

**Report to the North Carolina General Assembly's
Environmental Review Commission**



Consolidated Report on Basin-wide Water Management Plans

November 1, 2022

**Division of Water Resources
NORTH CAROLINA DEPARTMENT OF
ENVIRONMENTAL QUALITY**

Pursuant to G.S. 143-355(p); G.S. 143-215.8B(d)

General Statute (G.S.) [§143-215.8B\(d\)](#) requires the Environmental Management Commission (EMC) and the North Carolina Department of Environmental Quality (DEQ) report on or before November 1 of even-numbered years to the Environmental Review Commission (ERC) on the progress in developing and implementing basinwide water resources management plans and public involvement and education in connection with basinwide planning. [G.S. §143-355\(p\)](#) requires that information about the development of hydrologic models be included with the report for basinwide planning.

Session Law 2021-158 (Section 8) changed the reporting requirement from annually to biennially. The session law also included revisions and clarifying language on what should be included in a basinwide water resources management plan (basin plan) and defines the 17 major river basins.

Per statute, the biennial report shall include:

- I. Basinwide Water Resources Management Plans
 - A. Progress in developing and implementing basinwide water resources management plans (basin plans).
 - B. Public involvement and public education in connection with basinwide planning.
 - C. A written statement on the water quality and quantity conditions that are identified in the course of preparing or revising the basin plan.

- II. Progress on Developing Basinwide Hydrologic Models

This report provides a summary of DEQ's progress on the statutory-required items between July 1, 2020 and June 30, 2022.

I. Progress in Developing and Implementing Basinwide Water Resources Management Plans (Basin Plans)

Between July 1, 2020 and June 30, 2022, DEQ was actively working on the Chowan, Pasquotank, White Oak, Yadkin, and Cape Fear river basin plans. Below is a summary of DEQ's progress on developing and implementing the basin plans. The summary includes statements about public involvement and public education and water quality and quantity conditions in each of the focus river basins. Information about all 17 river basins can be found in the [2020 Annual Report](#). Over the next two years, DEQ will continue to focus on the Cape Fear River basin along with the Hiwassee, Little Tennessee, Savannah, Broad, and Catawba river basins. (Table 1).

Table 1: Basinwide Water Resources Management Plan (Basin Plan) Schedule

River Basin	Plan Last Approved by EMC	Public Comment Period ¹	Present to EMC's Water Quality Committee (WQC) ¹	Present to EMC ¹
Chowan ²	2007	October 2020	September 2020	March 2021
Pasquotank ²	2007	April 2021	July 2021	September 2021
White Oak ²	2007	July 2021	September 2021	November 2021
Yadkin ²	2008	March 2022	May 2022	July 2022
Cape Fear	2005	Fall 2022	Winter 2023	Spring 2023
Hiwassee	2012	Winter 2023	Spring 2023	Summer 2023
Little Tennessee	2012	Winter 2023	Spring 2023	Summer 2023
Savannah	2012	Winter 2023	Spring 2023	Summer 2023
Broad	2008	Spring 2023	Summer 2023	Fall 2023
Catawba	2010	Winter 2024	Spring 2024	Summer 2024
Lumber	2010	Spring 2024	Summer 2024	Fall 2024
New River	2011	Winter 2025	Spring 2025	Summer 2025
Watauga	2018	Winter 2025	Spring 2025	Summer 2025
French Broad	2011	Spring 2025	Summer 2025	Fall 2025
Roanoke	2012	Fall 2025	Winter 2026	Spring 2026
Neuse	2009	Spring 2026	Summer 2026	Fall 2026
Tar-Pamlico	2015	Winter 2026	Spring 2027	Summer 2027

¹ Winter (December – March), Spring (March -June), Summer (June – September), Fall (September – December).
 Dates listed are tentative and subject to change.
² Focus of this annual report.

Chowan River Basin

A. Plan Development

In March 2021, the EMC approved the fourth update to the [Chowan River Basin Water Resources Management Plan](#) (basin plan). Many of the recommendations focused on the need for additional monitoring and data collection to understand sources of organic nitrogen in the basin. Understanding potential sources of pollution and where they are located within the basin allows stakeholders to target the placement of best management practices (BMPs) to reduce the amount of nutrients entering waterways and contributing to algal blooms. Many stakeholders in the basin continue to express concerns about harmful algal blooms in the Chowan River and Albemarle Sound.

