# Watershed Inventory Report

*Phase 1 of the Watershed Improvement Plan*

## BOROUGH OF LAKE COMO

## MONMOUTH COUNTY

Date Approved: 03/23/2026

Permit Number: NJG0150088

Stormwater Program Coordinator: Samuel J. Avakian, P.E., P.L.S., P.P.

# Table of Contents

# Acronyms & Definitions

## *1. Acronyms*

i. *"BMP" – Best Management Practice*
ii. *"DO" – Dissolved Oxygen*
iii. *"EPA" – U.S. Environmental Protection Agency*
iv. *"GIS" – Geographic Information System*
v. *"HUC 14" – Hydrologic Unit Code 14*
vi. *"MS4" – Municipal Separate Storm Sewer System*
vii. *"MTD" – Manufactured Treatment Device*
viii. *"NJPDES" – New Jersey Pollutant Discharge Elimination System*
ix. *"NJ-WET" – New Jersey Watershed Evaluation Tool*
x. *"TDS" – Total Dissolved Solids*
xi. *"TMDL" – Total Maximum Daily Load*
xii. *"TSS" – Total Suspended Solids*
xiii. *"WIP" – Watershed Improvement Plan*

## *2. Definitions*

i. *"HUC 14" or "hydrologic unit code 14" means an area within which water drains to a particular receiving surface water body, also known as a subwatershed, which is identified by a 14-digit hydrologic unit boundary designation, delineated within New Jersey by the United States Geological Survey. (N.J.A.C. 7:9B)*
ii. *"Municipal separate storm sewer" (or MS4 conveyance) means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) as defined in more detail at N.J.A.C. 7:14A-1.2.*
iii. *"Outfall" means any point source which discharges directly to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.*
iv. *"Storm drain inlet" means the point of entry into the storm sewer system.*
v. *"Stormwater" means water resulting from precipitation (including rain and snow) that runs off the land's surface, is transmitted to the subsurface, is captured by separate storm sewers or other sewerage or drainage facilities or is conveyed by snow removal equipment.*
vi. *"Stormwater facility" means stormwater infrastructure including, but not limited to, catch basins, infiltration basins, detention basins, green infrastructure (GI), filter strips, riparian buffers, infiltration trenches, sand filters, constructed wetlands, wet*

*basins, bioretention systems, low flow bypasses, Manufactured Treatment Devices (MTDs), and stormwater conveyances.*

vii. *"Stormwater management basin" means a stormwater management basin as defined in N.J.A.C. 7:8.*

viii. *"Stormwater management measure" means a stormwater management measure as defined in N.J.A.C. 7:8.*

ix. *"Stormwater runoff" means water flow on the surface of the ground or in storm sewers, resulting from precipitation.*

x. *"Total maximum daily load" or "TMDL" means a total maximum daily load formally established pursuant to Section 7 of the Water Quality Planning Act (N.J.S.A. 58:11A-7) and Section 303(d) of the Clean Water Act, 33 U.S.C. §§12512 et seq. A TMDL is the sum of individual wasteload allocations for point sources, load allocations for nonpoint sources of pollution, other sources such as tributaries or adjacent segments, and allocations to a reserve or margin of safety for an individual pollutant.*

xi. *"Waters of the State" means the ocean and its estuaries, all springs, streams and bodies of surface or ground water, whether natural or artificial, within the boundaries of the State of New Jersey or subject to its jurisdiction" (see N.J.A.C. 7:9B-1.4).*

# List of Figures



# List of Tables



# Acknowledgements


The Borough of Lake Como's Watershed Inventory Report has been prepared by:

LEON S. AVAKIAN INC.
CONSULTING ENGINEERS

788 Wayside Road
Neptune, New Jersey 07753
(732) 922-9229

# Regional Collaboration

No regional collaboration occurred during the preparation of this report.

# Introduction

## Location

The Borough of Lake Como is located in Monmouth County, New Jersey. The Borough's address is:

140 Main Street
Lake Como, NJ 07719
(732) 681-3232

## Population

As per the 2020 US census, the population of Lake Como Borough was 1,697.

## Demographics

As per the 2020 US census, the median age of Lake Como Borough residents was 44.2 years. Out of the 1,697 people in Lake Como Borough, 1,241 (73.1%) identified as White, 83 (4.9%) as Black or African American, 10 (0.6%) as American Indian and/or Alaska Native, 33 (1.9%) as Asian, 176 (10.4%) as Some Other Race, and 154 (9.1%) as Two or More Races. 336 (19.8%) of the population identified as Hispanic or Latino (of any race).

Out of a total of 778 households in Lake Como Borough, 273 (35.1%) reported as married couples, 82 (10.5%) as cohabiting couples, 175 (22.5%) as a male householder without spouse or partner, and 248 (31.9%) as a female householder without spouse or partner. 165 (21.2%) of households reported with individuals under 18 years old and 225 (28.9%) households reported with individuals 65 years or older.

Out of a total of 1,081 housing units in Lake Como Borough, 778 (72.0%) of units were occupied and 303 (28.0%) were vacant. Out of the 303 vacant housing units, 248 (81.8%) were vacant due to seasonal, recreational, or occasional use.

## Land Use Type(s)

As per the 2020 NJ Land Use/Land Cover data, Lake Como Borough is entirely developed and classified as urban land, aside from a strip of wetlands bordering Lake Como and Polypod Brook.

