Appellants
Suzanne Johnson (sjohnson@iwlcadvocate.com); David Page, PhD (dpage@bowdoin.edu)
Paul Ciesielski rockgator@me.com; Katz Josh katzthal@comcast.net
c/o PO Box 419
Topsham ME 04086

VIA FACSIMILE AND U.S. MAIL

August 20, 2020

Chair, Board of Environmental Protection
17 State House Station
Augusta ME 04333-0017

Re: Apartments at Brunswick Landing, LLC

Dear Chairperson:

Enclosed for filing is an appeal of the Water Quality Certification Stormwater Management Law, Natural Resources Protection Act and Freshwater Wetland Alteration Permit granted to Apartments at Brunswick Landing, LLC on July 23, 2020.

Appellant requests a public hearing on this matter given the serious harm posed by the degraded stormwater system transporting contaminated groundwater on site.

This permit should be reversed until such time as the existing stormwater system which was approved by this permit to accept 20% runoff from the project proposed is upgraded and the migration of the contaminated groundwater on site contained.

Very truly yours,

Suzanne L. Johnson

David Page, PhD

Paul Ciesielski, PhD

Josh Katz

cc: Gerald Reid, Commissioner, DEP
Apartments of Brunswick Landing, LLC
c/o Nicholas J. Morrill, Registered Agent
PO Box 4510
Portland ME 04112-4510
Steve Levesque, MRRA

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER
IN THE MATTER OF

APARTMENTS AT BRUNSWICK LANDING, LLC	) STORMWATER MANAGEMENT LAW
Brunswick, Cumberland County	) NATURAL RESOURCES PROTECTION ACT
APARTMENTS AT BRUNSWICK LANDING	) FRESHWATER WETLAND ALTERATION
L-28632-NJ-A-N (approval)	)
L-28632-TC-B-N (approval)	) APPEAL OF
	) WATER QUALITY CERTIFICATION
	) FINDINGS OF FACT AND ORDER

WHEREAS on July 23, 2020 Gerald D. Reid, Commissioner for the State of Maine Department of Environmental Protection issued a permit for the construction of a stormwater management system to Apartments at Brunswick Landing, LLC (the "Apartments LLC"); and

WHEREAS the Apartments, LLC seeks to construct nine 3-story, approximately 1,200 square foot buildings, each with 12 apartments units, a 2,400-foot clubhouse, walkways and parking for 172 vehicles on a 5.69-acre parcel of land; and

WHEREAS the proposed project will result in the creation of approximately 5.67 acres of developed area, of which 2.83 acres are impervious area. The project site is located on the north side of Admiral Fitch Avenue on the former Naval Air Station ("BNAS") in the Town of Brunswick. A portion of the stormwater runoff from the proposed project will be discharged into the existing stormwater system, which is under the jurisdiction of the MidCoast Regional Redevelopment Authority (MRRA); and

WHEREAS, the Apartments LLC project will fill approximately 14,400 square feet of forested wetlands under the Natural Resources Protection Act for construction of the apartment complexes; and

WHEREAS the project location lies within the watershed of Mare Brook, (also known as Mere Brook) which is classified as an Urban-Impaired Stream; and

WHEREAS as designed and permitted, the Apartments LLC's stormwater management plan will mitigate approximately 80% of the developed project area and as designed a "portion of the stormwater runoff from the proposed project will be discharged into an existing storm sewer system which is under the jurisdiction of the MidCoast Regional Redevelopment Authority (MRRA)." (paragraph 2C of permit). In an email dated June 15, 2020, MRRA authorized the applicant to discharge runoff into MRRA's storm sewer system which ultimately discharges to Mare Brook (a copy of MRRA's permission is attached hereto as Exhibit A and incorporated herein by reference); and

WHEREAS, the stormwater system at the former BNAS was constructed by the Navy in the 1940-50s. To do so, three natural drainage systems were altered by the construction of retention ponds that hold and treats storm water. The largest of these systems, the Picnic Pond storm water system, receives over 80% of the storm water which is discharged from the developed portion of the former base, including the airfield. In 2011 the NPDES permit was terminated and the Navy transferred the stormwater system to MRRA; and