B. Public Involvement

Due to restrictions put in place to protect public health during the COVID pandemic, DEQ communicated via phone, virtual meetings, and emails to engage stakeholders during the development of the basin plan. At the request of stakeholders in the basin and to raise awareness, promote involvement, and educate citizens in the basin, basin planners created an informational flyer. The flyer included an overview of what was included the basin plan and how to get involved. The flyer was distributed through listservs and by stakeholders in the basin. Using ArcGIS, a [Chowan River Basin Story Map](#) was also created (Figure 1). The Story Map provides an interactive component to increase accessibility and promote interest in water resources throughout the basin.

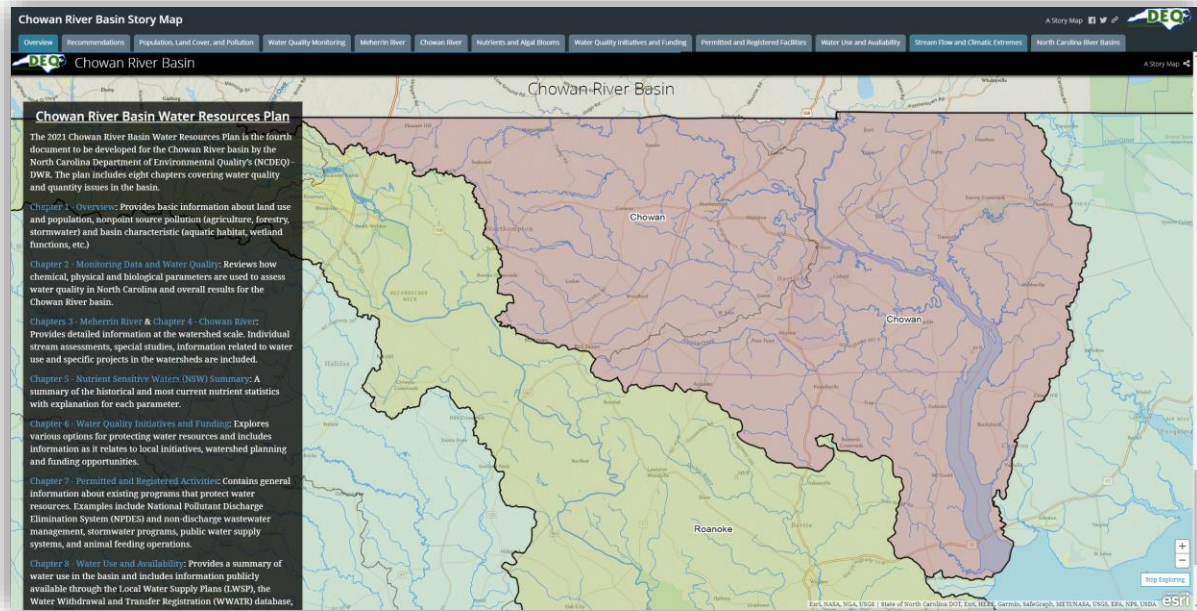
Upon approval of the Chowan River basin plan, an online webinar was held through the UNC-Institute of Marine Sciences (IMS) brownbag lunch seminar. Notifications of the presentation were posted across several social media platforms (e.g. Facebook, Twitter, etc.). The presentation included a guided tour of the interactive Chowan River Basin Story Map to webinar attendees. Attendees included university researchers, non-profit organizations, and the public. The webinar led to a follow-up meeting to discuss recommendations for protecting water resources in the region.

C. Water Quality and Quantity Conditions

Since 2000, the Chowan River and its tributaries have seen a steady increase in organic nitrogen concentrations, and numerous algal blooms have been reported since 2015. Turbidity, fecal coliform bacteria, and biological impairments, all of which are likely the result of nonpoint source pollution, have also been raised as concerns in the basin. In the upper Chowan River, low dissolved oxygen levels are impacting instream ecological health. The low levels are likely the result of water flowing from the two rivers in Virginia (Nottoway and Blackwater) that form the

Chowan River near the Virginia-North Carolina state line, but these low levels progressively improve from the state line to the Albemarle Sound.

