



## **BUREAU OF FRESHWATER FISHERIES MONTHLY REPORT**



**January 14, 2022 – February 13, 2022**

Shawn Crouse, Chief  
Craig Lemon, Superintendent  
Edward Conley, Superintendent

Christopher Smith, Principal Fisheries Biologist  
Ross Shramko, Principal Fisheries Biologist

Dominick Mercurio, Crew Supervisor Bldg. Maintenance  
Tyler Tresslar, Crew Supervisor, WW  
Nicholas Healy, Crew Supervisor, WMA

Scott Collenburg, Sr. Fisheries Biologist  
Eric Boehm, Sr. Fisheries Biologist

Maria Berezin Dowling, Biologist Trainee  
Justin Rozema, Biologist Trainee

Thomas Bissonnette, Technician II  
Ron Jacobsen, Technician II  
Charles Sedor, Technician II

Matthew Gadek, Sr. Wildlife Worker  
Jonathan Kline, Sr. Wildlife Worker  
Shaun Young, Sr. Wildlife Worker  
Doug Cutler, Sr. Wildlife Worker  
Kyle Civalier, Sr. Wildlife Worker  
Nick Ruberto, Sr. Wildlife Worker  
Brad Duckworth, Sr. Wildlife Worker

Andrew Hutnik, Wildlife Worker  
Grace Johnson, Wildlife Worker  
Travis Nitko, Wildlife Worker

Steve Jeffries, Repairer

Nancy Geiger, Agency Services Rep 3

Seasonals: Scott Bently, Christian Nitko, and Cheryl Weeks

## **FISHERIES MANAGEMENT**

**2022 Spring Trout Stocking** – Planning and conversations about the 2022 trout stocking season continued and a decision on how to run the trout season, in light of COVID-19, has been reached. NJFW will return to a normal stocking schedule, with three weeks of pre-season stocking and seven weeks of in-season stocking, with in-season closures in effect. There will, however, be a slight shift in the stocking schedule to help minimize staff exposure to COVID-19 and to help ensure healthy trout by moving them out of the raceways faster than usual. This change will shift 68,000 fish from in-season to pre-season stocking, with no change to the total allotment of fish per waterbody. This change in stocking frequency means that a total of roughly 68,000 more fish will be available to anglers across the state on opening day. This is a return to more of a normal trout stocking schedule, compared to the accelerated schedule that was created for the 2020 and 2021 seasons. As state agencies and businesses start to open back up, NJFW is resuming normal fishing opportunities for anglers as well. This change has been made possible by the close collaboration between the Bureau of Freshwater Fisheries Research and Management Unit and Hatchery units, as well as the Bureau of Lands Management. (Berezin-Dowling and Shramko)

**Stream Temperature Monitoring** – This program was initiated in 2012 to monitor stream temperature in our major rivers that are currently regulated as Trout Maintenance. The continuous temperature monitoring program is designed to closely monitor stream temperature in areas that have marginal thermal habitat for the purpose of trout stocking, understanding thermal regimes in our major river systems, and expand the program to *Trout Production* streams to gain a deeper understanding of stream temperature's role on the entire life cycle of wild trout in New Jersey and assist in guiding management of these streams. This reporting period effort focused on compiling data from stream temperature loggers that were placed as part of the Brook Trout Strongholds Project in 2021, analyzing impacts from stormwater surge events on streams that documented wild trout now or historically, and beginning to develop a dashboard for data visualization. (Collenburg)

