**

|                | <b>FY18</b> | <b>FY19</b> | <b>FY20</b> | <b>3-Years of Revenue</b> |
|----------------|-------------|-------------|-------------|---------------------------|
| Boat fees      | \$502,466   | \$6,395,890 | \$1,292,462 | \$7,688,357               |
| Federal match  | \$376,488   | \$378,445   | \$348,258   | \$1,103,191               |
| Total Revenues | \$878,954   | \$6,774,335 | \$1,640,720 | \$9,294,009               |

Looking at the past three years of collected annual revenue (FY18-FY20) the average increase of boat fees is \$1,078,991 in additional state revenue per year over the base year. Federal funds include the safety and education portion and motorboat access portion from the Federal Aid in Sport Fish Restoration program and Aquatic Invasive Species matching funds.

### Expenditures: Comparisons and Projections

The final year under the previous fee structure, FY 2006, is the baseline year to measure future years' expenditures. Note that part of the seasonal Water Patrol Officer costs came from the Marine Fuel Tax fund in FY20 at a cost of \$100,339, and \$98,923. Marine Fuel Tax (MFT) was spent to purchase navigational buoys so no additional funds were expended to purchase navigational safety patrol boats this year.

**Table 3 General Expenditure Categories**

|   | <b>Base FY06</b> | <b>FY20</b> |
|---|------------------|-------------|
| Navigation Enforcement and Boating Safety | \$1,995,996      | \$3,122,758 |
| Boat infrastructure maintenance/mgmt.     | \$749,406        | \$464,345   |
| Aquatic Invasive Species                  | \$164,556        | \$466,365   |
| Water Trails and Dam Safety               | \$10,410         | \$177,907   |
| Total Expenditures                        | \$2,920,368      | \$4,231,375 |

More detailed reporting of program-level expenses follow in this report.

## AQUATIC INVASIVE SPECIES EXPENDITURES

The Iowa Department of Natural Resources Aquatic Invasive Species Program (DNR-AIS) is responsible for monitoring and managing aquatic invasive species (AIS) in Iowa. Goals of the DNR-AIS as stated in the “Plan for the Management of Aquatic Nuisance Species in Iowa” are:

- I. Minimize the risk of further introductions of AIS into the state of Iowa.
- II. Limit the spread of established populations of AIS into uninfested waters in Iowa.
- III. Eradicate or control to a minimum level of impact the harmful ecological, economic, social, and public health impacts resulting from infestations of AIS in Iowa.

Priority AIS in Iowa include zebra mussels (*Dreissena polymorpha*), Bighead Carp (*Hypophthalmichthys nobilis*), Silver Carp (*Hypophthalmichthys molitrix*), Eurasian watermilfoil (*Myriophyllum spicatum*), and brittle naiad (*Najas minor*). Additional species located in Iowa will also be addressed in this report.

This report reflects expenditures for FY20; however, seasonal staff and survey information is from the summer of 2020 (i.e., May through September). COVID-19 limited the number of seasonal employees hired in 2020 and thus impacted the program activities; however, actions utilized to detect, manage, and prevent the introduction and spread of AIS in Iowa in FY20 included developing partnerships to coordinate AIS activities, increasing public awareness of AIS, managing AIS infestations, and monitoring AIS populations. Major accomplishments included the following:

- Employed 3 Seasonal Natural Resources Aides
- Supported 21 partnerships and cooperative projects
- Gave 12 live and virtual presentations at conferences and outdoor events
- Appeared 1 time on live local morning television program
- Used geo-fencing to target 815,833 ads to visitors at high use boat ramps
- Ran 77,272 OTT commercials about AIS and the Iowa AIS Law
- Targeted water recreationists with AIS prevention messages using boat ramp signs, print media, radio and television interviews, websites, displays, and presentations
- Chemically treated invasive aquatic plants in 17 waterbodies
- Completed 71 full-lake vegetation surveys
- Surveyed for adult zebra mussels in Carter Lake, Crystal Lake, Five Island Lake, Folsom Lake, Iowa Lake, Lake Manawa, Lost Island Lake, and Silver Lake.
- Placed zebra mussel veliger settlement samplers in lakes and reservoirs across the state
- Collected and analyzed 18 water samples from 13 lakes and rivers for zebra mussel veligers
- Surveyed Asian carp and/or bigmouth buffalo populations 5 times in the Des Moines, Iowa and Cedar Rivers
- Purchased supplies for DNR Fisheries management stations and hatcheries to prevent the spread of AIS during operations

### Aquatic Invasive Species Program Personnel and Activities

A Natural Resources Biologist has coordinated the DNR-AIS program since 2000, and a permanent, full-time Natural Resources Technician was added in October 2006. Seasonal staff for 2020 consisted of 2 Natural Resources Aides who surveyed waterbodies for AIS across the state, and 1 Natural Resources Aide who provided field sampling assistance to the DNR-AIS. Watercraft inspectors were not hired for the summer of 2020 because safety protocols to limit the spread of COVID-19 did not allow for person-to-person contact. This is the first year since 2001 that no in-person outreach or data collection occurred at boat ramps. Additionally, no trout angler interviews or access point surveys were conducted in 2020.

DNR-AIS staff supported many partnerships and working groups in FY20:

- Aquatic Nuisance Species (ANS) Task Force
- ANS Task Force Control Committee (Chair)
- Association of Fish and Wildlife Agencies (AFWA) Invasive Species Committee (Vice Chair)
- AFWA Conservation and Science MultiState Conservation Grant Program Technical Review Team
- Upper Mississippi River Asian Carp Coordination Committee
- Asian Carp Carbon Dioxide Deterrent Coordination Team

- Asian Carp Lock and Dam 19 Acoustic Deterrent Project Team, Science Advisory Team, and Communications Team
- Water Resources Reform and Development Act Asian Carp Report Committee
- Mississippi River Basin Panel on ANS
- Missouri River ANS Work Group
- Missouri River Basin Asian Carp Technical Committee
- Mississippi Interstate Cooperative Resource Association
- Midwest Invasive Plant Network (Executive Board Member)
- Midwest Invasive Plant Network Education Committee
- Midwest Aquatic Plant Management Society
- Starry Stonewort Collaborative
- Invasive Crayfish Collaborative
- Iowa Chapter of the American Fisheries Society
- Go Further: A Career Conference for Girls

### Aquatic Invasive Species Outreach

A CD3 cleaning station was purchased for use at the Ventura Boat Ramp on Clear Lake to increase public awareness of the need to clean and drain equipment when leaving a waterbody and to provide tools for boaters to easily comply with the AIS law. The CLEAR Project at Clear Lake also purchased a CD3 station for use at the Tourist Park boat ramp.