Figure 1: Screenshot of the [Chowan River Basin Story Map](#)



Collectively, the majority of water systems in the Chowan River basin are expected to have adequate water supplies to meet current (2018) and projected demands (2060). Based on 2018 data, two of the 18 systems that report to the Local Water Supply Planning (LWSP) Program indicated that they may not have adequate water supply to meet projected demand. Both systems reported to DWR that they are establishing interconnections and/or identifying new water sources to meet projected demands through 2060. The basin plan also includes information reported to DEQ through the Water Withdrawal & Transfer Registration Program (WWATR), and water used for agricultural purposes is reported to the NC Department of Agriculture & Consumer Services (NCDA&CS). Information reported in the basin plan is based on best available data reported to each of these programs.

Pasquotank River Basin

A. Plan Development

In September 2021, the EMC approved the fourth update to the [Pasquotank River Basin Water Resources Plan \(basin plan\)](#). As with the Chowan, many of the recommendations in the Pasquotank basin plan focus on the need for additional monitoring and data collection to understand sources of nutrients (nitrogen and phosphorus) in the basin. Understanding potential sources of pollution and where they are located within the basin allows stakeholders to target the placement of best management practices (BMPs) to reduce the amount of nutrients entering waterways and contributing to harmful algal blooms. Stakeholders in the basin are committed to developing partnerships across state (Virginia and North Carolina) and county lines to invest in nutrient reducing activities and addressing the cause of algal blooms in the Pasquotank River, its tributaries, and the Albemarle Sound.

B. Public Involvement

Due to restrictions put in place to protect public health during the COVID pandemic, DEQ communicated via phone, virtual meetings, and emails to engage stakeholders during the development of the basin plan. The public comment period for the Pasquotank River basin plan was announced at the UNC-IMS brownbag lunch webinar seminar where information was presented about the Chowan River basin. The comment period ran through the month of June 2021.

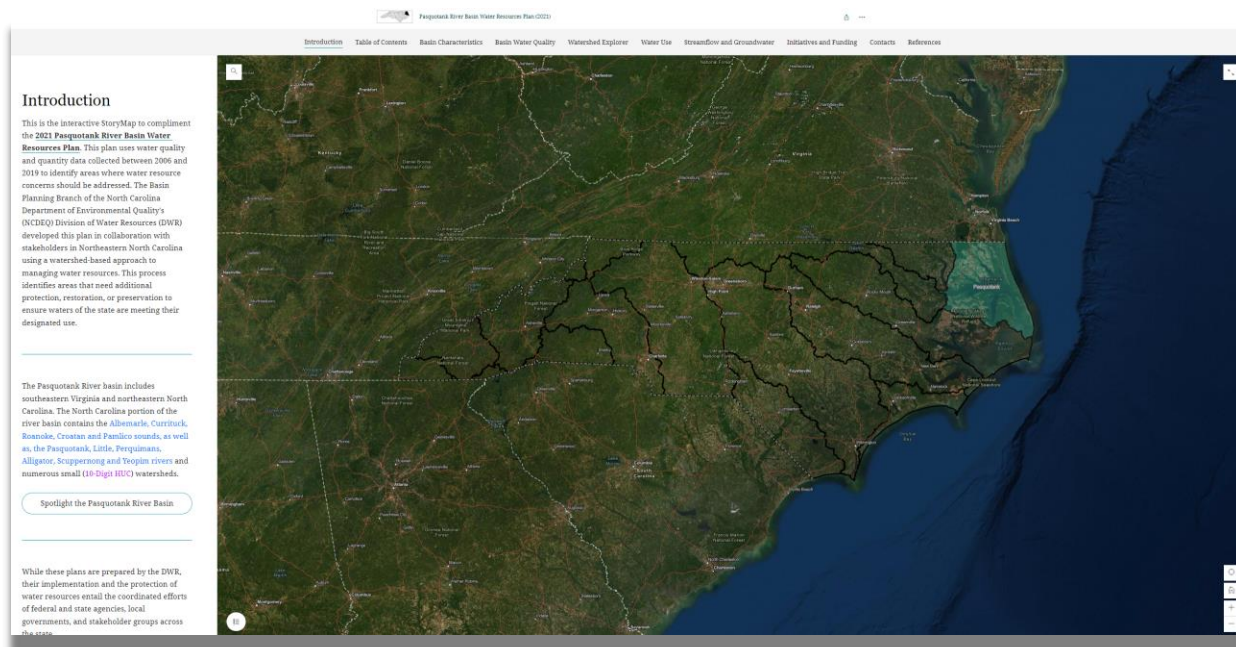
To help facilitate feedback from the local Soil & Water Conservation Districts (SWCDs) in the basin, DEQ created a survey that included questions specific to local initiatives, concerns, and cost share programs. DEQ received five responses to the survey, and those comments were incorporated into the basin plan where appropriate. Using ArcGIS, a Pasquotank River Basin Story Map was also developed to increase accessibility and promote interest in water resources throughout the basin (Figure 2).