## **TECHNICAL ASSISTANCE**

**Bear Swamp Lake Dam** – On January 24, a meeting was held between NJ State Parks, Trout Unlimited, and NJ Fish and Wildlife to determine the feasibility of removal for Bear Swamp Lake Dam. NJ State Parks owns the dam and is continuing to seek approval and funding to remove the dam. Bear Swamp Lake was privately owned until the 1970's when the state bought the property, took down the 13 or 14 houses/cabins surrounding the lake, and it has been in state control since. Recreational value of the lake is low primarily due to limited access. The county owns significant land in the area as well (i.e., Ramapo Valley Reservation which presumes control of most of the access road leading to the lake). A native Brook Trout population exists below the lake and an evaluation of temperature impacts shows that the population is being stressed from dam impacts. The temperature metric used to evaluate presence/absence of Brook Trout, MWAT (maximum weekly average temperature), was 22.37 in 2019. The highest of any brook trout stream evaluated and nearing critical max of 23.3°C for Brook Trout. The removal of the dam would be a pro-active project that will increase climate resiliency of the population downstream and help extend the range of the population upstream. This Brook Trout catchment

has heightened significance as a stronghold considering other nearby Brook Trout catchments: Havemeyer Brook, Stag Brook, Fox Brook, Ramapo River (trib.) (Oakland), and Little Pond Brook. All of which are within 5 miles of the confluence of Bear Swamp Brook with the Ramapo River. Bear Swamp Brook is classified *Trout-Production* and managed under our Wild Trout Streams regs as a Native Brook Trout Stream. (Collenburg and Rozema)

**Clinton WMA Pond** - Biologist, Scott Collenburg, along with Crew Supervisor, Chris Murphy, visited the Clinton WMA Pond which sits just north of Spruce Run Reservoir. The earthen dam is heavily eroding and there are concerns of its failure (picture, *right*). NJDEP Dam Safety has been made aware and is consulting a contractor to further assess potential repair costs. (Collenburg)



**Lake Sonoma Coldwater Bypass** – Biologist, Scott Collenburg, provided analysis of stream temperature below Lake Sonoma and it's impacts on Burnt Meadow Brook which is a classified *Trout Production* stream. It's hopeful that the installation of a siphon will alleviate higher stream temperatures downstream, but the project is experimental. A meeting with NJ State Parks, Bureau of Dam Safety, and the NJ Fish and Wildlife was conducted on February 2 to review the feasibility of a gravity fed release pipe. NJDEP Dam Safety had concerns with the dam being altered as it has not been inspected in approximately 20 years. An inspection of the dam would need to take place for the current plan to proceed. (Collenburg/Rozema)

**Masons Run** – Fisheries Biologists, Chris Smith and Scott Collenburg, coordinated with Wildlife Control's Peter Stark to assign a trapper to a section of Masons Run that has been dammed by beaver activity. Masons Run is unique in that it holds a wild population of Brook Trout and is located in Camden County, NJ's southernmost population of native Brook Trout. A temperature study in the summer of 2021 documented elevated stream temperatures due to the large, dammed areas. It's likely that the Brook Trout will not co-exist with the beavers due to their affinity for cold water. Swamp Pink, a federally threatened plant species, became submerged due to beaver activity and three beaver dams were subsequently breached a beaver deceiver was installed. Beaver activity has been low/non-existent since trapping and breaching of the beaver dams. Their activity will be continually monitored and managed. (Collenburg and Smith)

**Northeast Regional Species of Greatest Conservation Need (RSGCN)** – The Bureau of Freshwater Fisheries submitted their review of freshwater fish taxa as part of the process to prioritize concerns for those species in the northeast United States. As part of the process to recommend species of greatest conservation need in the Northeast region, a meeting took place on February 3 to discuss candidate freshwater and diadromous fish species. (Collenburg and Crouse)

Reviewing removal plans for various dams in the upper Delaware River watershed. (Boehm)

**Freshwater Permits** - Reviewed Land Management Reviews (LMR's) from a freshwater fisheries perspective to address any foreseeable negative impacts to local fisheries. Reviewed water lowering permits and fish stocking applications and contacted applicants as necessary to obtain required information. Responded to requests from the public for information on general fisheries questions, fish stocking and water lowering permit programs. (staff)

