



DRAFT

**CONSERVATION COMMISSION
FISCAL YEAR July 1, 2023 – June 30, 2024
ANNUAL REPORT**

I. Commission Overview

The Waterford Conservation Commission functions as the Town's Inland Wetlands & Watercourses Agency, authorizing and enforcing activities affecting inland wetlands and watercourses in accordance with the Waterford Inland Wetlands and Watercourses regulations and the CT General Statutes 22a-36 through 22a-45. The Conservation Commission is also responsible for maintaining an inventory of open space lands and natural resource areas, and providing recommendations regarding the management and preservation of open space and natural resource areas.

The Conservation Commission held 18 regular meetings and 1 special meeting during FY 23/24 and rendered decisions on 13 applications to conduct activities in or adjacent to inland wetland and watercourse.

II. Inland Wetland Agency Tasks

The Commission approved 13 authorizations to conduct activities regulated under the Waterford Inland Wetlands & Watercourses Regulations.

Residential Permits - 9

Approvals were issued for 2 new residential dwellings and activities including retaining wall construction, stream channel restoration, modification of wetland buffer limits for property maintenance and timber harvesting.

Commercial Development - 4

Four commercial development approvals were issued for activities associated with construction of facilities adjacent to inland wetland resources and a modification of an existing permit regarding stormwater reporting requirements. New commercial development authorized included a hotel, a facility for tree service equipment storage and an athletics facility building.

Inland wetland permits issued in FY 2023/24 authorized the permanent disturbance of 0.018 acres of wetland, and temporary disturbance of 0.002 acre of wetland. Mitigation for permanent impacts involved in a commercial development proposal required creation of 0.039 acres of wetland area on the site.

Fees received from permit applications during FY 2023/2024 totaled \$ 1,050.00.

Violations - 7

The Commission issued 7 notices of violation for unauthorized activities or violations of existing permits during FY 2023/2024. All unauthorized activities were remediated and the violations were closed.

III. Conservation Tasks

A. Town-Wide Stream Water Quality Monitoring

Stream water quality sampling was conducted by Town staff in November 2023 and June 2024. Samples were collected at 27 locations on watercourses including Jordan Brook, Nevins Brook, Fenger Brook, Hunts Brook, Stony Brook, Oil Mill Brook, Millstone (Beebe) Brook, Green Swamp Brook and a tributary stream to Goshen Cove. The water quality parameters analyzed by MicroBac Laboratories, Dayville, CT were total coliform, e. coli and enterococcus, nitrate, nitrite, organic nitrogen, ammonia and phosphorus. The laboratory analytical cost for sample analysis of the November 2023 and June 2024 monitoring totaled \$ 6,817.25.

The laboratory analytical costs were less than previous years because the samples are no longer analyzed by the laboratory for suspended solids, pH, chloride and chemical oxygen demand.

A map of the monitoring locations and long-term data graphs are attached.

Monitored nitrogen levels within Stony Brook, Jordan Brook, Oil Mill Brook and Hunts Brook indicate the waters continue to meet Class A water quality criteria and are not eutrophic. Relatively higher nitrogen levels in Stony Brook are still being detected at the Rte 1 culvert downstream of I-95 and Parkway South, correlated to wet weather events and believed to be attributable to stormwater run-off. Phosphorus levels remain low and within water quality criteria standards.

Stony Brook and Oil Mill Brook are tributaries of the Niantic River. The Niantic River Watershed Protection Plan, (in which Waterford, East Lyme, Montville and Salem are participating municipalities), recommends reducing bacteria and nutrient loading from stormwater outfalls and run-off, and establishing a long-term water quality monitoring program for the watershed. The stream monitoring data help to identify changes to surface water quality entering the Niantic River.

Jordan Brook, Nevins Brook, Stony Brook and Oil Mill Brook support native trout. Habitat requirements for these fisheries include cool, oxygenated waters with suitable substrate conditions to provide food and aquatic habitat. Alterations and loss of vegetative cover, soil erosion, flow alterations and stormwater discharges can adversely impact the biological conditions of these watercourses. With the monitoring program analytical results, the Commission has established a long-term database used to evaluate potential impacts of land use and development on stream health, to determine measures required to protect water quality, and to allow long-term tracking of water quality.

The Commission continues to support regular monitoring and assessment of the Town's water resources to measure potential pollutant loads and detect changes in surface water quality. The Commission's goal is to improve or maintain existing water quality that flows into Long Island Sound and the shoreline resources of Niantic River and Bay, Thames River, and Jordan Cove.

