

271 N.C.App. 674

Court of Appeals of North Carolina.

SOUND RIVERS, INC. and **North Carolina**

Coastal Federation, Inc., Petitioners,

v.

N.C. DEPARTMENT OF ENVIRONMENTAL

QUALITY, DIVISION OF WATER

RESOURCES, Respondent,

Martin Marietta Materials, Inc., Respondent-Intervenor.

No. COA18-712

|

Filed: June 2, 2020

Synopsis

Background: Water protection organizations filed a petition for judicial review of the Administrative Law Judge's (ALJ's) decision affirming issuance of a National Pollutant Discharge Elimination System (NPDES) Permit by the Department of Environmental Quality, Division of Water Resources (DEQ) to mining company. The Superior Court, Beaufort County, [W. Douglas Parsons, J.](#), granted summary judgment in part and remanded for a full hearing, and, following ALJ's decision, the Superior Court, Cartaret County, [Joshua W. Willey, Jr., J.](#), reversed in part and vacated the permit. Mining company and DEQ appealed.

Holdings: The Court of Appeals, [Stroud, J.](#), held that:

[1] trial court had subject matter jurisdiction over water protection organization's petition for judicial review of issuance of wastewater discharge permit by DEQ;

[2] water protection organizations' rights were substantially prejudiced by DEQ's decision to issue NPDES permit, and thus organizations were "persons aggrieved" who had standing to bring action for judicial review of permit;

[3] DEQ's interpretation of biological integrity standard for issuing NPDES permit was reasonable;

[4] substantial evidence supported ALJ's findings as to biological integrity analysis for issuing NPDES permit;

[5] protection of swamp lands did not require that body of water remain unchanged, and thus NPDES permit did not violate water quality standards as applicable to swamp waters;

[6] water quality standards for pH did not mandate that swamp waters retain all of their characteristics, including low pH, and thus decision of DEQ to issue NPDES permit did not violate pH water quality standards of region; and

[7] NPDES permit reasonably ensured compliance with water quality standards, and thus reopener provision did not allow DEQ to issue a permit expected to violate water quality standards.

Affirmed in part and reversed in part.

[Brook, J.](#), filed an opinion concurring in part and concurring in the result.

[Hampson, J.](#), filed an opinion concurring in part and dissenting in part.

Procedural Posture(s): On Appeal; Review of Administrative Decision; Motion to Dismiss for Lack of Subject Matter Jurisdiction; Motion to Dismiss for Failure to State a Claim; Motion for Summary Judgment.

West Headnotes (20)

[1] **Action** 🔑 Moot, hypothetical or abstract questions

A case is "moot" when a determination is sought on a matter which, when rendered, cannot have any practical effect on the existing controversy.

[More cases on this issue](#)

[2] **Action** 🔑 Moot, hypothetical or abstract questions

A moot claim is not justiciable, and a trial court does not have subject matter jurisdiction over a non-justiciable claim.

[More cases on this issue](#)

[3] Pretrial Procedure 🔑 Vexatious or fictitious suit; mootness

If the issues before the court become moot at any time during the course of the proceedings, the usual response is to dismiss the action for lack of subject matter jurisdiction.

[4] Environmental Law 🔑 Notice requirements

Trial court had subject matter jurisdiction over water protection organization's petition for judicial review of issuance of National Pollutant Discharge Elimination System (NPDES) permit by Department of Environmental Quality, Division of Water Resources, even though mining company was not served until more than ten days after petition was filed; petition was filed within time period established by statute to invoke jurisdiction from final decision of Administrative Law Judge (ALJ), trial court had authority to grant extension of time for good cause shown, and mining company did not dispute whether water protection organizations had made showing of good cause for extension of time. *N.C. Gen. Stat. Ann. §§ 143-215.1, 150B-46*; *N.C. R. Civ. P. 12*.

[1 Case that cites this headnote](#)

[More cases on this issue](#)

[5] Appeal and Error 🔑 Subject-matter jurisdiction

The Court of Appeals reviews a motion to dismiss for lack of subject matter jurisdiction de novo.

[1 Case that cites this headnote](#)

[6] Environmental Law 🔑 Organizations, associations, and other groups

Water protection organizations' rights were substantially prejudiced by Department of Environment, Division of Water Resources' decision to issue National Pollutant Discharge Elimination System (NPDES) permit authorizing mining company to discharge mine wastewater into tributaries, and thus

organizations were "persons aggrieved" who had standing to bring action for judicial review of permit; organizations alleged that permit was issued without compliance with applicable regulations, and that discharge of wastewater, if not done in compliance with applicable regulations, would damage water quality, fish, and other biota in region along with personal and commercial benefits derived from region. *N.C. Gen. Stat. Ann. § 143-215.1*.

[More cases on this issue](#)

[7] Administrative Law and Procedure 🔑 De novo review; plenary, free, or independent review**Administrative Law and Procedure** 🔑 Sufficiency of Evidence

Standard of review of an agency decision will depend upon the nature of the error alleged in the petition for judicial review, and if errors of law are alleged, appellate review is de novo, but if the alleged error is that the final agency decision is not supported by the evidence, the appellate court will employ the whole record test.

[2 Cases that cite this headnote](#)

[8] Administrative Law and Procedure 🔑 Persons affected or aggrieved; injury

In the aggrievement context, the organic statute at issue defines the rights, duties, and privileges that provide the grounds for an administrative hearing under the North Carolina Administrative Procedure Act.

[9] Administrative Law and Procedure 🔑 Judicial role or function in general

When a superior court exercises judicial review over an agency's final decision, it acts in the capacity of an appellate court.

[10] **Administrative Law and Procedure** 🔑 [Scope and Standards of Further Review](#)

The Court of Appeals reviews the superior court's order reviewing an agency's final decision to determine if the superior court applied the correct standard of review based upon the grounds for reversal or modification argued before the superior court.

[1 Case that cites this headnote](#)

[11] **Environmental Law** 🔑 [Discharge of pollutants](#)

Department of Environmental Quality, Division of Water's (DEQ's) interpretation of biological integrity standard for issuing National Pollutant Discharge Elimination System (NPDES) permit authorizing mining company to discharge wastewater into tributaries was reasonable in proceeding for judicial review of permit; operative words of applicable regulations were not defined, biological integrity standard could only be clear to extent operative terms in standard were defined, classification of waters was determined by existing or contemplated best usage of streams, and state code did not require biological integrity of aquatic ecosystem remain exactly or substantial same it had been prior to discharge. *N.C. Gen. Stat. Ann. § 143-215.1*; *15A N.C. Admin. Code 2B.0211, 2B.0301*.

[12] **Environmental Law** 🔑 [Scope of review](#)

As the interpretation of the biological integrity standard for issuance of a National Pollutant Discharge Elimination System (NPDES) Permit, applied by a superior court, is an issue of law, the Court of Appeals reviews this determination de novo.

[13] **Environmental Law** 🔑 [Discharge of pollutants](#)

Term "preclude," in statute providing that in order to violate a water quality standard, the discharge of water must preclude certain uses

on either a short-term or long-term basis, means the discharge of water must make aquatic life propagation and maintenance of biological integrity, wildlife, secondary recreation, and agriculture nearly impossible. *15A N.C. Admin. Code 2B.0211*.

[14] **Environmental Law** 🔑 [Discharge of pollutants](#)

Substantial evidence supported Administrative Law Judge's (ALJ's) findings as to biological integrity analysis for issuing National Pollutant Discharge Elimination System (NPDES) permit authorizing mining company to discharge mining wastewater into tributaries in proceeding for judicial review of permit; trial court did not determine that any findings of fact made by ALJ were unsupported by record, record supported ALJ's findings that Department of Environmental Quality evaluated species composition, diversity, population density, and functional organization in accord with its established procedures and expertise, and reports were filed regarding effect wastewater discharge would have on fish, stream stability, potential flooding, and water quality issues. *N.C. Gen. Stat. Ann. § 143-215.1*; *15A N.C. Admin. Code 02B.0202(11), 2B.0211, 2B.0301*.

[15] **Environmental Law** 🔑 [Water pollution](#)
Environmental Law 🔑 [Scope of review](#)

In reviewing the issuance of a National Pollutant Discharge Elimination System (NPDES) permit, neither the superior court nor the Court of Appeals may substitute its findings of fact for those of the Administrative Law Judge (ALJ). *N.C. Gen. Stat. Ann. § 143-215.1*.

[1 Case that cites this headnote](#)

[16] **Environmental Law** 🔑 [Scope of review](#)

The Court of Appeals reviews the Administrative Law Judge's findings of fact in support of a National Pollutant Discharge Elimination System (NPDES) permit only to determine if

they are supported by the whole record. *N.C. Gen. Stat. Ann.* § 143-215.1.

Gen. Stat. Ann. § 143-215.1; 15A *N.C. Admin. Code* 2B.0211(3)(g), 02B.0211(14).

[17] **Environmental Law** 🔑 Discharge of pollutants

Protection of swamp lands did not require that body of water remain unchanged, and thus National Pollutant Discharge Elimination System (NPDES) permit authorizing mining company to discharge mining wastewater into tributaries did not violate water quality standards as applicable to swamp waters in action seeking judicial review of permit; state statute recognized that some discharges of waste which would not be allowed under applicable water quality standards may be allowed as provided by permit, Division of Water Resources concluded that permit reasonably ensured compliance with all applicable water quality standards, and while trial court acknowledged discharge of water would change region, changes were within limitations and provisions of permit. Federal Water Pollution Control Act § 303, 33 *U.S.C.A.* § 1313(c)(2)(A); *N.C. Gen. Stat. Ann.* § 143-215.1.

[18] **Environmental Law** 🔑 Discharge of pollutants

Water quality standards for pH did not mandate that swamp waters retain all of their characteristics, including low pH, and thus decision of Department of Environmental Quality, Division of Water Resources (DEQ) to issue National Pollutant Discharge Elimination System (NPDES) permit authorizing mining company to discharge wastewater into tributaries did not violate pH water quality standards of region; pH rule did not create or require site-specific standard for pH in receiving waters, technical amendment clarified that normal pH for waters in area was defined by numerical range set forth in text of rule, which was consistent with other water quality standards, and DEQ's interpretation of pH standard was reasonable and consistent with regulations. *N.C.*

[19] **Administrative Law and Procedure** 🔑 Plain language; plain, ordinary, or common meaning

The interpretation of administrative regulations properly begins with the plain words of the regulation.

[20] **Environmental Law** 🔑 Discharge of pollutants

National Pollutant Discharge Elimination System (NPDES) permit authorizing mining company to discharge wastewater into tributaries reasonably ensured compliance with water quality standards, and thus reopener provision did not allow Department of Environmental Quality, Division of Water Resources (DEQ) to issue a permit expected to violate water quality standards in proceeding for judicial review of permit; permit was issued based upon expected predictions of expected impact of discharge of wastewater into region, DEQ had authority to modify or revoke permit, permit required monitoring of region after discharge of wastewater begins, and mining company was required to obtain other state authorizations that also addressed potential impacts on water quality for its proposed quarry. *N.C. Gen. Stat. Ann.* § 143-215.1.

****805** Appeal by respondent North Carolina Department of Environmental Quality, Division of Water Resources, respondent-intervenor Martin Marietta Materials, Inc., and cross-appeal by petitioners Sound Rivers, Inc. and North Carolina Coastal Federation, Inc., from orders entered 13 November 2015 by Judge [W. Douglas Parsons](#) in Superior Court, Beaufort County, 30 October 2017, 4 December 2017, and 20 December 2017 by Judge [Joshua W. Willey, Jr](#) in Superior Court, Carteret County. Heard in the Court of Appeals 22 May 2019. Beaufort County, No. 15 CVS 262, Carteret County, No. 16 CVS 1272

Attorneys and Law Firms

Southern Environmental Law Center, by Geoffrey R. Gisler, Blakely E. Hildebrand, and Jean Zhuang, for petitioner-appellees.

Attorney General [Joshua H. Stein](#), by Assistant Attorney General [Asher P. Spiller](#) and Assistant Attorney General [Scott A. Conklin](#), for respondent-appellant.

Brooks, Pierce, McLendon, Humphrey & Leonard, L.L.P., Greensboro, by [Matthew B. Tynan](#), [George W. House](#), [Alexander Elkan](#) and [V. Randall Tinsley](#), for respondent-intervenor-appellant.

Opinion

[STROUD](#), Judge.

****806 *677** This case arises from the issuance of a National Pollutant Discharge Elimination System Permit (“Permit”) by respondent North Carolina Department of Environmental Quality, Division of Water Resources (“DEQ”) to respondent-intervenor Martin Marietta Materials, Inc., (“Martin Marietta”) allowing respondent Martin Marietta to discharge wastewater from Vanceboro Quarry (“quarry”) into “unnamed tributaries to Blounts Creek[.]” The Administrative Law Judge (“ALJ”) of the Office of Administrative Hearings (“OAH”) entered a final decision affirming the issuance of the Permit. Petitioners Sound Rivers, Inc. and North Carolina Coastal Federation, Inc. (“Petitioners”) filed a petition for judicial review with the superior court.¹ The superior court reversed the ALJ’s final decision based upon a failure to “ensure reasonable compliance with the biological integrity standard” (“biological integrity standard”) found in the North Carolina Administrative Code (“Code”) but concluded that the Permit was in compliance with other water quality standards, including “swamp waters supplemental classification and the state antidegradation rule” (“swamp waters”) and pH (“pH standards”).

Respondent Martin Marietta and respondent DEQ appeal from the superior court’s order reversing the ALJ’s order due to its conclusion on biological integrity standards. Petitioners cross-appeal from the superior court’s order based upon its conclusion that the Permit reasonably ensured compliance with water quality standards regarding swamp waters and pH standards. We note at the outset that at all stages of the proceedings, the parties have filed numerous

documents, including briefs, motions, proposed drafts of orders, responses, and exhibits; in this opinion we will mention only those documents relevant to the issue on appeal as the documents are so voluminous, but we have reviewed all of the documents before us and after review of the briefs, record, and transcripts, we affirm the superior court’s order as to swamp waters and pH standards and reverse as to the biological integrity standard.

I. Factual and Procedural Background

In September of 2013, Sound Rivers and North Carolina Coastal Federation filed a petition for a contested case hearing on DEQ’s issuance of the Permit on 24 July 2013 to Martin Marietta. According to the ***678** petition, the Permit authorized Martin Marietta to “the discharge of 12 million gallons of mine wastewater into tributaries of Blounts Creek each day.” Petitioners alleged the Permit violated “applicable laws” attached and incorporated into the petition.

[1] [2] [3] The Permit was issued under the provisions of [North Carolina General Statute § 143-215.1](#) and “other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended[.]” The Permit was effective on 1 September 2013 and would expire on 31 August 2018.² The Permit allowed ****807** Martin Marietta to discharge water pumped from its quarry “from two pit clarification ponds” identified on an attached map into “receiving waters designated as unnamed tributaries to Blounts Creek in the Tar-Pamlico River Basin in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III” of the Permit. The supplement to the Permit cover sheet noted that the “unnamed tributary” into which the wastewater would be discharged was “classified as C-Swamp NSW waters in the Tar-Pamlico River Basin.” In this opinion, we will refer to the waters into which wastewater from the quarry would be discharged as “Blounts Creek.”

In September of 2013, respondent DEQ submitted a prehearing statement identifying the issues to be resolved as

[(1)] whether Respondent, properly issued the Permit pursuant to Article 21, Chapter 143 of the North Carolina General Statutes and

the applicable rules promulgated thereunder, including but not limited to 15A NCAC 2B.0200 *et. seq.*; and [(2)] whether Respondent, in issuing *679 the Permit substantially prejudiced Petitioner's rights and erred in one or more of the five ways enumerated in [N.C. Gen. Stat. § 150B-23\(a\)](#).

Martin Marietta, who had intervened, also submitted a prehearing statement contending the Permit “would not violate water quality standards” and noted that the Permit had been issued “after years of pre-permitting work, the submission of engineering, economic, and ecological studies and materials by Martin Marietta, and extensive review and analysis by DWR [, Division of Water Resources,] and other state and federal government agencies.” Martin Marietta contended state and federal regulatory personnel had thoroughly analyzed the proposed permit over about eighteen months, including “site visits, field work, numerous communications and meetings, the further submission of materials and studies by Martin Marietta, and public comment and a public hearing, in which Petitioners and their members and counsel participated.” Thus, Martin Marietta contended state and federal regulatory personnel had already considered the “claims asserted by Petitioners in this contested case” and DEQ “correctly concluded that the proposed discharge allowed by the NPDES Permit would not violate water quality standards and lawfully and appropriately issued the NPDES Permit.”

On 6 November 2013, Petitioners filed their prehearing statement contending that the Permit did not comply with biological integrity standards, protection of swamp waters, and pH standards, and identifying the issues as:

1. The Clean Water Act and state laws implementing it prohibit discharges that violate any water quality standard. State water quality standards for waters like Blounts Creek prohibit any discharge that will make a waterbody unsuitable for native plants and animals, violating its “biological integrity.” Martin Marietta's proposed discharge of 12 million gallons of mine wastewater per day into Blounts Creek would displace native fish, macroinvertebrates (insects, mollusks, crayfish, etc.) and plants. Did DWR exceed its authority, act erroneously, fail to use proper procedure,

act arbitrarily or capriciously or fail to act as required by **808 rule or law “err”) by authorizing the discharge?

2. The Clean Water Act and state laws implementing it prohibit discharges that violate any water quality standard. The state water quality standard for pH is the *680 normal pH for the waterbody receiving a discharge, which is between 4.0 and 5.5 in Blounts Creek. Did DWR err by authorizing a discharge that would raise the pH in the creek to a minimum of 6.3 to 6.9?
3. The Clean Water Act and state laws implementing it require classification of waters to protect existing uses. North Carolina has classified Blounts Creek as swamp waters to protect characteristics unique to these waters, including low flow and velocity, low pH, and high tannin levels. Did DWR err by issuing a permit for a discharge that will cause Blounts Creek to have higher flow and velocity, near neutral pH, and low tannin levels, thereby no longer qualifying as swamp waters?

In November of 2014 Petitioners filed a motion for summary judgment on the issues of whether Petitioners were “persons aggrieved” under North Carolina's Administrative Procedure Act and whether DWR had exceeded its authority or failed to act as required by law based upon failure to ensure compliance with the biological integrity water quality standard, the pH water quality standard, and Blounts Creek's swamp waters classification. Petitioners also submitted numerous affidavits to support their motion. On 25 November 2014, Martin Marietta filed a motion for summary judgment.