## Subwatersheds within or bordering Lake Como Borough

There are two (2) subwatersheds within or bordering Lake Como Borough:

- Wreck Pond Brook (below Route 35) (HUC 02030104090080); and
- Shark River (below Remsen Mill gage) (HUC 02030104090060).

## Area(s) Prone to Flooding

Lake Como Borough is situated along part of Lake Como, southeast of Shark River, and a few blocks west of the Atlantic Ocean. As per FEMA FIRM panel #34025C0342G, effective June 15, 2022, a few properties fronting Lake Como near Parkway are within the 1% annual chance flood zone. Most other properties along Lake Como are within the 0.2% annual chance flood zone. Structures in this region are at risk of flooding during high precipitation events and storm surge from hurricanes. Outside of these areas, overall flood risk in the Borough is low.

## Goals for the Watershed Improvement Plan

The goals of Lake Como Borough in developing the Watershed Improvement Plan are as follows:

- Involve the community with the decision-making process of this plan via public meetings and stakeholder engagement;
- Reduce flood damage, including damage to life and property;
- Minimize, to the extent practical, any increase in stormwater runoff from any new development:
- Reduce soil erosion from any development or construction project;
- Assure the adequacy of existing and proposed culverts and bridges, and other in-stream structures;
- Maintain groundwater recharge;
- Prevent, to the greatest extent feasible, an increase in nonpoint source pollution;
- Maintain the integrity of stream channels for their biological functions, as well as for drainage;
- Minimize pollutants in stormwater runoff from new and existing development in order to restore, enhance, and maintain the chemical, physical, and biological integrity of the waters of the State, to protect public health, to safeguard fish and aquatic life and scenic ecological values, and to enhance the domestic, municipal, recreational, industrial and other uses of water;
- Encourage incorporation of Low Impact Development Strategies into new and future site development plans, to ensure nonstructural stormwater management requirements are met; and
- Protect public safety through the proper design and operation of stormwater management basins.

# Public Participation

Semiannual meetings pertaining to the Watershed Improvement Plan will be held starting in early 2026. The first meeting will discuss the contents of this report, future phases of the Watershed Improvement Plan, and begin to assemble a list of stakeholders. All Watershed Improvement Plan information, including upcoming meeting dates & times (once scheduled), can be found on the Borough's stormwater management webpage:

https://lakecomonj.org/home/page/26

# Stormwater Outfall(s)

## Stormwater Outfalls Owned/Operated by Lake Como Borough

Stormwater outfall and receiving surface water data relevant to the Borough were obtained through ArcGIS. A field crew systematically inspected all listed outfalls within the Borough and recorded the required attributes on ArcGIS Field Maps. All of this data was obtained throughout 2024 and is publicly available via the infrastructure map on the Borough stormwater webpage.

The Borough of Lake Como has 12 outfalls.

All 12 outfalls within the Borough (100%) discharge to the Wreck Pond Brook (below Route 35) subwatershed.

## Receiving Surface Waters

Receiving surface waters within the Borough were obtained through the NJDEP's NJ-WET GIS service. This data was obtained in February 2025 and is publicly available.

The following surface waters are within the Borough of Lake Como:

- Lake Como
- Polypod Brook

Out of the 12 outfalls in the Borough, 11 (91.67%) discharge to Lake Como and 1 (8.33%) discharges to Polypod Brook.

