



Ecosystem Solutions, Inc.

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November 22, 2017

Project no. W17-945

Jonathan M. Sachs, Chair
Wayland Zoning Board of Appeals
Wayland Town Hall
41 Cochituate Road
Wayland, MA 01778-2614

**RE: CHAPTER 40B COMPREHENSIVE PERMIT APPLICATION
'Cascade' Wayland
113-119 Boston Post Road
Wayland, Massachusetts**

Chairman Sachs,

This firm represents Protect Wayland in regards to the above-referenced application (Application). We have reviewed the following:

- Application by Eden Management, dated 7/25/17;
- Letter to ZBA from EBT Environmental Consultants, Inc., last revised 11/21/17;
- Letter to ZBA from McGregor & Legere, dated 11/22/17;
- Letter to ZBA from the West Suburban YMCA-Camp Chickami, dated 9/25/17;
- Memo to ZBA from the Wayland Conservation Commission, dated 8/16/17 and 11/6/17;
- Memo to ZBA from the Wayland Board of Health, dated 8/17/17;
- Memo to ZBA from the Wayland Building Department, dated 8/22/17;
- Memo to Geoff Larson, Building Commissioner from Paul Brinkman, Town Engineer, dated 8/17/17;
- Memo to ZBA from Fire Chief David Houghton, dated 8/7/17;

This firm regularly represents abutters and citizens groups in matters regarding wetland science and the Massachusetts Wetlands Protection Act at M.G.L. c. 131, §40 (WPA) and its Regulations at 310 CMR 10.00, as well as local bylaws in the Commonwealth, in front of local boards and commissions and the Department of Environmental Protection (DEP). My personal credentials are included as an attachment to this letter.

Conservation Commission

It is my opinion that the current iteration of the Application is deficient in regards to basic compliance with the WPA and Regulations, as outlined in the Conservation Commission's memo of 8/16/17 and 11/6/17. We firmly support the findings of both of the Conservation Commission's memo. I would like to add the following commentary to supplement the Commission's:

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1. 310 CMR 10.00 allows stormwater structures within 100' of a perennial stream, at the Commission's discretion and only when the Applicant has satisfied the Commission that no practical alternatives exist. This is a common theme in the Commission's comments; that much of what the Applicant has proposed is *discretionary* to the Commission. To-date, the Application does not meet the basic requirements of the WPA, never mind the Commission's discretion that the project will *not* cause significant impact to the wetland resources on-site.
 2. Advanced & alternative septic technology is imperative to the continued protection of Pine Brook. Per the report by EBT Environmental Associates, Inc. (EBT), Pine Brook is an outstanding cold water fishery (see below).
 3. Although I have not been on-site, I cannot see from aerial photography how the Applicant can qualify for the Riverfront Area Redevelopment provisions. We support the Commission's findings on lack of "degraded" areas on-site and apply most, if not all development as new development.

We do not believe that the ZBA should waive the local Wetlands and Water Resources Protection Bylaw (Chapter 194), which is a crucial document protecting this critical wetland and water resource. Specifically, it is of utmost importance to assure that the Commission have purview under Bylaw §194-2(A) "Alter" (7) and (8), which outline the Commission's ability to perform pre-construction review for projects that may change water temperature, biochemical oxygen demand and other natural characteristics of a receiving water, and any activity, change, or work which pollutes or degrades the quality of any stream, body of water, wetland, buffer zone, or water resource area whether located in or out of the Town of Wayland.

The unique and important component that Chapter 194 brings to the table, as opposed to the WPA and 310 CMR 10.00 is that Chapter 194 gives the local Conservation Commission purview over water quality *directly* through the stated interest of "water quality" and "stormwater quality" under §194-1. The WPA and 310 CMR 10.00 have an interest in protecting water quality, but water quality is specifically addressed under 314 CMR 4.00, the Massachusetts Water Quality Standards, which is administered by MADEP. The WPA gives Commissions purview of projects for the protection, for example, of Public and Private Water Supply, and Groundwater Supply, as well as Prevention of Pollution, but these are public interests that focus more on water *quantity* and not so much as *quality*.

This firm strongly believes that by maintaining the Commission's authority under Chapter 194, it will be better equipped to regulate potential impacts that would present significant and adverse impacts directly to the water and water quality of Pine Brook itself. These concerns are not adequately protected by compliance with state standards alone.

Further, Chapter 194 is important in that it recognizes "passive recreation and aquaculture values" as part of the Bylaw's purpose (§194-1), which the WPA and Regulations do *not* include. This is important given the large recreational component of the YMCA, downstream, in recreational and even educational activities. As written in the YMCA's letter to the ZBA, they serve nearly 1,000 children per year at Camp

Chickami, which is downstream of this proposed Project. A decrease in water quality resulting from insufficient stormwater or septic effluent attenuation, or increase in water quantity resulting from poor site design in a floodplain, will adversely impact the recreational values currently supported at Camp Chickami. Without Chapter 194, the Commission will have no vehicle by which to voice concern about these potential impacts.