On 23 March 2015, the ALJ entered an order granting summary judgment for respondents. The order stated at length the undisputed facts and concluded “Petitioners are not ‘Persons Aggrieved[;]’ ” “Respondent's Decision to Issue the Permit was Not in Violation of [N.C. Gen. Stat. § 150B-23\(a\)\[;\]](#)” “Respondent Ensured Compliance with Biological Integrity Standard[;]” “Respondent Ensured Compliance with pH Water Quality Standards[;]” and “Respondent Protected Existing Uses[.]” The ALJ also noted the “Re-opener Provision” of the Permit:

The permit issued to the Respondent-Intervenor allows the Respondent to re-open and modify the permit if water quality standards are threatened or other monitored data cause

concern. Even if Petitioner provided evidence of specific and particularized potential violations of water quality standards, the re-opener provision assures reasonable compliance with those standards.

***681** In summary, the ALJ concluded,

There is no evidence that Petitioners' rights have been substantially prejudiced, or that Respondent exceeded its authority or jurisdiction, acted erroneously, failed to use proper procedure, acted arbitrarily or capriciously, or failed to act as required by law or rule.

For the reasons discussed herein, there is no genuine issue as to any material fact. Respondent's Motion for Summary Judgment is allowed; Respondent-Intervenor's Motion for Summary Judgment is allowed. Petitioners' Motion for Summary Judgment is denied, and Petitioners are not entitled to the relief requested in the petition.

On 20 April 2015, Petitioners filed a petition for judicial review of the summary judgment order contesting the ALJ's determinations. On 20 May 2015, Martin Marietta responded to and filed a motion to dismiss petitioners' petition for judicial review, arguing the superior court did not have subject matter jurisdiction because petitioners are not "persons aggrieved" and therefore not entitled to judicial review. On 13 November 2015, the superior court entered its order denying Martin Marietta's motion to dismiss and denying petitioner's petition on all grounds except for the issue of "persons aggrieved." The superior court concluded petitioners were persons aggrieved and remanded the matter back to OAH for a "full plenary hearing[.]"

After a "hearing on the merits May 31, 2016 through June 9, 2016[.]" on 30 November 2016, the ALJ issued a 62-page final decision. The final decision addressed four primary issues:

****809 Issue 1: "pH Claim":** Whether Petitioners have met their burden of proving that Respondent exceeded its authority or jurisdiction, acted erroneously, failed to use proper procedure, acted arbitrarily or capriciously, or failed to act as required by law or rule in determining the NPDES Permit reasonably ensures compliance with the pH water quality standard.

Issue 2: "Swamp Waters Claim": Whether Petitioners have met their burden of proving that Respondent exceeded its authority or jurisdiction, acted erroneously, failed to use proper procedure, acted arbitrarily or capriciously, or failed to act as required by law or rule in determining the NPDES Permit reasonably ensures compliance ***682** with water quality standards and regulations related to the "Swamp Waters" supplemental classification.

Issue 3: "Biological Integrity Claim": Whether Petitioners have met their burden proving that Respondent exceeded its authority or jurisdiction, acted erroneously, failed to use proper procedure, acted arbitrarily or capriciously, or failed to act as required by law or rule in determining the NPDES Permit reasonably ensures compliance with the biological integrity water quality standard.

Issue 4: Substantial Prejudice: Whether Petitioners have met have their burden of proving that Respondent substantially prejudiced Petitioners' rights in issuing the NPDES Permit.

The ALJ made 311 findings of fact; we will address some of these findings of fact below in detail in our discussion of the challenged findings applicable to each issue. The order ultimately denied Petitioners' claims based upon two alternative and independent grounds: First, "Petitioners failed to meet their burden of proving by a preponderance of evidence that Respondent DWR exceeded its authority or jurisdiction, acted erroneously, acted arbitrarily and capriciously, used improper procedure, or failed to act as required by law or rule in issuing the NPDES Permit." Second, as an independent and alternative basis for the ruling, "Petitioners failed to carry their burden of proof by a preponderance of the evidence that their rights have been substantially prejudiced by Respondent DWR's issuance of the NPDES Permit."

In December of 2016, Petitioners filed a petition in superior court for judicial review of the ALJ's final decision. Petitioners alleged the order was in error in that "The Final Decision Contains Findings of Fact Unsupported by Substantial Evidence, Findings That Are Arbitrary, Capricious, or an Abuse Of Discretion, and Findings Affected By Other Errors Of Law[;]" "The ALJ's Conclusion That Petitioners Are Not Substantially Prejudiced Is Erroneous[;]" "The ALJ's Grant of Deference to DWR Staff And [Martin Marietta] Consultants Is An Error Of Law[;]" "The ALJ's

Conclusion That DWR Complied with the Biological Integrity Standard Is Erroneous[;]” “The ALJ’s Conclusion That DWR Complied with the pH Standard Is Erroneous[;]” “The ALJ’s Conclusions of Law Regarding the Swamp Waters Classification And Antidegradation Rules Are Erroneous[;]” and “The ALJ’s Conclusion That the Required Reopener Provision Ensures Compliance With Water Quality Standards Is Erroneous[.]”

*683 On 30 January 2017, Martin Marietta filed a motion to dismiss the petition under [North Carolina General Statute § 150B-46](#) and [North Carolina Rule of Civil Procedure 12](#) because the petition for judicial review was not timely served. On 30 October 2017, the superior court denied Martin Marietta’s motion to dismiss. On 4 December 2017, the superior court denied Martin Marietta’s motion to dismiss for failure to state a claim under [North Carolina Rule of Civil Procedure 12\(b\)\(6\)](#).

On 20 December 2017, the superior court entered its order on petition for judicial review. The superior court noted these issues:

- I. Did the ALJ err in admitting, considering, or determining the credibility or weight of evidence?
- II. Did the ALJ err in upholding DWR’s issuance of the Permit as reasonably ensuring compliance with:
 - A. The swamp waters supplemental classification and antidegradation rule;
 - **810 B. The water quality standard for pH; and
 - C. The water quality standard for biological integrity?
- III. Did the ALJ err in holding that the Permit’s monitoring and reopener provisions further reasonably ensure compliance with state water quality standards?
- IV. Did the ALJ err in holding that Petitioners failed to prove their rights were substantially prejudiced?

The superior court entered its order in paragraph form with no numbered findings of fact and with two conclusions of law. Ultimately, the superior court concluded Petitioners were “substantially prejudiced by the issuance of the Permit and are entitled to the relief sought.” On the substantive issues regarding water quality standards, the superior court concluded that DEQ “did not ensure reasonable compliance with the biological integrity standard as set forth in 15A

N.C.A.C. 02B .211(2), 0220(2), and 0202(11)” and therefore reversed the final decision of the ALJ and vacated the Permit.

Over the course of 10 days, all parties filed written notices of appeal and cross-appeal, seeking review of the following orders:

1. 13 November 2015 order granting summary judgment to Petitioners regarding being “persons aggrieved” and denying all other matters;
2. 27 February 2017 ruling from the superior court denying Martin Marietta’s motion to dismiss and granting Petitioners’ motion for extension of time;
- *684 3. 30 October 2017 order memorializing 27 February 2017 ruling that denied Martin Marietta’s motion to dismiss and granted Petitioners’ motion for extension of time;
4. 4 December 2017 order denying Martin Marietta’s motion to dismiss, and
5. 20 December 2017 superior court order on the petition for judicial review vacating the Permit.

II. Preliminary Issues

We begin our analysis by addressing preliminary issues.

A. Martin Marietta’s Motion to Dismiss

[4] On 30 January 2017, Martin Marietta filed a motion to dismiss the petition for judicial review under [North Carolina General Statute § 150B-46](#) and [North Carolina Rule of Civil Procedure 12](#) because it was not timely served on Martin Marietta. On 30 October 2017, the superior court denied Martin Marietta’s motion to dismiss. [North Carolina General Statute § 150B-46 \(2017\)](#) provides, “Within 10 days after the petition is filed with the court, the party seeking the review shall serve copies of the petition by personal service or by certified mail upon all who were parties of record to the administrative proceedings.” According to the motion, the petition was filed on 28 December 2016, but Martin Marietta was not actually served until 17 January 2017. On 30 October 2017, the superior court denied Martin Marietta’s motion to dismiss and extended the time for service.

Martin Marietta relies upon *In re State ex rel. Employment Security Commission*, 234 N.C. 651, 68 S.E.2d 311 (1951),

arguing Petitioner's appeal must be dismissed due to late service of the notice:

There is no inherent or inalienable right of appeal from an inferior court to a Superior Court or from a Superior Court to the Supreme Court.

A fortiori, no appeal lies from an order or decision of an administrative agency of the State or from the judgments of special statutory tribunals whose proceedings are not according to the course of the common law, unless the right is granted by statute. If the right exists, it is brought into being, and is a right granted, by legislative enactment.

There can be no appeal from the decision of an administrative agency except pursuant to specific statutory provision therefor.

*685 Obviously then, the appeal must conform to the statute granting the right and regulating the procedure.

The statutory requirements are mandatory and not directory. They are conditions precedent to obtaining a review by the **811 courts and must be observed. Noncompliance therewith requires dismissal.

....

This statement of the grounds of the appeal must be *filed* within the time allowed for appeal. Its purpose is to give notice to the Commission and adverse parties of the alleged errors committed by the Commission and limit the scope of the hearing in the Superior Court to the specific questions of law raised by the errors assigned. Clearly it was intended, and must be construed, as a condition precedent to the right of appeal. Noncompliance therewith is fatal.

Id. at 653-54, 68 S.E.2d at 312 (emphasis added). Although the petition for judicial review was timely *filed*, Martin Marietta contends because Petitioners failed to serve the notice of appeal upon Martin Marietta within 10 days under North Carolina General Statute § 150B-46, the superior court never obtained subject matter jurisdiction. The superior court thus had no jurisdiction to extend the time for service, so Martin Marietta's motion to dismiss should have been allowed for lack of subject matter jurisdiction.

[5] We review a motion to dismiss for lack of subject matter jurisdiction *de novo*. See *Hardy ex rel. Hardy v. Beaufort Cty. Bd. of Educ.*, 200 N.C. App. 403, 408, 683 S.E.2d 774, 778

(2009) (“Subject matter jurisdiction is a prerequisite for the exercise of judicial authority over any case or controversy. The standard of review on a motion to dismiss under Rule 12(b)(1) for lack of subject matter jurisdiction is *de novo*. (citation omitted)”). While the file stamp is not legible on the petition for judicial review, Martin Marietta concedes that the petition was filed with the superior court on 28 December 2016, and thus within the time period established by North Carolina General Statute § 150B-45 to invoke jurisdiction from the final decision entered on 30 November 2016. See N.C. Gen. Stat. § 150B-45 (2017)³ (“To obtain judicial review of a final decision under this Article, the person seeking review must file a petition within 30 days after the person is served with a written copy of the decision.”). In *686 *NC Department of Public Safety v. Owens*, this Court held “that the superior court has the authority to grant an extension in time, for good cause shown, to a party to serve the petition beyond the ten days provided for under G.S. 150B-46.” 245 N.C. App. 230, 234, 782 S.E.2d 337, 340 (2016). Under *Owens*, the superior court had subject matter jurisdiction and properly extended the time for service and thus denied the motion to dismiss. See *id.* Because Martin Marietta raises only the issue of subject matter jurisdiction in its brief, and not the substance of the good cause shown, we end our analysis here. This argument is overruled.

B. Standing of Petitioners as “Persons Aggrieved”

[6] [7] Martin Marietta next contends that the superior court erred in determining that petitioners were substantially prejudiced by DEQ's issuance of the Permit.

At the outset, we must determine our standard of review. That standard of review will depend upon the nature of the error alleged in the petition for judicial review. If errors of law are alleged, our review is *de novo*. If the alleged error is that the final agency decision is not supported by the evidence, we employ the whole record test.

Curtis v. N.C. Dep't of Transp., 140 N.C. App. 475, 478, 537 S.E.2d 498, 501 (2000) (citations and quotation marks omitted).

North Carolina General Statute § 150B-23 provides,

(a) A contested case shall be commenced by paying a fee in an amount established in [G.S. 150B-23.2](#) and by filing a petition with the Office of Administrative Hearings and, except as provided in Article 3A of this Chapter, shall be conducted by that Office. The party who files the petition shall serve a copy of the petition on all other parties and, if the dispute concerns a license, the person who holds the license. A party who files a petition shall file a certificate ****812** of service together with the petition. A petition shall be signed by a party, an attorney representing a party, or other representative of the party as may specifically be authorized by law, and, if filed by a party other than an agency, *shall state facts tending to establish that the agency named as the respondent has deprived the petitioner of property, has ordered the petitioner to pay a fine or civil penalty, or has otherwise substantially prejudiced the petitioner's rights* and that the agency:

- *687** (1) Exceeded its authority or jurisdiction;
- (2) Acted erroneously;
- (3) Failed to use proper procedure;
- (4) Acted arbitrarily or capriciously; or
- (5) Failed to act as required by law or rule.

The parties in a contested case shall be given an opportunity for a hearing without undue delay. Any person aggrieved may commence a contested case hereunder.

[N.C. Gen. Stat. § 150B-23\(a\) \(2013\)](#) (emphasis added).⁴ Petitioners have not alleged they were deprived of property or were ordered to pay a fine or civil penalty, and thus they must show substantial prejudice. *See id.* [North Carolina General Statute § 150B-29](#) provides, “The party with the burden of proof in a contested case must establish the facts required by [G.S. 150B-23\(a\)](#) by a preponderance of the evidence.” [N.C. Gen. Stat. § 150B-29 \(2013\)](#). Thus, in this case, petitioners had to establish substantial prejudice by a preponderance of the evidence. *See* [N.C. Gen. Stat. §§ 150B-23, -29](#).

In *Empire Power Co. v. North Carolina Department of Environmental Health and Natural Resources*, our Supreme Court discussed the meaning of the term “person aggrieved” in a case with a similar context, arising from issuance of a draft air quality permit for a proposed turbine electric

generating station. [337 N.C. 569, 572, 447 S.E.2d 768, 770 \(1994\)](#). As explained in *Empire Power Co.*,

Under the NCAPA, any “person aggrieved” within the meaning of the organic statute is entitled to an administrative hearing to determine the person's rights, duties, or privileges. [N.C.G.S. § 150B-23\(a\)](#). “ ‘Person aggrieved’ means any person or group of persons of common interest directly or indirectly affected substantially in his or its person, property, or employment, by an administrative decision.” [N.C.G.S. § 150B-2\(6\)](#). Under the predecessor judicial review statute, which did not define the term, the Court gave it an expansive interpretation:

The expression “person aggrieved” has no technical meaning. What it means depends on the circumstances involved. It has been variously defined: “Adversely or injuriously affected; ***688** damnified, having a grievance, having suffered a loss or injury, or injured; also having cause for complaint. More specifically the word(s) may be employed meaning adversely affected in respect of legal rights, or suffering from an infringement or denial of legal rights.”

In re Assessment of Sales Tax, [259 N.C. \[589\] at 595, 131 S.E.2d at \[441\] 446 \[\(1963\)\]](#)(quoting *3 C.J.S. Aggrieved*, at 509 (1973)). For the following reasons, we conclude that Clark is a “person aggrieved” as defined by the NCAPA within the meaning of the organic statute.

Clark alleged that DEHNR issued the permit allowing construction and operation of air emission sources at the LCTS in violation of its statutory and regulatory duties: to act on all permit applications “so as to effectuate the [legislative] purpose ... by reducing existing air pollution and preventing, so far as reasonably possible, any increased pollution of the air from any additional or enlarged sources,” [N.C.G.S. § 143-215.108\(b\)](#); to reduce levels of ozone pollution in the Mecklenburg County area; to assess fully the impact of emissions of air pollutants from the LCTS on levels of ozone pollution in Mecklenburg County; to assess fully the impact of sulfur dioxide emissions from the LCTS; to require air pollution control technology adequate to control the emission of potentially harmful pollutants from the LCTS; and to require Duke Power to cause air quality offsets. ****813** Clark also alleged that DEHNR issued the permit in violation of its statutory duty to adequately address comments filed by Clark and other members of the public during the public comment period.

Clark further alleged that, as the owner of property immediately adjacent to and downwind of the site of the proposed LCTS—which will emit tons of harmful air pollutants if constructed and operated in accordance with its air quality permit—he and his family will suffer injury to their health, the value of their property, and the quality of life in their home and their community.

In enacting the air pollution control provisions, the General Assembly, as noted above, declared its intent

to achieve and to maintain for the citizens of the State a total environment of superior quality. *689 Recognizing that the water and air resources of the State belong to the people, the General Assembly affirm[ed] the State's ultimate responsibility for the preservation and development of these resources in the best interest of all its citizens and declare[d] the prudent utilization of these resources to be essential to the general welfare.

N.C.G.S. § 143-211. To further that intent, the General Assembly mandated that standards of water and air purity be designed, and programs implemented to achieve those standards,

to protect human health, to prevent injury to plant and animal life, to prevent damage to public and private property, to insure the continued enjoyment of the natural attractions of the State, to encourage the expansion of employment opportunities, to provide a permanent foundation for healthy industrial development and to secure for the people of North Carolina, now and in the future, the beneficial uses of these great natural resources.

Id. (emphasis added).

Clearly, Clark alleged sufficient injury in fact to interests within the zone of those to be protected and regulated by the statute, and rules and standards promulgated pursuant thereto, the substantive and procedural requirements of which he asserts the agency violated when it issued the permit. As an adjacent property owner downwind of the LCTS, Clark may be expected to suffer from whatever adverse environmental consequences the LCTS might have. In addition, a judgment in favor of Clark would substantially eliminate or redress the injury likely to be caused by the decision to permit Duke Power to build the LCTS. Clark therefore is a “person aggrieved” within the meaning and intent of the air pollution control act. See

Orange County v. Dept. of Transportation, 46 N.C. App. 350, 360–62, 265 S.E.2d 890, 898–99, *disc. rev. denied*, 301 N.C. 94 (1980) (plaintiffs were all “aggrieved,” within the meaning of the NCAPA provision, by a decision of the State Board of Transportation on the location of an interstate highway where the individual plaintiffs were property owners within *690 the proposed corridor of the highway, the members of plaintiff non-profit corporation were citizens and taxpayers who lived in or near the proposed highway corridor, plaintiff county's tax base and planning jurisdiction would be affected, and individual plaintiffs would be affected as taxpayers; further, the “procedural injury” implicit in the failure of an agency to prepare an environmental impact statement was itself a sufficient “injury in fact” to support standing as an “aggrieved party” under former N.C.G.S. § 150A-43, as long as such injury was alleged by a plaintiff having sufficient geographical nexus to the site of the challenged project that he might be expected to suffer whatever environmental consequences the project might have); *State of Tennessee v. Environmental Management Comm.*, 78 N.C. App. 763, 766–67, 338 S.E.2d 781, 783 (1986) (a consent special order issued by respondent agency to a corporation allowing it to discharge effluents into a river was issued without a hearing and by its own terms purported to take precedence over the terms of a proposed National Pollutant Discharge Elimination System permit to the corporation, so that the right of petitioner to be heard was impaired; petitioner **814 therefore qualified as an “aggrieved person” for purposes of judicial review; further, petitioner alleged that its property rights in the river were affected, and these allegations also established petitioner's “aggrieved person” status); *see generally* 2 Am. Jur. 2d *Administrative Law* §§ 443–50 (1994) (“Persons Adversely Affected or Aggrieved”).