## Water Quality Classifications

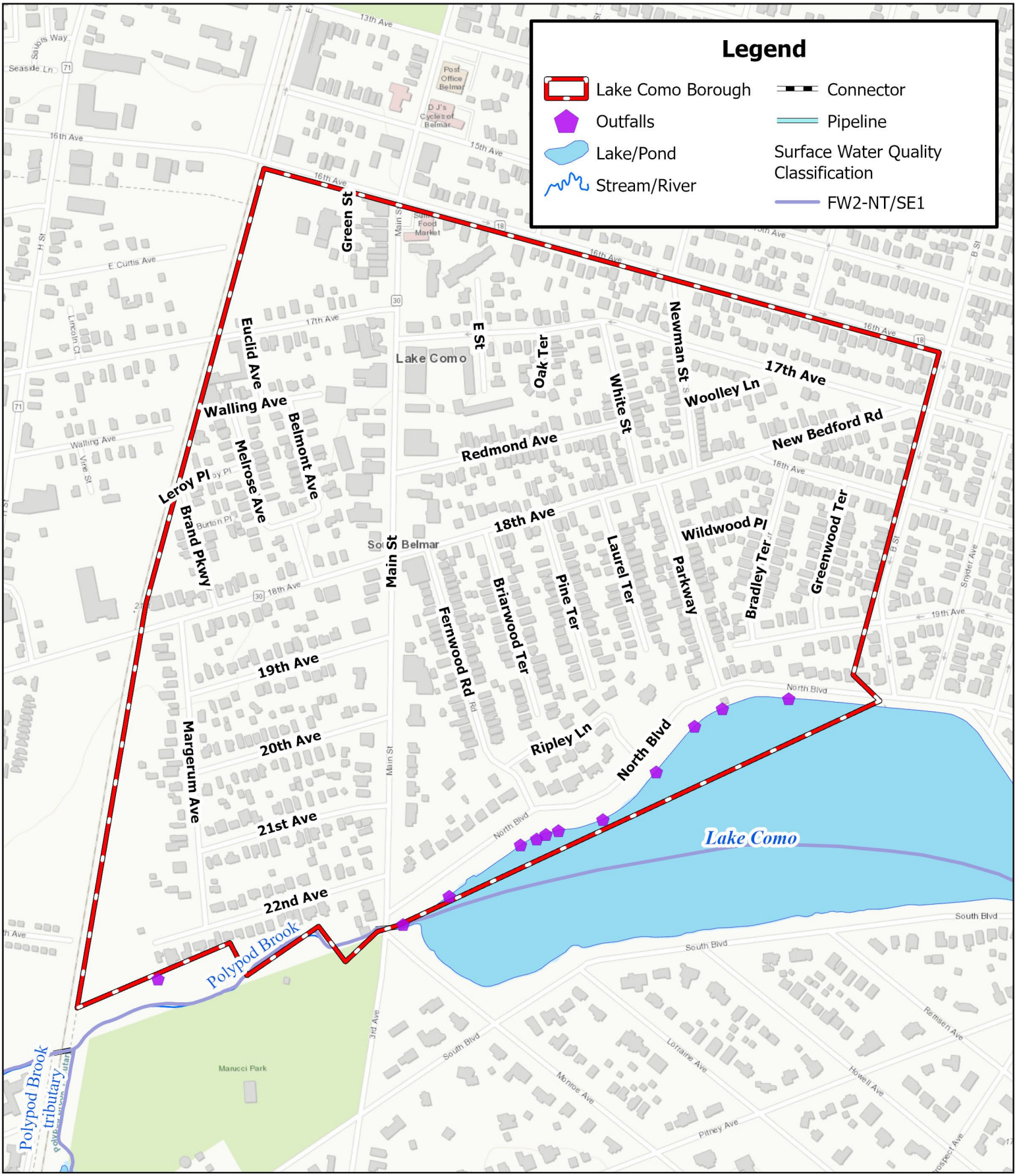
Water quality classifications of receiving surface waters within the Borough were obtained through the NJDEP's NJ-WET GIS service. This data was obtained in February 2025 and is publicly available.

Both Lake Como and Polypod Brook have a surface water quality classification of FW2-NT/SE1. As a result, all 12 outfalls within the Borough (100%) discharge to FW2-NT/SE1 surface waters.

**Table 1: Receiving Surface Water Bodies & Water Quality Classifications**

| Local Outfall ID | Receiving Surface Water Body | Water Quality Classification |
|---|---|---|
| LC-19 | Polypod Brook | FW2-NT/SE1 |
| LC-20 | Lake Como | FW2-NT/SE1 |
| LC-21 | Lake Como | FW2-NT/SE1 |
| LC-22 | Lake Como | FW2-NT/SE1 |
| LC-23 | Lake Como | FW2-NT/SE1 |
| LC-24 | Lake Como | FW2-NT/SE1 |
| LC-27 | Lake Como | FW2-NT/SE1 |
| LC-30 | Lake Como | FW2-NT/SE1 |

| | | |
|---|---|---|
| LC-31 | Lake Como | FW2-NT/SE1 |
| LC-32 | Lake Como | FW2-NT/SE1 |
| LC-34 | Lake Como | FW2-NT/SE1 |
| LC-37 | Lake Como | FW2-NT/SE1 |

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# Figure 1: Municipally Owned/Operated Stormwater Outfalls

Watershed Inventory Report

Borough of Lake Como

Monmouth County, New Jersey

0 125 250 500 750 1,000 Feet

Scale: 1in = 500ft

N

Source: LSA, NJGIN, and Monmouth County GIS.