WHEREAS, according to the 2005 report to the Town of Brunswick, the stormwater system consists of "160 manholes, 810 catch basins, and 77,176 feet of pipe ranging from 8 inch to 72 inch in diameter. The pipe materials include vitrified clay, asbestos cement, polyvinyl chloride and reinforced concrete" (page 111-9, BRAC Preparedness Strategy Report, RKG Associates, 20050). Currently it is believed that MRRA holds a Multisector Permit MER05C027 for the stormwater system (although no copy of this permit has been provided to Appellants upon their request); and

WHEREAS the stormwater system was constructed to capture runoff from the BNAS activities and it was not designed to meet current regulatory guidelines, or to treat this additional stormwater from residential development. Permitting additional stormwater into the existing dysfunctional system will serve to increase the transport of contaminated groundwater infiltrating the system around the BNAS property and off site impacting offsite waterbodies; and

WHEREAS the open stormwater ponds unique to this property create additional hazards for residential development as the unfenced ponds contain contamination from groundwater leaking into the faulty stormwater system all of which is located in areas now encouraged for outdoor hiking and recreation, virtually inviting human contact to contaminated water courses; and

WHEREAS, the standards for stormwater approval are to prevent and control the release of pollutants to waterbodies, wetlands, and groundwater and to reduce impacts associated with increases and changes of flow;

NOW THEREFORE, Suzanne L. Johnson, David Page, PhD and Paul Ciesielski, PhD residents of the Town of Brunswick and Harpswell and members of the Restoration Advisory Board [1] and Joshua Katz a recreational user of the BNAS property (the "Appellants") file this appeal to this decision asserting that the permit relies upon a discharge to the current MRRA stormwater system which is untenable because of all of the following reasons:

* the existing MRRA stormwater system is dysfunctional and in disrepair and under existing conditions is transporting contaminated groundwater throughout the former base property and impacting off base properties as well;

* the current MRRA stormwater system is a legacy system constructed by the Navy and whose design was not reviewed nor permitted by the DEP. It is not clear if this system or MRRA is currently in compliance with its permit requirements;

* the Navy continues to own the retention ponds and Picnic Pond which are the stormwater retention system and plans to implement a remediation and to modify these ponds. Therefore the Appellants who requested DEP that they be permitted involvement in a public hearing for the project to ensure all environmental restrictions and conditions of the property were considered and the Navy which own the ponds were excluded from the process; and finally,

* none of the environmental restrictions placed by the deed restriction for the property prohibiting either contact with the groundwater on site, or increases or decreases to the groundwater have been addressed in this application creating the expectation for more migration of the existing contaminated groundwater which has infiltrated the stormwater system, increasing the further migration of contamination both on and off base;

For all of these reasons, the permit is defective on its face and defective in its role of failing to assess the existing stormwater system operated by MRRA and its role in moving contaminated groundwater around the property both on base and off base and surfacing to publicly accessible and recreationally promoted land around the water courses.

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[1] The Restoration Advisory Board ("RAB") is established at the direction of the Department of Defense as a result of the Federal Facilities Environmental Restoration Dialogue Committee requiring RABS to be formed al all closing installations and non-closing installations to create a partnership among citizens, the installation, EPA, and the State. The RABs are intended to offer an opportunity for communities to provide input to the cleanup process, to improve the sources of government decisions and ensure cleanups are responsive to community needs. https://www.epa.gov/fedfac/restoration-advisory-board-rab-implementation-guidelines . David Page is the Town of Brunswick representative to the Restoration Advisory Board to represent its citizen interests. In his career as a professor of Chemistry and Biochemistry at Bowdoin College he has specialized in the fate and effects of petroleum and other pollutants on marine environments. Paul Ciesielski is also a retired professor of Geology and has been appointed by the Town of Harpswell to serve as the Town's representative to the RAB.

Years of on-going investigations by the Navy at the former BNAS indicate that groundwater contaminated with Perfluorinated Compounds (PFAS) and other contaminants of concern are infiltrating into the stormwater system on the base. (Resolution, 2019 copy attached and incorporated here by reference). The map attached hereto as Exhibit A is from the Navy's own technical report and confirms the PFAS contamination being transported in the stormwater system, at concentrations that exceed the human health advisory limits for drinking water.