Id. at 588-90, 447 S.E.2d at 779-81 (alterations in original) (emphasis added).

Here, similar to *Empire Power Co.* and the cases quoted within *Empire*, Petitioners alleged substantial prejudice in that the Permit was issued without compliance with applicable regulations in that Martin Marietta's “proposed discharge of 12 million gallons of mine wastewater per day into Blounts Creek would displace native fish, macroinvertebrates (insects, mollusks, crayfish, etc.) and plants[,]” and the wastewater would cause “higher flow and velocity, near neutral pH, and low tannin levels” meaning Blounts Creek would no longer qualify as swamp waters. *See generally id.*

More specifically, one of the individuals who filed an affidavit in support of Petitioners, Mr. Jimmy Daniels, averred that he was a member *691 of the Pamlico-Tar River Foundation and both his “home and business, [“Cotton Patch Landing, a boat ramp and marina,”] are right on the banks of Blounts Creek.” Mr. Daniels described in detail the biodiversity in Blounts Creek and how it draws people “from all across the state[.]” Mr. Daniels averred that he boated “a couple of times a week” and enjoyed the wildlife diversity; through Cotton Patch Landing, he sells fishing supplies, stores and maintains boats, and engages in commercial activities involving his boat ramp. Mr. Daniels also noted the hundreds of thousands of dollars he has invested into his business and stated that based on his experience with Blounts Creek, he believed Martin Marietta’s wastewater being dumped “into the headwaters” “will change the way the whole system works.” Mr. Daniels explained specifically why and how the wastewater would affect his business and personal interests and noted “word of mouth concerning the discharge” had already had a negative effect on Cotton Patch Landing when a fishing tournament previously held at Cotton Patch Landing was moved due to fears over how the wastewater would impact fishing for the tournament. Mr. Daniels noted Cotton Patch Landing lost approximately \$5,000 from the tournament move. Again, Mr. Daniels is but one of many affiants noting similar issues with the wastewater being dumped into Blounts Creek. We view the interests of Mr. Daniels and other affiants about wastewater in Blounts Creek to be similar to the complainant in *Empire Power Co.*, who alleged,

as the owner of property immediately adjacent to and downwind of the site of the proposed LCTS—which will emit tons of harmful air pollutants if constructed and operated in accordance with its air quality permit—he and his family will suffer injury to their health, the value of their property, and the quality of life in their home and their community.

Id. at 589, 447 S.E.2d at 780.

While Martin Marietta contends that Petitioner’s alleged prejudice amounts only to speculation as to the effects of the discharge of water allowed by the Permit, allegations as to potential prejudice here are no different from the allegations

of potential air pollution in *Empire Power Co.*, as the actual effects cannot be known for certain until the discharge occurs. *See generally id.*, 337 N.C. 569, 447 S.E.2d 768. In addition, this Court has clarified that in a challenge based upon an alleged failure of an agency or department of the State to follow its own guidelines, the prejudice standard differs from that in other types of civil cases. *See, e.g.,* *692 *N.C. Forestry Ass’n v. N.C. Dep’t of Env’t & Natural Res., Div. of Water Quality*, 357 N.C. 640, 644, 588 S.E.2d 880, 882–83 (2003) (“In general, individuals adversely affected by a discretionary agency decision generally have standing to complain that the agency based its decision upon an improper legal ground.” (citation and quotation marks omitted)). Otherwise the burden of showing substantial prejudice would be “nearly impossible”:

Because the substance of those policies required the Department to consider a number of discretionary factors, however, we pointed out that a showing of prejudice **815 would be “nearly impossible” for the petitioner to achieve. Specifically, we observed that

to show prejudice from failure to follow policy, the petitioner would have to show, not only how he stood in relation to other employees in the same class as to type of appointment, length of service, and work performance, but he would have to show the weight which the Department would attribute to each of those factors. The Commission and the reviewing court would be relegated to speculating how the Department would weigh each factor.

Therefore, we held that it was sufficient to show prejudice for the petitioner to establish that the Department failed to follow the mandatory policies of the Commission, which had been promulgated pursuant to statutory authority. A separate showing of prejudice was unnecessary in that circumstance.

Surgical Care Affiliates, LLC v. N.C. Dep’t of Health & Human Servs., 235 N.C. App. 620, 627, 762 S.E.2d 468, 473 (2014) (citations and brackets omitted).

[8] Here, Petitioners alleged that the Division of Water Resources violated its own applicable regulations by issuing the Permit to Martin Marietta which authorized “the discharge of 12 million gallons of mine wastewater into tributaries of Blounts Creek each day.” Petitioners have alleged DEQ failed to follow its own policies in issuing the Permit and that the discharge of wastewater into Blounts Creek, if done in a

manner not in compliance with the applicable regulations, would damage the water quality, the fish and other biota in Blounts Creek, and the personal and commercial benefits derived from Blounts Creek. Petitioners are “within the zone of those to be protected and regulated by the statute, and rules and standards promulgated pursuant thereto, the substantive and procedural requirements of which he asserts the *693 agency violated when it issued the permit.” *Empire Power Co.*, 337 N.C. at 589, 447 S.E.2d at 780. The superior court did not err in concluding Petitioners demonstrated their rights were substantially prejudiced and thus they are “person[s] aggrieved[.]” *Id.* at 590, 447 S.E.2d at 780, 337 N.C. 569. This argument is overruled.⁵

III. Substantive Issues regarding Permit

We now turn to the substantive issues regarding issuance of the Permit.

A. Standard of Review

[9] Petitioners raised three arguments regarding DEQ's failure to ensure compliance with applicable water quality standards. The superior court determined that the ALJ's order was in error only as to the findings and conclusion regarding that DEQ ensured “reasonable compliance with the biological integrity standard as set forth in 15A N.C.A.C. 02B .211(2), 0220(2), and 0202(11)[,]” and DEQ and Martin Marietta appeal this determination. The superior court affirmed the ALJ's findings and conclusions regarding the other standards – swamp waters **816 and pH standards– and Petitioners cross-appealed these determinations. We will therefore address the arguments as to each substantive issue in the order as addressed by the superior court.

The North Carolina Administrative Procedure Act (APA), codified at Chapter 150B of the General Statutes, governs trial and appellate court review of administrative agency decisions. The APA provides a party aggrieved by a *694 final decision in a contested case a right to judicial review by the superior court. *N.C. Gen. Stat. §§ 150B–43 and –50* (2017). A party to the review proceeding in superior court may then appeal from

the superior court's final judgment to the appellate division. *N.C. Gen. Stat. § 150B–52* (2017). The APA sets forth the scope and standard of review for each court.

EnvironmentalLEE v. Dept of Environment, 258 N.C. App. 590, 595, 813 S.E.2d 673, 677 (2018).

When a superior court exercises judicial review over an agency's final decision, it acts in the capacity of an appellate court. The APA limits the scope of the superior court's judicial review as follows:

- (b) The court reviewing a final decision may affirm the decision or remand the case for further proceedings. It may also reverse or modify the decision if the substantial rights of the petitioners may have been prejudiced because the findings, inferences, conclusions, or decisions are:
 - (1) In violation of constitutional provisions;
 - (2) In excess of the statutory authority or jurisdiction of the agency or administrative law judge;
 - (3) Made upon unlawful procedure;
 - (4) Affected by other error of law;
 - (5) Unsupported by substantial evidence admissible under *G.S. 150B-29(a)*, *150B-30*, or *150B-31* in view of the entire record as submitted; or
 - (6) Arbitrary, capricious, or an abuse of discretion.

N.C. Gen. Stat. § 150B-51 (2017). The superior court's standard of review is dictated by the nature of the errors asserted. The APA sets forth the standard of review to be applied by the superior court as follows.

- (c) In reviewing a final decision in a contested case, the court shall determine whether the petitioner is entitled to the relief sought in the petition based upon its review of the final decision and the official record. With regard to asserted errors pursuant to subdivisions (1) through (4) of subsection (b) of this section, the court shall conduct its review of the final decision *695 using the de novo standard of review. With regard to asserted errors pursuant to subdivisions (5) and (6) of subsection (b) of

this section, the court shall conduct its review of the final decision using the whole record standard of review.

N.C. Gen. Stat. § 150B–51(c).

Id. at 595-96, 813 S.E.2d at 677–78 (citations, quotation marks, and brackets omitted).

Our Supreme Court has observed that the first four grounds enumerated under this section may be characterized as law-based inquiries, whereas the final two grounds may be characterized as fact-based inquiries. Moreover, it is well settled that in cases appealed from administrative tribunals, questions of law receive *de novo* review, whereas fact-intensive issues such as the sufficiency of the evidence to support an ALJ's decision are reviewed under the whole record test.

Under the *de novo* standard of review, the Court considers the matter anew and freely substitutes its own judgment. However, our Supreme Court has made clear that even under our *de novo* standard, a court reviewing a question of law in a contested case is without authority to make new findings of fact. Under the whole record test, the reviewing court may not substitute its judgment for the ALJ's as between two conflicting views, even though it could reasonably have reached a different result had it reviewed the matter *de novo*. Instead, we must examine all the record evidence—that which detracts from the ALJ's findings and conclusions as well **817 as that which tends to support them—to determine whether there is substantial evidence to justify the ALJ's decision. Substantial evidence is relevant evidence a reasonable mind might accept as adequate to support a conclusion. We undertake this review with a high degree of deference because it is well established that

in an administrative proceeding, it is the prerogative and duty of the ALJ, once all the evidence has been presented and considered, to determine the weight and sufficiency of the evidence and the credibility of the witnesses, to draw inferences from the facts, and to appraise conflicting and *696 circumstantial evidence. The credibility of witnesses and the probative value of particular testimony are for the ALJ to determine, and the ALJ may accept or reject in whole or part the testimony of any witness.

N. Carolina Dep't of Pub. Safety v. Ledford, 247 N.C. App. 266, 286–87, 786 S.E.2d 50, 63–64 (2016) (citations, quotation marks, and brackets omitted).

[10] This Court reviews the superior court's order to determine if the superior court applied the correct standard of review based upon the “grounds for reversal or modification” argued before the superior court. *EnvironmentaLEE*, 258 N.C. App. at 598, 813 S.E.2d at 678-79.

[I]n reviewing a superior court order examining an agency decision, an appellate court must determine whether the agency decision (1) violated constitutional provisions; (2) was in excess of the statutory authority or jurisdiction of the agency; (3) was made upon unlawful procedure; (4) was affected by other error of law; (5) was unsupported by substantial admissible evidence in view of the entire record; or (6) was arbitrary, capricious, or an abuse of discretion. N.C. Gen. Stat. § 150B–51 (2001). In performing this task, the appellate court need only consider those grounds for reversal or modification raised by the petitioner before the superior court and properly assigned as error and argued on appeal to this Court.

Id.

B. Applicable Regulations and Definitions

North Carolina General Statute § 143-214.1 directs the North Carolina Environmental Management Commission to classify all bodies of water⁶ in the state and to adopt standards for each classification. See N.C. Gen. Stat. § 143-214.1 (2013), see also N.C. Gen. Stat. § 143-212 (2013). One body of water may include areas with different primary classifications and supplemental classifications, depending upon “the *697 existing or contemplated best usage of the various streams and segments of streams in the basin, as determined through studies and evaluations and the holding of public hearings for consideration of the classifications proposed.” 15A N.C.A.C. 2B.0301 (2013). The water quality standards applicable to a body of water are determined by the classification. See generally 15A N.C.A.C. 2B.0301 (2013). The primary classification of the portion of Blounts Creek at

issue is Class C along with supplemental classifications of Sw (“swamp waters”) and NSW (“nutrient sensitive waters”). See generally 15A N.C.A.C. 2B.0101, .0301 (2013).

Class C classification is appropriate for “freshwaters protected for secondary recreation, fishing, aquatic life including propagation and survival, and wildlife. All freshwaters shall be classified to protect these uses at a minimum.” 15A N.C.A.C. 2B.0101 (2013). Sw classification applies to “waters which have low velocities and other natural characteristics which are different from adjacent streams.” *Id.* NSW classification applies to “waters subject to growths of microscopic or macroscopic vegetation required limitations on nutrient inputs.” *Id.* More specifically, as to supplemental classifications, Sw is defined to “mean those waters which are classified by the Environmental Management Commission and which are topographically located so as ***818** to generally have very low velocities and other characteristics which are different from adjacent streams draining steeper topography.” 15A N.C.A.C. 2B.0202. NSW is defined to “mean those waters which are so designated in the classification schedule in order to limit the discharge of nutrients (usually nitrogen and phosphorus).” *Id.*

As for the broader classification of Class C, those water quality standards are provided in 15A N.C.A.C. 2B.0211, entitled “FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS C WATERS[.]” See 15A N.C.A.C. 2B.0211. For Class C waters, pH “shall be normal for the waters in the area, which range between 6.0 and 9.0 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions[.]” *Id.* The “Best Usage” of Class C waters is “aquatic life propagation and maintenance of biological integrity (including fishing and fish), wildlife, secondary recreation, agriculture, and any other usage except for primary recreation or as a source of water supply for drinking, culinary, or food processing purposes[.]” *Id.* “Conditions Related to Best Usage” note “the waters shall be suitable for aquatic life propagation and maintenance of biological integrity, wildlife, secondary recreation, and agriculture. Sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard.” *Id.*

***698** C. Biological Integrity

[11] The trial court reversed the portion of the ALJ’s final decision regarding DEQ’s compliance with the biological integrity standards. Martin Marietta contends the superior

court “Failed To Defer to DWR, Misinterpreted the Biological Integrity Standard, and Improperly Found Facts[.]” In other words, respondents argue the trial court made an error of law by misinterpreting the requirements of the applicable regulations as to “biological integrity;” misunderstood the science behind the applicable regulations; and failed to use the proper standard of review in addressing the issues before it. Martin Marietta specifically contends,

The Superior Court failed to defer to DWR as it is required to do, misunderstood the permitting rules and what DWR did, and reversed the ALJ’s holding on biological integrity under the following erroneous analysis: (1) “DWR must protect the indigenous community”; (2) the “plain language” of the standard establishes “base line metrics” that must be “determined” or “measured” to apply the standard properly; and (3) without “determining the base line metrics,” DWR “could not ensure reasonable compliance” [*sic*] with the standard.

(Ellipses omitted.)

[12] Petitioners argue the superior court correctly interpreted the biological integrity standard:

The issue before the Court is one of law: does the biological integrity standard require DWR to measure the terms in the rule and to protect the indigenous community of fish, insects, and other animals that live in Blounts Creek? The Superior Court recognized that under the lawful interpretation of the rule, DWR must measure the terms in the standard and establish specific reference conditions before issuing a permit.

As the interpretation of the biological integrity standard applied by the superior court is an issue of law, we review this determination *de novo*. *N. Carolina Dep’t of Pub. Safety*, 247 N.C. App. at 286, 786 S.E.2d at 63.

This issue requires consideration of how DEQ measures and evaluates “biological integrity” as part of its general duties in protecting water quality and in the context of issuance of a Permit. The ALJ made ***699** extensive findings of fact and

conclusions of law on this issue,⁷ many of which Petitioners challenge:

****819** 44. Petitioners claim that, in issuing the NPDES Permit, DWR failed to reasonably ensure compliance with the biological integrity standard.

45. Under applicable North Carolina rules, one of the existing uses of all classified surface waters is “maintenance of biological integrity.” See [15A NCAC 02B .0211\(1\) \(2013\) \(freshwater\)](#), and [02B .0220\(1\) \(2013\) \(saltwater\)](#).

46. The term “biological integrity” is defined in [15A NCAC 02B .0202\(11\)](#) as follows: “the ability of an aquatic ecosystem to support and maintain a balanced and indigenous community of organisms having species composition, diversity, population densities and functional organization similar to that of reference conditions.”

47. The biological integrity standards applicable to upper and lower Blounts Creek state:

the waters shall be suitable for aquatic life propagation and maintenance of biological integrity Sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard

[15A NCAC 02B .0211\(2\) \(2013\)](#) (freshwater standard). See also [15A NCAC 02B .0220\(2\) \(2013\)](#) (same standard for saltwater).

48. DWR interprets the applicable rules and definitions to mean that an NPDES permit complies with the biological integrity standard if the permit's terms and conditions reasonably ensure that the permitted discharge will not ***700** preclude maintenance of the ability of an aquatic ecosystem to support and maintain a balanced and indigenous community of organisms having species composition, diversity, population densities and functional organization similar to that of reference conditions.

49. The biological integrity standard is administered by DWR and relates to a highly technical and scientific subject area within DWR's expertise.

50. As required by North Carolina case law and the APA, the undersigned accords deference and gives due regard to DWR's interpretation of its own rules.

51. Even if the undersigned were not required to defer to DWR's interpretation of the biological integrity standard rules, the undersigned finds that DWR's interpretation is longstanding, is reasonable, and is consistent with and supported by the plain language of the rules, and therefore the undersigned will decide Petitioners' biological integrity claim based on DWR's interpretation of the rules.

52. The preponderance of the evidence shows that, in evaluating and determining whether the NPDES Permit reasonably ensures compliance with the biological integrity standard, DWR (through its staff) applied its knowledge and expertise, and:

a. identified the Blounts Creek system, meaning Blounts Creek and its tributaries, as the appropriate “aquatic ecosystem”;

b. determined that the appropriate “reference conditions” were the existing conditions of the Blounts Creek system before the proposed discharge;

c. studied and assessed the existing, pre-discharge ecological resources of the Blounts Creek system;

d. determined the degree and geographic scope of potential physical and chemical impacts of the proposed discharge;

e. determined the predicted changes to the ecosystem and ecological resources from the proposed discharge to be limited; and

f. concluded that the effects predicted to occur as a result of the permitted discharge would not violate ***701** the standard, and, in fact, a violation would not occur unless the impacts to the Blounts Creek aquatic ecosystem were much greater in degree and geographic scope than those predicted to occur.

****820** 53. Petitioners' arguments that DWR misinterpreted and misapplied key aspects of the biological integrity standard and understated the effects of the permitted discharge present questions of law and fact, and mixed questions of law and fact. Petitioners' arguments have been thoroughly considered and rejected by the undersigned as unpersuasive and unsupported by the preponderance of evidence.

“Aquatic Ecosystem”

54. Petitioners have asserted that the relevant “aquatic ecosystem” should be defined more narrowly and that DWR must use a single stream segment as the ecosystem unit for assessing compliance. See Petition at 3.

