



E-LO-HI VIEW

EBCI DIVISION OF AGRICULTURE AND NATURAL RESOURCES

Tribal Self-governance and the Environment

BY MICHAEL LAVOIE

Are Tribes true “sovereigns” in the world of environmental protection? Can the EBCI choose to protect natural resources and regulate development however we wish? Well, the answer is yes and no with plenty of grey area in between.

The EBCI Natural Resources Department (NRD) coordinates with our federal partners including the Environmental Protection Agency, Bureau of Indian Affairs, U.S. Fish and Wildlife Service, and the Army Corps of Engineers to ensure federal environmental regulations are effectively implemented on the Qualla Boundary. This work includes protecting species listed under the Endangered Species Act, as well as ensuring the Clean Water Act and the Clean Air Act continue to protect human health and the environment.

Although Tribes are ultimately subject to federal law, there is some flexibility to exert self-governance and tailor environmental protection to meet EBCI needs. For example, the NRD Water Quality Office is working to implement unique water quality standards through “Treatment as a State” (TAS) authority under the Clean Water Act to ensure EBCI streams can sustain cultural practices like “going to water”.

We also work under a Memorandum of Understanding with the Army Corps of Engineers to ensure any filling or dredging of streams is properly conducted and permitted in EBCI watersheds. Our ongoing efforts to contract the Bureau of Indian Affairs Forestry functions through the Indian Self-Determination and Education Assistance Act is yet another example of the EBCI exerting self-governance to ensure our forests are managed properly for future generations.

Protecting the environment is a complicated business, and we can assure you that the NRD is working diligently to maximize regulatory efficiencies while promoting EBCI sovereign interests.



- (Photo. NRD and USACE staff assessing a wetland)



E-LO-HI VIEW

EBCI DIVISION OF AGRICULTURE AND NATURAL RESOURCES *IN THIS EDITION*

- Bee Friendly to the Bees!
- EBCI Water Quality; Hydro-Met Stations
- Season is Open!!!!
- EBCI Cooperative Extension Center works in Partnership with Tribal Foods & MANNA Food Bank to distribute food boxes to help address food insecurities.

UPCOMING DATES

- Cherokee's 2021 tagged fishing tournaments are a go this year. We have four scheduled events:
 - (1) Opening Day, March 27-28;
 - (2) Memorial Day, May 29-30;
 - (3) Tim Hill Memorial, July 24-25
 - (4) Qualla Country Tournament.
- Qualla Country Tournament dates September 4-5
 - all legal fishing methods apply
- Buy Y Free Labor Raised Garden Bed Sale
 - Large bed: \$175, small bed: \$125, garden plowing FREE: Contact 828-788-4879

CONTACT INFORMATION

NC Cooperative Extension Office:

- Chumper Walker, Extension Director:
(828) 359-6930 or chumwalk@nc-chokeee.com
- Laura Walkingstick, Empowering Youth & Family's Program assistant
(828) 359-6856 or lawalkin@ncsu.edu
- Laura Lauffer, EMFS Project Director:
(828) 359-6926 or lwlauffe@ncsu.edu
- Jessica Mrugala, EMFS Project Regional Area Specialized Agent:
(828) 359-6927 or jmruhal@ncsu.edu
- Adam Griffith, RTCAR:
(828) 359-6930 or adamgriff@nc-chokeee.com
- Tracie Edwards, Admin:
(828) 359-6939 or tracedwa@nc-chokeee.com
- Christine Kanott, Cannery:
(828) 359-6933 or chrikano@nc-chokeee.com
- Tammy Jackson, Community Development:
(828) 359-6934 or tammjack@nc-chokeee.com
- Janet Owle, Family and Consumer Sciences:
(828) 359-6937 or janeowl@nc-chokeee.com
- Sally Dixon, 4H Youth Development:
(828) 359-6936 or salldixo@nc-chokeee.com
- Benjamin Collette, Agriculture:
(828) 359-6928 or benjcoll@nc-chokeee.com

Natural Resources office:

- Joseph Owle, Secretary of Agriculture & Natural Resources:
(828) 359-6260 or joeyowle@nc-chokeee.com
- Michael J. LaVoie, Natural Resources Manager:
(828) 359-6113 or michlavo@nc-chokeee.com
- Paula Price, Program Coordinator:
(828) 359-6083 or paprice@nc-chokeee.com
- Brittany Mathis, Fiscal/Grants Coordinator:
(828) 359-6112 or britwats@nc-chokeee.com
- Michael Bolt, Water Quality Section Supervisor:
(828) 359-6225 or michbolt@nc-chokeee.com
- Dylan Rose, Watershed Coordinator:
(828) 359-6093 or dylarose@nc-chokeee.com
- Tommy Cabe, Forest Resource Specialist:
(828) 359-6225 or tommcabe@nc-chokeee.com
- Maria Dunlavy, Conservation Outreach Coordinator:
(828) 359-6141 or maridunl@nc-chokeee.com
- Katie Tiger, Air Quality Supervisor:
(828) 359-6115 or katerenw@nc-chokeee.com
- Caleb Hickman, Supervisory Fish and Wildlife Biologist:
(828) 359-6109 or calehick@nc-chokeee.com
- Micah Walker, Lead Wildlife Biologist:
(828) 359-6108 or micawalk@nc-chokeee.com
- David Anderson, Horticulture Operations Supervisor:
(828) 359-6099 or daviande@nc-chokeee.com
- Doug Reed, Hatchery Supervisor:
(828) 359-6097 or dougreed@nc-chokeee.com
- David Rowland, Fish Culturist:
(828) 359-6096 or davirowl@nc-chokeee.com
- Gary Sneed, Environmental Regulatory Specialist:
(828) 359-6119 or garysnee@nc-chokeee.com
- Derek Tahquette, Environmental Compliance Specialist:
(828) 359-6119 or deretahq@nc-chokeee.com

Bee Friendly to the Bees!

BY BENJAMIN COLLETTE

Days are getting longer, greenery is taking over the landscape, and there's a buzzing in the air! Bees, along with other types of pollinators, are all around pollinating flowers nonstop, which is an important reason to have several varieties of pollinator friendly flowers in your gardens, specifically native species. There are lots of things you can do to help your friendly pollinators this season. Loss of pollinator habitat is an important issue around the world, with many lawns having the ability to contribute to providing excellent habitat. If you have any bit of yard space, or even a little front porch with some flower pots, you can help attract pollinators by planting native flowers.

Another thing you can do if you have a front or back yard, is help promote bee habitat by timing when you mow your lawn. If you are able, allow your lawn to grow out a little longer throughout this season. Some folks allow their lawn to grow throughout May and only cut it at the end of the month.

Another option would be to space out your lawn mowing schedule a little bit longer. If you generally cut your lawn every week, consider allowing it to grow an extra week or two. A study on bee habitat with lawns showed that lawns that were allowed to grow a little longer attracted more bees and more flower diversity than those cut each week. So, consider slowing down your mowing or planting all kinds of pollinator friendly gardens!



"Loss of pollinator habitat is an important issue around the world, with many lawns having the ability to contribute to providing excellent habitat."

— BENJAMIN COLLETTE

EBCI Water Quality; Hydro-Met Stations

BY MICHAEL BOLT

The lands of the Eastern Band of Cherokee Indians contain three major watersheds that flow into the Mississippi River. They are the Little Tennessee, the Cheoah, and the Hiwassee. These river systems are comprised of many head water streams. This being so, it is important that we preserve the integrity of our tribal waters, not only for the health of our river systems, but to maintain the cultural value they have.

One method that we use to monitor water quality on the reservation is by utilizing Hydro-Met stations. These stations monitor multiple parameters of water quality and meteorological data in real time. This differs from traditional grab sampling, which only takes a very small snapshot of what the chemistry of the stream is at the second the sample was collected. Each parameter is measured and transmitted into a database every few seconds. This allows us to see changes within a stream at pinpointed times and to address water quality issues in a timely manner. Having these capabilities gives us an advantage by being aware of the quality of our waters 100% of the time.