As part of their work with Maine PFAS Task Force, Maine DEP compiled all the available PFAS sample data for Maine into a summary table categorized by site type (Maine PFAS Data 2007-2019). A comparison of maximum PFAS concentrations at BNAS to the MDEP statewide summary indicates that the former BNAS has the highest concentrations of PFAS contaminants in groundwater, surface water and stormwater reported to date in the State of Maine. In many cases concentrations of PFAS compounds at the former BNAS exceed other contaminated Maine sites by several orders of magnitude, indicating that the former BNAS is the one of the most highly contaminated sites in Maine with regard to PFAS compounds. For example, a 2018 groundwater sample collected from monitoring well MW-09-001, located on Site 9 near Pond A, had a combined PFOA and PFOS concentration of 33,000 ng/L. This level is more than 400 times the EPA Health Advisory of 70 ng/L for PFOA and PFOS in drinking water. Equally concerning are the extremely elevated levels of PFAS compounds in surface water samples collected at SW-46, SW-50 and SW-55 and from streams north of the Old Bath Road (Route 24) where PFOS concentrations ranged from 1,200 to 4,200 ng/L. Samples of stormwater collected from catch basins CB-637, CB-633 and CB-620, which discharge into the Picnic Pond Stormwater Retention System, had PFOS concentrations ranging from 1,300 to 7,200 ng/L.

The largest portion of the stormwater system which includes the Picnic Pond Retention ponds, discharges this infiltrated stormwater to surface water on the former base property and offsite to Harpswell Cove via Merriconeag Stream/Mare Brook and into the Gulf of Maine. Data collected by the Maine DEP indicate Class B Mere Brook is "non attaining" (NA), at stations below the Picnic Pond Retention ponds. In addition, Maine DMR has classified the upper portion of Harpswell Cove as Prohibited, due to chemical pollution, eliminating the potential for clamming and aquaculture in this formerly productive area. (Map of Mere Brook watershed attached hereto and incorporated by reference as Exhibit B).

The current stormwater system WITHOUT the additional discharge created by this project provides a conduit for PFAS contamination and other contaminants of concern including metals to circulate throughout the MRRA property with ultimate discharge to surface water both on and off the base resulting in potential human and ecological exposure to PFAS contamination. (Exhibit C attached hereto and incorporated herein by reference).

The presence of PFAS is one reason for deed restrictions on the property preventing access to groundwater (both by accretion and deletion as additional pressure on the groundwater system contributes to additional migration of the groundwater). This present condition should have been reviewed in this stormwater application as the current system is enabling the migration of these contaminants.

As support for this appeal, the Appellants state as follows:

1. Among the contaminants of concern in the stormwater system at Brunswick Landing, including metals are the existence of PFAS, a family of compounds known as per and polyfluoroalkyl substances, the most common of which are perfluoroctanesulfonic (PFOs) and perfluoroctanoic (PFOA). The EPA has issued a lifetime drinking water health advisory for PFOA and PFOS based on multiple studies showing harm to animals and humans including kidney cancer, liver damage, thyroid disease and other problems.

2. Public reports offered through the Restoration Advisory Board process confirm PFOA and PFOs chemicals exist at the former BNAS and are transported throughout the faulty stormwater system which has been permitted now to receive stormwater discharge from the Apartments LLC development.

3. MRRA is the owner of the stormwater system infrastructure; however, the land which contains the retention ponds and the Picnic Pond itself (an integral part of the stormwater system) remain under Navy ownership. [redacted] MRRA and the Town of Brunswick are aware that the stormwater system is degraded and has been infiltrated with PFAS contaminated groundwater allowing migration of contaminants throughout the former base property and potentially impacting off-site properties as well.

4. [redacted] Even the permitted storage of snow load can create additional pressure on the groundwater flow, yet the permit and its reviewers make NO comment on the impact of additions to the groundwater or its migration through the stormwater system.

[redacted]

6. The stormwater system operated by MRRA was not permitted by the DEP and was not designed to meet current regulatory criteria. It has not been established that MRRA is in compliance with its multi-sector stormwater permit.