Revised: December 11, 2025

*This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized or endorsed.*

# Stormwater Interconnection(s)

## Interconnections from Lake Como Borough's MS4 into another Entity

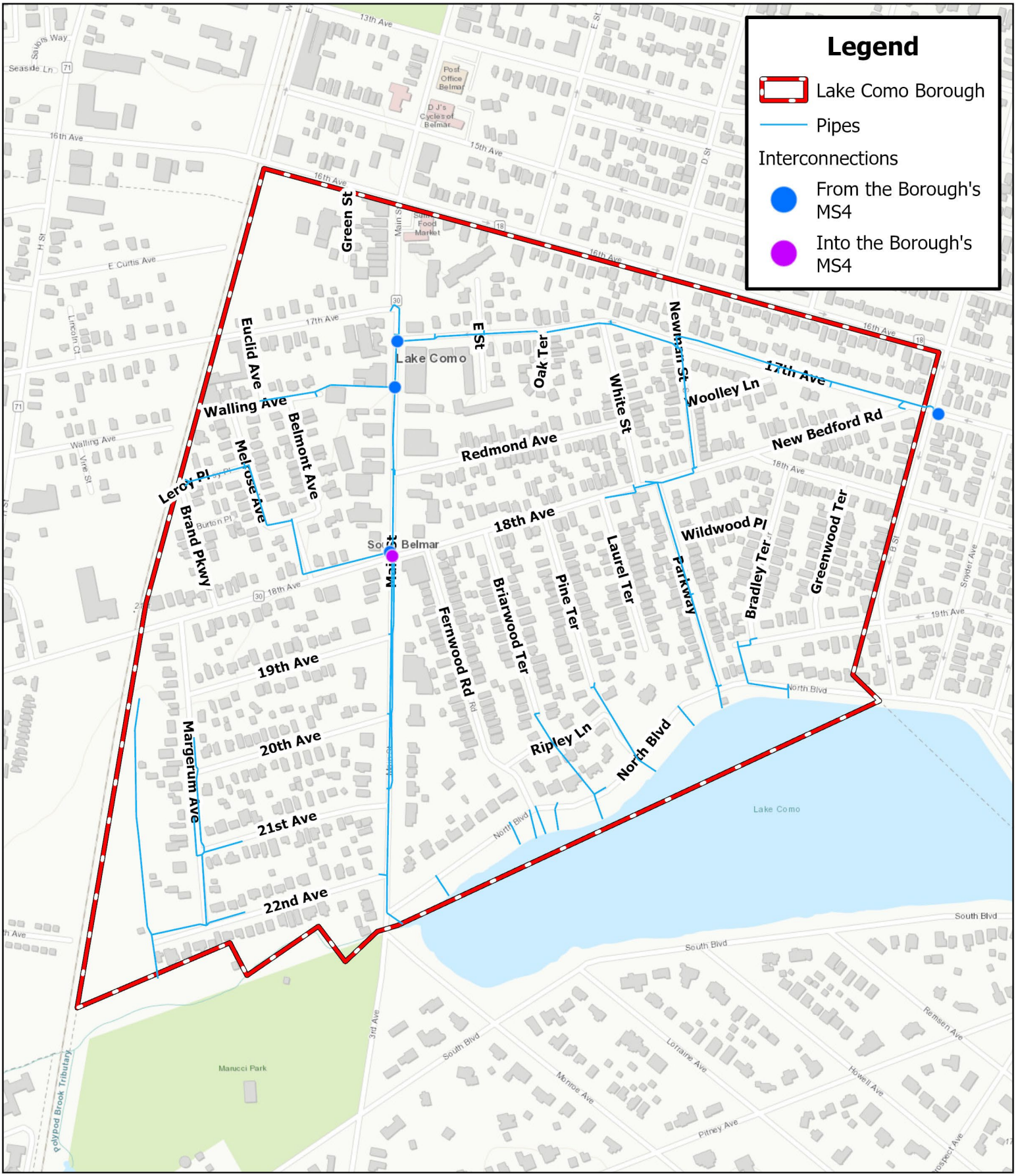
Interconnections from Lake Como Borough's MS4 into another entity data were obtained through ArcGIS. A field crew systematically inspected all listed conveyances within the Borough and recorded the required attributes on ArcGIS Field Maps. Then, interconnections were identified by analyzing junctions of the conveyances data on ArcGIS Pro. All of this data was obtained throughout 2024 and is publicly available via the infrastructure map on the Borough stormwater webpage.

There are four (4) interconnections from Lake Como Borough's MS4 into another entity. All of the interconnections are between pipes. Three (3) of the interconnections flow into Monmouth County's MS4 and one (1) interconnection flows into the Borough of Belmar's MS4.

## Interconnection(s) into Lake Como Borough's MS4 from another Entity

Interconnections into Lake Como Borough's MS4 from another entity data were obtained through ArcGIS. A field crew systematically inspected all listed conveyances within the Borough and recorded the required attributes on ArcGIS Field Maps. Then, interconnections were identified by analyzing junctions of the conveyances data on ArcGIS Pro. All of this data was obtained throughout 2024 and is publicly available via the infrastructure map on the Borough stormwater webpage.

There is one (1) interconnection into Lake Como Borough's MS4 from another entity. The interconnection is between pipes and flows from Monmouth County's MS4.

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# Figure 2: Interconnections

## Watershed Inventory Report
## Borough of Lake Como
## Monmouth County, New Jersey

0 125 250 500 750 1,000 Feet

Scale: 1in = 500ft

N

Source: LSA, NJGIN, and Monmouth County GIS.

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# Drainage Area(s) for Stormwater Outfalls and Stormwater Interconnections

## Storm Drain Inlets

Storm drain inlet data relevant to the Borough were obtained through ArcGIS. A field crew systematically inspected all listed inlets within the Borough and recorded the required attributes on ArcGIS Field Maps. All of this data was obtained throughout 2024 and is publicly available via the infrastructure map on the Borough stormwater webpage.

The Borough of Lake Como has 115 storm drain inlets.