The stations are housed in 10-foot by 10-foot chain linked fences. Within these areas are the electrical components for the entire Hydro-Met station, a precipitation gauge, and meteorological equipment. These stations are powered with a solar panel. Outside of the gated area, are the multiple water quality sensors. Each sensor is retained on one instrument called a sonde. This sonde, while holding each water quality sensor, allows the data collected to be sent to the station computer, by way of an electrical cable. Alongside the sonde is another piece of equipment called a bubbler. The bubbler calculates the stream depth and flow.

Aquatic Parameters

- Turbidity
- pH
- Dissolved Oxygen
- Water Temperature
- Water Depth

Meteorological Parameters

- Air Temperature
- Humidity
- Barometric Pressure
- Total Precipitation



Hydro-Met Station



Water Quality Sonde

"Having these capabilities gives us an advantage by being aware of the quality of our waters 100% of the time"

— MICHAEL BOLT

SEASON IS OPEN!!!!

BY DOUGLAS REED

Despite a pandemic 2020, our hatchery team was able to successfully meet our production goals for opening 2021. EBCI enterprise catch & keep waters opened to fisherman on March 27, 2021. We stocked 33,000 lbs in the month of March for opening day. A large number of anglers came to fish the Qualla Boundary for opening weekend. Heavy rains & high waters did not deter our anglers from trying their luck.

The opening day tournament was also held the weekend of 3-27/3-28, with 1,285 participants fishing for the "BIG MONEY" fish. Tag turn-ins were low, due to weather and river conditions, but there were several including (1) \$1,000 and (2) \$500.

EBCI operations were shutdown for most of 2020, However we had staff at the hatchery everyday. Dedication & hardwork ensured annual production goals were met.

In 2020 our opening day was canceled due to COVID-19. We were able to open fishing on May 15,2020, and resumed our weekly stocking schedule for the remainder of the year into 2021. Our target # of 33,000lbs was met for opening day 2021.

Our team is eager to have the season underway, and moving toward the "new normal" we are proud to provide these fish for all the anglers to enjoy here on the Qualla Boundary. We look forward to another great year.



"Despite a pandemic 2020, our hatchery team was able to successfully meet our production goals for opening 2021."

— DOUGLAS REED

EBCI Cooperative Extension Center works in Partnership with Tribal Foods & MANNA Food Bank to distribute food boxes to help address food insecurities.

BY TAMMY JACKSON

“Food insecurity is defined as the disruption of food intake or eating patterns because of lack of money and other resources.” To help address this need and supplement the food boxes given out by Tribal EOC, EBCI Tribal Foods Distribution & MANNA Food Bank hosted their first food distribution on Wednesday, January 20th. During this distribution volunteers gave out 572 food boxes, serving 1,674 individuals. Eight community clubs received ten boxes for members of their communities who are homebound or unable to pick up a box due to COVID quarantine. Members of the Cooperative Extension, Human Resources, and Welcome Center staff were able to volunteer and support this important event. Due to the pandemic food Insecurity continues to be one of the major issues across our nation. The EBCI Cooperative Extension Center strives to address such an issue through the educational programs they offer such as: gardening and Agriculture, Family Consumer Science, 4-H youth programs, Community Development, and the tribal cannery for food preservation.

To better understand this need and to see how the tribe can better serve the members of the EBCI the HEAT Team (Healthy Eating Action Team) was established. One of their first projects was to develop a food insecurities questionnaire. “So far, we have had a great response from the community and have had 505 questionnaires completed, stated Rose James, coordinator of the HEAT team. The data from this questionnaire will be instrumental in the development of future educational programs and food distributions for the members of the EBCI. Tribal Foods is grateful for the support and assistance we have received from the EBCI Cooperative Extension.”



“During this distribution volunteers gave out 572 food boxes, serving 1,674 individuals.”

— TAMMY JACKSON