The DNR-AIS has different types of social marketing and media to target water recreationists in Iowa in 2020. Geofencing advertisements (815,833) were used from June through August at high use boat ramps to provide messages alerting boaters about the AIS Law and how to “Clean, Drain, Dry” boats when leaving a water access. Over-the-top (OTT) commercials (77,272) about the AIS Law and how to “Clean, Drain, Dry” boats and equipment were delivered to targeted views in July and August. The DNR-AIS Coordinator appeared virtually on the CW Iowa Live morning show in July to discuss AIS in Iowa. A geofencing and targeted internet video outreach campaign (460,000 impressions) targeting aquarium and water garden owners was piloted in central Iowa in FY20 to try to decrease the number of releases of goldfish, yellow floating heart, and other ornamental species into public waters in Iowa.



Signs emphasizing the AIS Law continued to be posted at all boat access sites in FY20. New signs alerting visitors about infested waterbodies were developed and posted at boat accesses in 2020. In addition to information available on the Iowa DNR website, the following informational materials were made available at Iowa DNR Fisheries regional and field offices, at state and county parks and nature centers, and at presentations and field days.

- Protect Our Waters brochure
- Protect Our Waterfowl Habitat brochure
- AIS identification cards
- New Invasive Aquatic Plants in the Midwest flyer
- 2020 Iowa Fishing Regulations booklet
- Handbook of Iowa Boating Laws and Responsibilities

News releases targeted statewide audiences regarding new AIS infestations in Iowa and before high-use boating events such as Memorial Day and July 4<sup>th</sup> weekends. DNR-AIS and Fisheries staff were also interviewed throughout the year for radio programs, television stories, and newspaper articles regarding AIS distribution, identification, management, and prevention. Facebook postings in FY20 also included AIS information and the “Clean, Drain, Dry” message.

DNR-AIS staff participation in fishing and outdoor events in FY20 was limited by COVID-19. However, they were able to spread the AIS message during live and virtual presentations in a variety of settings.

- Hunter Education Video
- Shade Tee Short Course Aquatic Pesticide Applicators Continuing Education
- Iowa Weed Commissioners Association Invasive Species Conference
- Fisheries Statewide Meeting
- Go Further: Career Conferences for Girls
- Fisherman’s Swap Meet
- Ellsworth Community College Conservation Students
- Iowa State University Women in Natural Resources Meeting
- South Dakota State University Natural Resources Management Career Fair
- Story County Master Gardeners Meeting
- Ames Anglers Meeting

Data collected previously during watercraft inspections and trout stream angler interviews indicates that public awareness of AIS in Iowa has increased as a result of DNR-AIS outreach activities.

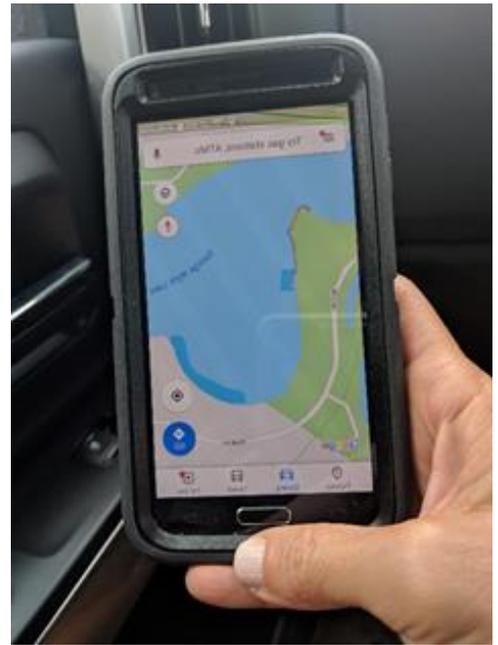
### **Aquatic Invasive Species Management and Monitoring**

DNR Fisheries staff cooperated with DNR-AIS staff to chemically treat 17 brittle naiad (BN) and Eurasian watermilfoil (EWM), and parrot feather *Myriophyllum aquaticum* (PF), and yellow floating heart *Nymphoides peltatum* (YFH) infestations in 2020.

- Central Park Pond (Jones County), BN
- Cocklin Fish Farm Ponds (Cass County), BN
- Crawford Creek Lake (Ida County), BN
- Crystal Lake (Hancock County), EWM
- George Wyth Lake (Black Hawk County), EWM
- Great Western Pond (Carroll County), BN
- Grundy County Lake (Grundy County), BN
- Lake Iowa (Iowa County), BN
- McHose Park Pond (Boone County), YFH
- Meyer Property Ponds (Des Moines County), PF
- Moorehead Park Pond (Ida County), BN

- Nelson Park Lake (Crawford County), BN
- Sawmill Pond (Polk County), EWM
- Slip Bluff (Decatur County), BN
- Viking Lake (Montgomery County), BN
- Willow Lake (Harrison County), BN
- Yellow Smoke Lake (Crawford County), BN

DNR-AIS and Fisheries staff also continued the multi-year project of testing the use Sonar as an under-the-ice treatment for curlyleaf pondweed *Potamogeton crispus* at Union Grove Lake (Tama County), Hooper Lake (Warren County), Hannen Lake (Benton County), and three ponds in the City of Ankeny during the winter of 2020. A DNR-AIS staff was also trained and certified to buy and apply ProcellaCOR EC herbicide for control of Eurasian watermilfoil, parrot feather, yellow floating heart, and lotus *Nelumbo nucifera* in Iowa.

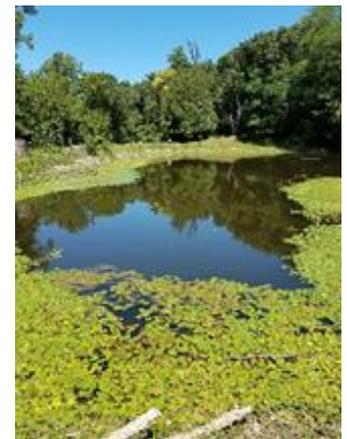


Natural Resource Aides completed 71 full-lake vegetation surveys in June, July, and August 2020 to detect new AIS infestations and monitor managed AIS infestations. Fisheries and wildlife biologists and county conservation board staff also monitored aquatic vegetation in their areas during management activities.

Four new infestations of Eurasian watermilfoil (EWM), brittle naiad (BN), flowering rush *Butomus umbellatus* (FR), yellow floating heart (YFH) were discovered in Iowa in 2020.

- McHose Park Pond (Boone County), YFH
- Mississippi River Pool 13 (Jackson County), FR
- Sawmill Hollow Lake (Harrison County), EWM
- Viking Lake (Montgomery County), BN
- Crystal Lake (Hancock County), EWM

Signs are posted at all AIS-infested waterbodies alerting the public about the species present and how to prevent their spread. Eurasian watermilfoil has been identified in 58 waterbodies, including private ponds, in Iowa since 1993, and brittle naiad has been identified in 66 waterbodies since 2003. 2020 was the first year yellow floating hearts was found in a public waterbody in Iowa.