IV. PROFESSIONAL SERVICES

The Commission did not require specialized technical assistance this fiscal year for review of permit applications or legal assistance. No expenditures were made from this line item.

V. CONFERENCES / EDUCATION

Commissioners and staff attended educational conferences regarding inland wetland regulation, stormwater management and pollution reduction techniques, and resource conservation hosted by the CT Association of Inland Wetland & Conservation Commissions, the Connecticut Association of Wetland Scientists and the New England Interstate Water Pollution Control Commission. The Commission

satisfies the required training for inland wetlands agencies with members having completed the Inland Wetland Agency Comprehensive Training program provided by CT DEEP. Conference fees totaled \$295.00.

COMMISSION MEMBERS

Richard Muckle - Chair
Tali Maidelis – Secretary
David Lersch
Geneva Renegar
Wade Thomas
Matthew Keatley
Keith Kriet
Ivy Plis – Alternate
Matthew Shea - Alternate

Commission Staff: Maureen FitzGerald, Environmental Planner
 Kim Powell – Recording Secretary

Respectfully Submitted:

Waterford Conservation Commission

Date



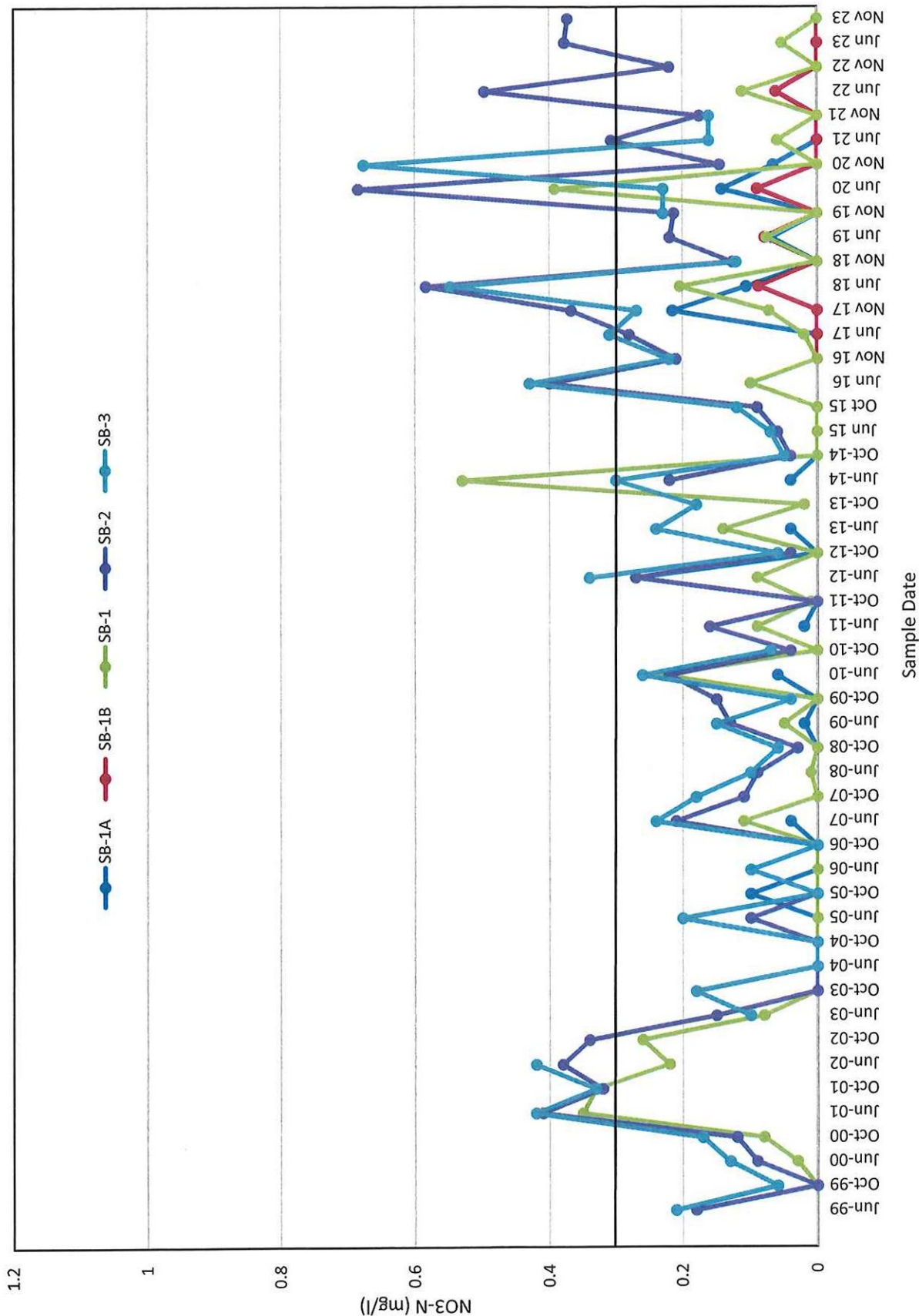
Scale: 1"=5000 ft.