C. Water Quality and Quantity Conditions

Nutrients continue to be a water quality issue throughout the entire basin. Since the early 1990s, monitoring data have shown relatively high phosphorus concentrations in the Little River, which is one of several major rivers located in the basin and draining to the Albemarle Sound. A steady increase in organic nitrogen has also been identified across many ambient monitoring stations since the mid-1990s, with an observed increase in organic nitrogen concentrations in the Albemarle Sound moving from west to east. Monitoring data collected since the 2000's has shown relatively high nitrate/nitrite nitrogen concentrations from the Scuppernong River and Kendrick's Creek. The steady increase in nutrients is likely contributing to the algal blooms that have been reported in the Albemarle Sound, Little River, and Perquimans River since 2015. Other

parameters of interest in the basin include copper, pH, dissolved oxygen, dioxin, enterococcus bacteria, nickel, and chlorophyll *a*.

Figure 2: Screenshot of the [Pasquotank River Basin Story Map](#)



Collectively, the majority of water systems in the Pasquotank River basin are expected to have adequate water supplies to meet current (2018) and projected demands (2060). Based on 2018 data, two of the 21 systems that report to the Local Water Supply Planning (LWSP) Program indicated that they may not have adequate water supply to meet projected demands. After consultation, however, both have demonstrated to DWR that their system has secured and has sustainable access to adequate water supplies for projected demands through 2060. The basin plan also noted that influxes of seasonal visitors can produce significant increases in water demand raising maximum daily water use during popular recreational seasons. Having adequate supplies to meet average daily demands may still require careful management to meet maximum daily water demands. The basin plan also includes information reported to DEQ through the Water Withdrawal & Transfer Registration Program (WWATR) and the Central Coastal Plain Capacity Use Area (CCPCUA). Water used for agricultural purposes is reported to the NC Department of Agriculture & Consumer Services (NCDA&CS). Information reported in the basin plan is based on best available data reported to each of these programs.

White Oak River Basin

A. Plan Development

In November 2021, the EMC approved the fourth update to the [White Oak River Water Resources Management Plan](#) (basin plan). Many of the recommendations in the White Oak River basin plan support recommendations included in DEQ's 2016 [Coastal Habitat Protection Plan \(CHPP\)](#) and the [2021 amendment](#) which was also approved by the EMC as well as the Coastal Resources Commission and the Marine Fisheries Commission in November 2021. The recommendations included conducting water quality restoration activities to prevent additional shellfish closures and swimming advisories, identifying strategies to reduce point and nonpoint source pollution in the basin, increasing support for voluntary water quality improvement measures such as BMPs, and identifying ways to collaborate with stakeholders in the basin to better understand water quality issues.

B. Public Involvement

Due to restrictions put in place to protect public health during the COVID pandemic, DEQ communicated via phone, virtual meetings, and emails to engage stakeholders during the development of the basin plan. The public comment period for the White Oak River basin plan was announced through listservs and a press release on DEQ's website and social media pages. The public comment period ran through the month of July 2021.

To help facilitate feedback from the local SWCDs in the basin, DEQ created a survey that included questions specific to local initiatives, concerns, and cost share programs. DEQ did not receive any responses to the survey, but information was shared by the SWCDs via phone and emails during the initial stages of developing the plan.