**WMA Fishing Tournament Permits** –NJ Fish and Wildlife continued to receive applications for the 2022 WMA Fishing Tournament season. A total of 137 applications have been received to date and all conflicts have been resolved. The 2020 and 2021 WMA tournament report forms were entered in the database and data will be analyzed and presented at the annual Fisheries Forum on February 26, 2022. A summary report will be available by early spring. (Smith)

## **INFORMATION AND EDUCATION**

**Northeast Association of Fish and Wildlife Agencies (NEAFWA) Conference** – Assisted with the planning of the Fisheries/Aquatic Invasives Symposium for the NEAFWA Conference. Organized and assigned times for the talks that were submitted. (Smith)

**Annual Trout Meeting and Freshwater Fisheries Forum** – Participated in a staff meeting on January 21 to discuss agendas for the upcoming virtual Freshwater Fisheries Forum (Freshwater Fisheries Updates, Warmwater Fish Production Activities and Mountain Lake Fish Habitat Project, Bass Tournament Results, and Skillful Angler Program) and virtual Annual Trout Stocking Meeting (2022 Hatchery Production, Adjustments to the 2022 Spring Trout Stocking Program, including the stocking plan, and Assessing the Effect of Cormorant Predation on Small Trout Stocked Ponds in New Jersey). The presentations will be followed by an open public question period. Staff began working on presentations. (staff)

## **MEETINGS**

**Subcommittee on Ecological Flows (SEF)** – Attended a meeting on February 2 that was initiated to update all members of SEF on the Decision Support System (DSS) that was being recoded by Delaware River Basin Commission's (DRBC) John Yagecic. The DSS was originally developed by the USGS and developed to help make decisions on altering flows/releases to provide the most ideal habitat conditions for aquatic life. The tool is intended to be used to determine available habitat. It is not a biota model to predict abundance/presence/absence of species. Input from members during the meeting is being considered to help structure the end product and expected completion is at the end of March 2022. (Collenburg)

**Delaware Watershed Conservation Fund Meeting** – Attended on 2/3/22. All state leads (NJ, NY, PA, and DE) were present and potential grant ideas to increase aquatic organism passage and connectivity within the watershed were presented and discussed. The group is still in the

process of developing project ideas. These will then be vetted and prioritized at follow up meetings later this month. (Boehm)

**Columbia Lake Restoration Meeting** – Attended on 2/4/22. Remediation actions within the former impoundment were discussed with TNC and Princeton Hydro representatives. (staff)

**Tributary Connections Meeting** - Took part in meeting hosted by the NY/NJ Harbor and Estuary Group on 2/8/22. The group is primarily focused on the Hudson River watershed and its associated tributaries in northeastern New Jersey. They are interested in applying for infrastructure bill funding. The group is in the process of deciding how and where to focus their efforts should they receive funding. A final direction has not yet been decided upon. (Boehm)

**Holly Farms Meeting** – Attended meeting on 2/9/22 via Teams. New design plans, and suggested modifications for the office were shared with the group. (Boehm)

**Delaware Basin eDNA Study for Alosines Outreach Meeting** - Attended on 2/11/22. USFWS personnel coordinated this meeting for any parties interested or actively involved with Delaware River eDNA assessment work. TNC, Rutgers, USFWS, NJDEP Bureau of Freshwater, and Biological Monitoring and NJ Fish and Wildlife representatives were present among others. TNC is looking to run a study focusing on the Paulins Kill, Musconetcong and Pequest Rivers in New Jersey, and the Schuylkill River in Pennsylvania. These are priority waters for TNC as they are actively engaged in dam removal projects on each of them. Rutgers mentioned they have the capacity to receive and analyze eDNA samples if necessary. Ideally, a broader basin wide assessment would be preferred if feasible. A follow up meeting is being planned to bring together parties interested in participating and ironing out assessment details going forward. (Boehm and Shramko)

**AFWA Invasive Species Committee Meeting** - Participated in the AFWA Invasive Species Committee Meeting on February 1. The meeting provided updates on a few invasive species management projects as well as updates to RAWA updates and updates to the Infrastructure Bill and potential available funding for invasive species management activities. Additional information was provided on information that should be included in revisions to State Wildlife Action Plans (SWAPs). (Smith)