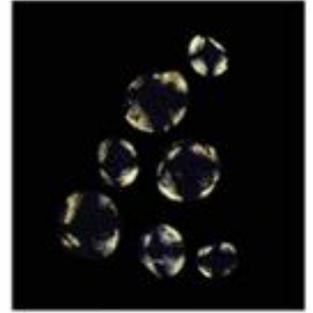


DNR-AIS staff conducted zebra mussel surveys at Carter Lake, Crystal Lake, Five Island Lake, Folsom Lake, Iowa Lake, Lake Manawa, Lost Island Lake, and Silver Lake in the summer of 2020 to determine population status of zebra mussels in these lakes. DNR-AIS and DNR Fisheries staff also placed zebra mussel settlement samplers in lakes and reservoirs throughout Iowa in 2020 to monitor for early detection of zebra mussels.

DNR-AIS staff also collected water samples for zebra mussel veliger analysis from the following lakes and rivers in 2020 to monitor current populations of zebra mussel or detect new infestations of zebra mussels:

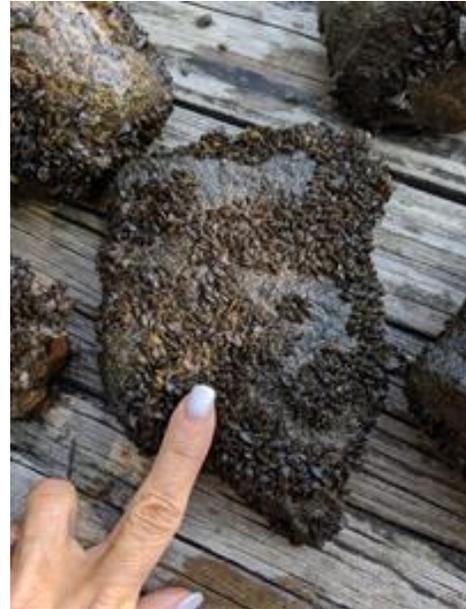
- Carter Lake (Pottawattamie County)
- Clear Lake (Cerro Gordo County)
- Crystal Lake (Hancock County)
- Don Williams Lake (Boone County)
- George Wyth Lake (Black Hawk County)
- Lake Cornelia (Wright County)
- Lake Darling (Washington County)
- Lake Hendricks (Howard County)

- Lake MacBride (Johnson County)
- Lake Manawa (Pottawattamie County)
- Lower Pine (Hardin County)
- Pleasant Creek Lake (Linn County)
- Rathbun Lake (Appanoose County)
- Storm Lake (Buena Vista County)
- Upper Pine Lake (Hardin County)



Following is a list of lakes in Iowa with known infestations of zebra mussels. The date indicates the year in which zebra mussels were first discovered in the lake.

- Black Hawk Lake (Sac County), 2020
- Bluebill Lake (Cerro Gordo County), 2012
- Blue Pit (Cerro Gordo County), 2016
- Center Lake (Dickinson County), 2018
- Clear Lake (Cerro Gordo County), 2005
- Crystal Lake (Hancock County), 2020
- East Okoboji Lake (Dickinson County), 2012
- Iowa Lake (Osceola County), 2020
- Lake Cornelia (Wright County), 2014
- Lake Manawa (Pottawattamie County), 2020
- Lost Island Lake (Palo Alto County), 2018
- Lower Gar Lake (Dickinson County), 2013
- Minnewashta Lake (Dickinson County), 2013
- Storm Lake (Buena Vista County), 2018
- Spirit Lake (Dickinson County), 2017
- Upper Gar Lake (Dickinson County), 2012
- West Okoboji Lake (Dickinson County), 2013



Bighead Carp and Silver Carp have been reported in increasing numbers throughout the Mississippi and Missouri Rivers and their tributaries in Iowa since the mid-2000s. Flooding in the Upper Mississippi River Basin during spring and summer of 2019 and 2020 led to a new location record for Silver Carp in Iowa: North Fork Maquoketa River (Jackson County). DNR-AIS staff surveyed Bighead Carp, Silver Carp, and Grass Carp *Ctenopharyngodon idella* in the Des Moines, Cedar, and Iowa Rivers to monitor reproduction and the upstream advance of their populations. DNR-AIS staff also continued to monitor the condition of bigmouth buffalo in areas of the Des Moines River with and without Bighead and Silver Carp to determine the impacts of Asian carp on this native plantivore.

DNR-AIS staff serve as appointed members to the upper Mississippi River Asian Carp Coordination Team and the Missouri River Basin Asian Carp Technical Committee. Federal funding was allocated for FY20 for these river basins for Asian carp management and control. State agencies and universities submit project proposals which are evaluated by the basin team/committee to be selected for funding. Many of the projects selected for funding in FY20 will assist with understanding population dynamics and management options for Asian carp in Iowa waters. The United States Geological Survey and United States Fish and Wildlife Service have also developed a project plan to test an acoustic deterrent system for Asian carp at Lock and Dam 19 on the Mississippi River. DNR-AIS staff are members of the project's Planning Team, Science Advisory Team, and Communications Team. Planning is on track for the acoustic barrier testing to be deployed in 2021.



**Table 4 Aquatic Invasive Species Expenditures**

|                                      | <b>FY06</b>      | <b>FY20</b>      |
|--------------------------------------|------------------|------------------|
| Personnel                            | \$85,234         | \$298,206        |
| Travel Expenses                      | \$4,915          | \$4,632          |
| State Vehicle Operation              | \$3,281          | \$13,302         |
| Office Supplies                      | \$399            | \$0              |
| Facility Maintenance Supplies        | \$26             | \$3,976          |
| Equipment Maintenance Supplies       | \$2,936          | \$3,516          |
| Ag Supplies                          | \$42,751         | \$32,434         |
| Other Supplies                       | \$100            | \$3,678          |
| Printing                             | \$477            | \$8,361          |
| Uniforms                             | \$455            | \$567            |
| Postage                              | \$536            | \$1,023          |
| Communications                       | \$651            | \$1,209          |
| Utilities                            | \$0              | \$287            |
| Professional and Scientific Services | \$0              | \$0              |
| Outside Services                     | \$595            | \$2,420          |
| Advertising and Publicity            | \$11,390         | \$21,146         |
| Reimbursement                        | \$0              | \$282            |
| Government Transfer Other Agencies   | \$0              | \$15             |
| Equipment                            | \$1,042          | \$35,426         |
| IT Equipment and Software            | \$0              | \$2,508          |
| Indirects                            | \$9,768          | \$33,107         |
| <b>Total</b>                         | <b>\$164,556</b> | <b>\$466,365</b> |



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## BOATING NAVIGATION ENFORCEMENT AND WATER SAFETY EXPENDITURES

During the summer months, conservation officers and seasonal water patrol officers around the state use a variety of enforcement techniques to keep Iowa waterways safe for all ages.