C. Water Quality and Quantity Conditions

Shellfish closures and nutrients continue to be the main water quality concerns throughout the basin. Chlorophyll *a*, dissolved oxygen, turbidity, fecal coliform bacteria, enterococcus bacteria, and copper are also contributing to impairments in the basin. Persistent water quality problems, such as high levels of total nitrogen (TN), total phosphorus (TP), chlorophyll *a*, and high algal densities have been documented in the New River subbasin since the mid-1980's. A Nutrient Sensitive Waters (NSW) Strategy was developed in 1991 to decrease nutrient impairments in the New River subbasin. The strategy addressed many point sources of pollution, but water quality problems persist. The basin plan noted that nutrients will continue to impact water quality and the estuary until potential sources are identified and managed. Identifying pollution sources and reducing impacts to water quality and shellfish growing areas will require an increase in financial support to improve and upgrade wastewater and stormwater infrastructure, the implementation of voluntary agriculture and stormwater BMPs, creating

localized watershed action plans, and providing outreach and education about nutrient management.

Collectively, public water supply (PWS) systems that submit Local Water Supply Plans (LWSP) in the White Oak River basin are expected to have adequate water supplies to meet current (2017) and projected demands (2060). Influxes of seasonal visitors, however, can produce significant increases in water demand raising maximum daily water use during popular recreational seasons. Having adequate supplies to meet average daily demands may still require careful management to meet maximum daily water demands. The basin plan also includes information reported to DEQ through the Water Withdrawal & Transfer Registration Program (WWATR) and the Central Coastal Plain Capacity Use Area (CCPCUA). Water used for agricultural purposes is reported to the NC Department of Agriculture & Consumer Services (NCDACS). Information reported in the basin plan is based on best available data reported to each of these programs.

Yadkin-Pee Dee River Basin

A. Plan Development

In May 2022, the EMC's Water Quality Committee (WQC) recommended that the [2022 Yadkin-Pee Dee Water Resources Management Plan](#) (basin plan) be presented and approved by the EMC during their July 2022 meeting. It is the fourth basin plan to be developed for the basin. Many of the recommendations focused on identifying point and nonpoint sources of pollution to better manage nutrient inputs and target watershed planning initiatives as well as best management practices (BMPs). To better understand what is being contributed by point sources in the basins, it was recommended that basin planners work with permit writers to ensure permitted facilities are collecting the appropriate chemical, physical and biological parameters to help manage and mitigate impacts from wastewater dischargers. Some of areas of the basin have several permitted and deemed permitted animal feeding operations. Excess nutrients and bacteria levels were identified in many of the waterbodies with a high number of animal feeding operations. It was also recommended that DEQ consider more oversight, permit compliance, and management of large-scale animal waste management systems to help reduce bacteria, sediment, and nutrient inputs.

B. Public Involvement

Due to restrictions put in place to protect public health during the COVID pandemic, DEQ communicated via phone, virtual meetings, and emails to engage stakeholders during the development of the basin plan. As restrictions began to lift, basin planners attended stakeholder engagement meetings hosted by NCDACS's Division of Soil & Water Conservation (DSWC), Yadkin-Pee Dee River Basin Association, and Yadkin-River Basin Water Management Group. The

public comment period for the Yadkin-Pee Dee River basin plan was announced through listservs and a press release on DEQ's website and social media pages. The public comment period ran from mid-February to mid-March 2022. Extensions were given on a case-by-case basis.

C. Water Quality and Quantity Conditions

Turbidity, metals, fecal coliform bacteria, nutrients, chlorophyll *a*, pH, and dissolved oxygen are all impacting water quality in the Yadkin-Pee Dee River basin and contributing to impairments. In the Rocky River watershed, over 50% of the freshwater miles and 80% of the freshwater acres were listed as impaired in 2018 for biological integrity, turbidity, and metals. Some of the highest nutrient concentrations can also be found in the Rocky River watershed. The basin plan noted that the instream nutrient signature for the mainstem and several tributaries indicate that point sources are likely contributing to current conditions. It was also noted that there are several wastewater dischargers are currently seeking expansions in the watershed which could impact an already nutrient-enriched system. DWR has identified multiple limitations with the current model used to determine assimilative capacity for new and/or expanding point source dischargers in the Rocky River watershed. It was recommended that the model be upgraded and regionalized as a first step toward addressing water quality issues. The proposed model was not funded during the past fiscal year, but DWR will work with local governments to update the model and identifying funding sources to support an upgrade to the existing model. Instream nitrogen and phosphorous criteria will likely be needed to establish nitrogen and phosphorous limits and reductions once the model is upgraded.