55. The term “aquatic ecosystem” is not defined by North Carolina statute or rule.

56. The determination and application of “aquatic ecosystem” in a specific context is complex and requires significant scientific expertise and judgment, and should be accorded deference. See *County of Durham v. N.C. Dept. of Environment and Natural Resources*, 131 N.C. App. [395] at 396-97, 507 S.E.2d [310] at 311 (1998), disc. rev. denied, 350 N.C. 92, 528 S.E.2d 361 (1999).

57. DWR's interpretation and application of this term are reasonable, rational, and in accordance with the language and purpose of the biological integrity standard.

58. To the extent DWR's selection of an appropriate aquatic ecosystem is considered a factual determination, it is one which falls directly within the agency's expertise and is therefore entitled to “due regard” pursuant to the APA.

“Reference Conditions”

59. Petitioners have asserted that DWR failed to conduct a biological integrity analysis by inadequately sampling for “species composition, diversity, population densities and functional organization” throughout the Blounts Creek aquatic ecosystem.

***702** 60. The determination and application of “reference conditions” in a specific context is complex and requires significant scientific expertise and judgment, and should be accorded deference.

61. DWR's interpretation and application of this term are reasonable, rational, and in accordance with the language and purpose of the biological integrity standard.

62. To the extent DWR's selection of appropriate “reference conditions” is considered a factual determination, it is one which falls directly within the agency's expertise and is therefore entitled to “due regard” pursuant to the APA.

63. The preponderance of the evidence shows that Blounts Creek aquatic ecosystem's existing conditions (“reference conditions”) are dynamic, vary over time and geographic

location, and can be affected by many environmental factors.

64. The preponderance of the evidence shows that DWR had sufficient information such that the biological sampling efforts Petitioners sought were unnecessary.

65. Before issuing the Permit, DWR determined that: (a) the proposed discharge likely would not cause significant erosion or sedimentation; (b) pH likely would not exceed 6.9 in the upper Blounts Creek and was unlikely to change significantly in lower Blounts Creek; (c) relative salinity impacts would likely be on the order of 1 ppt and salinities would remain within the variability of the system; (d) shifts in macrobenthic invertebrates would likely be toward an increase in diversity and would be geographically limited to the upper reaches of Blounts Creek; and (e) the proposed discharge is not likely to adversely impact fish communities of the Blounts Creek aquatic ecosystem. These determinations by DWR are reasonable and supported by the preponderance of the evidence.

66. DWR determined that the likely effects of the permitted discharge are limited in degree, limited in geographic scope, and not deleterious.

67. The preponderance of the evidence supports DWR's conclusion and shows that the permitted discharge will not have any significant detrimental effect on the ***703** Blounts Creek aquatic ecosystem, including the many miles of C and Sw stream segments of other tributaries of Blounts Creek.

Impacts of the Proposed Discharge

****821** 68. Petitioners argued that DWR underestimated or understated the effects the proposed discharge will likely have on the Blounts Creek aquatic ecosystem, including effects on flow, pH, salinity, benthos, fish, and the existing biological community of Blounts Creek.

69. DWR's findings and inferences regarding the predicted effects of the proposed discharge fall within “specialized knowledge of the agency.” As such, the undersigned is required to give such facts and inferences “due regard” pursuant to the APA. *N.C. Gen. Stat. § 150B-34(a)*.

70. The preponderance of the evidence demonstrates that DWR applied its knowledge and expertise in its collection and review of the data and reports obtained during the

permitting process, and drew reasonable inferences and conclusions based on those data and reports.

71. The preponderance of the evidence demonstrates that DWR reasonably evaluated and adopted the findings of the Kimley Horn reports (Exs. R13, R15) and the CZR report (Ex. R16) after satisfying itself of the reliability of these studies.

72. The preponderance of the evidence demonstrates that: (a) DWR applied its discretion and expertise in its review of the comments it received from the public (including Petitioners[]), EPA, and other state agencies during the permitting process; and (b) the substantive comments were considered and accounted for by DWR based on DWR's expertise, judgment, and rational evaluation of the comments and other evidence.

73. To the extent Petitioners contend that DWR acted arbitrarily and capriciously in its evaluation of the evidence, its gathering and evaluation of relevant data and information, its interpretation and application of the biological integrity standard, and its conclusion that the NPDES Permit reasonably ensures compliance with the biological integrity ***704** standard, Petitioners failed to present any evidence that DWR acted “whimsically” or in “bad faith.”

74. The undersigned finds that DWR's evaluation of the NPDES permit application, reports and data submitted during the permit process, the data independently collected by DWR, and the comments received from the public, state agencies and EPA was reasonable, rational, thorough, supported by a preponderance of the evidence in the record, and undertaken in good faith.

75. The undersigned finds the evidence and expert opinion testimony as well as the lay opinion testimony, even if admitted, presented by Petitioners, does not overcome DWR's determinations, with respect to the likely impacts and effects of the permitted discharge, which were thoroughly evaluated based on DWR's knowledge, expertise, and judgment, and well-supported by a preponderance of the evidence.

76. The undersigned has considered all of the evidence of potential impacts presented by Petitioners and their experts, and finds, based on a preponderance of the evidence, that Petitioners' evidence either does not contradict DWR's determinations or is not persuasive and not sufficient to overcome the data, studies, and other information

reasonably considered and relied on by DWR in evaluating compliance with the biological integrity standard.

77. Petitioners failed to present evidence sufficient to overcome the presumption that DWR acted appropriately in determining the NPDES Permit reasonably ensures compliance with the biological integrity standard.

78. The preponderance of the evidence demonstrates that DWR:

a. reasonably interpreted the biological integrity standard;

b. reasonably and rationally applied the biological integrity standard to the relevant information and facts regarding the proposed discharge;

c. reasonably determined that, although certain changes are predicted to occur as a result of the proposed discharge, the predicted effects would not ***705** preclude the ability of the relevant aquatic ecosystem to support and maintain a balanced and indigenous community of organisms having species composition, diversity, population densities and functional ****822** organization similar to that of reference conditions; and

d. reasonably and rationally determined that the NPDES Permit reasonably ensures compliance with the biological integrity standard.

79. Petitioners failed to meet their burden of proving by a preponderance of the evidence that DWR exceeded its authority or jurisdiction, acted erroneously, failed to use proper procedure, acted arbitrarily or capriciously, or failed to act as required by law or rule in determining the NPDES Permit reasonably ensures compliance with the biological integrity water quality standard. See 15A NCAC 02B. 0202(11), 15A NCAC 02B .0211(2) (2013), and 15A NCAC 02B .0220(2) (2013).

80. DWR's decision that the NPDES Permit reasonably ensures compliance with the biological integrity water quality standard is affirmed.

The superior court did not determine that any of the findings of fact made by the ALJ were unsupported by the record, but instead determined on *de novo* review that DWR's interpretation of the “biological integrity standard rules and related definitions” was not reasonable and was “contrary to the language of the standard and definitions.” The superior

court rejected both DEQ's and the ALJ's interpretation of the biological integrity standard, and Martin Marietta and DEQ challenge this conclusion on appeal as reflected in their arguments that the superior court “Failed To Defer to DWR, Misinterpreted the Biological Integrity Standard, and Improperly Found Facts[.]”⁸”

Class C waters must be “suitable for aquatic life propagation and maintenance of biological integrity” among other uses. [15A NCAC 02B.0211\(2\)](#) The term “Biological Integrity” is defined by [15A NCAC 02B.202\(11\)](#) as “the ability of an aquatic ecosystem to support and maintain a balanced and indigenous community of organisms *706 having species composition, diversity, population densities and functional organization similar to that of reference conditions”.

The rules do not define the terms “species composition”, “diversity”, “population densities” or “functional organization”. Dr. Overton was offered and accepted by the AU as an expert in the field of fisheries ecology, larval fish ecology, fisheries management, and fish sampling methods and analysis. He testified that species composition counts the number of species in a system. Species diversity counts the number species present and the relative abundance of each species. Population density describes how many individuals are in a defined area and functional organization describes the organization of biological community.

Tom Reeder with DWR testified that he did not know if there was such a thing as a biological integrity analysis; that he had never really heard of such a thing. He further testified that no statutes or rules set forth numeric standards or explicit methods or metrics by which DWR must make a determination that a NPDES permit reasonably ensures compliance with the biological integrity standard. Rather, the standard requires DWR to exercise its discretion, expertise and professional judgment to determine whether the anticipated impacts of a proposed discharge are such that the discharge will preclude the ability of an “aquatic ecosystem” to support and maintain a balanced and indigenous community of organisms having species composition, diversity, population densities, and functional organization “similar” to that of “reference conditions”. DWR staff conceded that the agency did not evaluate species composition, diversity, population density, or functional organization in Blounts Creek. Mr. Reeder justified the failure to evaluate these metrics by saying that he considered the impact of the permitted discharge to be

de minimus. In essence the agency reached the ultimate conclusion that the impact of the permitted discharge was *de minimus* first, without evaluating species composition, diversity, population density, and functional organization, **823 and then used the ultimate conclusion to conclude that evaluation of the metrics was unnecessary.

*707 With respect to questions of law, the reviewing court employs a *de novo* review. When applying *de novo* review, the Court may freely substitute its judgment for that of the agency. [In re Appeal of N. C. Sav. & Loan League](#), 302 N. C. 458 [276 S.E.2d 404] (1981) Incorrect statutory interpretation is an error of law which allows the court to apply a *de novo* review. [Brooks v. Rebarco](#), 91 N.C. App. 459 [372 S.E.2d 342] (1988) However even when reviewing a case *de novo* courts recognize the longstanding tradition of according deference to an agency's interpretation of its rules. A reviewing Court should defer to agency's interpretation of a statutes or rules it administers so long as the agency interpretation is reasonable and based upon a permissible construction of the statute or rule. [County of Durham v. N.C. Dep't of Env't and Natural Res.](#), 131 N.C. App. 395 [507 S.E.2d 310] (1998). Interpretations that conflict with the clear intent and purpose of the law are entitled to no deference. [Burgess v. Your House of Raleigh, Inc.](#), 326 N.C. 205 [388 S.E.2d 134] (1990) An agency's interpretation of its own regulations will be in enforced unless clearly erroneous or inconsistent with the regulation's plain language. [WASCO LLC. V. N.C. Dep't of Env't & Natural Res.](#) [253 N.C.App. 222], 799 S.E. 2nd 405 (2017)

The terms “species composition, diversity, populations densities, and functional organization” used in the biological integrity standard must be given meaning. [Kyle v. Holston Group](#), 188 N.C. App. 686 [656 S.E.2d 667] (2008) The standard requires DWR to maintain the indigenous biological community by insuring that the post discharge “species composition, diversity, population densities, and functional organization are similar to that of reference conditions” determined before the discharge is permitted. The rule is clear that referenced conditions must be evaluated on the basis of and as defined in those terms. Yet the DWR staff conceded that they did not measure any of the biological integrity metrics in Blounts Creek when evaluating the permit's compliance with the standard. Thus, DWR failed to determine the base line metrics required by [15A NCAC 02B.0202\(11\)](#) and could not, therefore, ensure reasonable compliance with the biological integrity standard.

The Biological integrity standard is clear; DWR must protect the indigenous community by determining reference conditions in terms of an evaluated impacts on the *708 community's species composition, diversity, population density and functional organization. Reference conditions must be specific enough to allow the agency to apply the biological integrity standard properly. DWR failed to apply the plain language of the biological integrity standard. Therefore DWR did not “reasonably ensure compliance with” the biological integrity standard. Consequently the agency exceeded its authority and erred as a matter of law when issuing the permit. Based upon a *de novo* review of the biological integrity standard rules and related definitions the Court concludes that DWR's interpretation of the rule is not reasonable and is contrary to the language of the standard and definitions.

Conclusions of law 51 through 53, 61, 62, 64 through 67,70, 75, 77 through 80, 110 through 112 are reversed.⁹

Ultimately, the superior court determined, contrary to the ALJ's conclusion, that DEQ's interpretation of the biological integrity standard was not reasonable and was contrary to the language of the standard and definitions. The superior court did *not* determine that the ALJ's findings of fact were unsupported by substantial evidence but instead found legal error as to the meaning and application of the biological integrity standard. The primary difference between the ALJ's order and the superior court's order is its determination of the “clear” meaning of the biological integrity standard and its resulting determination not to defer to agency expertise.

Again, the superior court concluded that

****824** [t]he Biological integrity standard is clear; DWR must protect the indigenous community by determining reference conditions in terms of an evaluated impacts on the community's species composition, diversity, population density and functional organization. Reference conditions must be specific enough to allow the agency to apply the biological integrity standard properly. DWR failed to apply the plain

language of the biological integrity standard.

But as the superior court notes, many of the operative words in the applicable regulations are not defined. Despite the superior court's *709 conclusion that “the Biological integrity standard is clear[,]” it could be *clear* only to the extent the operative terms in the standard are defined. However, the superior court applied “clear” definitions where the regulations simply do not provide definitions. The superior court defined the biological integrity standard to mean that “DWR must protect the indigenous community by determining reference conditions in terms of an evaluated impacts on the community's species composition, diversity, population density and functional organization.” But this is not the standard as defined by the applicable regulations. Again, classification is determined by “the existing *or* contemplated best usage of the various streams and segments of streams in the basin, as determined through studies and evaluations and the holding of public hearings for consideration of the classifications proposed.” [15A N.C.A.C. 2B.0301 \(2013\)](#) (emphasis added). The North Carolina Administrative Code (“Code”) contemplates the existing state of the water *or* its possible best usage. *See id.* The “Best Usage” of Class C waters is “aquatic life propagation and maintenance of biological integrity (including fishing and fish), wildlife, secondary recreation, agriculture, and any other usage except for primary recreation or as a source of water supply for drinking, culinary, or food processing purposes[.]” [15A N.C.A.C. 2B.0211](#). “Conditions Related to Best Usage” note “the waters shall be suitable for aquatic life propagation and maintenance of biological integrity, wildlife, secondary recreation, and agriculture. Sources of water pollution which *preclude* any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard.” *Id.* (emphasis added).

[13] The Code does not require the biological integrity of an aquatic ecosystem to remain exactly or even substantially the same as it had once been, for example, prior to discharge. *See generally* [15A N.C.A.C. 2B.0301](#). To violate a water quality standard, the discharge of water must “*preclude* any of these uses on either a short-term or long-term basis[.]” [15A N.C.A.C. 2B.0211](#). “Preclude” is not defined in the statute, but its ordinary meaning is to “close” and “to make impossible by necessary consequence: rule out in advance[.]” Merriam-Webster's Collegiate Dictionary 977 (11th ed. 2003). In other words, to violate a water quality standard the discharge of

water must make “aquatic life propagation and maintenance of biological integrity, wildlife, secondary recreation, and agriculture” nearly impossible. [15A N.C.A.C. 2B.0211](#); see generally Merriam-Webster's Collegiate Dictionary 977.

Further, the superior court did not reverse the ALJ's findings of fact as to DEQ's expertise applying the regulations which ultimately led to ***710** the contested conclusion by the ALJ that DEQ had complied with the biological integrity standard:

131. Mr. Reeder testified that with the assistance of DWR staff, he used his best professional judgment, experience and expertise to determine that the appropriate “aquatic ecosystem” was the watershed system of Blounts Creek and its tributaries. (Reeder, Tr. Vol. 7 pp. 1149-1150)

132. Mr. Reeder considered “reference conditions” to be the existing conditions in the Blounts Creek aquatic ecosystem without the proposed discharge. (Reeder, Tr. Vol. 7 pp. 1142-1144, 1149-1150; Reeder, Tr. Vol. 4 pp. 662-663; Fleek, Tr. Vol. 6 pp. 992-993)

....

136. Mr. Reeder took into consideration and weighed Mr. Fleek's opinions regarding the effects of the proposed discharge on benthos in the upper reaches immediately downstream of the proposed discharge outfalls. (Reeder, Tr. Vol. 4 pp. 660-661)

****825** 137. Mr. Reeder understood Mr. Fleek's professional opinion to be that benthic macroinvertebrates would likely become more diverse near the discharge outfalls and that farther downstream any such impacts would lessen or dissipate. (Reeder, Tr. Vol. 4 pp. 660-661)

138. Mr. Reeder also understood that the many other tributaries of the Blounts Creek aquatic ecosystem, and the biota inhabiting those areas, would be unaffected by the permitted discharge. (Reeder, Tr. Vol. 7 pp. 1142-1151, 1162-1165, 1172; Reeder, Tr. Vol. 4 pp. 658-671; Ex. R23; Ex. R1; Ex. R16)

Despite these findings of fact, Petitioners argued, and the Superior Court found, that DEQ's interpretation of the regulations and process for evaluation of the impact of the proposed discharge were not “reasonable” and thus not subject to deference.

One of respondents' main contentions before this Court is that the superior court failed to apply the correct legal standard

in deferring to DEQ as to the interpretation and application of the biological integrity standards. The superior court determined “DWR failed to determine the base line metrics required by [15A NCAC 02B.0202\(11\)](#) and could not, ***711** therefore, ensure reasonable compliance with the biological integrity standard,” but, according to Mr. Reeder, “no statutes or rules set forth numeric standards or explicit methods or metrics by which DWR must make a determination that a NPDES permit reasonably ensures compliance with the biological integrity standard.” As DEQ explains,

the Superior Court's “plain language” interpretation is not based on the plain language of applicable regulations at all. By stepping outside the plain language of the regulations and dictating what information the agency's biologists and engineers must consider when evaluating compliance with a technical environmental standard, the Superior Court improperly substituted its judgment for that of the agency ... [, and]

....

As a pure question of regulatory interpretation, the Superior Court's “plain language” reading is flatly incorrect. The “plain language” of the standard says nothing about what process the agency must go through or what information the agency must collect to reasonably ensure compliance with the standard. Rather, the regulations leave this determination to the “reasonabl[e]” discretion of DWR's environmental scientists to be evaluated on a case-by-case basis. [15A NCAC 2H.0112\(c\)](#).

The superior court considered a few lines of testimony of Mr. Reeder, “Tom Reeder with DWR testified that he did not know if there was such a thing as a biological integrity analysis; that he had never really heard of such a thing.” But this interpretation takes the testimony out of context and is not supported by the whole record as noted by the next sentence in the order noting he further testified accurately “that no statutes or rules set forth numeric standards or explicit methods or metrics by which DWR must make a determination that a NPDES permit reasonably ensures compliance with the biological integrity standard.” In fact, the superior court did not determine that the ALJ's findings regarding DEQ's investigation of the expected effects of the water discharge on biological integrity were not supported by the whole record, but relied upon this statement by Mr. Reeder along with an erroneous definition of “biological integrity” to conclude that

DWR staff conceded that the agency did not evaluate species composition, diversity, population density, or functional organization in Blounts Creek. Mr. Reeder justified the failure to evaluate these metrics by saying that he *712 considered the impact of the permitted discharge to be *de minimus*. In essence the agency reached the ultimate conclusion that the impact of the permitted discharge was *de minimus* first, without evaluating species composition, diversity, population density, and functional organization, and then used the ultimate conclusion to conclude that evaluation of the metrics was unnecessary.