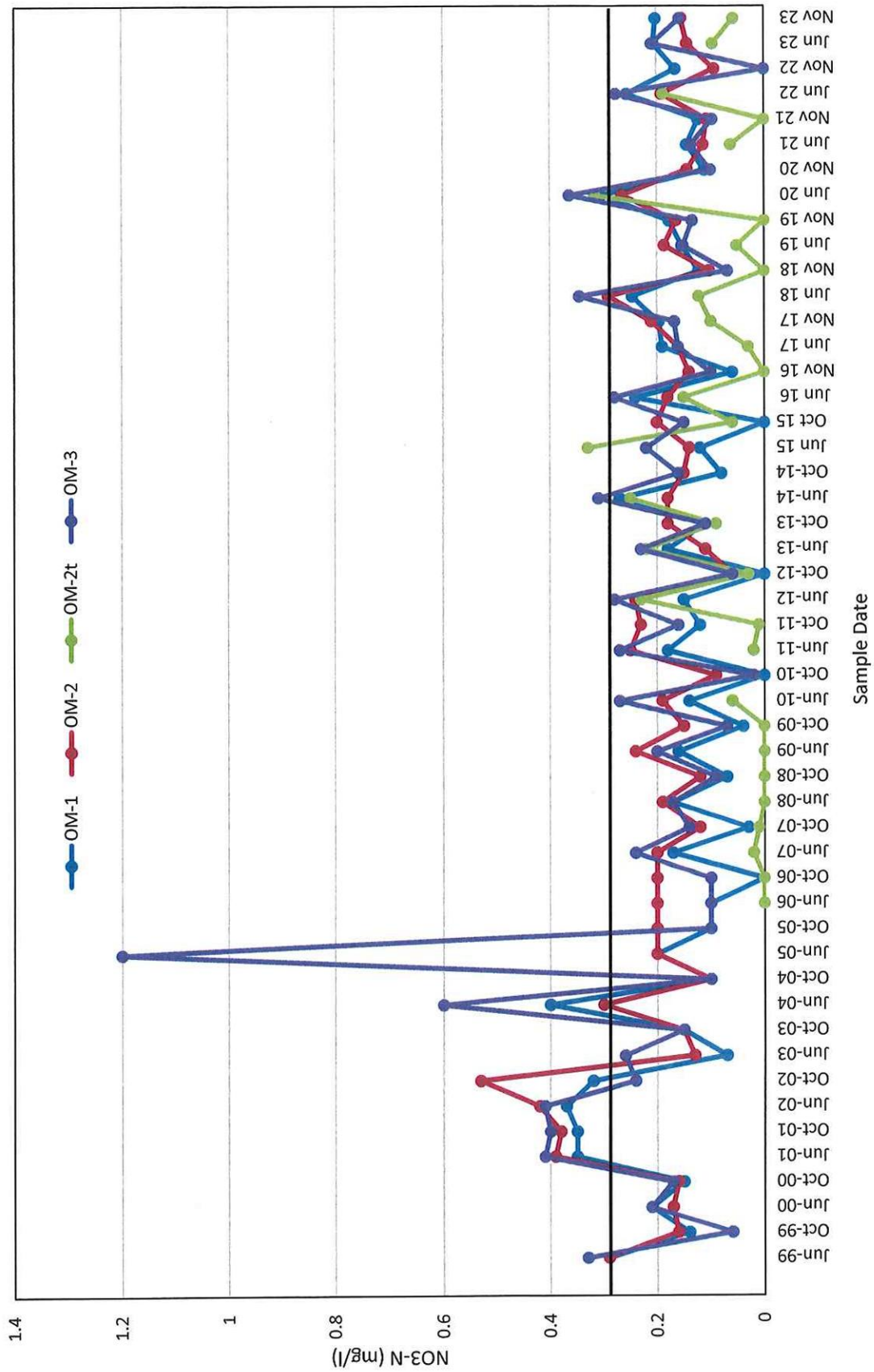
Town of Waterford Stream Monitoring Sites