7. MRRA has participated in public meetings regarding the concern about PFAS contamination and its passage through the MRRA owned and operated stormwater system. MRRA and the Town of Brunswick are charged with creating safeguards for any impact to groundwater on the property; yet no substantive discussion of these required safeguards are even reviewed in this application; nor the potential for residential impact with the contaminated groundwater being transported through the stormwater system into open and publicly accessible watercourses.

8. The fact that the stormwater system is transporting PFAS and heavy metal contamination throughout the MRRA owned property and discharging to surface water including Harpswell Cove and the Androscoggin River pose a direct threat to all inhabitants of the Town of Brunswick who come into contact with the PFAS contamination confirmed by the testing conducted to date.

9. Contamination from the Stormwater System has already impacted Mare Creek, an urban impaired stream where biomonitoring conducted downstream of the property has consistently not met water quality criteria, with failure to reach its required class B status[2] . (Exhibit B)

10. Given the existing threat known to exist by MRRA's currently existing defective stormwater system and the knowledge of the PFAS contamination issue, MRRA exceeded its authority granted in permitting additional discharge into an already degraded system stormwater system resulting in the transport and expansion of the impact of these contaminants of concern.

11. MRRA is without legal authority to permit additional discharge into retention ponds they do not own. As described above, these ponds are owned by the Navy, and no permission was sought nor provided to this further incursion of stormwater into their system.

12. The permit is defective as issued; the additional stormwater will continue to exacerbate the existing contamination – such additional discharge can only be permissible once MRRA has installed a functioning stormwater system that has adequate capacity and integrity to be protective of human health and the environment. As such the proposed additional discharge into Public Stormwater System enhances contamination movement and cannot satisfy the criteria set forth in Chapter 500(4)(J).

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[2] [redacted] As such, it is assumed the ponds will remain waterways in the future, with some access by the public for recreational use. [redacted]

13. This appeal is timely made, being filed prior to the 30-calendar day date on which the permit was issued. This timely appeal is being made notwithstanding request being made for information about the stormwater permit and involvement in the process with the Maine DEP to ensure these issues of contamination in the stormwater system would be appropriately addressed.

14. The Appellants have standing to file this appeal of the stormwater permit. Under the Maine Administrative Procedure Act (Maine APA) 5 M.R.S. §11001(1)(2013) "a person is aggrieved within the meaning of the APA if that person rights flow from the challenged agency action. *Nelson v. Bayroot, LLC*, 2008 ME 91 ¶9, 953 A.2d 378. First, the RAB process is designed with intent to permit community involvement in the Superfund cleanup activities at former military installations. Second, the stormwater drainage system at the MRRA property and its transport of PFAS contamination into surface waters which are above human health advisory limits for drinking water are harmful to all who have potential exposure. The retention ponds of the stormwater systems are not only publicly accessible, but access to Picnic Pond is encouraged through the MRRA designated conservation area and Mountain Biking Trails of Neptune Woods Trails.

15. Current access to the watercourses of the stormwater ponds by the public is abundantly evident. The trails include graffiti, signs defaced to read "NOAT BARKING" (formerly Boat Parking) and clothing littered in the areas adjacent to the waters of Picnic Pond. Notwithstanding the risk to human exposure to this stormwater transported PFAS contamination, the ponds contain no warning of the potential for chemical exposure – simply a sign reading "Dangerous Condition. No Swimming, Diving or Wading (and in red print) No Ice Skating." The Danger to the public is real and there has been no mitigation to warn residents of the base or any other Brunswick citizens of the risks posed by these open water sources that serve as MRRA's stormwater system. All citizens of Brunswick, in particular those encouraged to use and using public access trails to open stormwater filled polluted bodies of water, are aggrieved. (see *Matter of Lappie* 377 A.2d at 443 finding stating where petitioner alleged that a waste disposal facility might "pose problems of rodent control, water and seepage into ground water.")

16. As the property surrounding the stormwater system has come into public usage, a public hearing for this permitting process should have been held submitting the input of all stakeholders to the property and public scrutiny of MRRA's decision to encourage additional influent into its degraded stormwater system. At a minimum, Navy concurrence is required due to the retained ownership of the retention ponds and Picnic Pond.