**Merrill Creek Reservoir Meeting** – Participated in a meeting on January 14, with Tanya Sulikowski from Merrill Creek Reservoir, along with Ross Shramko, to discuss anglers' fisheries management concerns. Anglers expressed a growing concern with the management of the Largemouth and Smallmouth Bass populations, along with the Lake Trout population and salmon stocking rates. Additional meetings are anticipated to address these concerns and develop a sampling schedule to evaluate the fish population. (Smith and Shramko)

## **TRAINING**

Participated in the Conservation Leaders for Tomorrow's (CLfT) two-week long Conservation and Hunting in America online learning course from January 24 to February 7. The course focuses on teaching how hunting is and has been used as a conservation tool as well as hunting

safety, ethics, and culture. The course is designed to better inform conservation officials unfamiliar with the sport on the role that hunting plays throughout America's conservation agencies. (Rozema)

### **PEQUEST TROUT HATCHERY** (Ed Conley)

#### **Inventory Data**

<u>Stocking Program</u>	<u>Length</u>	<u>Average Daily Length Increase</u>	<u>Conversion</u>
Spring 2023			
RBT (4 months old)	3.2"	0.024	0.94
Spring 2022			
RBT (16 months old)	10.4"	0.013	1.68
Fall 2022			
RBT (16 months old)	11.1"	0.020	2.27

#### **Flow Rates – January 2022**

2.51 inches of precipitation fell during the month of January.

Pumping Rate Average for January was 6480 gpm. An average of 9.02 million gallons per day was pumped during the month of January.

The potable well pumped 5,306 gallons for the month of January.

#### **Individual Well Reading:** (gallons per minute)

Well #1	640 gpm
Well #2	350 gpm
Well #3	1,500 gpm
Well #4	660 gpm
Well #5	off
Well #6	290 gpm
Well #7	3,040 gpm

#### **Fish Culture Activities**

The 2023 production stock was inventoried at this time and tanks were reset. They are being fed by automatic feeder twice every hour for about 10 hours a day. The feeders are being filled daily with 1.5 mm and 2.0 mm feed. All tanks are still being cleaned by all shifts. 98,000 surplus fish were given to Hackettstown for forage.

The B-line raceways are currently being fed by hand 8 times a day with 2.0 mm feed.

Monthly inventories of the Spring 2022 production stock (48 pools) and the 2022 Fall Program fish (2 pools) were completed during this time. Feed quantities have been adjusted to regulate growth rates to reach our final goal of 10.5 inches for the Spring Stocking. These fish are being fed by the feed truck 4 times a day with 5.0 mm feed. Screens are being cleaned twice a day and basins weekly.

Hatchery flows, and dissolved oxygen levels are being monitored and adjusted as needed for the increasing growth of the trout.

Approximately 49,000 pounds of feed was fed during this time.

### **Hygiene**

The iodine net/brush dip buckets were changed every 3 days or so to keep up with the hatchery hygiene plan.

Weekly catch basin and aerator building cleaning was completed as scheduled.

Head ends as well as lower ends of the raceways were vacuumed and scraped to remove a buildup of algae and moss.

The aerator wheel area of the I-line was vacuumed to remove built up fish waste and decomposing algae.

Floor disinfectant baths were changed on a regular weekly schedule or as needed.

### **Treatment Plant**

Submitted monthly discharge reports, filed any applicable paperwork, and met with the treatment plant operator.

Weekly treatment plant checks including, wastewater testing, chlorine levels, and domestic pit flow were performed. Set-up composite sampling for 3<sup>rd</sup> Wednesday of the month.

Coordinated the pumping, loading, and spreading of 8000 gals of fish waste to the Pequest WMA. Total of 6 loads spread to Fields #13 during the period of report.