## MS4 Outfall Drainage Areas

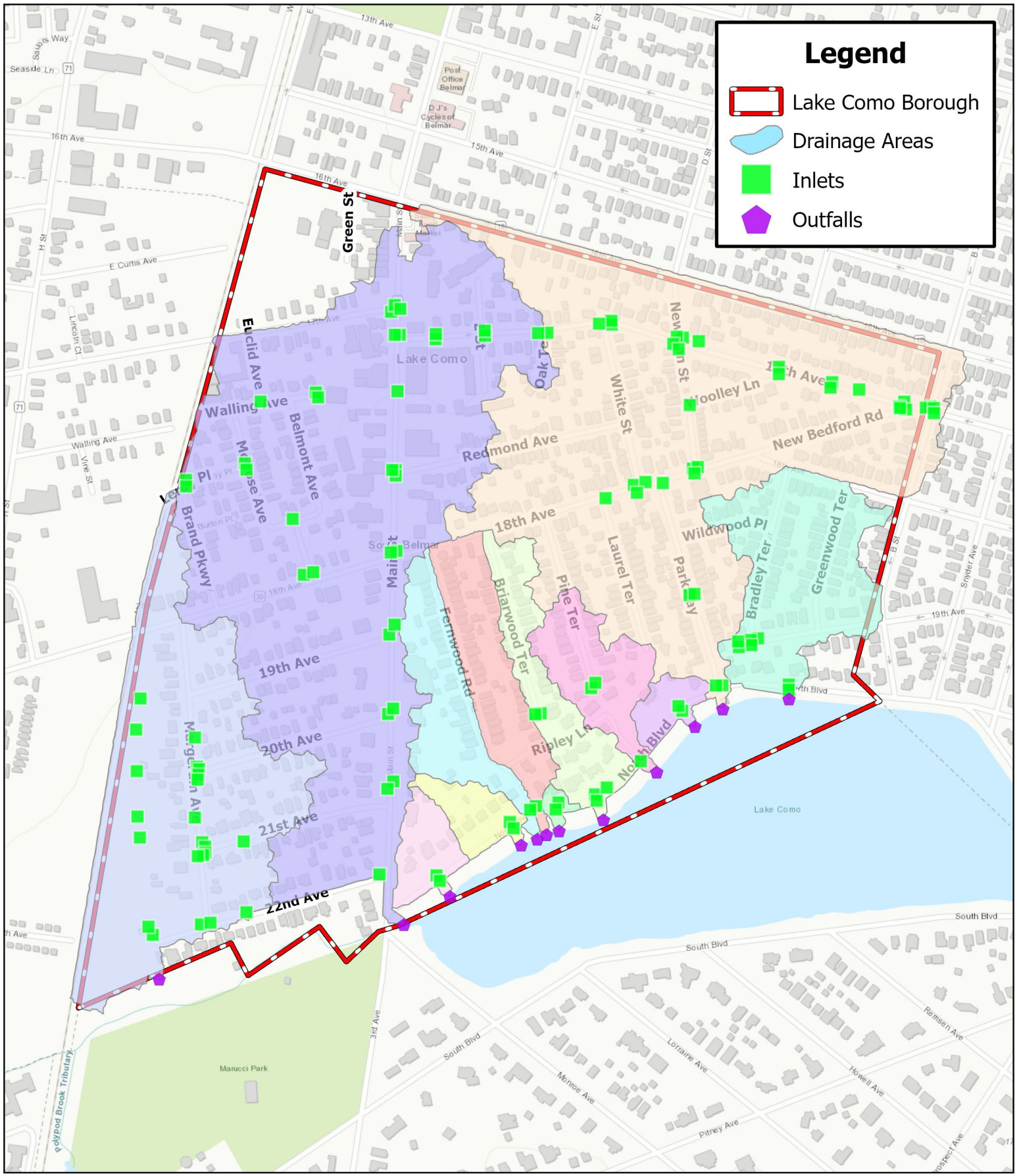
Outfall drainage area data relevant to the Borough were obtained through ArcGIS. A field crew systematically inspected all listed outfalls and pipes within the Borough and recorded the required attributes on ArcGIS Field Maps. All of this data was obtained throughout 2024 and is publicly available via the infrastructure map on the Borough stormwater webpage.

The outfall drainage areas were determined by burning the Borough pipe network as well as surrounding streams and waterbodies into a USGS Digital Elevation Model (DEM) in ArcGIS Pro. The Borough outfalls were aligned to the resulting network raster and a drainage area was created for each outfall using ArcHydro analysis tools. This procedure was provided by the Rutgers Cooperative Extension Water Resources Program in association with NJDEP. The USGS DEMs can be downloaded via the USGS EarthExplorer website, and the streams and waterbodies data are hosted on the NJDEP Bureau of GIS ArcGIS Online webpage.

## Drainage Area of Interconnection(s) from Lake Como Borough to another Entity

Drainage area of interconnections data relevant to the Borough were obtained through ArcGIS. A field crew systematically inspected all listed conveyances within the Borough and recorded the required attributes on ArcGIS Field Maps. Then, interconnections were identified by analyzing junctions of the conveyances data on ArcGIS Pro. All of this data was obtained throughout 2024 and is publicly available via the infrastructure map on the Borough stormwater webpage.

The interconnection drainage areas were determined by burning the Borough pipe network as well as surrounding streams and waterbodies into a USGS Digital Elevation Model (DEM) in ArcGIS Pro. The Borough interconnections were aligned to the resulting network raster and a drainage area was created for each interconnection using ArcHydro analysis tools. This procedure was provided by the Rutgers Cooperative Extension Water Resources Program in association with NJDEP. The USGS DEMs can be downloaded via the USGS EarthExplorer website, and the streams and waterbodies data are hosted on the NJDEP Bureau of GIS ArcGIS Online webpage.

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# Figure 3: Outfall Drainage Areas

## Watershed Inventory Report
## Borough of Lake Como
## Monmouth County, New Jersey

0 125 250 500 750 1,000 Feet

Scale: 1in = 500ft

N

Source: LSA, NJGIN, and Monmouth County GIS.