17. Due to the aforesaid concerns and the irreparable injury of additional PFAS contamination being permitted and further encouraged to circulate into the surface waters of the Brunswick property by the addition of additional stormwater the Appellant requests the permit for the Apartments at Brunswick Landing be made conditional upon the upgrade and repair of MRRA's stormwater system such that no groundwater incursion will continue to threaten the surface and open waters of the former BNAS; as such a public hearing would enable a record to be developed that accurately reflects the condition of the property being developed.

For all of these reasons the applicant's stormwater permit must be denied and review of the existing environmental covenants, restrictions on groundwater and PFAS contamination which exist on site must be addressed with its future development of the property. Failure to do so creates irreparable injury to those individuals and ecological resources who and which are impacted by the continued migration of these contaminants in the MRRA/Navy stormwater system.

Dated: August 20, 2020

Respectfully Submitted,

Suzanne L. Johnson

David Page, PhD

Paul Ciesielski, PhD

Joshua Katz

MRRA
Midcoast Regional Redevelopment Authority

6/15/2020

Re: Letter of Assurance of Utilities

To Whom It May Concern,

Please let this letter serve as confirmation that the stormwater service provided by the Midcoast Regional Redevelopment Authority is sufficient to serve the proposed development on Lot 8 at Brunswick Landing in Brunswick, Maine, as described in a letter and plans supplied by Sitelines, PA.

Feel free to contact me if you have any questions or concerns.

Sincerely,

Woodie Bartley, CEM
Utilities Manager
Midcoast Regional Redevelopment Authority
woodieb@mrra.us
Office: 207.607.4189
Cell: 207.280.0335

TMDL Assessment Summary

Mere Brook a.k.a. Mare Brook

Watershed Description

This **TMDL** assessment summary applies to the entire 8-mile length of Mere Brook located in the City of Brunswick, Maine. Mere Brook begins in a wetland area near Matthew Drive. The stream crosses Bettina Lane and flows southeast through a small forested area. Just below Seahawk Avenue, Mere Brook continues underground for approximately 1 mile, as it flows through the Brunswick Naval Complex, emerging near Swampy Brook. Mere Brook then flows east through a wetland, eventually emptying into Harpswell Cove. The Mere Brook watershed covers approximately 3,648 acres in the City of Brunswick.

- Stormwater runoff from **impervious cover (IC)** is likely the largest source of pollution to Mere Brook. Stormwater falling on roads, roofs and parking lots in developed areas flows quickly off impervious surfaces, carrying dirt, oils, metals, and other pollutants, and sending high volumes of flow to the nearest section of the stream.
- Most of the Mere Brook watershed is developed (55%), particularly in the northeastern portion of the watershed near the intersection of Orion Street and Seahawk Avenue. The majority of this development is classified as high-intensity development or developed open space.
- Brunswick Naval Complex is located in the center of the Mere Brook watershed.
- Wetlands and woodlands near the headwaters and the mouth of Mere Brook absorb and filter stormwater pollutants, and help protect both water quality in the stream and stream channel stability.
- Mere Brook is currently on Maine's list of Urban Impaired Streams.

Definitions

- **TMDL** *is an acronym for* ***Total Maximum Daily Load,*** *representing the total amount of a pollutant that a water body can receive and still meet water quality standards.*
- **Impervious cover** *refers to landscape surfaces (e.g. roads, sidewalks, driveways, parking lots, and rooftops) that no longer absorb rain and may direct large volumes of stormwater runoff into the stream.*

Waterbody Facts

- **Segment ID:** ME0106000106_602R02
- **City:** Brunswick, ME
- **County:** Cumberland
- **Impaired Segment Length:** 8 miles
- **Classification:** Class B
- **Direct Watershed:** 5.7 mi² (3,648 acres)
- **Watershed Impervious Cover:** 21%
- **Major Drainage Basin:** Presumpscot River and Casco Bay Watershed

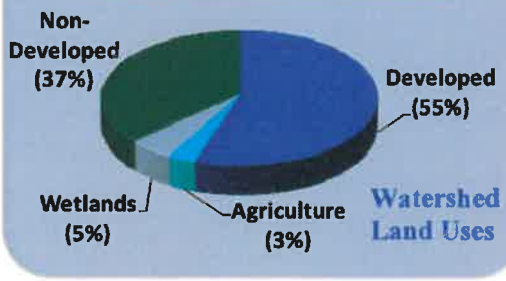

Exhibit B
page 1-4

Why is a TMDL Assessment Needed?