[14] But DEQ certainly did not “concede[]” that it “did not evaluate species composition, diversity, population density, or functional organization[]” despite the portions of Mr. Reeder’s testimony the superior **826 court and Petitioners take out of context. DEQ simply did not perform evaluations to *Petitioners’* desired specifications, but this is vastly different from failing to evaluate at all. The question for the superior court, and for this Court, is not whether DEQ could have done more or different testing or analysis or whether the ALJ could have found different facts. The questions before us are whether the ALJ’s findings of fact are supported by the whole record; *N. Carolina Dep’t of Pub. Safety*, 247 N.C. App. at 286, 786 S.E.2d at 64; whether DEQ evaluated the Permit application in accord with the applicable regulations; and whether DEQ’s interpretation of those regulations was reasonable. See *Hilliard v. N.C. Dep’t of Corr.*, 173 N.C. App. 594, 598, 620 S.E.2d 14, 17 (2005) (“On judicial review, an agency’s interpretation of its own regulations will be enforced unless clearly erroneous or inconsistent with the regulation’s plain language.”); see generally *N. Carolina Dep’t of Pub. Safety v. Ledford*, 247 N.C. App. 266, 286–87, 786 S.E.2d 50, 63–64 (2016) (“[O]ur Supreme Court has made clear that *even under our de novo standard, a court reviewing a question of law in a contested case is without authority to make new findings of fact. Under the whole record test, the reviewing court may not substitute its judgment for the ALJ’s as between two conflicting views,*

even though it could reasonably have reached a different result had it reviewed the matter *de novo*. Instead, we must examine all the record evidence—that which detracts from the ALJ’s findings and conclusions as well as that which tends to support them—to determine whether there is substantial evidence to justify the ALJ’s decision. Substantial evidence is relevant evidence a reasonable mind might accept as adequate to support a conclusion. *We undertake this review with a high degree of deference* because it is well established that in an administrative proceeding, it is the prerogative and duty of the ALJ, once all the evidence has been presented and considered, to determine the weight and sufficiency of the evidence and the credibility of the witnesses, to draw inferences from the facts, and to appraise conflicting and circumstantial evidence. *The credibility of witnesses *713 and the probative value of particular testimony are for the ALJ to determine, and the ALJ may accept or reject in whole or part the testimony of any witness.*” (emphasis added)).

The whole record supports the ALJ’s findings that DEQ evaluated species composition, diversity, population density, and functional organization in accord with its established procedures and expertise. Mr. Reeder was “the acting director of the Division of Water Quality and the director of the Division of Water Resources” when the Permit was approved; eventually the two divisions were merged. Mr. Reeder approved the Permit, but he was by no means the only employee of DEQ involved in the consideration of the Permit. Many employees of DEQ, as well as consultants including CZR Incorporated (“CZR”) and Kimley-Horn and Associates (“Kimley Horn”), performed the actual sampling and analysis of water quality, fish, and benthos in Blounts Creek. Mr. Reeder testified at length regarding DEQ’s investigation and analysis of “biological integrity” in Blount’s Creek. As a whole, in context, Mr. Reeder testified “biological integrity” is a narrative standard, not a numeric standard:

Well, I mean you can't go to an [Standard Operating Procedure]—there's no [Standard Operating Procedure] that says biological integrity analysis. Like I couldn't call Eric Fleek on the phone and say, “Hey, Eric, go out and do a biological integrity analysis.”

What you do is you go out and do exactly what Eric did, is you do a biological assessment and you look at the technical memorandum, and according to that you make a decision based upon your best professional judgment and all the data as to whether you think this narrative standard for biological integrity will be violated or not.

Mr. Eric Fleek was an environmental supervisor at DEQ. Mr. Fleek testified his branch, the Biological Assessment Branch, evaluated water quality by “sampling for fish. We also do sampling for benthic macroinvertebrates. And by assessing a water body and the biology that lives there, you can use them as proxies to determine what the water quality is like there.” Mr. Fleek also testified that there were “protocols for doing that sampling” **827 of Blounts Creek in reference to the Standard Operating Procedure.

Our record contains one of Petitioners’ exhibits in arguing DEQ failed to comply with its own standards, DEQ’s “STANDARD OPERATING PROCEDURE BIOLOGICAL MONITORING[,] STREAM *714 FISH COMMUNITY ASSESSMENT PROGRAM[,]” (“Standard Operating Procedures”) and

the purpose of this manual [is] to provide details on standard operating procedures of the Biological Assessment Unit of the Division of Water Quality (DWQ or Division) for the collection and analysis of stream fish community assessment data. Consistency in data collection and analysis is the cornerstone for evaluating biological integrity. The procedures provided are a synthesis of widely used methods and methods developed from the experience of personnel within the Unit. These methods have been shown to provide repeatable and useful data for water quality evaluation.

....

The Stream Fish Community Assessment Program was designed as an additional basinwide assessment tool and has been in existence since 1991. It’s core mission is to sample a set of fixed sites on lower Strahler order Wadeable creeks, streams, and rivers on a five-year rotating basis to support the DWQ’s Basinwide Management Plan Program.

While the Standard Operating Procedures address “biological integrity[,]” they do not require a particular type of analysis to be done for a Permit application; instead, the staff of DEQ uses its expertise to determine what types of testing or sampling need to be done for each application, depending upon its unique circumstances.

The Standard Operating Procedures also describe the “NORTH CAROLINA INDEX OF BIOTIC INTEGRITY” which has been in use since the early 1990s:

The Division has been monitoring the biological integrity of stream fish communities since the early 1990s. The biological monitoring tool that is used is referred to as the North Carolina Index of Biological Integrity (NCIBI). The NCIBI method was developed for assessing a stream’s biological integrity by examining the structure and health of its fish community. The North Carolina Administrative Code defines Biological Integrity as: “... the ability of an aquatic ecosystem to support and maintain a balanced and indigenous community of organisms having species composition, diversity, population densities, and functional *715 organization similar to that of reference conditions” (15A NCAC 02B .0200; NCAC 2004). The NCIBI is a modification of the Index of Biotic Integrity (IBI) initially proposed by Karr (1981) and Karr, *et al.* (1986).

The NCIBI incorporates information about species richness and composition, trophic composition, fish abundance, and fish condition. The NCIBI summarizes the effects of all classes of factors influencing aquatic faunal communities such as water quality, energy source, habitat quality, flow regime, and biotic interactions. While any change in a fish community can be caused by many factors, certain aspects of the community are generally more responsive to specific influences. Species composition measurements reflect habitat quality effects. Information on trophic composition reflects the effect of biotic interactions and energy supply. Fish abundance and condition information indicates additional water quality effects. It should be noted, however, that these responses may overlap. For example, a change in fish abundance may be due to decreased energy supply or a decline in habitat quality, not necessarily a change in water quality.

The scores derived from this index are a measure of the ecological health of the waterbody and may not directly correlate to water quality. For example, a stream with excellent water quality, but with poor or fair fish habitat, may not be rated excellent with this index. However, a stream which rated excellent on the NCIBI should be expected to have excellent water quality.

Further, the NCIBI sets out specific metrics to assess biological integrity:

The NCIBI incorporates information about species richness and composition, pollution **828 indicator species, trophic composition, fish abundance, fish

condition, and reproductive function by the cumulative assessment of 12 parameters or metrics (Tables 1-3). Each metric is designed to contribute unique information to the overall assessment. The values provided by the metrics are converted into scores on a 1, 3, and 5 scale. A score of 5 represents conditions commonly associated with undisturbed reference streams in the specific river basin or ecoregion. A score of 1, however, indicates that conditions deviate greatly from those typically observed in undisturbed streams of the region. All metrics for each of the three regions were calibrated using regional reference sites.

The scores for all metrics are then summed to obtain the overall NCIBI score, an even number between 12 and 60. The score is then used to determine the biological integrity class of the stream (i.e., Poor, Fair, Good-Fair, Good, or Excellent) (Karr 1981, Karr, *et al.* 1986). A fish community rated Excellent is comparable to the best situations with minimal human disturbance; all regionally expected species for the habitat and stream size, including the most intolerant forms, are present along with a full array of size classes and a balanced trophic structure. Conversely, a fish community rated Poor deviates greatly from the reference condition. The number of fish is fewer than expected, usually fewer than expected number of species, an absence of intolerant species, and an altered trophic structure. Communities rated Good, Good-Fair, or Fair fall within this disturbance gradient.

Currently, if a fish community is rated Excellent, Good, or Good-Fair it is deemed to be Fully Supporting its Aquatic Life Use Support stream classification. If a fish community is rated Fair or Poor it is deemed to be Not Supporting its Life Use Support stream classification and the water quality standard is not being met. Waters that have an Excellent fish community rating are also eligible for reclassification to a[n] Outstanding Resource Waters or to a High Quality Waters supplemental classifications.

The Standard Operating Procedures set forth twelve metrics, grouped into five categories:

1. Species richness and composition (Metric Nos. 1 and 3-5)
2. Indicator species (Metric Nos. 6 and 7)
3. Trophic function (Metric Nos. 8-10)
4. Abundance and condition (Metric Nos. 2 and 11)

5. Reproductive function (Metric No. 12)

The particular metrics used may vary depending upon the type of water and region of the state. For example, the species of fish measured metric number 4 are different in mountain streams than in and around coastal waters. The Standard Operating Procedures also set out sampling procedures and instructions for laboratory processing for samples. To assess the quality of a stream, information obtained from sampling is compared to reference conditions. “The scores for all 10 or 12 metrics are then summed to obtain the overall NCIBI score. Finally, the score (an even number between 12 and 60) is then used to determine the biological integrity class of the stream from which the sample was collected[.]”

Regarding permits, the Standard Operating Procedures provide, “The location of permitted dischargers should be reviewed, using the database provided by the Division's Basinwide Information Management System” and notes that “[w]atershed-specific special study sites that are designed to address a specific, short-term question (e.g., Use Attainability, *impacts from a permitted discharger*, watershed modifications, etc.) are usually sampled only once and may be sampled anytime between March and December.” (Emphasis added.)

As part of its analysis of the permit application, CZR did sampling and prepared a report addressing the metrics noted in the Standard Operating Procedures regarding fish and benthos. This report noted that fish surveying was done “in accordance with NCDWQ 2006 Standard Operating Procedure, Stream Fish Community Assessment Program (NCDENR 2006a).” “Benthic invertebrate sampling occurred on 11 April 2011 following the swamp stream method as described in NCDWQ 2006 Standard Operating Procedures for collection of benthic invertebrates in the Level IV Ecoregion Swamp Region B of the coastal plain of North Carolina NCDENR 2006b.”

DEQ initially reviewed Martin Marietta's application for the Permit, then requested additional information to address several questions:

1. Please define a zone of impact (ZOI) and show that it is not degraded, considering hydraulic, biota, & saline water impacts as discussed below.

Hydraulic: The point downstream at which the proposed discharge can be considered insignificant. Consider the frequency of bank overflow and the effects of increased water levels, velocity changes, and erosion. Impacts should be based on a major rainfall event such as an 80th percentile (two in 10-year) storm, and a base flow.

Biota: The point at which the proposed discharge is considered to be insignificant, relative to anadromous *718 fish (e.g. finfish) changes in velocity, pH, temperature DO. Evaluate effects during documented spawning times (as per the NC Wildlife Resources Commission and the National Marine Fisheries Service) and during periods of lower stream flows.

Saline Water: The point at which the freshwater impact of the proposed discharge is considered insignificant. Using the ZOI identified for the hydraulic component, determine the distance to a downstream point of saline stability and evaluate impacts

2. Please provide a process flow diagram for the mine dewatering and stormwater discharge, including the flow around the proposed stockpile area. What is the approximate size and capacity of the settling pond that will be located next to the mining pit?
3. What is the size and capacity of the closed loop settling system and the future overburden storage area?
4. Please provide an expanded Engineering Alternatives Analysis (EAA). This should include the alternatives of reinjection of pit drainage and the treatment and conveyance of this discharge for potable or other reusable purposes. The EAA must be performed according to the guidelines in the Division's website. This includes a 20-year present worth analysis of all feasible options.

In answer to these questions, Martin Marietta provided a Technical Memorandum prepared by Kimley Horn summarizing “the results of several analyses performed to address comments regarding stream stability, potential flooding, and water quality issues associated with the proposed discharge[.]” including “the predicted zones of potential impact[.]” a revised NPDES Water Flow Map showing “the process flow diagram for mine dewatering and stormwater discharge[.]” and “expanded Engineering Alternatives Analysis (EAA) dated September 14, 2012, prepared by Groundwater Management Associates, Inc. ... according to the guidelines in the DWQ website and

includ[ing] a 20-year present worth analysis of all feasible options.” Further, in October of 2012, CZR also prepared a Technical Memorandum addressing “potential direct and indirect effects on identified fish populations from predicted changes in Blounts Creek water quality as identified by” Kimley Horn's Technical Memorandum.

[15] [16] In summary, hundreds of pages of the record on appeal and hundreds of pages of testimony address the analysis of “biological integrity,” *719 as well as salinity, pH, and many other factors evaluated by DEQ to determine whether the Permit should be issued. To the extent that the superior court made a finding of fact in noting that

Tom Reeder with DWR testified that he did not know if there was such a thing as a biological integrity analysis; that he had never really heard of such a thing. He further testified that no statutes or rules set forth numeric standards or explicit methods or metrics by which DWR must make a determination that a NPDES permit reasonably ensures compliance with the biological integrity standard[.]

this finding is technically supported by the record because Mr. Reeder did so testify. But neither the superior court nor this Court **830 may substitute its findings of fact for those of the ALJ; we review the ALJ's findings of fact only to determine if they are supported by the whole record. *See Ledford*, 247 N.C. App. at 286–87, 786 S.E.2d at 63–64. The ALJ's findings are supported by the whole record, as discussed above. Contrary to the superior court's conclusions, Mr. Reeder's testimony indicated the thorough and extensive evaluation that DEQ undertook to ensure biological integrity, although this cannot be neatly summed up as one official analysis plainly laid out in a specific standard operating procedure. The ALJ's findings as to the biological integrity analysis are supported by the whole record. The superior court therefore erred by essentially substituting its own findings of fact regarding Mr. Reeder's testimony and by making legal conclusions as to biological integrity based upon a misinterpretation of the standard. Therefore, as to DEQ's and Martin Marietta's main contention on appeal we agree that the trial court erred in reversing the ALJ's order as to the

biological standard, and we now turn to address Petitioners' issues on cross-appeal.

D. Swamp Waters Classification

Petitioners cross-appealed from the superior court's order based upon its determination that DEQ's approval of the Permit violated the water quality standards set forth for swamp water classification. DEQ and Martin Marietta argue we should affirm the findings and conclusions of the ALJ and superior court regarding swamp waters. As noted above, a body of water may have a supplemental classification in addition to its primary classification. *See generally* 15A N.C. Admin. Code 2B.0301. The portions of Blounts Creek at issue have a supplemental classification of "swamp waters" which again is defined as "those waters which are classified by the Environmental Management Commission and which are *720 topographically located so as to generally have very low velocities and other characteristics which are different from adjacent streams draining steeper topography." 15A N.C.A.C. 2B.0202. Swamp water classification applies to "waters which have low velocities and other natural characteristics which are different from adjacent streams." 15A N.C.A.C. 2B.0101.

The ALJ identified the issue regarding swamp waters as follows:

Issue 2: "Swamp Waters Claim": Whether Petitioners have met their burden of proving that Respondent exceeded its authority or jurisdiction, acted erroneously, failed to use proper procedure, acted arbitrarily or capriciously, or failed to act as required by law or rule in determining the NPDES Permit reasonably ensures compliance with water quality standards and regulations related to the "Swamp Waters" supplemental classification.

The ALJ made the following findings regarding the swamp water classification:

18. Contrary to Petitioners' assertions, the evidence demonstrates that the "swamp method" and the term

"swamp stream" in the SOP are unrelated to the "swamp waters" supplemental classification. (Fleek, Tr. Vol. 7 pp. 1103-1105; Ex. R34, p.6; Fleek, Tr. Vol. 6 pp. 980-981; Ex. P58; Ex. P59)

19. Mr. Fleek reviewed the CZR Habitat Assessment and provided input to Mr. Belnick. In Mr. Fleek's evaluation, he concluded that there could be an increase in diversity and population of benthos near the proposed discharge outfalls because the discharge would lead to less stressful conditions. (Fleek, Tr. Vol. 7 pp. 1108-1111, 1114-1116; Ex. R4; Ex. 51)

....

Petitioners' Swamp Waters Claim

81. Petitioners claim that the NPDES Permit does not reasonably ensure compliance with what Petitioners characterize as a requirement to "protect" swamp waters "characteristics." Petition 4-5.

82. "Swamp Waters" are defined as "waters which are classified by the Environmental Management Commission and which are topographically located so as to generally have very low velocities and other characteristics which *721 are different from adjacent streams draining steeper topography." 15A NCAC 02B.0202(62). See also 15A NCAC 02B.0101(e)(2) and 02B .0301(c).

83. Petitioners claim that DWR has a duty to preserve swamp waters in their existing **831 condition, and they objected to the predicted changes in physical and chemical parameters in upper Blounts Creek, specifically dissolved oxygen, pH, flow velocity, and tannins. Petitioners have characterized the predicted changes to these parameters as unlawfully eliminating swamp waters characteristics and uses.

84. DWR disagrees with Petitioners in that DWR has a duty under the applicable rules and laws to preserve waters with the supplemental classification "swamp waters" in their existing condition. DWR asserts, consistent with its longstanding interpretation and past practices, that the only effect of the Sw supplemental classification is to modify the water quality standards for dissolved oxygen and pH by lowering the minimum limits otherwise required for Class "C" waters. See 15A NCAC 02B .0211(3)(b) and (3)(g) (2013).

85. Petitioners failed to identify any statute or rule that expressly protects “low tannins”, “low pH”, “low dissolved oxygen”, or “low velocity” attributes of swamp waters.

86. Petitioners have not cited a law or rule that requires additional protection or use for waters with the supplemental classification “swamp waters.”

87. The swamp waters supplemental classification and the water quality standards administered by DWR relate to a highly technical and scientific subject area within DWR's expertise.

88. As the agency delegated the responsibility for NPDES permitting and enforcement of North Carolina's water quality standards, DWR's interpretation and application of the State's water quality standards, and its surface water classifications and supplemental classifications are entitled to deference. *Hilliard v. N.C. Dept. of Corrections*, 173 N.C. App. 594, 598, 620 S.E.2d 14, 17-18 (2005).

***722** 89. DWR's interpretation and application of the highly technical rules it administers, including the swamp waters and antidegradation rules, are reasonable, longstanding, in accord with past DWR practices, and consistent with and supported by the plain language of the relevant rules.

90. Petitioners have presented no evidence, authority, or argument that persuades the undersigned to overrule DWR's rational interpretation and application of the State's swamp waters and antidegradation laws and rules.