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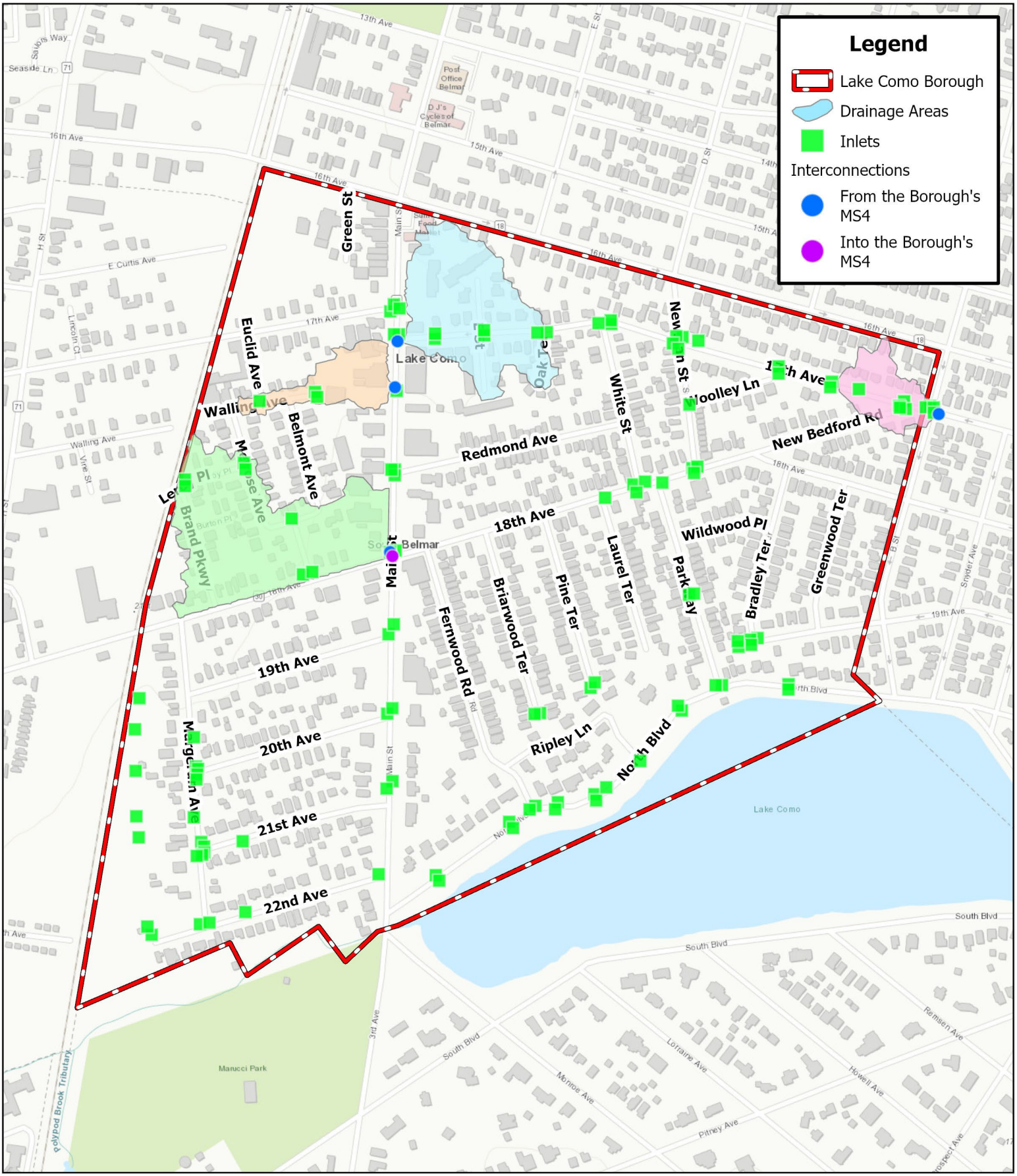


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0 125 250 500 750 1,000 Feet

Scale: 1in = 500ft

# Figure 4: Interconnection Drainage Areas

## Watershed Inventory Report
## Borough of Lake Como
## Monmouth County, New Jersey

N

Source: LSA, NJGIN, and Monmouth County GIS.

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# TMDLs and Water Quality Impairments

TMDLs and water quality impairments relevant to the Borough were obtained through the NJDEP's TMDL Lookup Tool, the 303(d) List within New Jersey's Integrated Water Quality Assessment Reports, and the NJ-WET GIS service. Subwatersheds (HUC 14s) within or bordering the Borough were identified through the NJDEP's NJ-GeoWeb GIS service. All of this data was obtained in February 2025 and is publicly available.

There are two (2) subwatersheds within or bordering Lake Como Borough:

- Wreck Pond Brook (below Route 35) (HUC 02030104090080)
    - TMDLs: Fecal Coliform (Streamsheds pre-2008), Mercury (Streamsheds)
    - Impairments: Total Phosphorus
- Shark River (below Remsen Mill gage) (HUC 02030104090060)
    - TMDLs: Total Coliform (Shellfish), Fecal Coliform, Total Phosphorus (Streamsheds pre-2008)
    - Impairments: DO, PCBs in Fish Tissue

Listed below are summaries of the TMDLs and Impairments found within the subwatersheds of the Borough (obtained from NJDEP, "Pollutants of Concern"). Mercury is not listed on the "Pollutants of Concern" document, so an excerpt from "Total Maximum Daily Load for Mercury Impairments Based on Concentration in Fish Tissue Caused Mainly by Air Deposition to Address 122 HUC 14s Statewide" adopted June 10, 2010 (obtained from NJDEP, establishes the mercury TMDL in Wreck Pond Brook) is used instead.