Several group enforcement efforts on Iowa's 19,000 miles of interior rivers are conducted annually and are known as river sweeps. This technique allows officers to start at a specific point and continue downstream contacting boaters and educating them about boating regulations and safety.



Boating While Intoxicated (BWI) enforcement is a focus every year for officers. Iowa participated in "Operation Dry Water" on July 3-5, 2020, which is a national campaign that emphasizes the dangers of boating and drinking.

More than 159 law enforcement officers participated in this three day event, contacting 7,608 boaters, performing safety equipment checks on 2,604 vessels and issuing 467 citations or warnings. Throughout the summer, a total of 26 BWI arrests were made by various officers.

Conservation officers provide boating education programs to various groups throughout the year. Due to COVID-19, only thirty programs were presented to students about boating safety in all situations, including boating safety while waterfowl hunting. Approximately 2,226 students participated in these programs.



### Seasonal Water Patrol Officers Program

The department receives approximately 75 applications each year from potential candidates who want to be a part of the seasonal water patrol officer (WPO) program. The WPO program has been in effect since the 1980s, and allows individuals the opportunity to work for the Law Enforcement Bureau while performing on-the-water education and navigation enforcement.

The seasonal water patrol officers assist full time officers in the enforcement of all fishing and navigation activities across Iowa. This program helps train future full time officers. Currently, almost half of the DNR conservation officers started their careers as seasonal water patrol officers.



In 2006, the department employed 22 seasonal water patrol officers. Due to COVID-19 in FY2020, the department had 16 WPOs on the books at a total cost of \$100,339. This fiscal year, \$98,923 was used from the Marine Fuel Tax fund to pay for a portion of the total cost of the WPOs. (See Addendum B, page 24).

**Table 5 Law Enforcement Boating Activities (2018)**

| Calendar Year*                   | Totals |
|----------------------------------|--------|
| Navigation Contacts              | 35,496 |
| Navigation Citations             | 1,384  |
| *Special Events Patrolled        | 112    |
| Incident/Accident Investigations | 40     |
| In-person Boat Iowa Classes      | 0      |
| Boater Education Hours           | 1,742  |
| Navigation Enforcement Hours     | 40,607 |

\*COVID-19 restricted gathering sizes so many events were not scheduled and several more were cancelled and/or denied



**Boater Education**

The Iowa DNR has a successful and proactive boater education program that aligns nationally with other, boating law administrators and education coordinators to focus on helping boaters understand and realize the importance of wearing life jackets. Iowa requires children under 13 to wear a PFD in a moving vessel.



In FY20 the education program continued to focus on the importance of wearing life jackets but due to COVID-19 the boat ramps were not painted in Iowa’s state parks.

The “Life Jacket Zone” message reminds boaters about the importance of wearing a life jacket while on the water and the DNR will look at this program again for FY21.

The Boater Education program continued to partner with Honey Creek Resort and implemented a “life jacket” loaner program. The focus of the program was to make a variety of life jackets available to the public at no cost. The sizes of life jackets ranged from adult sizes all the way down to infant sizes. If a boater is without enough life jackets or the proper size of life jacket for each person on-board, jackets may be borrowed for the day. Over 130 lifejackets were loaned out to the public during this year at Lake Rathbun. The Boater Education program will continue to seek out additional pilot locations for the “life jacket loaner” program.

The “.08 Don’t Go Overboard” campaign used posters, public service announcements and public outreach to educate boaters on the dangers of drinking and boating. Information was again publicized to make sure the public understands that the blood alcohol content level for drinking and boating is now the same as the level for operating a vehicle. The “Boating While Intoxicated” campaign will continue to grow in the future to make the waters of Iowa safer for everyone.



The department also offers Boater Education Certificate classes to accommodate children between the ages of 12 and 18 who need the course to be able to operate motor boats. A total of 1,934 students received a certificate through classes, home study and internet courses offered in 2020.

The table below lists the FY 2020 operations costs for the boating navigation enforcement and safety education programs, with the baseline year of 2006 displayed. Note that part of the seasonal Water Patrol Officer costs came from the Marine Fuel Tax fund in FY20 at a cost of \$100,339, and \$98,923. Marine Fuel Tax (MFT) was spent to purchase navigational buoys so no additional funds were expended to purchase navigational safety patrol boats this year.

**Table 6 Navigation Enforcement and Safety Education**

|                           | <b>FY06</b>        | <b>FY20</b>        |
|---------------------------|--------------------|--------------------|
| Personnel and Operations  | \$1,366,842        | \$2,317,675        |
| Officer Retirements       | \$73,986           | \$48,779           |
| Vehicles and Depreciation | \$204,916          | \$281,133          |
| In State Travel           | \$54,495           | \$6,945            |
| Printing                  | \$60,274           | \$0                |
| Communications            | \$30,509           | \$34,280           |
| Indirects                 | \$204,974          | \$221,864          |
| <b>Totals</b>             | <b>\$1,995,996</b> | <b>\$2,910,676</b> |

### **DNR Patrol Boats**

The Law Enforcement Bureau divides the state into 5 districts and employs district supervisors to manage each area. The supervisors determine specific needs when purchasing large patrol boats in order to provide quality navigation enforcement and boating education in each area. Officers use several different types of vessels for navigation enforcement and boating education.

The Department currently has approximately 36 large patrol boats for navigation enforcement and boating education on Iowa’s waterways. The goal is to replace vessels at least every 5 years, and earlier if needed.



In FY 2020 the Department used no additional money from the Marine Fuel Tax fund and boat fund to supplement the purchase of large patrol boats for navigation enforcement.

## Water Trails and Low-head Dam Public Hazard Program Expenditures

The Iowa DNR water trails and low-head dam public hazard program works statewide to ensure improved navigational safety on waterways throughout Iowa. Water safety education, establishment of a river mileage-based signage system and a hazard warning signage system, development of navigational maps, and advising placements and designs for water accesses and portage trails around dangerous dams are all components of the program mission.