Mere Brook, a Class B freshwater stream, has been assessed by DEP as not meeting water quality standards for aquatic life use and has been listed on the 303(d) list of impaired waters. The Clean Water Act requires that all 303(d)-listed waters undergo a TMDL assessment that describes the impairments and establishes a target to guide the measures needed to restore water quality. The goal is for all waterbodies to comply with state water quality standards.

The impervious cover TMDL assessment for Mere Brook addresses water quality impairments to aquatic life use (based on stream habitat and benthic macroinvertebrate assessments). These impairments are associated with a variety of pollutants in urban stormwater as well as erosion, habitat loss and unstable stream banks caused by excessive amounts of runoff.

Mere Brook downstream of S-144.
(Photo: DEP Biomonitoring Program)

Sampling Results & Pollutant Sources

DEP makes aquatic life use determinations using a statistical model that incorporates 30 variables of data collected from rivers and streams, including the richness and abundance of streambed organisms, to determine the probability of a sample meeting Class A, B, or C conditions. Biologists use the model results and supporting information to determine if samples comply with standards of the class assigned to the stream or river (Davies and Tsomides, 2002).

Mere Brook has benthic-macroinvertebrate data collected by DEP in 2000-2003 at four sampling stations (S-143, S-144, S-331, and S-457). Data collected at these stations indicate Class B Mere Brook meets the lower Class C criteria or is "non attaining" (NA), meaning it does not meet Class A, B, or C conditions on different sample dates.

Sampling Station	Sample Date	Statutory Class	Model Results
S-143	9/11/2000	B	C
S-143	8/7/2001	B	C
S-143	8/24/2001	B	C
S-143	8/14/2003	B	NA
S-143	9/30/2003	B	NA
S-144	9/11/2000	B	NA
S-144	8/7/2001	B	NA
S-144	8/24/2001	B	NA
S-144	9/30/2003	B	NA
S-331	9/11/2000	B	NA
S-331	8/7/2001	B	C
S-331	7/31/2002	B	C
S-457	9/11/2000	B	NA
S-457	8/7/2001	B	C
S-457	7/31/2002	B	NA
S-457	8/14/2003	B	NA
S-457	9/30/2003	B	NA

Impervious Cover Analysis

Increasing the percentage of impervious cover (%IC) in a watershed is linked to decreasing stream health (CWP, 2003). Because Mere Brook's impairment is not caused by a single pollutant, %IC is used for this TMDL to represent the mix of pollutants and other impacts associated with excessive stormwater runoff. The Mere Brook watershed has an impervious surface area of **21%** (Figure 1). DEP has found that in order to support Class B aquatic life use, the Mere Brook watershed may require the characteristics of a watershed with **8%** impervious cover. This WLA & LA target is intended to guide the application of

Best Management Practices (BMP) and Low Impact Development (LID) techniques to reduce the *impact* of impervious surfaces. Ultimate success of the TMDL will be Mere Brook's compliance with Maine's water quality criteria for aquatic life.

*8% IC represents an approximate **62% reduction** in stormwater runoff volume and associated pollutants when compared to existing pollutant loads.*

Impervious Cover GIS Calculations

The Impervious Cover Calculations are based on analysis of GIS coverage's presented in Figure 1. These maps were derived from a detailed field assessment conducted by DEP Staff, as described in the TMDL.

Next Steps

Because Mere Brook is an impaired water, stormwater runoff in the watershed should be considered during the development of a watershed management plan to:

- Encourage greater citizen involvement through the development of a watershed coalition to ensure the long term protection of Mere Brook;
- Address existing stormwater problems in the Mere Brook watershed by installing structural and applying non-structural best management practices (BMPs); and
- Prevent future degradation of Mere Brook through the development and/or strengthening of local stormwater control ordinances.