Board of Health

We support the Board of Health’s memo of 8/17/17. I especially would like to point out the BOH’s commentary about the fact that testing was performed outside of the high groundwater season. I have reviewed the soil suitability data forms (Form 11) and am concerned about how the Applicant came about making their determination regarding water tables. For example, the test holes show no color or percent coverage data on redoximorphic features (i.e. mottling) that are common in the determination of water tables. They only show depths.

We also agree that it is important to maintain the cold temperatures of the stream, given that wastewater is hot in temperature and eastern brook trout require lower temperatures. A septic system of this size and scope is more likely than not to impact not only water temperatures, but nutrient loading that could negatively impact water quality and therefore fisheries habitat.

EBT Environmental Associates (EBT)

Protect Wayland hired Ecosystem Solutions, Inc., who subcontracted EBT to perform a stream analysis. It is EBT’s analysis, in addition to Massachusetts Fish & Wildlife data since the 1980’s, on-the-record interviews with Fish & Wildlife personnel regarding the ecological integrity of Pine Brook, that lead us to believe that there is solid and substantial evidence that this watercourse deserved protections above-and-beyond those afforded by the minimum, state-level standards even if the Applicant reduces the development footprint to meet them. The level of water quality and fisheries habitat in Pine Brook is rare for eastern Massachusetts and unparalleled in the northeast region. We urge the ZBA, at a minimum, to preserve the Conservation Commission’s ability to retain the use of Chapter 194, and the Board of Health should be able to maintain their “Regulations for On-Site Subsurface Sewage Disposal Systems.”

If you have any questions or concerns, please contact me using the information above.

Sincerely,
Ecosystem Solutions, Inc.
Brandon B. Faneuf, Principal
PWS, RPSS, CWB, CPESC

BF/bf



Professional Resume

Brandon B. Faneuf, Principal
Ecosystem Solutions, Inc.
P.O. Box 1293 / 24 Kenmore Street
West Warwick, RI

EDUCATION

May 1997	University of Massachusetts Bachelor of Science, Wildlife Biology	Amherst, MA
May 1999	University of Massachusetts Master of Science, Wetlands Conservation	Amherst, MA
May 2006	University of Rhode Island 12 Post-Graduate Credits, Soil Science	Kingston, RI

EXPERIENCE

7/03–Present	Principal Scientist Ecosystem Solutions, Inc.	West Warwick, RI
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- Erosion & sediment control design and monitoring
 - MassHighway and RIDOT experience, including delineations, wetland restoration/replication design and construction oversight, environmental/erosion control monitoring
 - Peer Reviews for Massachusetts municipalities
 - Wetland delineations in Massachusetts, Connecticut, & Rhode Island using state and federal methodology
 - Wildlife habitat assessments under the Massachusetts Wetlands Protection Act (310 CMR) & the Corps of Engineers Highway Method
 - All wetland permit application types, preparation, submission and representation at Massachusetts Conservation Commissions, Planning, and Zoning, etc.
 - Wetland replication & restoration plan creation, construction oversight, and long-term monitoring.
 - Section 404 application preparation and submission; U.S. Army Corps of Engineers
 - Section 401 Water Quality Certification application preparation and submission; Massachusetts Department of Environmental Protection and Rhode Island Department of Environmental Management
 - All wetland permit application types; Rhode Island Department of Environmental Management, including wildlife habitat evaluations
 - Massachusetts Environmental Policy Act application preparation (ENF, EIR)
 - Guiding and offering land use planning advice and alternative design analysis to clients throughout Massachusetts and Rhode Island
 - Performing soil evaluations for septic and stormwater infiltration system installation for clients throughout Rhode Island
 - Vernal pool certifications
 - Rare species studies/Massachusetts Endangered Species Act Filings
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1/02–7/03

Environmental Scientist

RI Department of Environmental Management Providence, RI
Shellfish Program

- Sanitary shoreline surveys for open, closed, and conditionally open/closed shellfishing waters, including the Narragansett Bay and the South County Salt Ponds
- Characterizing water pollution problems in coastal shellfishing waters, as well as designing and executing field investigations to characterize water quality conditions, determining the degree of pollution, including the collection of physical, hydrological, and biological data via manual and mechanical methods
- Reviewing staff surveys, interpreting the results of their findings; as well as preparing written shoreline survey reports (1, 3, and 12-year); and recommendations for future shellfish classification
- Working knowledge of National Sanitary Shellfish Program (NSSP) requirements