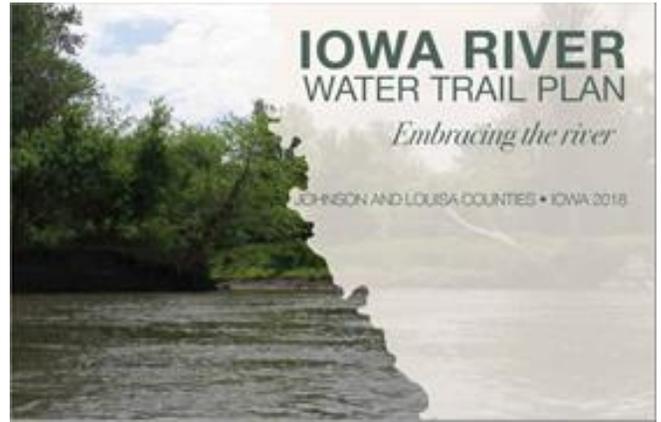
Dozens of water trail construction projects, and planning and design meetings unfolded in fiscal year 2020. These project incorporated techniques developed under statewide plans and are results of locally developed plans. Iowa DNR water trails and low-head dam public hazard programs are administered by the DNR rivers team under the Land and Waters Bureau. Navigation and water safety activities include:

- Plans, administers funds for, and places navigational signage, including mileage-based access numbers at landings, roadway signage leading people to boat accesses, dam warning signage, etc. via the water trails program.
- Plans, designs, and maintains warning signage and portage trails at DNR-owned low-head dams.
- Works with communities to install dam warning signage where dams have led to fatalities for recreational users. All users are considered, including walk-in anglers, power boaters, tubers, and paddlers.
- Requires water trail developers to place, maintain, and update dam warning signage.
- Purchases and distributes educational flyers on canoe and kayak safety, low-head dam safety, participate in “Wear It” campaign targeting canoes and kayaks with promotional items purchased under operations budget.
- Advises fisheries, wildlife, county conservation, and municipal staff on boating access improvements, including boat ramps and canoe launches.
- Trains county conservation, DNR, and children’s camp staff in safely leading and teaching during canoe outings using American Canoe Association curriculum and the Rivers’ team certified ACA instructors.
- Works to reduce hazards of low-head dams with high death rates through management of mitigation projects.



The Iowa DNR encourages local ownership of water trails throughout Iowa that support education, navigation, and recreation. Technical assistance is provided to communities working to find solutions at aging dams, and provides funds for mitigating dam problems, solving safety hazards, fish passage, upstream flooding, and failure-related issues.

The river programs team serves a growing segment of Iowans – canoeists, kayakers, and innertubers, as well as more traditional recreational segments, including anglers and power boaters. National statistics show that canoeists and kayakers have a higher rate of death per capita compared to other boaters. Two brochures, “SmartStart for Safe Paddling” and “The Drowning Machine” continue to be disseminated to county recorders, boat rental facilities, paddling clubs, local governments, and field staff. Dissemination of safety information via social media is also conducted. A new round of 10 water trail brochures is being produced, each with a similar look.



**Staffing**

The river programs coordinator is responsible for overall program direction, which in the current fiscal year involved statewide plan development, collaborating on river survey, assessment, and design work with DNR Engineering, and technical assistance provided to external dam owners. Half of one FTE’s time focuses on leading river survey and assessment work at low-head dams. The other half of this position focuses on the Protected Water Areas program, a land conservation program along rivers, and is not within the purview of this report. A water trails coordinator contracts with local planners to lead planning efforts in coordination with state-level strategies and standards. An outreach coordinator plans events, maintains Web information, organizes training opportunities for trip leaders and rental personnel, conducts surveys and disseminates safety and mapping materials and publications.

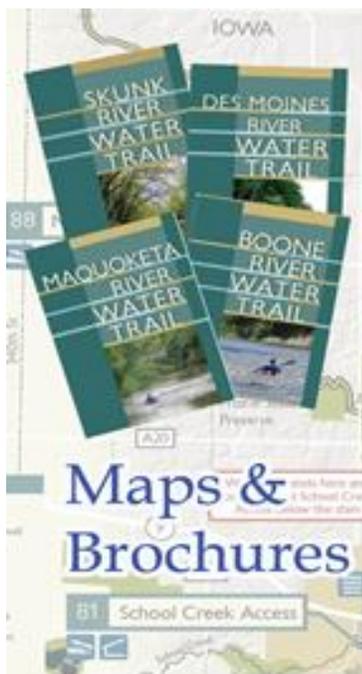


**Table 7 Expenditures for Water Trails & Dam Safety**

|   | <b>FY06</b> | <b>FY20</b> |
|---|-------------|-------------|
| Personnel   | \$7,572     | \$145,008   |
| Personal Travel In-State  | \$1,038     | \$914       |
| State Vehicle   |             | \$3,080     |
| Depreciation  |             | \$994       |
| Personal Travel Out-State   |             | \$356       |
| Office Supplies   |             | \$582       |
| Facility Maintenance Supplies   |             | \$160       |
| Equipment Maintenance   |             | \$730       |
| Other Supply (training programs equipment, safety education & outreach materials) |             | \$238       |
| Print, binding, and publications  | \$1,800     | \$227       |
| Uniforms  |             | \$276       |

|                           | FY06            | FY20             |
|---------------------------|-----------------|------------------|
| Postage                   |                 | \$273            |
| Communications            |                 | \$1,532          |
| Rentals                   |                 | \$0              |
| Outside services          |                 | \$900            |
| Reimbursement             |                 | \$22             |
| ITS Reimbursement         |                 | \$2,221          |
| Equipment Non Inventorial |                 | \$786            |
| IT Hardware               |                 | \$1,623          |
| Indirects                 |                 | \$17,952         |
| <b>TOTAL</b>              | <b>\$10,410</b> | <b>\$177,907</b> |

Iowa DNR owns or manages six major low-head dams on navigable streams. In the current fiscal year River programs staff initiated updated signage plans according to the new hazard signage manual, installed signs, and maintain portages at these dams. Staff also initiated a public listening and engineering design project to divest itself of one of those dams, the Steamboat Rock Dam on the Iowa River in Hardin County.



### Paddlesports safety

The Rivers team offered a total of three “train the trainers” canoe and kayak courses in the 2019 months of FY20 for trip leaders, city parks and recreation staff, naturalists and other agency staff. The team developed COVID-19 protective measures for the two 2020 canoe and kayak training courses that were held successfully. This skills course responds to a need identified by agencies with canoe fleets that take groups on lakes and river. It provides consistent training for leading safe tours, developing risk management plans, and demonstrating appropriate canoeing skills. DNR rivers team staff also received American Canoe Association training from instructor trainers to update training



credentials. The national “Wear It” campaign was supported at events throughout the year. Presently, a new outreach campaign to large retailers selling kayaks is being conducted to provide basic safety information and to encourage the purchase and use of life jackets.

### **Dam mitigation**

Iowa DNR River program staff works with dam owners to retire or mitigate a variety of problems when a dam has safety hazard issues and fish passage problems. Oftentimes, federal funding is available for projects that involve fish passage, so a natural development is to solve multiple problems combined into a single project. Iowa DNR staff work with communities statewide to explore, analyze, or develop dam mitigation projects. Dam mitigation priority areas are shown on the map (Figure 1) below.

In the past year, the following dams were mitigated for safety and fish passage purposes:

- Hydroelectric Dam in Fort Dodge on the Des Moines River had the final stage of removal completed
- A dam at River Valley Park in Ames on the South Skunk River was replaced by a whitewater facility with a separate fish passage channel



Fish passage and whitewater structures under construction in Ames

### **Program outlook**

**Training programs will continue to focus on individuals who lead programs, safe livery operations, and increasing availability of American Canoe Association courses offered throughout the state will also be important responses to increasing interest in river recreation. Dam mitigation and water trail projects are ongoing, with plans for infrastructure development in place.**

See Figure 1 for locations of completed and future hazard mitigation projects via removal or modification at several dams.