In High Rock Lake in the northern most portion of the basin, eutrophic conditions, algal blooms, and water quality impairments continue to be a concern for state and local resource agencies as well as stakeholders. Through the nutrient criteria development process (NCDP), a site-specific chlorophyll *a* water quality standard was recommended for the lake and was scheduled to be presented to the EMC in July 2022. DEQ is actively engaging stakeholders throughout the High Rock Lake watershed in a collaborative process to identify how best to restore water quality in the lake and reduce nutrients entering the system.

Combined, public water supply (PWS) systems that submit Local Water Supply Plans (LWSP) in the Yadkin-Pee Dee River basin are expected to have adequate water supplies to meet current (2018) and projected demands (2060). All 72 PWS systems showed a positive correlation between historic and projected population growth and water demand, and all are expected to meet current and future (2060) water needs. Basinwide, there was a slight decrease in demand between 2007 and 2012. This may be the result of water conservation measures being implemented throughout the basin as well as changes in behavior by the customer base due to severe drought conditions in 2007 and 2008. There were 157 registrants who reported water

use to the Water Withdrawal & Transfer Registration Program (WWATR) and there are four interbasin transfer certificates (IBTs) issued in the basin. Water used for agricultural purposes is reported to the NC Department of Agriculture & Consumer Services (NCDA&CS). Information reported in the basin plan is based on best available data reported to each of these programs.

Cape Fear River Basin

A. Plan Development

The fourth update to the Cape Fear River basin plan is well underway and is scheduled to be presented to the EMC in 2023. Much of the plan will focus on chemical, physical, and biological impairments identified in the basin as well as existing nutrient management strategies or rules put into place to protect water resources. The basin plan will rely on existing and ongoing efforts being made by DEQ to address emerging compounds but will not include an in-depth water quality analysis or discussion of emerging compounds. Instead, the basin plan will refer the reader to DEQ's emerging compounds [webpage\(s\)](#).

B. Public Involvement

DWR is communicating via phone, virtual and in-person meetings, and emails to engage stakeholders in the development of the basin plan. Working with an intern and in partnership with the Cape Fear River Assembly (CFRA), a survey was developed and was distributed across the basin through various stakeholders, email listservs, and informational sessions currently held by CFRA. The public comment period for the Cape Fear River basin plan is scheduled for the end of 2022 and will be announced through listservs and a press release on DEQ's website and social media pages.

C. Water Quality and Quantity Conditions

Turbidity, dissolved oxygen, emerging compounds, biological integrity, metals, aquatic habitat, instream flow, water availability, algal blooms, and nutrients continue to be concerns throughout the basin. The 2022/2023 Cape Fear River basin plan will include basinwide and watershed specific recommendations. Recommendations will address both point and nonpoint sources of pollution in an effort to target watershed planning initiatives and the implementation of best management practices (BMPs). References will be provided throughout the basin plan on existing and ongoing issues across the basin. It will also include an overview of water use as reported to the various programs managed by DWR's Water Supply Planning Branch (WSPB), DWR's Groundwater Resources Section, and NCDA&CS's Agricultural Water Use Survey.

Statewide Total Impairments: 2022 Integrated Report (IR)

Chemical, physical, and biological parameters are assessed regularly to determine how well waterbodies are meeting their best intended use (e.g., support aquatic life, fish consumption, recreation, shellfish harvesting, water supply). Pollutants identified during the development of

the Chowan, Pasquotank, White Oak, and Yadkin-Pee Dee river basin plans include (but are not limited to) bacteria, copper, turbidity, nutrients, chlorophyll *a*, and dissolved oxygen. Aquatic habitat was also identified as a water quality concern in each of the basins.