<u>Dissolved Oxygen (DO):</u>

*"Dissolved oxygen (DO) refers to the concentration of oxygen gas incorporated into the water. Oxygen enters the water by direct absorption from the atmosphere and is enhanced by turbulence. Running water, such as that of a swift moving stream, normally contains more dissolved oxygen than the still water of a pond or lake. Water also absorbs oxygen released by aquatic plants during photosynthesis. Sufficient DO is essential to growth and reproduction of aerobic aquatic life (e.g., see Murphy 2006, Giller and Malmqvist 1998, Allan 1995; https://www.epa.gov/caddis-vol2/dissolved-oxygen). Low levels of oxygen (hypoxia) or no oxygen levels (anoxia) can occur when excess organic materials are decomposed by microorganisms. During this decomposition process, the DO in the water is consumed. In some water bodies, DO levels fluctuate periodically, seasonally, and even as part of the natural daily ecology of the aquatic resource. As DO levels drop, some sensitive animals may move away, decline in health, or even die. DO is considered an important measure of water quality as it is a direct indicator of an aquatic resource's ability to support aquatic life. While each organism has its own DO tolerance range, generally, DO levels below 3 milligrams per liter (mg/L) are of*

*concern and waters with levels below 1 mg/L are considered hypoxic and are usually devoid of life.*

*Stormwater runoff containing nutrients such as nitrate, phosphorus, and organic TSS matter and animal and pet waste cause the levels of dissolved oxygen to decrease in the receiving waters. An increase in these materials transported via stormwater runoff will have a greater impact on receiving waters." (pg. 4)*

Mercury:

*"Mercury is a persistent, bio-accumulative toxin that can be found in solid, liquid, or vapor form. Mercury can cause a variety of harmful health effects including damage to the brain, central nervous system, and kidneys and is particularly harmful to children and pregnant and nursing women. Mercury comes from various natural and anthropogenic sources, including volcanic activity, burning of some forms of coal, use in dental procedures and manufacturing, use and disposal of products containing mercury. Most often, mercury enters the environment in gas or particulate form and is deposited on surfaces, often through precipitation, which washes deposited mercury into waterways. There it undergoes a natural chemical process and is converted to a more toxic form – methyl mercury. The methyl mercury builds up in the tissues of fish and animals, increasing its concentration as it moves up through the food chain, which results in high levels of mercury in some of the foods we eat. At certain levels, fish consumption advisories are triggered." (pg. 9)*

Pathogens (Enterococcus, E. Coli, Fecal Coliform, Total Coliform):

*"Pathogens, including enterococcus, E. Coli, fecal coliform, and total coliform, enter the receiving waters when stormwater comes into contact with sources of these pathogens, such as pet waste, animal waste from geese and other wildlife, some farming activities, illicit discharges, failing sewage conveyance systems and septic systems, combined sewage overflows, and sanitary sewer overflows (SSOs). While sewage treatment plants contribute a steady input of treated sewage to their receiving waters, stormwater runoff is the primary contributor to pathogen loads in the surface waters of the state.*

*Many of these pathogens affect the designated uses of the receiving waters and are harmful to human or animal health when ingested causing intestinal disease. Pathogens can attack the immune system and cause infections that may result in abdominal issues, respiratory problems, fever, headache, skin rashes, etc.*

*When receiving surface waters include shellfish harvesting as a designated use, pathogens also pose additional concerns. Proximity to potential sources such as marinas, development served by septic systems and concentrated stormwater outfall locations warrant precautionary closures of shellfish waters on a seasonal or full-time basis. The National Shellfish Sanitation Program has established criteria for pathogens that are used to determine support of the shell fishing use." (pg. 7)*

Phosphorus/Total Phosphorus

*"Phosphorus is a key nutrient for plant growth and is often the limiting nutrient in a freshwater setting. Total phosphorous is the sum of particulate and dissolved phosphorous which includes the total amount of phosphorous in both organic and inorganic forms. High concentrations of phosphorus in receiving waters may result from stormwater runoff due to poor agricultural practices, urban areas, leaking septic systems, illicit discharges or SSOs. Additional stormwater runoff sources of phosphorous include the breakdown of plant and leaf litter (including grass clippings), soil particles, pet and animal waste, fertilizer from lawns, and atmospheric deposition of phosphorus particles. Contribution from runoff from lawns and roads accounts for the greatest loading in many receiving waters. An excess of phosphorus into a water body can have a detrimental effect on designated uses related to both public health and aquatic health. For instance, too much phosphorus in a surface water can cause increased growth of algae and large aquatic plants (a process called eutrophication) causing significant swings in pH and dissolved oxygen, which can in turn result in the violation of surface water quality criteria for these parameters and adversely affect the aquatic community.*

*Additionally, high levels of phosphorus can also lead to HABs, that produce toxins which can be harmful to human and animal health. The presence of excessive plant biomass can also interfere with other designated uses, such as swimming or boating. When algae are present in large amounts, drinking water purveyors must also increase the use of disinfectants and oxidants to treat the algae, which can lead to an increase in disinfection byproducts such as trihalomethanes, listed as likely carcinogens by EPA." (pgs. 8-9)*