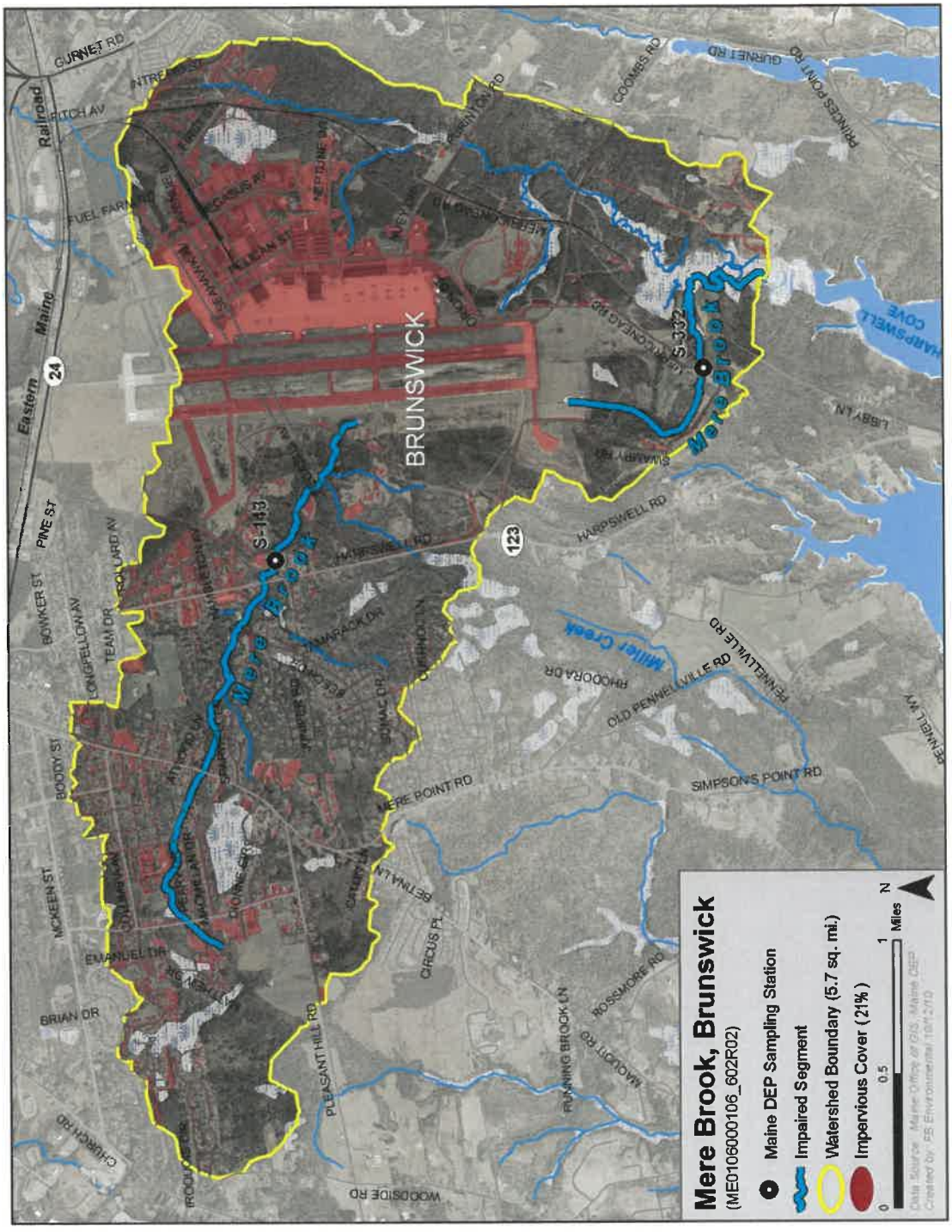

Figure 1: *Map of Mere Brook watershed impervious cover.*

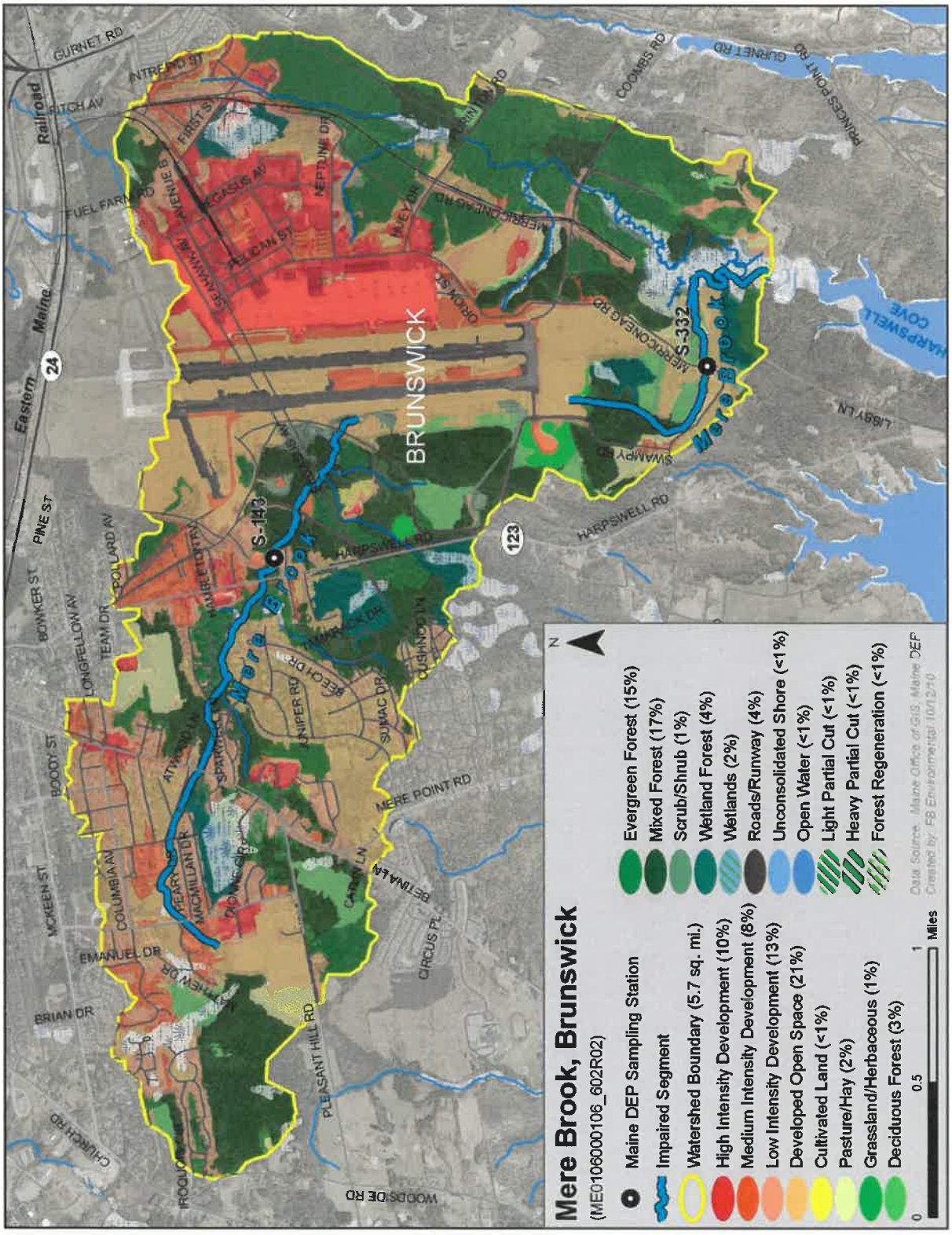

Figure 2: *Map of Mere Brook watershed land cover.*

References

Center for Watershed Protection (CWP). 2003. Impacts of Impervious Cover on Aquatic Systems. Watershed Protection Research Monograph No. 1. Center for Watershed Protection, Ellicott City, MD. 142 pp.

Davies, Susan P. and Leonidas Tsomides. 2002. Methods for Biological Sampling and Analysis of Maine's Rivers and Streams. Maine Department if Environmental Protection. Revised August, 2002. DEP LW0387-B2002.

Maine Department of Environmental Protection (DEP). 2010. Assessment Database Detail Report for Mere Brook. Bureau of Land and Water Quality, Augusta, ME.

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