7/00-7/03

Environmental Scientist

RI Department of Environmental Management Providence, RI
Water Quality Assessments Program (TMDL)

- Development of water assessment and restoration projects (Total Maximum Daily Load-TMDL) per Section 303(d) of the Clean Water Act and EPA's Water Quality Planning and Management Regulations (40CFR Part 130), including project management of the Saugatucket River watershed pathogen TMDL, Indian Run Brook heavy metals (copper, lead, and zinc- using clean hands, dirty hands collection method) TMDL, Saugatucket Pond water quality and noxious aquatic plant investigation, and the Point Judith Pond pathogen TMDL within the Towns of Narragansett and South Kingstown
- Public presentations for local government and various private and public organizations, public meetings. Includes the Town of South Kingstown, the Saugatucket River Heritage Corridor Coalition, and the Salt Ponds Coalition.
- Characterization of water pollution problems in rivers, streams, and reservoirs, including the design, supervision, and execution of field investigations to characterize water quality conditions, determine the degree of pollution, including the collection of physical, hydrological, and biological data (i.e. Winkler titrations & YSI meters)
- In-depth analysis of water quality data combined with a thorough knowledge of watershed processes to assess and locate pollution sources
- Review of research proposals and reports including the review of staff surveys and investigations of TMDL's in other regions of the state, interpreting those findings, preparing written reports; and making recommendations for water quality restoration in waters throughout the state
- Coordinate between Rhode Island Pollution Discharge Elimination System (RIPDES) Phase II Program and Municipalities regarding TMDL studies and subsequent BMP recommendations
- A working knowledge of RI Water Quality Regulations

05/98-7/00

Senior Natural Resource Specialist

RI Department of Environmental Management Providence, RI
Freshwater Wetlands Permitting Program

- Review of applications for wetland presence determinations, wetland edge delineation verification, preliminary determinations, and applications to alter wetlands
- Review of permit applications, including single-family house lots, subdivisions, condominium developments, hotels, emergency agricultural permits, golf courses, commercial properties, bridge construction, highway improvements, utility lines, sand and gravel operations, and CERCLA (Superfund) sites
- Review of permit applications throughout the State of Rhode Island.
- Fluency with the Rhode Island Freshwater Wetlands Act and Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act (Regulations)

CERTIFICATIONS & LICENCES

Certified Wildlife Biologist

The Wildlife Society, 2010 Washington, DC

Certified Professional in Soil Erosion & Sediment Control

Soil & Water Conservation Society & International Erosion
Control Association, 2003 (cert. no. 2691)

Class IV Soil Evaluator (license no. D4059)

State of Rhode Island, 2003

Professional Wetland Scientist (cert. no. 1614)

Society of Wetland Scientists, 2006 Virginia

New England Regional Soil Science Certificate

University of Massachusetts, 2006 Massachusetts

Registered Professional Soil Scientist

Society of Soil Scientists of Southern New England, 2006
..... Connecticut

Certified Invasives Manager

RI Coastal Resources Management Council, 2009

Commercial Pesticide Applicator (license no. 5321)

State of Rhode Island, 2009

QUALIFICATIONS

Wetland Delineation

Qualified to perform wetland delineations under the RIDEM Freshwater Wetlands Program Guidelines, Connecticut DEP, and Massachusetts Wetlands Protection Act

Wildlife & Wildlife Habitat

Qualified to perform wildlife & wildlife habitat assessments under the RIDEM Freshwater Wetlands Program Guidelines

Qualified to perform wildlife habitat evaluations under the MADEP Wetlands Protection Act

Prequalified under the Massachusetts Natural Heritage & Endangered Species Program for rare species habitat assessments (Box and Blanding Turtles).

Coverts Cooperator Training Completion Certificate, 2010

PROFESSIONAL ORGANIZATIONS

Director (Board of Directors), 2009-2017

Massachusetts Association of Conservation Commissions

Rhode Island Representative, 2010-2012

International Erosion Control Association

Rhode Island Director, 2009-2011

Soil & Water Conservation Society

Corporate Member

Rhode Island Natural History Survey

Member & Wetland Scientist

Rhode Island Association of Wetland Scientists

Corporate Member

Association of Massachusetts Wetland Scientists

Member

Society of Wetland Scientists

Member

The Wildlife Society

Member

Society of Soil Scientists of Southern New England

Member

Rhode Island Forest Conservator's Org.

EXPERT QUALIFICATIONS

Expert in Wetland Science

Massachusetts Department of Environmental Protection
Office of Appeals and Dispute Resolution.

Expert in Wetland Science

RI Coastal Resources Management Council

OTHER

Chair, IECA Northeast Chapter 2013 Annual Conference

Warwick, RI

Environmental Instructor- Wetlands, 2005-2013

Rhode Island Realtors Association