A rapids at Littleton replaced a deadly dam on the Wapsipinicon River. Photo by Craig Parker

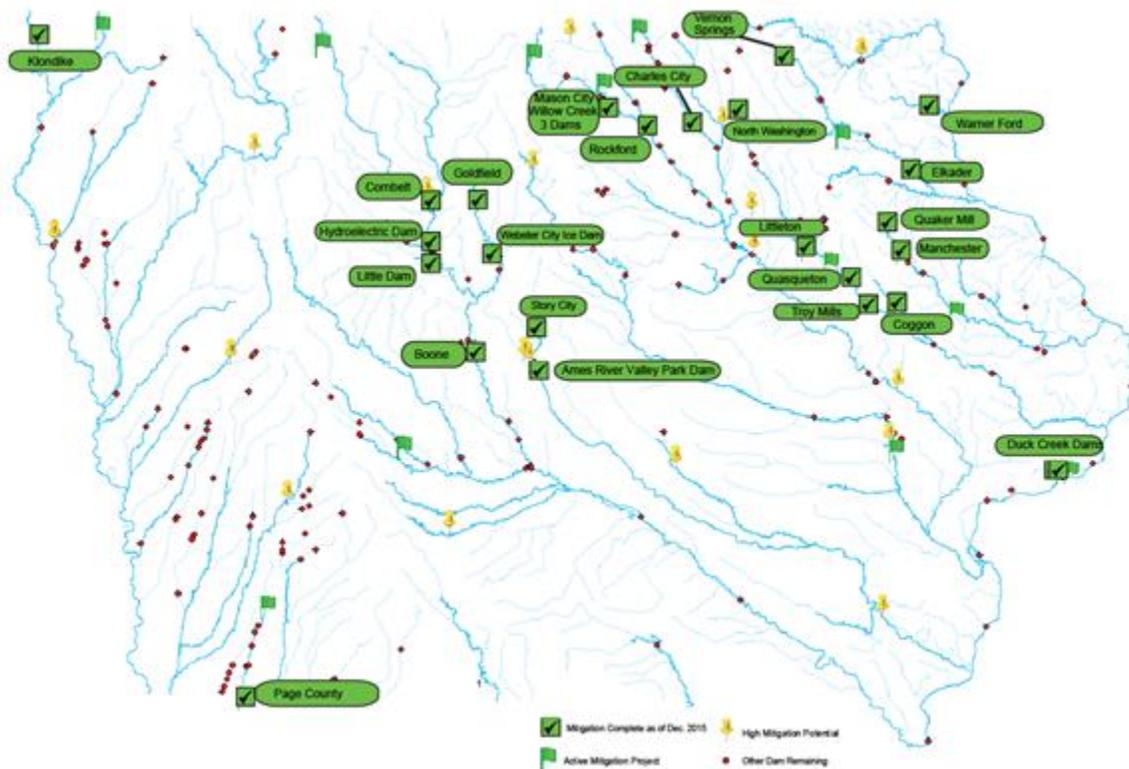


Figure 1 Dam Mitigation Projects, Completed and Active

Figure 2 shows the current status of water trail development.

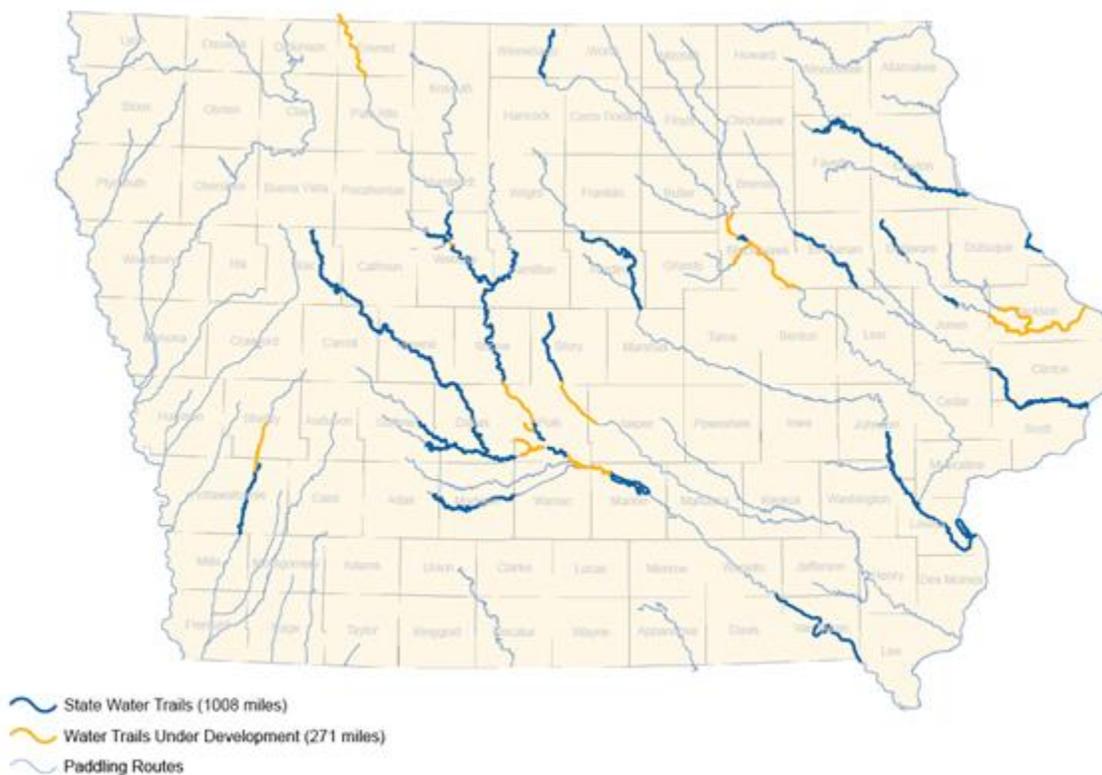


Figure 2 Water Trails and Water Trails under Development, 2020

As of 2020, eight county-level and regional master plans are complete. The localized plans completed since 2010 have led to a consistent and vetted local planning framework for water trail projects and low head dam mitigation, which is highly important in a state dominated by private landownership like Iowa. Statewide, this results in a more robust and easy-to-understand navigational system. Two planned water trails will be state designated in 2020. As numbers of recreational users increase, increasing focus on managing the experiences for all Iowans – from young to old – will become more important than ever. It has also led to increased law enforcement and education needs related to interacting with private landowners and other users along navigable rivers. To handle increased use, all Iowans must learn to treat our waterways respectfully to avoid litter and obnoxious behavior. The “Keep It Clean, Keep It Fun” campaign addresses these issues with a variety of posters, signs, decals, and trash clean-up bags that DNR disseminates to retailers, county conservation staff, and law enforcement staff.