Performed preventative maintenance on treatment plant pumps, motors, greased bearings, and gears, and changed oil in blower motors.

### **Minor Vehicle and Equipment Maintenance**

Coordinated and assisted in the maintenance of 6 in-hatchery vehicles, performed minor vehicle maintenance.

Maintained and submitted monthly mileage report for 16 hatchery vehicles.

Performed weekly site check of both gasoline and diesel fuel levels.

Scheduled and transported distribution trucks to Cory Bros Diesel Truck Repair for diesel emissions inspection, Federal safety inspection and annual preventative maintenance.

A pick-up was sent to Smith motors for a new power steering pump and lines.

Finished setting up account and PO for Linde bulk gases. Returned remaining Airgas bottles to close out old account and received replacement bottles from Linde Gas & Equipment, Inc.

Staff has begun to prepare for the upcoming stocking season by repairing truck tanks and any broken equipment or nets that will be needed.

Power washer repairs and maintenance were completed by staff for upcoming raceway cleaning in the spring.

### **Pequest Mechanical**

TGM Services was called in to investigate and repair a leaking pipe in the welding bay.

Tended generators and observed fish stock during a power outage lasting about an hour on 1/20. Also, there was brief power outage on 2/3 that set-off alarms and caused generators to kick on. Staff checked on fish stock and flows.

New belts were installed on the air compressors in the treatment plant.

Monthly generator diesel test was performed.

### **Miscellaneous Activities**

Had facility inspection of the waste treatment plant on 1/26 with Charlie Cavanaugh from Northern Bureau of Water Compliance and Enforcement, and John Meier from Water Resource Management. Inspection report pending.

Met with Mark Vetterl from Treasury and received discs and blueprints for the roof project that was completed.

Attended several meetings regarding planning of Spring Trout Stocking for 2022. Several 2022 Spring stocking meetings were attended via phone, Teams, and in-house discussions. Met with Chris Murphy from Land Management to create a workable pre-season schedule with added trucks.



Reviewed updated O&M manuals for the treatment plant and UV System with John Meier from Water Resource Management.

Completed 2021 Trout Production Survey for the USDA.

Met with Jenny Goodman who is a Manager with the Bureau of Environmental Radiation via phone. She completed a draft of a case study that was submitted to the IAEA based on old study of Radon at Pequest which was performed around 2003. We reviewed report and discussed information for accuracy.

Provided trout for Trout in the Classroom (TIC) re-stockings to 8 Schools.

Covered shifts due COVID quarantines.

Hatchery personnel plowed and cleaned-up from winter storms - Izzy, Jasper, and Keenan as well a couple of ice storms. Daily rearing activities were maintained by essential staff throughout all shifts during the storms as well.

There were no reported problems with trespassers by the night watchmen. The Information & Education Building remains closed.

## **HACKETTSTOWN STATE FISH HATCHERY** (Craig Lemon)

### **Intensive Culture** (Inventory)

<b><u>Species</u></b>	<b><u># Fish</u></b>	<b><u>Avg"</u></b>
Landlocked Salmon	3,200	6.8"
Largemouth Bass	2,000	3.8"
Mosquitofish	50,000	1.0"

### **Stocking Totals** (January 15 – February 14)

No Stocking During This Period.

### **Intensive Culture**

#### **Landlocked Salmon**

Currently culturing 3,200 fish about 6.8-inches long in two 2,000-gallon tanks. Staff are cleaning and feeding them daily. Plans are to fin clip/mark them soon and split them into three 2,000-gallon tanks. These fish will be grown intensively until early November of 2022 and stocked when they reach 14-16 inches.

#### **Largemouth Bass**

Currently culturing 2,000 fish about 3.8 inches long in one 1,000-gallon tank. They are in 52-degree spring water and being fed live forage. This will be our first attempt at overwintering these fish intensively. Reasoning behind this is to eliminate early Spring bird predation in hatchery ponds. Plans are for these fish to meet Regional Biologists requests for 6-9" fish in 2022.