Every two years, DEQ uses water quality assessment results for each monitored waterbody to produce the Integrated Report. The Integrated Report is submitted to the U.S. Environmental Protection Agency (EPA) on even numbered years to fulfill reporting requirements for Section 303(d) and Section 305(b) of the federal Clean Water Act (CWA). Each Integrated Report includes data collected during a five-year assessment window.

In North Carolina, waterbodies are assigned an assessment unit (AU) number. AUs vary in size and do not represent the total number of miles or acres that are exceeding numeric or narrative water quality standards. Parameters (e.g., pH, temperature, turbidity, biological health, bacteria levels, metals, etc.) are assessed independently. An AU can have multiple assessments depending on the amount of data and information collected and available for assessment.

Determining if a waterbody meets or exceeds criteria to protect its best intended use depends on the frequency of exceedances of the numeric or narrative water quality standard. Water quality assessment methods are approved by the EMC and explained in detail in the [Integrated Report Methodology](#) available on DWR’s Modeling and Assessment Branch’s (MAB) website.

On April 30, 2022, the EPA approved North Carolina’s 2022 303(d) list of impaired waters. The five-year assessment window for the 2022 303(d) list of impaired waters was 2016 to 2020. Thirty-seven percent (37%) of the assessed waters were exceeding criteria for at least one water quality parameter (Table 2). Parameters included chemical, physical, and biological characteristics that impact water quality (Table 3).

Nearly half of North Carolina’s impairments are in shellfish growing areas designated by DEQ’s Division of Marine Fisheries (DMF) as conditionally approved open or closed, prohibited, or restricted for shellfish harvesting. Eighty (80) AUs are currently on the 303(d) list for one or more metals. All waters continue to be impaired for mercury in fish tissue due to fish

Table 2: Number and Findings of Water Quality Assessment Units (AUs) Assessed for the 2022 Integrated Report

Water Quality Standards	Number of Assessment Units (AU) Assessed¹
Meeting Water Quality Standards or Data Inconclusive	2,394 (63%)
Exceeding Water Quality Standards	1,388 (37%)
Total # Assessed ²	3,792

¹ AUs vary in size and do not represent total number of miles or acres. An AU can have multiple assessments depending on the amount of data and information collected and available for assessment.

² Number of AUs impaired for fish consumption for mercury are not included in the total # of AUs assessed.

consumption advice and advisories issued by the NC Department of Health and Human Services (DHHS).

Table 3: Water Quality Parameters Identified on the 2022 303(d) List of Impaired Waters and the Number of Assessment Units (AU) Associated with Each

Water Quality Parameters	Number of Assessment Units (AU) ¹ Exceeding Criteria
BACTERIA Includes Enterococcus and Fecal Coliform bacteria measured/monitored for recreation and Shellfish Growing Areas	663
BIOLOGICAL Includes benthic and fish aquatic habitat monitoring	395
CHEMICAL/PHYSICAL Includes chlorophyll <i>a</i> , dissolved oxygen, pH, turbidity	201
METALS Includes arsenic, copper, mercury, nickel, zinc	80
FISH TISSUE ADVISORIES² Includes fish tissue advisories for arsenic, dioxin, hexavalent chromium, PCB	49
¹ AUs vary in size and do not represent total number of miles or acres. An AU can have multiple assessments depending on the amount of data and information collected and available for assessment.	
² Does not include statewide fish tissue advisory for mercury.	

Emerging compounds are relatively unknown compounds that are increasingly being detected in soil, groundwater, and surface water. The science and research about emerging contaminants are quickly expanding, allowing laboratories to detect these compounds and researchers to discover new details about their impacts on the human health and the environment. Emerging compounds have been identified in various river basins across the state. DEQ continues to work to determine the extent of contamination, implement the strategic action plan, and prevent future contamination. Because of this, DEQ has created a list of [resources](#) and created the [Emerging Compounds](#) website which includes reports and tasks completed by the Secretary’s Science Advisory Board (e.g. [GenX Investigation](#)). Basin plans will reference these materials on a basin-by-basin basis.