■ = Sample Point

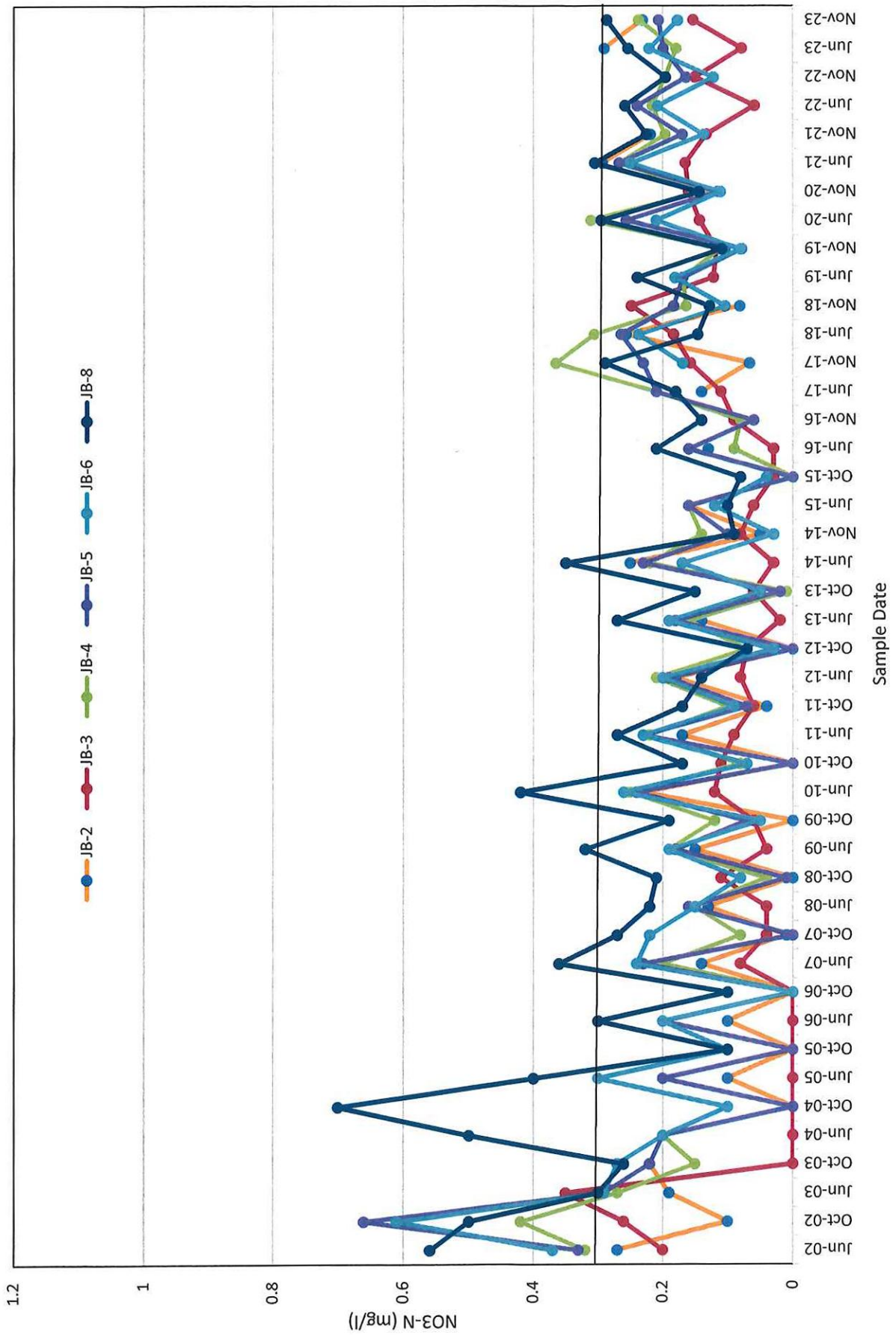
Stony Brook NO3-N (mg/l)



Oil Mill Brook NO3-N (mg/l)



Jordan Brook NO3 (mg/l)



Hunts Brook NO3-N (mg/l)