91. Some supplemental classifications may trigger protection or uses in addition to the protections or uses for Class C waters. For example, the “Outstanding Resource Waters” supplemental classification states that such waters “require special protection to maintain existing uses.” 15A NCAC 02B .0101(e)(4).

92. The specificity of additional protections and uses explicitly applicable by rule to some supplemental classifications is further evidence that, if the “swamp waters” supplemental classification was intended to provide additional protections, the rules would have specifically provided for such protections. See, e.g., *Mangum v. Raleigh Bd. Of Adjustment*, 196 N.C. App. 249, 255, 674 S.E.2d 742, 747 (2009) (“One of the longstanding rules of interpretation and construction in this state is *expressio unius est exclusio alterius*, the expression

of one thing is the exclusion of another.”) (citations omitted).

93. The term “swamp waters” is a regulatory term that guides the assignment of the Sw supplemental classification to particular stream segments; and once the assignment is made by rule, the only regulatory effect of the assignment of the swamp waters supplemental classification is to lower the acceptable minimum values for pH and dissolved oxygen. See 15A NCAC 02B .0211(3) (b) and (3)(g) (2013). Upper Blounts Creek, for example, has been assigned the “Sw” supplemental classification by formal rulemaking. 15A NCAC 02B .0316(a) (Index Number 29-9-1-(1)).

94. Petitioners' arguments that DWR misinterpreted and misapplied the swamp waters supplemental classification present questions of law and fact, and mixed questions of ***723** law and fact. Petitioners' arguments have been thoroughly considered and rejected by the undersigned as unpersuasive and unsupported by the preponderance of evidence.

****832** 95. Petitioners rely on a sentence from the State's antidegradation policy: “Existing uses, as defined by Rule .0202 of this Section, and the water quality to protect such uses shall be protected by properly classifying surface waters and having standards sufficient to protect these uses.” 15A NCAC 02B .0201(b). See Petition at 4-5.

96. According to its plain language, this provision is implemented by formal rulemaking that establishes classifications, uses and water quality standards, and that assign classifications, uses and standards to individual surface water segments. See, e.g., 15A NCAC 02B .0211 (2013) (uses and standards for Class C waters, including waters with the supplemental “Sw” classification), 15A NCAC 02B .0316(a) (Index Number 29-9-1-(1)) (assignment of classifications to upper Blounts Creek).

97. There are antidegradation permitting procedures that did apply to DWR's evaluation and issuance of the NPDES Permit, but Petitioners have not argued that these applicable procedures were not followed.

98. The preponderance of the evidence demonstrates that DWR reasonably interpreted the laws and rules governing swamp waters and the state's antidegradation policy, and reasonably applied those laws and rules to the data, studies, and other information submitted or obtained during the course of DWR's NPDES permitting review and decision.

99. Petitioners failed to present evidence sufficient to overcome the presumption that DWR acted appropriately in determining the NPDES Permit reasonably ensures compliance with water quality standards or regulations related to the “Swamp Waters” supplemental classification.

100. Petitioners failed to meet their burden of proving by a preponderance of the evidence that DWR exceeded its authority or jurisdiction, acted erroneously, failed to use proper procedure, acted arbitrarily or capriciously, or failed to act as required by law or rule in determining that *724 the laws and rules do not require protection of the existing conditions or characteristics of surface waters with the supplemental classification “swamp waters” and that the NPDES Permit reasonably ensures compliance with water quality standards and rules related to the “Swamp Waters” supplemental classification.

101. DWR's decision that the NPDES Permit reasonably ensures compliance with all applicable water quality standards and rules, including those relating to the swamp waters supplemental classification, is affirmed.

....

110. Petitioners failed to present evidence sufficient to overcome the presumption that DWR acted appropriately in issuing the Permit.

111. Petitioners failed to meet their burden of proving Respondent DWR exceeded its authority or jurisdiction, acted erroneously, acted arbitrarily and capriciously, used improper procedure, or failed to act as required by law or rule in issuing the NPDES Permit.

112. DWR's issuance of the NPDES Permit is affirmed in all respects.

....

119. Petitioners contend that the NPDES Permit is unlawful because the Permit does not reasonably ensure compliance with what Petitioners characterize as a requirement to “protect” swamp waters “characteristics,” which they contend include “low velocity,” “low dissolved oxygen,” “low pH,” and “high tannins.” (Petition 4-5)

120. “Swamp Waters” are defined as “waters which are classified by the Environmental Management Commission and which are topographically located so as to generally have very low velocities and other characteristics which

are different from adjacent streams draining steeper topography.” 15A NCAC 2B.0202(62). See also 15A NCAC 2B .0101(e)(2) and 2B .0301(c).

121. The “swamp waters” supplemental classification modifies the water quality standards for dissolved oxygen and pH in the upper Blounts Creek segment by lowering *725 the minimum pH and dissolved oxygen values otherwise required for Class “C” waters:

****833** (b) Dissolved oxygen: ... for non-trout waters, not less than a daily average of 5.0 mg/l with a minimum instantaneous value of not less than 4.0 mg/l; swamp waters, lake coves or backwaters, and lake bottom waters may have lower values if caused by natural conditions;

....

(g) pH: shall be normal for the waters in the area, which generally shall range between 6.0 and 9.0 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions[.]

15A NCAC 2B .0211(3)(b), (g) (2013)

122. Under DWR's longstanding interpretation of the statutes and rules that it administers, the supplemental classification of swamp waters does not provide any additional protections to water bodies to which it is assigned; and low flow and velocity, low pH, low dissolved oxygen, and high tannins are not uses, standards, characteristics, or parameters of swamp waters that are required to be maintained or protected. (Reeder, Tr. Vol. 7 pp. 1154-1157; Reeder, Tr. Vol. 4 pp. 653-657; Belnick, Tr. Vol. 4 pp. 523-524, 557-558; Reeder, Tr. Vol. 4 pp. 653-657; Belnick, Tr. Vol. 6 pp. 1059-1060)

123. The CZR report states that with the proposed discharge, upper Blounts Creek may no longer exhibit intermittent flow, low dissolved oxygen concentrations, and high tannins. (Ex. R16 p. 10)

124. The report also states that, with the proposed discharge, the use of the swamp stream sampling method may no longer be appropriate to evaluate benthic macroinvertebrates. (Ex. R16 p. 10)

125. The report does not state that the swamp waters supplemental classification requires the preservation or maintenance of low dissolved oxygen, high tannins, low velocities, and low pH as contended by Petitioners. (Ex. R16 p. 10)

***726** 126. Based on the evidence before it, DWR concluded that the Permit reasonably ensures compliance with all applicable water quality standards, including those applicable to upper Blounts Creek, which has a C primary classification and a Sw supplemental classification.

(Alterations in original.)

The superior court affirmed the ALJ's final decision as to the swamp water classification issue. The superior court stated the issue as follows

II. Did the ALJ err in upholding DWR's issuance of the Permit as reasonably ensuring compliance with:

A. The swamp waters supplemental classification and antidegradation rule[.]

The superior court addressed Petitioners' swamp water claim as follows:

North Carolina's water quality regulations protect North Carolina's surface waters by: (1) establishing surface water classifications based primarily on the "best uses" of surface waters, *see* 15A NCAC 02B .0101; N.C. Gen. Stat. § 143-214.1(b); (2) establishing water quality standards that protect assigned uses of "primary classifications," *see, e.g.,* 15A NCAC 02B .0211 (water quality standards for Class C waters); and (3) assigning classifications to individual segments of surface waters throughout the State, *see* 15A NCAC 02B .0201 *et seq.* Some segments are also assigned "supplemental classifications," which may alter water quality standards otherwise applicable. *See* 15 NCAC 02B .0101(e). The state antidegradation rule provides that "[e]xisting uses ... and the water quality to protect such uses shall be protected by properly classifying surface waters and having standards sufficient to protect these uses." 15A NCAC 02B .0201(b).

The Permit authorizes Martin Marietta to discharge commingled stormwater and groundwater from two settling basins at its proposed quarry into the upper reaches of Blounts Creek. The parties do not dispute the primary classification and supplemental classifications assigned to Blounts Creek. Blounts Creek from its source to Herring Run (referred to by the parties as "upper Blounts Creek") is assigned the primary classification of Class C and the supplemental classifications of Swamp Waters ****834** ("Sw") and Nutrient Sensitive Waters ("NSW").

***727** Petitioners argue that assignment of the swamp waters supplemental classification to upper Blounts Creek affixed "swamp water habitat" as a "special use" of that portion of the Creek; in turn, Petitioners argue, the antidegradation rule requires DWR to protect certain "natural characteristics" of swamp waters such as "low flow," "low velocity," and "dark color."

The ALJ rejected Petitioners' argument, concluding that the swamp waters supplemental classification does not provide any additional protections to swamp waters beyond the water quality standards for protecting the uses of Class C waters. The ALJ concluded the only effect of the swamp waters supplemental classification is to make the water quality standards for pH and dissolved oxygen less stringent than otherwise required for Class C waters. Final Decision Conclusion of Law ("COL") ¶ 93.

The Court reviews the ALJ's conclusions of law and statutory and regulatory interpretations *de novo* and findings of fact under the whole record test.

"Swamp waters" are defined as "those waters which are classified by the Environmental Management Commission and which are topographically located so as to generally have very low velocities and other characteristics which are different from adjacent streams draining steeper topography," 15A NCAC 02B .0202(62), or "waters which have low velocities and other natural characteristics which are different from adjacent streams." 15A NCAC 02B .0101(e)(2). DWR interprets state water quality rules to require no additional protection for water segments assigned the swamp waters supplemental classification (beyond the protections required by the standards for the primary water quality classification, which in this case is Class C), an interpretation the ALJ considered *de novo* and upheld as reasonable and consistent with the plain language of North Carolina's water quality standards. Final Decision COL ¶¶88-90, 98.

The Court reviews this regulatory interpretation issue *de novo* and affirms the ALJ conclusion.

Interpretation of administrative regulations "properly begins with the plain words" of the regulation. *Cole v. N.C. Dep't of Pub. Safety* [253 N.C.App. 270], 800 S.E.2d 708, 714 (N.C. Ct. App.), *disc. rev. denied*, [370 N.C. 71], 803 S.E.2d 156 (2017). The ***728** Court's *de novo* review of the antidegradation rule and rules governing the swamp waters supplemental classification shows that no

“plain words” identify or protect a swamp waters “use” or identify or protect swamp waters “characteristics.” 15A NCAC 02B .0202(62), .0101(e)(2), .0211(6), .0211(14), .0220(5), .0220(12), .0301(c).

The Court's *de novo* review of the water quality rules as a whole indicates that if the North Carolina Environmental Management Commission (“EMC”) intends to protect a particular attribute or condition or use of surface waters, it does so in the text of its rules. With respect to uses of a surface water, the rules explicitly identify the uses associated with primary surface water classifications and, in some cases, supplemental classifications, and state narrative and numeric water quality standards to protect such uses. *See, e.g.*, 15A NCAC 02B .0101(c)-(e), .0211(1), .0212(1), .0214(1), .0216(1), .0218(1), .0219(1), .0220(1), .0221(1), .0222(1), .0231(a). There is no such identification of uses for the swamp waters supplemental classification and no effect on applicable water quality standards except to make less stringent the standards for pH and dissolved oxygen that would otherwise apply. The plain language and structure of the water quality rules indicates there is no intent to protect any alleged “use” particular to the swamp waters supplemental classification. *See, e.g., Mangum v. Raleigh Bd. of Adjustment*, 196 N.C. App. 249, 255, 674 S.E.2d 742, 747 (2009) (“One of the long-standing rules of interpretation and construction in this state is *expressio unius est exclusio alterius*, the expression of one thing is the exclusion of another.”).

Similarly, with respect to characteristics of a water body, the rules show that the ***835** EMC knows how to protect a specific characteristic if it so desires. For example, the water quality rules establish explicit flow requirements for high quality waters. 15A NCAC 02B .0224(1)(v) (setting maximum volume of wastewater discharge into high quality waters). There is no text in the swamp waters supplemental classification rules (or elsewhere in the water quality rules) requiring protection of particular “swamp water characteristics.” With the exception of “low velocity,” the characteristics cited by Petitioners — “periods of low or no flow, low velocity, low pH, low dissolved ***729** oxygen, and high tannin levels” — do not appear in any water quality rule. References in the rules to “low velocity” pertain only to a quality that swamp waters “generally have,” 15A NCAC 02B .0202(62), not to a quality those waters must have. Significantly no rules protect or assure that waters with the swamp waters supplemental classification will have low velocity, periods

of low or no flow, or high tannin levels. The Court is not vested with rule making authority. The water quality standards for pH and dissolved oxygen applicable to Class C waters are made less stringent for water bodies with the swamp waters supplemental classification, and this appears to the Court to be the only effect of that supplemental classification. 15A NCAC 02B .0211(3)(b), (g) (2013).

Even if Petitioners’ interpretation of the swamp waters and antidegradation rules could be characterized as reasonable, DWR's interpretation nonetheless is reasonable and is affirmed. The Court notes that, as found by the ALJ, and supported by substantial evidence in the record as a whole, DWR's interpretation is longstanding and consistent with the plain language and the structure of the water quality rules. The Court gives deference to DWR's interpretation that the water quality rules do not create special protections for characteristics such as “low flow, low velocity, and dark color,” or otherwise.

The Court also notes that the state's water quality rules provide a means by which the EMC may classify waters as High Quality Waters or classify unique and special surface waters of the state as Outstanding Resource Waters, and thereby provide a means of protecting certain characteristics of those waters that are not otherwise protected by water quality standards. 15A NCAC 02B .0225(a)(2). The record evidence does not show that Petitioners have sought such regulatory protections for Blounts Creek. 15A NCAC 02B .0225.

The Court is not persuaded that *PUD No. 1 v. Washington Department of Ecology*, 511 U.S. 700 [114 S.Ct. 1900, 128 L.Ed.2d 716] (1994), supports Petitioners’ Swamp Waters Claim. Petitioners have not shown that there is any designated use associated with the “swamp waters” supplemental classification that is required to be maintained or protected under North Carolina's water quality rules or otherwise.

***730** The Court has reviewed the Final Decision findings in relation to Petitioners’ Swamp Waters Claim, *see, e.g.* Final Decision FOF ¶¶119-126, 158-202, and based on its review of the whole record, the Court concludes that substantial evidence supports these findings. These findings support the ALJ's conclusion that Petitioners failed to carry their burden before OAH to prove DWR acted erroneously or arbitrarily or otherwise unlawfully in determining that the Permit reasonably ensures compliance with all applicable water quality standards, including the

swamp waters supplemental classification and the state antidegradation rule.

The Final Decision findings of fact and conclusions of law and holding that Petitioners failed to carry their burden and that the Permit reasonably ensures compliance with the swamp waters supplemental classification and the state antidegradation rule are affirmed and upheld.

[17] Petitioners do not challenge the facts as found by the ALJ or discussed by the superior court regarding swamp waters but rather argue “[t]he issue before the Court is one of law: does Blounts Creek’s classification as swamp waters protect the creek’s use as a unique habitat?” Petitioners contend that DEQ and the superior court interpreted the swamp water secondary classification as serving only “to weaken ****836** the creek’s protections, to allow for more pollution in Blounts Creek,” and if the classification were interpreted properly, the swamp waters classification “is like all other water classifications in North Carolina—it protects our creeks and rivers.” Petitioners further contend the swamp waters classification actually gives “additional protection for waterways that have special characteristics found in swamp waters and, as a result provides habitat for the fish, insects, and other animals that are well suited to that environment.” Thus, Petitioners argue that the secondary classification of swamp waters requires that the natural characteristics of swamp water to remain essentially unchanged and that DEQ’s “extreme interpretation” of the swamp waters classification as accepted by the ALJ and superior court, “does not provide any protection at all” and “only weakens ... standards to allow for more pollution in Blounts Creek.”

Martin Marietta contends that neither North Carolina law nor the Clean Water Act (“CWA”) require “‘natural’ conditions or characteristics” of a body of water to remain unchanged. Martin Marietta contends both state and federal law recognize the need to balance many interests and needs related to use of water and water quality, including public health, fish and wildlife, recreation, industry, and agriculture:

***731** The CWA requires each State to adopt and implement water quality standards, which “consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses.” 33 U.S.C.A. § 1313(c)(2)(A).

Such standards shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter. Such standards shall

be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.

33 U.S.C. § 1313(c)(2)(A) (emphasis added); see *PUD No. 1*, 511 U.S. at 704 [114 S.Ct. 1900].

Martin Marietta argues that

[t]he very existence of the NPDES program refutes the theory that the CWA requires “natural” conditions or characteristics to remain unchanged. The program provides for the issuance of permits that authorize discharge of wastewater into waters of the U.S. 33 U.S.C. § 1342. By introducing wastewater into a water body, the quality and quantity of the water in the receiving water body necessarily changes.

Petitioners counter that DEQ has previously taken a position contrary to its position in this case as it “enforced against a polluter for not adequately protecting swamp waters” in the case of *House of Raeford Farms, Inc. v. North Carolina Department of Environment and Natural Resources*, 242 N.C. App. 294, 774 S.E.2d 911 (2015). Petitioners, quoting *House of Raeford*, contend that DEQ’s previous interpretation of the swamp waters classification was “that ‘the designated uses for the swamp waters ... were deemed to be impaired.’” But *House of Raeford* does not contradict DEQ’s action in this case.

In *House of Raeford*, DEQ investigated pollution in a creek, ultimately tracing the source to House of Raeford’s chicken processing facility. See *id.* DEQ representatives found that

“the creek was just full of sludge from bank to bank and as far as the eye could see. It was an unbelievable site.”

***732** She testified the sludge was fresh because it was a light tan color: “It starts out looking like a milkshake and then as it decomposes, it gets darker because of the septicity.” The sludge adhered to the shorelines and was so thick on the surface of the water that it had formed ridges.

The sludge was darker and thinner downstream from the House of Raeford.

Id. at 297, 774 S.E.2d at 914 (brackets omitted). “[F]ecal samples from Cabin Branch Creek, directly behind the House of Raeford facility ... confirmed a fecal coliform density greater than 60,000 colonies per 100 milliliters” and based upon this contamination, ***837** “the designated uses for the swamp waters below the House of Raeford facility were deemed to be impaired.” *Id.* at 297-98, 774 S.E.2d at 914.

Contrary to Petitioner's argument, *House of Raeford* demonstrates that swamp waters do have protection, but that protection is consistent with the water quality standards established for Class C waters. *See id.* at 300, 774 S.E.2d at 916. In *House of Raeford*, DEQ

assessed civil penalties against House of Raeford as follows:

\$25,000 for violation of N.C. Gen. Stat. § 143–215.1(a) (6); causing or permitting waste to be discharged to or in any manner intermixed with the waters of the State in violation of the water quality standards applicable to the assigned classifications or in violation of any effluent standards or limitations established for any point source, unless allowed as a condition of any permit, special order or other appropriate instrument issued or entered into by the Commission under the provisions of the Article.

