**Habitat and Water Quality**

**Environmental Review** - Provided aquatic resource information for the following environmental review projects:

- Casselman Deep Mine application. The application indicated there will be three discharges from stormwater management ponds and the underground mine water will enter an unnamed Use-III tributary to the North Branch Casselman River. The stream supports a naturally reproducing population of brook trout. Comments were submitted to provide safeguard measures to protect water quality and instream habitat to ensure no negative effects on the brook trout population occur.

- Application submitted by Maryland Department of the Environment’s Abandoned Mine Lands Division for an acid mine drainage treatment project. This application was submitted in order to refurbish and improve an existing acid mine drainage passive treatment system. The improvements to the system will continue to remove metals and increase the pH of the discharge. Overall, this project will result in better water quality in Cherry Creek which will also help maintain good water quality in Deep Creek Lake.

- Site visit conducted in an area planned to have a new private boat launch installed for a marine business on Deep Creek Lake. Comments were made to protect water quality in Deep Creek Lake during the construction phase of the project.

- A permit application to construct a bridge over an unnamed tributary to Little Bennett Creek in Frederick County. The stream does not support any coldwater aquatic resources. To minimize any potential construction impacts to the stream, it was recommended that the proposed work be conducted under the most rigorous conformity with State, Federal and County guidelines and regulations for erosion and sediment control.

- Application to construct a stone revetment on a section of Deep Creek Lake shoreline to protect private land interests and reduce shoreline erosion. The plans for all such revetment projects on Deep Creek Lake require fish habitat to be incorporated to compensate for the loss of shoreline habitat.

**Land Stewardship Committee** - Provided supportive comments for the following potential land acquisitions:

- The BJ Store along the upper Savage River to become part of Big Run State Park. The store would be ideal as a ranger station/camp store with the potential for boat rentals, guide services, and possibly even a few campsites on the property. The Freshwater Fisheries Program supports the Park Service’s efforts to acquire this property and to provide much needed outdoor recreational opportunities for Maryland citizens and visitors as well as provide economic benefits in western Maryland.

- A 99-acre property bordering the Savage River State Forest in the Bear Pen Run watershed. Bear Pen Run supports a reproducing brook trout population and is managed under the Savage River watershed brook trout catch and return fishing area. Brook trout are listed as a species of greatest conservation need in Maryland, and the Savage River watershed is the stronghold for brook trout in the state. Acquisition of this parcel will provide for long-term water quality and habitat protection in the Savage River watershed.

**South Branch Bear Creek Fish Passage Project** - Continued planning with the U.S. Fish and Wildlife Service. Project costs have exceeded current funding, and the U.S. Fish and Wildlife Service will apply for additional funding to cover construction costs. The collapsed culverts will
be replaced with a prefabricated single span bridge. The bridge has been ordered from the manufacturer with existing funding. The project is expected to be completed in 2021 after the Use-III stream closure period.

**Jennings Randolph Lake Fish Habitat Enhancement Project** - Freshwater Fisheries Program staff and Jennings Randolph Lake Rangers began planning for a fish habitat enhancement project. Recycled Christmas trees will be placed and anchored in areas of the lake bottom lacking good physical structure. The project will be conducted during the winter drawdown taking advantage of the exposed lake bottom.

**Stocking and Population Management**

**Trout**
- The North Branch Potomac River zero creel limit trout fishing area was stocked with 2,000 fingerling rainbow trout (3.6 per pound) from Albert Powell Hatchery on December 7, 2020. In addition, 24,000 brown trout fingerlings (500 per pound) were stocked from the Cushwa Hatchery on December 8, 2020.
- The Town Creek delayed harvest fishing area was stocked with 4,000 rainbow trout (3.6 per pound) from Albert Powell Hatchery on December 9, 2020.
- Staff assisted members from the Potomac Valley Fly Fishers Club with stocking adult rainbow trout in the delayed harvest section of Catoctin Creek in Frederick County. The club helped raise the fish through the summer at a small spring fed hatchery facility. Approximately 450 trout were transported to Catoctin Creek Park and Nature Center and stocked into the stream.

**Stocking Permits** - One stocking permit was issued for December.

**Outreach**
Provided customer service information for inquiries regarding:
- Trout fishing opportunities in the North Branch Potomac River, Elk Lick, and the Youghiogheny River.
- Tips for fishing Deep Creek Lake.
- A possible ice fishing season.
- Dock removal at the state park boat launch.
- Fall stocking in the Casselman River delayed harvest trout fishing area.
- Ice fishing opportunities in Garrett County.

**Angler Access**

**Fisheries Management Areas** – Western Region I staff performed boundary research for all fisheries management areas in this region. Plans are to mark boundaries of areas that need to be painted and to remark areas that need touch-ups when weather permits.

Collected old picnic tables and various pieces of metal at Evitts Creek Ponds and the Gary A. Yoder fisheries management areas. The picnic tables, which were in poor shape, were disassembled and all the metal was hauled to a recycling facility. The picnic tables will be replaced in the spring.

**Invasive Species**

**Blue Catfish** - Staff analyzed stomach contents data for over 2,000 blue catfish that had been caught from Patuxent River and dissected.
Transferred unidentifiable stomach contents from Patuxent River blue catfish to researchers at the U.S. Geological Survey Leetown Science Center (Leetown, West Virginia). The stomach contents were taken from fish in the tidal Patuxent River as part of a collaborative research project with Maryland Department of Natural Resources, U.S. Geological Survey, Atlantic States Marine Fisheries Commission, and other partners. The project aims to determine diet and movement patterns of this invasive species in the Patuxent River. The samples will be identified using DNA to better inform managers of the foods and prey items utilized by blue catfish in Maryland’s portion of Chesapeake Bay and tidal tributaries.

Continued work tracking tagged blue catfish within the tidal Patuxent River (Anne Arundel, Charles, Prince George’s counties). In November 2020, 38 fish were tagged with radio and acoustic transmitters. Since then, the fish have been monitored weekly by biologists to determine movement patterns and habitat preferences. All fish have been detected at least once during the study, either by biologists actively tracking the fish or by an array of ten radio receivers placed at key locations along the river. During December, nearly all tagged fish were detected weekly, with movement observed for several fish. Tracking will continue through at least February 2021.

Signage
- Staff ordered invasive species signage for two counties and five state parks that expressed a need for the signs.

Brook Trout Program
- Worked with regional and administrative staff to design and plan a creel survey for the North Branch of the Potomac River tailwater trout fishery. The purpose of the survey is to better understand angler use, demographics, catch, and harvest preferences.

- Worked to complete a series of “fact sheets” to help landowners understand the benefits of forest conservation and riparian buffers for brook trout and aquatic communities.

- Responded to several customer requests for angling opportunity information.

- Provided information and input for statewide brook trout sampling schedule.

Tidal Bass Program
- Staff completed entering Tidal Bass survey data into the Freshwater Fisheries database and data have undergone quality assurance and control procedures.

- Emailed tournament directors with outstanding reports, reminding them to submit results from their 2020 tournament events. At the time of the email, nearly 80 percent of 425 tournament reports had been submitted.