Specifically, in June 2022, DEQ announced the DEQ Action Strategy for PFAS (polyfluoroalkyl substances) detailing actions the department will take to address PFAS contamination in North Carolina. The strategy focuses on three primary objectives: protecting communities, protecting drinking water, and cleaning up contamination. With the publication of the strategy, DEQ announced the agency will propose groundwater, surface water, and drinking water standards for priority PFAS compounds and evaluate PFAS emissions and discharges in permitting decisions. Some of the activities associated with the action strategy include PFAS sampling of over fifty

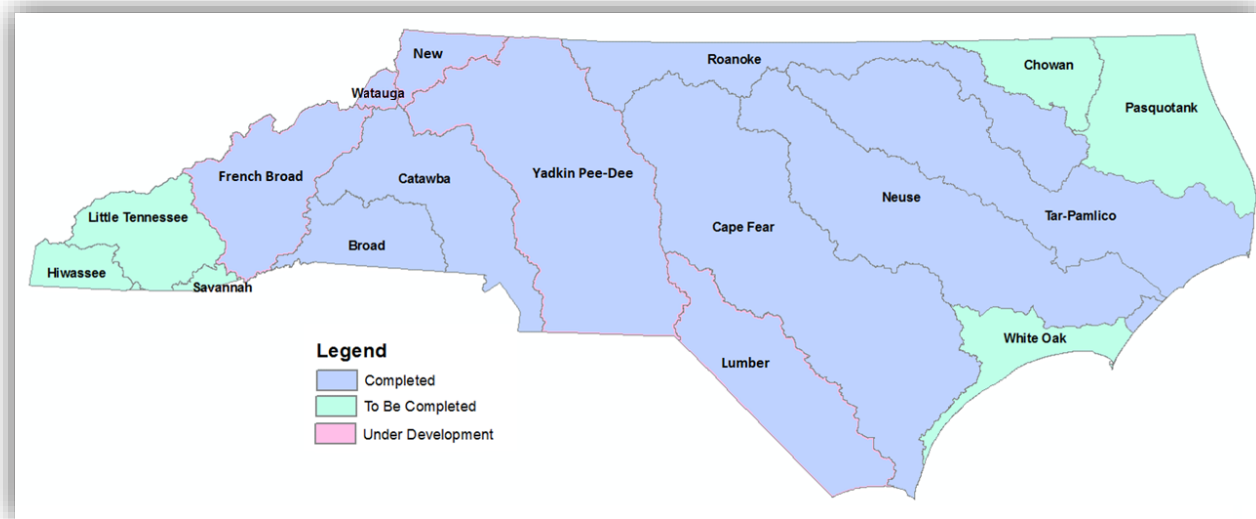
public water supply systems that provide drinking water to over 75% of the state’s population in anticipation of coming federal drinking water standards.

II. Progress on Developing Basinwide Hydrologic Models

DEQ hosts hydrologic models (Figure 3) for the Tar-Pamlico, Roanoke, Broad, and French Broad river basins through OASIS (Operational and Simulations of Integrated Systems). Combined OASIS models are available for the Cape Fear-Neuse rivers and New-Watauga rivers. For the Catawba-Wateree River basin, a hydrologic model is available through CHEOPS (Computerized Hydroelectric Operations Software).

In 2021, a combined OASIS model was completed for the Yadkin-Pee Dee and Lumber river basins. In June 2022, funding was secured to host the OASIS hydrologic models on an independent server, and DEQ is currently in the process of migrating all of the existing models to the server. DWR expects all existing models to be migrated to the new server by the end of 2022. Once complete, the models will be available to anyone who requests access and can be used to evaluate potential impacts to stream flow from proposed projects and help identify the reoccurrence at which stream flow could be low enough to produce water shortages, limiting a facility’s ability to meet current or projected water demand. More information about the hydrologic models can be found on DWR’s Modeling and Assessment Branch’s (MAB) [website](#).

Figure 3: Status of Hydrologic Model Development for North Carolina’s 17 River Basins



Conclusion

DEQ continues to make progress in developing and implementing basinwide water resources management plans as demonstrated by the work performed on the Chowan, Pasquotank, White

Oak, Yadkin-Pee Dee, and Cape Fear river basin plans over the last two years. In the coming years, DEQ will continue to focus on the Cape Fear and begin working on several of the western basin plans as well as the Catawba (Table 1). More information about basin planning can be found on DWR's Basin Planning Branch's (BPB) [website](#).