\$25,000 for violation of 15A N.C.A.C. 2B.0211(3)(b); violating the dissolved oxygen water quality standard for Class C–Sw waters of the State.

\$25,000 for violation of 15A N.C.A.C. 2B.0211(3)(c); by allowing settleable solids and sludge in excess of the water quality standard for Class C–Sw waters of the State.

Id. at 308, 774 S.E.2d at 920. Thereafter,

***733** The ALJ found the imposition of civil penalties under 15A N.C.A.C. 2B.0211(3)(b) and 15A N.C.A.C. 2B.0211(3)(c) were erroneous, but upheld the imposition of the \$25,000.00 fine under N.C. Gen. Stat. § 143–215.1(a) (6). The [Environmental Management Commission] imposed a total maximum civil penalty of \$50,000.00 against House of Raeford for violation of N.C. Gen. Stat. § 143–215.1(a)(6) and 15A N.C.A.C. 2B.0211(3)(c).

The superior court assessed a civil penalty of \$25,000.00 for violation of N.C. Gen. Stat. § 143–215.1(a)(6) for causing or permitting waste to be discharged into or intermixed with the waters of the State in violation of the water quality standard set forth in 15A N.C.A.C. 2B.0211(3)(c).

Id. at 308, 774 S.E.2d at 920–21.

House of Raeford addressed penalties for discharge of waste in violation of water quality standards in a manner not allowed by a permit and as such was an enforcement action for a water quality violation and not a proceeding for a permit application as presented by this case. *See id.*, 242 N.C. App. 294, 774 S.E.2d 911. North Carolina General Statute 143-215.1 recognizes that some discharges of waste which may otherwise not be allowed under applicable water quality standards may be allowed as provided by a permit:

(a) Activities for Which Permits Required. -- Except as provided in subsection (a6) of this section, no person shall do any of the following things or carry out any of the following activities *unless that person has received a permit from the Commission and has complied with all conditions set forth in the permit:*

....

(6) Cause or permit any waste, directly or indirectly, to be discharged to or in any manner intermixed with the waters of the State in violation of the water quality standards applicable to the assigned classifications or in violation of any effluent standards or limitations established for any point source, *unless allowed as a condition of any permit, special order or other appropriate* ***734** *instrument issued or entered into by the Commission under the provisions of this Article.*

N.C. Gen. Stat. § 143-215.1 (2013) (emphasis added).

We agree with Martin Marietta's and DEQ's interpretation of the law in that protection does not require that Blounts Creek remain entirely the same. Further, as the ALJ determined and the superior court affirmed, “DWR concluded that the Permit reasonably ensures compliance with all applicable water quality standards, including those applicable to upper Blounts Creek, which has a C primary classification and a ****838** Sw supplemental classification.” The findings of fact establish that the discharge of water into Blounts Creek may change

some areas of the aquatic ecosystem and the changes will vary based upon distance from the outfall. For example, “there could be an increase in diversity and population of benthos near the proposed discharge outfalls because the discharge would lead to less stressful conditions.” The superior court acknowledges the discharge of water will change Blounts Creek, but keeping that change within acceptable limits is the purpose of the Permit. The Permit allows changes to the waters of Blounts Creek in accord with the limitations and provisions of the Permit, and those limitations are in accord with water quality standards applicable to Class C waters. On *de novo* review of Petitioners’ issue “of law[,]” the ALJ and superior Court correctly concluded that DEQ’s issuance of the Permit did not violate water quality standards as applicable to “swamp waters” of Blounts Creek.

E. pH Water Quality Standards

[18] Much like the previous argument, Petitioners’ argument as to pH is based in large part on the characteristics of the secondary classification of swamp waters. Petitioners argue that the ALJ and superior court erred in approving the Permit because the wastewater will increase the pH in Blounts Creek to “to levels that do not occur naturally and are not characteristic of swamp waters.” Essentially, Petitioners argue that the water quality standards for pH mandate that the swamp waters retain all of their characteristics, including low pH. Petitioners contend that

[l]ow pH is a defining characteristic of swamp waters and is essential to maintaining habitat that is protected by the swamp waters classification. The permit allows Martin Marietta to increase pH in Blounts Creek to levels that do not occur naturally and are not characteristic of swamp waters. Under existing conditions, pH in Blounts Creek is as low as 4.37 and is almost always below 6.0. ***735** (T2 p 342:15-17, 357:8-358:15 [App. 24, 25-26]); (*see also* R p 1199). The permit allows Martin Marietta to increase pH to 8.5. (*See* R p 1589-1615).

The issue before the Court is one of law: does the pH standard protect the normal, natural pH of Blounts Creek?

Martin Marietta contends that if the regulations were interpreted and applied as Petitioners argue

it would: (1) transform a straightforward water quality standard for pH into a byzantine and

costly regulatory maze consisting of thousands of different sets of mandatory pH values or ranges; (2) force DWR to implement an expensive, time-consuming, and essentially unworkable site-by-site regulatory scheme to establish separate “normal” pH for each stream segment; and (3) create a new source of regulatory uncertainty, cause delay in permitting and enforcement, and impose the expense of sampling and analysis anytime there is a need to know the pH standard applicable to a water body segment. Such an exorbitantly resource-intensive agency activity is not feasible, not necessary, and not dictated by the language of the pH standard.

The ALJ made the following findings regarding pH:

106. The water quality standard governing pH for upper Blounts Creek requires that pH “shall be normal for the waters in the area, which generally shall range between 6.0 and 9.0 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions.” [15A NCAC 2B .0211\(3\)\(g\) \(2013\)](#).

107. DWR’s longstanding interpretation of the pH standard for Class C water bodies is that the pH must be 6.0 to 9.0; but if the water body has a supplemental classification of swamp waters (Sw), the lower range of pH can be extended down to 4.3 (if the low pH is caused by natural conditions). Thus, the pH standard for a C, Sw water body would be 4.3 to 9.0. (Belnick, Tr. Vol. 4 pp. 524, 632; Reeder, Tr. Vol. 4 pp. 653-657)

108. No evidence was presented that DWR has ever interpreted the pH standard differently.

****839 *736** 109. No evidence was presented that DWR has ever interpreted or applied the pH standard to require that low pH must be maintained in Sw waters. (Belnick, Tr. Vol. 4 pp. 524, 631-632; Reeder, Tr. Vol. 4 pp. 653-657)

110. DWR does not interpret the standard to require site-specific sampling and analysis. (Belnick, Tr. Vol. 4 p. 562)

111. Rather the standard itself defines “normal” pH to be 6.0 to 9.0 in Class C waters, with permissible lower values (down to 4.3) in Sw waters if the lower values are caused by natural conditions. (Reeder, Tr. Vol. 4 pp.653-657)

112. DWR's longstanding interpretation is also reflected in NPDES permits issued across the State and in DWR's assessment of waters for impairment. (Reeder, Tr. Vol. 4 pp. 653-657)

113. Available data indicate that the existing pH in upper Blounts Creek ranges from approximately 4.5 downstream from the outfalls to approximately 5.3 to 6.5 at Dr. Bean's upstream sampling site. (Ex. P12; Ex. P23)

114. The expected pH of the discharge effluent is approximately 6.9; and the pH in upper Blounts Creek with the permitted discharge is expected to range from approximately 6.3 to 6.9. (Ex. R1 p.4; Ex. P21)

115. Dr. Bean agreed with the Kimley Horn report prediction that the pH of upper Blounts Creek would not exceed 6.94 at full discharge.¹⁰ (Ex. P12 p. 36)

116. The Permit requires that the pH of the permitted discharge be within the range of 5.5 to 8.5. Thus, the pH of upper Blounts Creek with the permitted discharge is predicted and required to remain within the range of 4.3 to 9.0. (Ex. R29)

117. Petitioners' attorneys conceded that the pH of neither the discharge nor the effluent would be in excess of 9 or below 4.3. (Tr. Vol. 4 p. 657)

118. Based on the evidence before it, DWR concluded that the Permit reasonably ensures compliance with the pH water quality standard.

***737 [19]** The superior court affirmed the ALJ's findings and conclusions as to pH, as follows:

At the time the Permit was issued, the pH standard for Class C waters applicable to upper Blounts Creek read as follows:

pH: shall be normal for the waters in the area, which generally shall range between 6.0 and 9.0 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions.

15A NCAC 02B .0211(3)(g) (2013).

In their pH Claim, Petitioners argue that the rule required DWR to undertake site-specific sampling to determine what “normal” pH is for the receiving waters in the area of the proposed discharge, which, in turn, must be maintained. Petitioners argue that: DWR did not determine “normal” pH for upper Blounts Creek; the Permit pH limit of 5.5 to 8.5 allows the permitted discharge to cause upper Blounts Creek to exceed its “normal” pH; and the Permit therefore fails to reasonably ensure compliance with the pH standard.

DWR interprets the pH standard as setting a maximum allowable pH of 9.0 and a minimum allowable pH of 6.0, except that the lower limit may be as low as 4.3 in swamp waters, if pH below 6.0 is the result of natural conditions. DWR interprets the rule as not requiring site-specific sampling or testing. Based on its interpretation of the pH rule, DWR established a Permit limit for pH of the discharge effluent of 5.5 to 8.5.

The ALJ concluded that DWR's interpretation is reasonable and consistent with the plain language of the rule, and rejected Petitioners' pH claim because the Permit's pH limits reasonably ensure compliance with the pH standard.

The Court reviews the ALJ's factual determinations under the whole record test and asserted legal errors and interpretation of rules *de novo*.

The Court is not persuaded that the pH rule creates or requires a site-specific standard for pH in receiving waters. First, the ****840** interpretation of administrative regulations “properly begins with the plain words” of the regulation. *Cole*, 800 S.E.2d at 714. The “plain words” of the pH rule ***738** do not require a site-specific standard or site-specific sampling to determine a site-specific standard. The rule states that pH “shall be normal for the waters in the area,” and then provides that: (a) “normal for the waters in the area” “generally shall range between 6.0 and 9.0,” and (b) a lower pH may be allowed (to a minimum of 4.3) “if it is the result of natural conditions.” DWR interprets the rule itself to define what “normal” pH is for a stream segment that has been assigned the classifications Class C-Sw: 6.0 to 9.0, or 4.3 to 9.0 if the lower pH results from natural conditions.

Second, as noted in the Final Decision, this interpretation is supported by the EMC's 2014 technical amendment, which deleted the words “generally shall” from the pH standard. 15A NCAC 02B .0211(14) (2015). This technical amendment further clarifies that “normal for waters in

the area” is defined by the numerical range set forth in the text of the rule. Moreover, the current text of the pH rule is consistent with the language of other water quality standards that explicitly state the numeric limits required. *See, e.g.*, 15A NCAC 02B .0211(3), (5), (6), (9), (11). The only exception to the applicable pH range is in swamp waters, where the lower limit may be decreased — made less stringent — if low pH is the result of natural conditions.

Third, the state's water quality standards make clear that site-specific standards are the exception, not the norm, and are explicitly set forth where they exist. *E.g.*, 15A NCAC 02B .0110 (requiring site-specific strategies for waters providing habitat for federally listed threatened and endangered species), .0211(11) (allowing creation of site-specific standard for metals), .0226 (providing that “site-specific water quality standards may be granted by the Commission on a case-by- case basis”). No site-specific standards for pH are described or required in the water quality rules applicable here.

Fourth, even if Petitioners’ proposed interpretation of the pH standard were reasonable, in reviewing agency regulatory interpretations, the Court agrees with the ALJ's determination that DWR's interpretation is reasonable and consistent with the plain language *739 of the regulation. The Court accords deference to that interpretation.

Based on the Court's *de novo* interpretation of the pH rule, the Court upholds DWR's interpretation of the pH rule and declines to accept Petitioners’ claim that the rule requires site-specific assessment.

The Court has reviewed the Final Decision findings in relation to Petitioners’ pH Claim, *see, e.g.*, FOF ¶¶90, 104-118, 145-151, 164-170, and based on its review of the whole record, the Court concludes that substantial evidence supports these findings, and that Petitioners failed to carry their burden before OAH to prove DWR acted erroneously or arbitrarily or otherwise unlawfully in determining that the Permit reasonably ensures compliance with the pH standard.

The Final Decision findings of fact and conclusions of law and holding that Petitioners failed to carry their burden and that the Permit reasonably ensures compliance with the pH standard are affirmed and upheld.

The Superior Court correctly addressed each of the Petitioners’ arguments. As the ALJ and Superior Court determined, the DEQ's interpretation of the pH rules

is reasonable and consistent with the regulations. The regulations do not require that the pH of swamp waters stay the same as they currently are and that no new discharges be allowed if the discharge would change the pH. Again, the law requires the balancing of many interests and expertise in analyzing the conditions of the waters affected by each permit application. On *de novo* review of Petitioners’ issue “of law[,]” the ALJ and superior court correctly concluded that DEQ's issuance of the Permit did not violate pH water quality standards of Blounts Creek.

F. Reopener Provision

[20] Petitioners last argue that the “required reopener provision does not authorize DWR to issue a permit expected to violate **841 water quality standards.” (Original in all caps.) Petitioner notes that

[f]or *unexpected* water quality standard violations that occur *after* a permit is issued, DWR has the authority to reopen and modify a permit—a condition that is memorialized in standard conditions for all discharge permits. *See* 15A N.C. Admin. Code 02H .0114(a) [App. 140]; 40 C.F.R. §§ 122.41(a) and 122.41(f) [App. 105-6] *740 (R p 1603). This standard condition has been referred to as a “reopener provision.”

(Emphasis added.) Petitioners contend the superior court erred by determining that the reopener provision “can absolve the agency of its obligation to deny a permit without ensuring compliance with either the swamp waters classification or the pH water quality standard.”

Martin Marietta argues that the premise of Petitioner's argument is erroneous because “the Permit reasonably ensures compliance with and does not violate any water quality standards, and Petitioners failed to carry their burden of proof to show otherwise.” As already noted, we agree. Neither the ALJ nor superior court determined that a reopener provision can “absolve” DEQ of compliance with water quality standards. Instead, the ALJ determined the Permit reasonably ensures compliance with the water

quality standards, and the superior court determined the Permit reasonably ensured compliance with all water quality standards except “biological integrity,” but we have reversed that conclusion.

The Permit was issued based upon predictions of the expected impact of the discharge of wastewater into Blounts Creek, but if those predictions prove to be wrong, DEQ has authority to modify or revoke the Permit. To ensure compliance with water quality standards, the ALJ found the Permit requires monitoring of Blounts Creek after discharge of water from the quarry begins:

145. On July 24, 2013, DWR issued the final NPDES Permit in the same form as it had been presented to the EPA. (Belnick, Tr. Vol. 6 pp. 1053-1054; Ex. R29; Ex. R27).

146. The Permit terms include discharge controls, effluent and instream monitoring, and benthic biological monitoring requirements. (Ex. R29)

147. Effluent monitoring requirements include flow, total suspended solids, total iron, turbidity, settleable solids, total nitrogen, total phosphorus, temperature, and pH. (Ex. R29 pp.3-4)

148. The Permit also requires instream monitoring at two downstream stations (D1 and D2) for pH, salinity, temperature, and turbidity. (Ex. R29)

149. The Permit requires benthic sampling at four locations, the results of which must be submitted at least six months prior to the expiration of the permit (which *741 expires every five years). (Belnick, Tr. Vol. 6 pp. 1054-1055; Fleek, Tr. Vol. 7 pp. 1123-1128; Ex. R29)

150. The benthic monitoring provision requires submission of a sampling plan to DWR for approval prior to sampling, and requires compliance with DWR sampling protocols. (Fleek, Tr. Vol. 7 pp. 1123-1128; Ex. R29)

In addition, the Permit requires Martin Marietta “to obtain other state authorizations for its proposed quarry” which also address “potential impacts on water quality,” including “a certification under Section 401 of the Clean Water Act and a consistency concurrence from the North Carolina Division of Coastal Management (“DCM”).” The ALJ order also found:

153. On May 15, 2013, DWR issued Water Quality Certification DWQ #11-1013 (“401 Certification”) to Respondent-Intervenor. (Ex. MMM46)

154. The 401 Certification requires, among other things: (a) that construction activities must follow best management practices “so that no violations of state water quality standards, statutes, or rules occur”; (b) a monitoring plan for some of the same concerns raised and addressed in the NPDES permit process, including: “measures to monitor physical and chemical stability of headwater streams to ensure that the project does not result in violation of water quality standards,” and an annual report summarizing the monitoring results; and (c) that Martin Marietta conduct the authorized **842 activities “consistent with State water quality standards.” (Ex. MMM46 pp. 4-6)

155. DWR is authorized to modify the 401 Certification, if needed, to ensure compliance. (Belnick, Tr. Vol. 6 pp. 1064-1068; Ex. MMM46 p. 6)

156. In February 2014, DCM issued Coastal Management Program Consistency Concurrence DCM #20120010 (“Coastal Consistency Concurrence”) that requires Respondent-Intervenor to, among other things: (a) coordinate with DCM to develop fisheries monitoring that will assess impacts of the proposed project on fish species and habitat in the Blounts Creek system; (b) coordinate with DCM to develop a monitoring protocol that will assess potential impacts of the proposed project on stream bank *742 stability within the Blounts Creek system; (c) comply with the NPDES Permit and provide a copy of all benthic monitoring reports to DCM; and (d) comply with the 401 Certification and provide a copy of all wetland hydrology monitoring reports to DCM. (Belnick, Tr. Vol. 6 pp. 1057-1059; Ex. R32 p. 2)

157. DWR may revisit the NPDES Permit and modify or revoke it at any time based on information from the monitoring and reporting requirements of the Permit as well as information collected pursuant to the Coastal Consistency Concurrence and the 401 Certification. (Reeder, Tr. Vol. 7 pp. 1151-1153; Ex. R32; Belnick, Tr. Vol. 6 pp. 1059; Ex. R32; Ex. R29)

This Court addressed a similar argument regarding potential future water quality violations in *Deep River Citizens’ Coalition v. North Carolina Department of Environment and Natural Resources*, 165 N.C. App. 206, 598 S.E.2d 565 (2004). The Petitioner argued the Environmental Management Commission (“EMC”) and trial court erred by determining the Randleman Dam and Reservoir project “would not violate certain water quality standards[.]

specifically “water quality standards for chlorophyll *a*.” *Id.* at 209, 598 S.E.2d at 567. Petitioners contended the computer models used by EMC to predict the effects of the project on chlorophyll *a* level were “flawed and unreliable.” *Id.* at 212, 598 S.E.2d at 569. Although some models predicted chlorophyll levels within the applicable standard, other computer models predicted levels in excess. *See id.* This Court noted that when

the Director of the Division of Water Quality issued the 401 Certification, he was aware of the potential for water quality standard violations and “specifically considered the existing Randleman Lake Water Supply Watershed Nutrient Management Strategy and the opportunity that the State would have to impose additional restrictions on nutrient sources in the event of actual or threatened water quality standard violations after the reservoir is constructed.” We agree with respondents that “no one will know precisely whether or to what extent exceedances ... of the Standard will occur until construction of the dam and impoundment of the lake have been completed” but that mere “knowledge of the potential for exceedances ... of the chlorophyll *a* standard was not sufficient to preclude DENR from issuing the 401 Certification.” The trial *743 court therefore had before it substantial and competent evidence that, in the event water quality standards were actually threatened, the State could impose additional restrictions to avoid chlorophyll *a* violations. We conclude the trial court did not err in concluding that DENR provided reasonable assurance that the State's water quality standards would not be violated by the proposed project.