**Table 8 Water Trails & Dam Safety Status At A Glance**

|  | 2006 | 2020  |
|--|------|-------|
| Total number of individual water trails with state designation, to date  | 0    | 30    |
| Miles of water trails designated   | 0    | 1,008 |
| Number of low-head dams with warning signs                               | 2    | 44    |
| Number of portage trails around low-head dams completed, to date         | 2    | 32    |
| Number of low-head dams modified or removed for safety purposes, to date | 0    | 27    |

In addition to the 1,008 miles of state-designated water trails (see Table 18), the river programs staff and local planning contractors are working with local communities on 271 miles of study areas being master planned – some of those miles are currently designated, and others are not. Some study areas from prior years will not continue forward after better understanding public expectations of state-designated water trails. The program has focused on implementing statewide plans focusing on river management and law enforcement needs, infrastructure needs, maintenance expectations, and comprehensive navigational / warning signage systems based on river mileage. These plans solve and address problems, including safety, overcrowding or underuse, jurisdictional issues, and user expectations.

Increasingly, river restoration components are being incorporated into all river programs projects. Examples include stream bank restorations along water trails for safety, aesthetic, angling improvements, site restoration at dam mitigation projects, and incorporating aquatic habitat into navigational access projects for anglers and river species. Restoration skills among program staff are helping with project stability needs in the always changing river setting.

# Public Waterway

- **Respect Private Land**

Sandbars and riverbanks are privately owned

No camping allowed

- **No Littering**

Take out what you bring in

- **Be Courteous**

The waterway is for everyone to enjoy



Call 911 to report illegal activity

IOWA DEPARTMENT OF NATURAL RESOURCES

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## Boating Recreation Infrastructure Maintenance and Management

The Iowa DNR owns or manages infrastructure for boating recreation across the state. *This infrastructure is integral to safe boating and access to the waters.*

The Law Enforcement Bureau and the Fisheries Bureau do not typically manage land and do not have the staff for this type of maintenance and management. The Wildlife Bureau staff manages and maintains state fishing access areas, boat ramps and docks in cooperation with other bureaus. See the attached Addendum A for the listing of the safe boating access areas managed by the Wildlife Bureau staff. Boating populations, including paddlers, have increased over the years and there is an ever-growing demand for safe, convenient and appropriate boating access areas.

These areas are heavily used for access 9 months of the year, or even more depending on the weather. They require frequent maintenance, especially since most are along river corridors in flood plains. Maintenance and management includes re-rocking areas, cleaning silt from the boat ramps, custodial functions such as removing trash and debris and maintaining signage. In addition to the staff time of the actual work, drive time and driving expenses are included, as Wildlife Headquarters cover 4-6 counties and the areas are remote.

The attached listing of areas represents 105 accesses that qualify for federal boat access funds. There is a detailed federal process to obtain the funds through a formula, and rigorous federal audits on those funds to make sure the boat fees and federal funds are used for the purpose of maintaining safe boat access areas. There are between one and four access ramps for each of the sites that require maintenance. The total cost per access averages out to less than \$5,000 a year in maintenance. The cost of this program is leveraged **75% federal** with 25% boat registration fees.



**Table 9 Boat Fee Expenditures for Boating Infrastructure Maintenance & Management (Salaries for labor, contracted services, equipment, signage, publications, etc.)**

|                  | Federal   | Boat Fees | Total     |
|------------------|-----------|-----------|-----------|
| FY06 (base year) | \$562,055 | \$187,351 | \$749,406 |
| FY20             | \$348,258 | \$116,086 | \$464,345 |

NOTE: These federal funds can only be used for this purpose, and would be forfeit if not matched by boat fees.

## Iowa's Marine Fuel Tax (MFT) Program

The Iowa DNR Marine Fuel Tax program is not directly tied to the boat fee revenues and expenditures, but it is a complimentary program. MFT has played a vital role in providing recreational boaters new opportunities as well as maintaining public lakes used by boaters.

- Revenue from the excise tax on the sale of motor fuel used in watercraft

The amount of revenue generated by the marine fuel tax legislation equals nine-tenths of one percent of the state excise tax on gas, minus 3% of the marine fuel tax total for administrative costs and minus the amount refunded to commercial fishers based on the gallons of fuel they used.



- MFT funds are leveraged with a variety of sources including Federal Coast Guard, Corps of Engineers Section 1135, State of Iowa Parks and Institutional Roads Fund, and local city and county conservation funds.
- **Annual MFT funding \$4.0 to \$4.4 million.** Funds are often “carried forward”, as they are connected with construction projects that might take multiple years to complete.
- MFT funds are appropriated to the DNR to support and enhance recreational boating. Funded projects may include but are not limited to:
  1. Dredging and renovation of lakes of this state.
  2. Acquisition, development, and maintenance of access to public boating waters.
  3. Development and maintenance of boating facilities and navigation aids.
  4. Administration, operation, and maintenance of recreational boating activities.
  5. Acquisition, development, and maintenance of recreational facilities associated with recreational boating.
- Examples of MFT projects:
  - ◆ Docks and buoys
  - ◆ New lake construction projects
  - ◆ Boat ramp restroom installations (various counties)
- DNR Water Recreation Access Cost-Share Program
  - ◆ Around \$400,000 of MFT funds are available in the form of grants to local cities and counties for boat access facilities to lakes and streams.
  - ◆ Projects are funded 75% state to 25% local match
  - ◆ DNR receives grant requests for 15 to 30 projects and awards amounts usually between \$2,000 and \$50,000

Addendum B is the FY 2020 MFT expense report.