### Mosquitofish

Currently culturing about 50,000 Gambusia in two 1,000-gallon tanks. They are being fed a dry feed diet.

### **General Hatchery Operations**

Staff begin the day cleaning all tanks in the Intensive Culture Building. All the fish feeders are filled with proper size feed for the size and species in the tanks and all the feeders are set off to make sure they are feeding the correct amount. Feeders run 24 hours a day, so it is critical to be sure they are functioning correctly. Weight counts are done weekly to measure fish growth and inventories are performed when fish are being moved from tank to tank. Water flows, temperatures, and dissolved oxygen readings are performed weekly to check on water quality. Pond screens and water flows are checked and adjusted daily. Water flows and levels have been adjusted for the winter season.

### **Budget, Purchasing, PO's, CBT, CBTM**

Met virtually with DPMC staff and architects regarding the CBT Project to replace the Maintenance Garage. Larry Tutela has been assigned as the new project manager. A consultant has been picked for the job and a design kickoff meeting will be scheduled in the next couple of weeks. Clint Decker and Alarm Company representatives have been discussing alarm parameters and a timetable for system update, also a CBT project. Clint has finished up all the work we need to do on our end of the alarm project, just waiting on the PLC and equipment from the company. Received a PO for dredging the 5-Acre Pond. Viersma was down with their D6 dozer and spent 4 days pushing sediment to the bank. Created and sent in a CBTM Project for removal of dredged material in the 5-Acre Pond. Also includes bank stabilization and seeding.

### **Maintenance (Jeffries/Decker)**

Started and ran all heavy equipment (dozer, excavators, tractors) during the cold weather to ensure batteries remain charged. Put a new battery in SG28829 Ford F250 Pickup. Put 2 new front tires on the Kubota UTV. Called TGM Services to repair the heat in the maintenance shop. Cleared multiple ditches with the excavator prior to and after several heavy rains and snow melts. Dropped off SG35747 Ford F250 and plow to West Chester Machinery to have the plow repaired. It was diagnosed as a fuse issue and a fuse kit was added to the glove box for future issues. Plowed snow during several storms. Started and moved equipment in the red barn, a few tractors that were acquired from Rockport will be given to Lands Management. Repaired failing hangers in the 68- and 80-degree sump pits in the pump room to prepare for Spring system startup.

### **Maintenance of Buildings and Equipment**

Staff have been building and repairing plugs, slides, and screens to be used in the extensive ponds next year. All the fish feeders in the intensive building have been cleaned and repaired. Staff are replacing a couple of old feeders that have been troublesome with new ones. Repairs continue nets, dipnets, and trapnets. New replacement nets have been ordered. Boots and raingear were inventoried, and new gear was ordered to fill in missing sizes. Cleaned up the decals/wraps on all tank trucks and applied a new layer of clear tape over all the edges. They came out looking like new. Stripped the faded decals off the fiberglass distribution tank on the

deck of SG20120 and the door decals. Primed and painted the tank in preparation for dropping it off at Shout for new decaling.

### **Grounds Maintenance**

Plowed and shoveled snow after a few snowstorms. Salted all walkways. Used the John Deere tractor to fill in several large ruts and potholes in roadways/driveways.

### **Information & Education.**

Participated in the Division's Social Media creation "GoFishFriday". This Friday's post will be the 37th post in the series targeting angler catches and the Division's fisheries programs. Hopes are to make it a year-round bragging catch following the seasons and the fish that are biting that week. Ice fishing season has kicked off and we are receiving lots of great angler photos. Incorporated an ice safety segment in the most recent post. Supplied Doug with I & E with multiple formats of 2021 final stocking data for posting on the website.

### **Seasonal Job Interviews**

We have contacted and interviewed four new potential employees as a couple of our long time seasonals have moved on to new jobs. Interviews went well and Nancy Geiger is working with the applicants on filling out the paperwork. The paperwork was all sent to Trenton, and we are anxiously awaiting start dates.