Id. at 213, 598 S.E.2d at 569 (brackets omitted).

Just as in *Deep River*, “no one will know precisely whether or to what extent” violations of various water quality standards, including standards not addressed in this opinion, may occur until after discharge of wastewater begins. *Id.* The ALJ and superior court determined that the Permit reasonably ensures compliance with water quality standards, but the Permit requires specific monitoring and reports, and if a violation does occur, DEQ can modify or revoke the Permit to prevent further violations of water quality standards. The reopener provision in no way allows DEQ “to issue a permit expected **843 to violate water quality standards” as Petitioner contends. This argument is without merit.

IV. Conclusion

Ultimately, we affirm the superior court's order as to the ALJ's conclusions on compliance with pH standards and swamp water and reverse the superior court's order as to the ALJ's findings and conclusions on compliance with the biological integrity standards. As a practical matter, this means the ALJ correctly determined the Permit was properly and validly issued in accord with applicable regulations.

AFFIRMED in part; REVERSED in part.

Judge **BROOK** concurs in part and concurs in the result in part with separate opinion.

Judge **HAMPSON** concurs in part and dissents in part with separate opinion.

BROOK, Judge, concurring in part and concurring in the result in part.

I agree with the lead opinion's rejection of Martin Marietta's motion to dismiss. I further agree with the lead opinion's conclusion that Petitioners demonstrated their rights were substantially prejudiced and are thus “person[s] aggrieved” within the meaning of [Section 150B-23\(a\)](#). *744 And I agree with the lead opinion's rejection of Petitioners' argument pertaining to the reopener provision. Accordingly, I join these portions of the opinion in full.

I also agree with the lead opinion that we must affirm the superior court's order as to DEQ's compliance with the swamp waters supplemental classification and the pH water quality standards. I further agree that we must reverse the superior court's order as to the ALJ's findings and conclusions regarding compliance with the biological integrity standard. I concur only in the result as to these issues, however, because I would decide them strictly on the basis of the deference owed DEQ's interpretation of these regulations and the ALJ's assessment of the record.

As the lead opinion notes, the crux of the dispute is whether DEQ misinterpreted the biological integrity, swamp water, and pH regulations and, as a result, failed to engage in a sufficiently rigorous process.

The scope of our review as to these issues is limited. “[U]nless clearly erroneous or inconsistent with the regulation's plain language[,]” we defer to “an agency's interpretation of its own regulations[.]” *Hilliard v. N.C. Dep't of Corr.*, 173 N.C. App. 594, 598, 620 S.E.2d 14, 17 (2005). And, in assessing whether

the factual record evinces compliance with the agency's interpretation of its regulations, we are similarly constrained:

[O]ur Supreme Court has made clear that even under our *de novo* standard, a court reviewing a question of law in a contested case is without authority to make new findings of fact. Under the whole record test, the reviewing court may not substitute its judgment for the ALJ's as between two conflicting views, even though it could reasonably have reached a different result had it reviewed the matter *de novo*. Instead, we must examine all the record evidence—that which detracts from the ALJ's findings and conclusions as well as that which tends to support them—to determine whether there is substantial evidence to justify the ALJ's decision. Substantial evidence is relevant evidence a reasonable mind might accept as adequate to support a conclusion. We undertake this review with a high degree of deference because it is well established that ‘[i]n an administrative proceeding, it is the prerogative and duty of the ALJ, once all the evidence has been presented and considered, to determine the weight and sufficiency of the evidence and the credibility of the witnesses, to draw inferences from the facts, and to appraise *745 conflicting and circumstantial evidence. The credibility of witnesses and the probative value of particular testimony are for the ALJ to determine, and the ALJ may accept or reject in whole or part the testimony of any witness.’

N.C. Dep't of Pub. Safety v. Ledford, 247 N.C. App. 266, 286-87, 786 S.E.2d 50, 63-64 (2016) (internal citations and marks omitted) (quoting **844 *City of Rockingham v. N.C. Dep't of Env't. & Natural Res., Div. of Water Quality*, 224 N.C. App. 228, 239, 736 S.E.2d 764, 771 (2012)).

These standards compel us to affirm the ALJ here. As discussed by the lead opinion, the agency's interpretations of its own regulations in question are not clearly erroneous. Further, and again as chronicled by the lead opinion, there is evidence (much of it unchallenged by Petitioners and thus binding on our Court) a reasonable mind might accept as adequate to support the ALJ's conclusions that DEQ complied with its long-standing regulatory interpretations in issuing this permit.

I write separately because, pursuant to the controlling case law and standard of review, I would stop there. Whatever the merits of agency deference, it governs our deliberation and, coupled with the deference owed to the ALJ, decides this case.

I respectfully concur in part and concur in the result in part.

HAMPSON, Judge, concurring in part and dissenting in part. I agree with the majority opinion's conclusion Petitioners demonstrated their rights were substantially prejudiced and are “person[s] aggrieved” within the meaning of Section 150B-23(a). I also concur in the majority opinion's conclusions the trial court should be affirmed as to the ALJ's conclusions on compliance with pH standards and swamp water. I dissent, however, from the majority opinion's conclusion the trial court erred by failing to give DWR's interpretation of the “biological integrity standard” appropriate deference. Rather, I would affirm the trial court's conclusion DWR did not demonstrate compliance with the biological integrity standard. As such, I would affirm the trial court's Order in full including, specifically, the determination the ALJ's Final Decision should be reversed and the Permit be revoked.

The role of an appellate court in reviewing a trial court's order affirming a decision by an administrative agency is two-fold. We must: (1) determine the appropriate standard of review and, when applicable, (2) determine whether the trial court properly applied this *746 standard. *De novo* review is applied where an error of law is alleged.

York Oil Co. v. N.C. Dep't of Env't, Health, & Natural Res., 164 N.C. App. 550, 554, 596 S.E.2d 270, 273 (2004) (citations and quotation marks omitted). As the majority opinion notes, the issue before this Court is a question of law reviewed *de novo*. See *N.C. Dep't of Pub. Safety v. Ledford*, 247 N.C. App. 266, 286, 786 S.E.2d 50, 63 (2016).

“ ‘When the issue on appeal is whether a state agency erred in interpreting a regulatory term, an appellate court may freely substitute its judgment for that of the agency and employ *de novo* review.’ ” *York Oil Co.*, 164 N.C. App. at 554, 596 S.E.2d at 273 (citing *Britt v. N.C. Sheriffs' Educ. and Training Stds. Comm'n*, 348 N.C. 573, 576, 501 S.E.2d 75, 77 (1998)). “[A]n administrative agency's interpretation of its own regulation should be accorded due deference unless it is plainly erroneous or inconsistent with the regulation.” *Id.*

at 554-55, 596 S.E.2d at 273 (citation and quotation marks omitted). Consequently, “[a]lthough the interpretation of a statute by an agency created to administer that statute is traditionally accorded some deference by appellate courts, those interpretations are not binding.” *WASCO LLC v. N.C. Dep’t of Env’t & Nat. Res.*, 253 N.C. App. 222, 228, 799 S.E.2d 405, 410-11 (2017) (citing *Savings & Loan League v. Credit Union Comm.*, 302 N.C. 458, 465-66, 276 S.E.2d 404, 410 (1981) (quotation marks omitted)).

“It is the public policy of the State to maintain, protect, and enhance water quality within North Carolina.” *N.C. Gen. Stat. § 143-211(b)* (2019). Accordingly, the North Carolina Environmental Management Commission is required to adopt water quality standards for bodies of water throughout North Carolina. *See N.C. Gen. Stat. §§ 143-214.1, -212*. As the majority opinion detailed, Blounts Creek is classified as a Class C body of water with additional portions classified as Sw and NSW. Bodies of water that fall under Class C classification are subject to the water quality standards set forth in *15A N.C.A.C. 2B.0211*. Notably, the best usage of Class C waters includes “aquatic life propagation and ****845** maintenance of biological integrity (including fishing and fish), wildlife, secondary recreation, agriculture[.]” *15A N.C.A.C. 2B.0211(1)* (2018) (emphasis added).

“Biological integrity” is defined as “the ability of an aquatic ecosystem to support and maintain a balanced and indigenous community of organisms having species composition, diversity, population densities and functional organization similar to that of reference conditions.” *15A N.C.A.C. 2B.0202(11)* (2018). Therefore, as a Class C body of water, emissions into Blounts Creek must not impair the biological integrity of ***747** the water body. *See 15A N.C.A.C. 2B.0211(2)* (“Sources of water pollution that preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard[.]”).

I would affirm the trial court's conclusion DWR “did not ensure reasonable compliance with the biological integrity standard set forth in *15A N.C.A.C. 02B.0211(2), 0220(2)* and *0202(11)*.” I recognize this Court affords deference to an agency's interpretation of its own regulations; however, that necessarily means the agency actually has an interpretation of the regulation. In the present case, the Record does not indicate DWR had any interpretation for the “biological integrity standard” that it employed when evaluating the water quality standards prior to issuing the NPDES permit at issue

to which deference is due. Instead—as the majority opinion notes and the ALJ found—final decision maker and Director of DWR

Mr. Reeder testified that he “[did not] know if there is such a thing” as a biological integrity analysis, and he “never really heard of such a thing” in that there are no statutes or rules setting out numeric standards or explicit methods or metrics by which DWR must make a determination that an NPDES permit reasonably ensures compliance with the biological integrity standard.

Further, “Mr. Fleek provided review, input, and opinions as to potential biological effects, Mr. Fleek was not asked to provide, nor did he provide, an opinion as to whether proposed discharge would comply with the biological integrity standard.”

The majority opinion here relies on the fact that there “are no statutes or rules setting out numeric standards or explicit methods or metrics by which DWR must make a determination” in concluding that DWR was entitled to our deference in its interpretation of the biological integrity standard. Indeed, after the fact, DWR now contends it complied with the biological integrity standard because the “Standard Operating Procedure” encompasses the parameters defined in *15A N.C.A.C. 2B.0202(11)* as supporting biological integrity. However, this ignores the requirement that the parameters supporting biological integrity be considered together and *before* the issuance of the NPDES permit.

In this regard, unlike the majority, I see no conflict between the ALJ's findings of fact and the trial court's findings and legal conclusions. The ALJ documented the actions taken by DWR in reviewing the Permit Application but yet accepts that none of those actions were taken in the context of a specific analysis of biological integrity. This is not in tension ***748** with the trial court's decision. To the contrary, the trial court determined, notwithstanding DWR's efforts to retroactively justify its decision, the regulation is clear: in reviewing a Permit Application, DWR is required to undertake sufficient analysis to ensure the biological integrity standard (as that term is defined) is met.¹¹ It is just as clear on ****846** this Record, DWR did not undertake that analysis in reviewing the application.¹² Thus, as the trial court concluded, DWR was not entitled to any deference in how it interpreted or analyzed a biological integrity standard that it failed to interpret or analyze. Put another

way: interpreting the regulation requiring DWR to reasonably ensure any discharge would not preclude the protected use of Blounts Creek to maintain its biological integrity in a manner that allows DWR to functionally ignore that very requirement during the permitting process would be plainly inconsistent with the plain language of the regulation and, thus, DWR is not entitled to any deference in such an interpretation. *Pamlico Marine Co., Inc. v. N. C. Dep't of Natural Resources*, 80 N.C. App. 201, 206, 341 S.E.2d 108, 112 (1986) (“Ordinarily, an administrative agency's interpretation of its own regulation is to be given due

deference by the courts unless it is plainly erroneous or inconsistent with the regulation.”(citation omitted)).

*749 I therefore disagree with the majority opinion and would affirm the trial court's conclusion DWR did not reasonably demonstrate compliance with the biological integrity standard. Accordingly, I would also affirm the trial court's Order requiring the Permit be revoked.

All Citations

271 N.C.App. 674, 845 S.E.2d 802

Footnotes

- 1 Petitioner Sound Rivers, Inc. was known as the Pamlico-Tar River Foundation when the original petition for a contested case hearing was filed; it noted its name had changed to Sound Rivers, Inc. effective 1 April 2015 in its 20 April 2015 petition for judicial review. For simplicity, we will refer to the petitioner throughout this opinion as Sound Rivers.
- 2 No party has argued this case may be moot based upon the fact that the Permit as issued would have expired in 2018. “A case is ‘moot’ when a determination is sought on a matter which, when rendered, cannot have any practical effect on the existing controversy. Thus, the case at bar is moot if an intervening event had the effect of leaving plaintiff with no available remedy. A moot claim is not justiciable, and a trial court does not have subject matter jurisdiction over a non-justiciable claim. Moreover, if the issues before the court become moot at any time during the course of the proceedings, the usual response is to dismiss the action for lack of subject matter jurisdiction.” *Cumberland Cnty. Hosp. Sys., Inc. v. N.C. Dep't of Health & Human Servs.*, 242 N.C. App. 524, 528-29, 776 S.E.2d 329, 333 (2015) (citations, quotation marks, brackets omitted). But an exception to the mootness doctrine applies to this case because it is “capable of repetition, yet evading review[.]” *Id.* at 529, 776 S.E.2d at 333-34 (“Two elements are required for the capable of repetition, yet evading review exception to apply: (1) the challenged action is in its duration too short to be fully litigated prior to its cessation or expiration, and (2) there is a reasonable expectation that the same complaining party would be subjected to the same action again.” (citations, quotation marks, and brackets omitted)).
- 3 North Carolina General Statute § 150B-45 was amended in 2018; the amendment does not affect this case. See N.C. Gen. Stat. § 150B-45 (2018).
- 4 Subsection(f) was amended in 2018. See N.C. Gen. Stat. § 150B-23 (2018).
- 5 Implicit in this holding is also a rejection of Martin Marietta's argument that “North Carolina courts have held that only the state, and not individual plaintiffs, can enforce public trust rights” such as interests in fishing, boating, and recreation. As DEQ acknowledges, the cases Martin Marietta cites for this proposition are inapposite. This is not a claim under public trust doctrine or any other common law action, see *Town of Nags Head v. Cherry, Inc.*, 219 N.C. App. 66, 723 S.E.2d 156 (2012); *Fish House, Inc. v. Clarke*, 204 N.C. App. 130, 693 S.E.2d 208 (2010), but instead a request for review of an agency action pursuant to the North Carolina Administrative Procedure Act. In such an action, the organic statute at issue defines the rights, duties, and privileges that provide the grounds for the administrative hearing. *Empire Power Co.*, 337 N.C. at 583, 447

S.E.2d at 583. North Carolina's water quality statutes and associated rules specifically protect water quality for recreational uses. See, e.g., *N.C. Gen. Stat. § 143-214.1(3) (year)* (directing adoption of water quality standards and classifications that consider the use and value of waters of the state for "recreation"); *15A NCAC 02b.0101(c)(1)* (stating Class C are freshwaters protected for "secondary recreation" and "fishing"). Petitioners "interests in the waters affected" by the discharge at issue "are discrete and particular to [its] certain members who live near, or who visit, fish, or shellfish in the affected waters, and are not merely a generalized public interest." *Holly Ridge Assoc., LLC v. N.C. Dept' of Env't & Natural Resources*, 176 N.C. App. 594, 603, 627 S.E.2d 326, 333 (2006), *rev'd on other grounds*, 361 N.C. 531, 648 S.E.2d 830 (2007).

6 "(6) 'Waters' means any stream, river, brook, swamp, lake, sound, tidal estuary, bay, creek, reservoir, waterway, or other body or accumulation of water, whether surface or underground, public or private, or natural or artificial, that is contained in, flows through, or borders upon any portion of this State, including any portion of the Atlantic Ocean over which the State has jurisdiction." *N.C. Gen. Stat. § 143-212(6) (2013)*.

7 In Petitioners' brief to the superior court Petitioners challenge the findings of fact and conclusions of law in such a manner that it is difficult to keep track of what actually is at issue before the court. For instance, in paragraph 81 of Petitioners' brief they challenge findings of fact "19, 23-25," and then in paragraph 82 they challenge findings of fact "17-20, 22-25[.]" the latter which obviously encompasses the former and broadens it; this is but one of many such examples. Petitioners have divided their challenges based upon the topic they deem to be at issue, but for this Court's purposes we simply note that Petitioners challenged many of the ALJ's substantive findings of fact and conclusions of law as to biological integrity, but the challenges were so extensive we have not listed all of them, although we have considered all.

8 The following quote from the superior court order arguably includes some findings of fact, but the superior court stated its decision as based upon *de novo* review of a legal issue.

9 This section is quoted as it was in the record before us, including spacing and punctuation.

10 Dr. Eban Bean was a witness for Petitioners.

11 I do not read the trial court's decision as declaring every aspect of the biological integrity standard, its component parts, or the specific measurements required to be clear and unambiguous and not subject to any deference in its interpretation and application. Rather, I read the trial court's decision as concluding simply that the regulation expressly and clearly requires DWR, in reviewing an application, to specifically undertake steps to ensure compliance with the biological integrity standard, including analysis of the definitional components of that standard. It is no stretch to further conclude that in order to ascertain whether or not a proposed application would preclude "the ability of an aquatic ecosystem to support and maintain a balanced and indigenous community of organisms having species composition, diversity, population densities and functional organization similar to that of reference conditions[.]" *15A N.C.A.C. 2B.0202(11) (2018)*, an affirmative determination of the "reference conditions" is necessarily required.

12 Indeed, on this Record, there is reason to believe had DWR contemporaneously conducted any type of analysis envisioned by the regulation, it may well have reached a different conclusion. For example, the Record reflects email correspondence in which Mr. Fleek notes:

The biota presently found in the Blounts Creek system is adapted to intermittent flow, low pH, and low dissolved oxygen. The proposed discharge will alter the natural physico-chemical [sic] parameters of this system As such, many of the taxa currently found in this system which are adapted to the natural condition will be replaced by taxa that are adapted to more permanent flows, higher pH, and higher dissolved oxygen levels. The taxa that are naturally occurring to this type of stream system will be replaced

with taxa that are not typical to this type of system.... These types of streams, and the taxa which inhabit them, are not normally found in North Carolina's coastal plain.