## Addendum A - Wildlife Bureau Management and Maintenance of Boating Accesses Areas

|                                 |                                   |                                  |
|---------------------------------|-----------------------------------|----------------------------------|
| Badger Creek Recreation Area    | Hardfish Access                   | Randolph Access                  |
| Badger Lake Wildlife Area       | Hawthorn Wildlife Area            | Rice Lake Wildlife Area          |
| Barringer Slough Wildlife Area  | Highway 21 Access                 | Riverton Wildlife Area           |
| Bartlett Access                 | Hooper Wildlife Area              | Rock Creek Island Preserve       |
| Bay's Branch Wildlife Area      | Highway 44 Access                 | Rock Creek Wildlife Area         |
| Beaver Lake Wildlife Area       | Ingham-High Wetland Complex       | Round Lake Wildlife Area         |
| Bel Aire Access & Outlet        | Iowa Lake-Emmet                   | Rubio Access                     |
| Big Sioux River Complex         | Iowa Lake –Osceola                | Rush Lake-Palo Alto              |
| Black Hawk Wildlife Area        | Iowa Lake Access 3                | Selma Access                     |
| Blackhawk Bottoms Wildlife Area | Kettleston Hogsback Complex       | Silver Lake-Palo Alto            |
| Blue Lake Wildlife Area         | Klum Lake Wildlife Area           | Silver Lake Complex              |
| Bluebird Access                 | Koszta Access                     | Skunk River Wildlife Area        |
| Boone Forks Wildlife Area       | Lake Cornelia Access              | Snyder Access                    |
| Brown's Lake Wildlife Area      | Lake Icaria                       | South Skunk River Access         |
| Center Lake Complex             | Lake Icaria Wildlife Area         | South Twin Lake                  |
| Chenoweth Access                | Lake Sugema Wildlife Area         | Sweet Marsh                      |
| Christopherson Slough Complex   | Lennon Mills Wildlife Area        | Three Mile Wildlife Area         |
| Cliffland Access                | Little Clear Lake                 | Troy Mills Wildlife Area         |
| Cone Marsh Wildlife Area        | Little Sioux Wildlife Area        | Tunnel Mill Access               |
| Cutshaw Wildlife Area           | Little Storm Lake                 | Tuttle Lake Wetland Complex      |
| Dan Green Slough                | Lizard Lake                       | Tyson Bend Wildlife Area         |
| Deception Hollow                | Meadow Lake                       | Upper Decatur Bend Wildlife Area |
| Deer Island Wildlife Area       | Middle Decatur Bend Wildlife Area | Upper Iowa River-Iverson Bottoms |
| Dewey's Pasture Complex         | Morse Lake Wildlife Area          | Upper Iowa River-Plymouth Rock   |
| Diamond Lake                    | Mount Ayr Wildlife Area           | Upper Iowa River-Seegmiller      |
| Dudgeon Lake Wildlife Area      | Odessa Wildlife Area              | Upper Iowa River-Upper Dam       |
| Elk Creek Marsh                 | Olin Access                       | Virgin Lake                      |
| Elk Lake Wetland Complex        | Otter Creek Marsh                 | Weedland Access                  |
| English River Access            | Otterville Wildlife Area          | West Swan Lake                   |
| Five Island Lake                | Perry Access                      | White Horse Access               |
| Fogle Lake                      | Pickerel Lake                     | Wiese Slough Wildlife Area       |
| Gambril Access                  | Pictured Rocks Wildlife Area      | Williamson Pond                  |
| Gitchie Manitou                 | Pool Slouch Wildlife Area         | Willow Slough                    |
| Goose Lake-Kossuth              | Princeton Wildlife Area           | Willows Access                   |
| Hales Slough                    | Rand Access                       | Winnebago Bend Wildlife Area     |

### Addendum B - MFT 2020 Expenditure Report

| Project   | Federal           | MFT                 | Other           | Total               |
|---|-------------------|---------------------|-----------------|---------------------|
| Arnold's Park Sidewalk & Seawall Improvements       |                   | \$434,903           |                 | \$434,903           |
| Boone Forks WMA Canoe Ramp                          |                   | \$73,828            |                 | \$73,828            |
| Des Moines River Boat Access (Boating Access Match) | \$ -              | \$ 22,831           | \$ -            | \$ 22,831           |
| Dunreath Ramp-FLAP Grant                            | \$ 65,930         | \$44,377            | \$ -            | \$110,307           |
| Fisheries Minor Projects                            | \$ -              | \$ 38,486           | \$ -            | \$ 38,486           |
| Geode State Park Boat Ramp Improvements             | \$ 1,575          | \$1,575             | \$ -            | \$3,150             |
| Grant Park Boat Ramp                                | \$ -              | \$115,251           | \$ -            | \$115,251           |
| Lake Anita Seawall Replacement                      |                   | \$140,816           | \$-             | \$140,816           |
| Lake Manawa Dredge                                  | \$ -              | \$1,500,000         | \$ -            | \$1,500,000         |
| Lansing Village Creek Accessible Platform           | \$ -              | \$22,588            | \$ 3,000        | \$25,588            |
| Law Enforcement Minor Projects                      | \$ -              | \$7,240             | \$ -            | \$7,240             |
| Littleton Dam/Navigation-Development                | \$ -              | \$27,480            | \$ -            | \$27,480            |
| Lost Grove Pit Vaults & Cleaning Service Contract   | \$ -              | \$8,480             | \$ -            | \$8,480             |
| Marble Beach Ramp Replacement                       | \$ -              | \$ 91,242           | \$ -            | \$ 91,242           |
| Pleasant Creek Ramps SRA-Boat Ramp Repair           | \$ 134,890        | \$134,890           | \$ -            | \$269,780           |
| Rathbun Deadman's Boat Ramp                         | \$24,425          | \$24,425            | \$ -            | \$48,850            |
| Spirit Lake Law Enforcement Boat Storage            | \$ 449,331        | \$449,331           | \$ -            | \$898,662           |
| State Parks Minor Projects                          | \$ -              | \$120,254           | \$ -            | \$120,254           |
| Statewide Docks & Fish Cleaning Stations            | \$ -              | \$ 112,202          | \$ -            | \$ 112,202          |
| Statewide Engineering & Design                      | \$ -              | \$ 337,706          | \$ -            | \$ 337,706          |
| Statewide Shoreline Access Acq & Dev                | \$ -              | \$ 56,474           | \$ -            | \$ 56,474           |
| Statewide Outside Design                            | \$ -              | \$ 740              | \$ -            | \$ 740              |
| Statewide Shoreline Rip Rap                         | \$-               | \$ 180,813          | \$ -            | \$ 180,813          |
| Statewide Water Recreation Access Grants            | \$ -              | \$ 1,156,486        | \$ -            | \$ 1,156,486        |
| Steamboat Rock Dam Navigation Design                | \$ -              | \$ 81,235           | \$ -            | \$ 81,235           |
| Storm Lake-Bel Air Boat Ramp Restroom               | \$ 25,846         | \$ 25,845           | \$ -            | \$ 51,691           |
| Twelve Mile Lake Acquisition & Development          | \$ -              | \$ 48,966           | \$ -            | \$ 48,966           |
| Vegetation Management                               | \$ -              | \$ 134,299          | \$ -            | \$ 134,299          |
| Viking Lake Law Enforcement Storage Building        | \$ 70,681         | 70,680              | \$ -            | \$ 141,361          |
| Water Trails Grant Program                          | \$ -              | \$ 216,814          | \$ -            | \$ 216,814          |
| Water Recreation Resources- Operations              | \$ -              | \$337,635           | \$ -            | \$337,635           |
| Water Trails Minor Projects                         | \$ -              | \$ 141,735          | \$ -            | \$ 141,735          |
| Wildlife Minor Projects                             | \$ -              | \$ 238,369          | \$ -            | \$ 238,369          |
| <b>Total Marine Fuel Tax</b>                        | <b>\$ 772,678</b> | <b>\$ 6,397,996</b> | <b>\$ 3,000</b> | <b>\$ 7,173,674</b> |