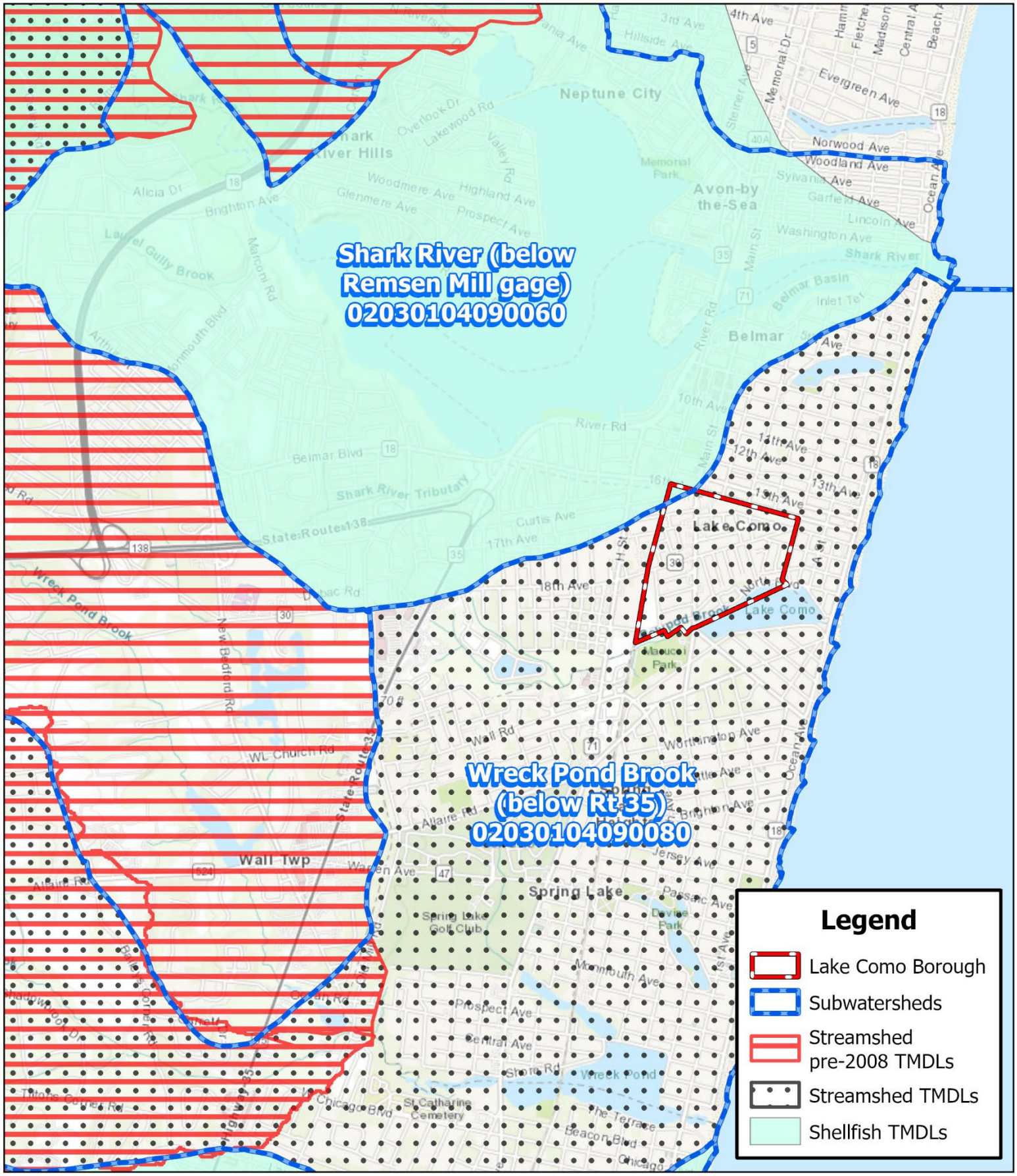
Polychlorinated Biphenyls (PCBs):

*"The term 'PCBs' (Polychlorinated Biphenyls) represents a broad class of toxic industrial chemicals first discovered and synthesized in the late 19th century. Their novel chemical properties led to widespread industrial production and usage peaking between the 1930's and late-1960's. Some products may continue to contain PCBs, including electrical equipment, motor and hydraulic oils, oil-based paint, and some plastics. The recognition of PCB associated health hazards were first noted in the 1960's and their production finally banned in 1979. PCBs can accumulate in the leaves and above-ground parts of plants and food crops. They are also taken up into the bodies of small organisms and fish. As a result, people who ingest fish may be exposed to PCBs that have bioaccumulated in the fish they are ingesting. Their oily nature allows them to accumulate in fatty animal tissues and bioaccumulate up the global food chain where they contribute to organ damage and carcinogenesis in higher-tiered species.*

*PCBs are easily carried away as TSS by stormwater runoff from products containing the compounds which are exposed to stormwater and known and unknown contaminated areas. PCBs have a moderate level of volatility, which means that their vapors are also readily carried aloft by the wind. They are then deposited on exposed surfaces via air deposition." (pg. 9)*

## Table 2: TMDLs and Impairments for Subwatersheds within or bordering Lake Como Borough

| HUC 14 | Subwatershed Name | TMDL(s) | Impairment(s) |
|---|---|---|---|
| 02030104090080 | Wreck Pond Brook (below Route 35) | Streamsheds pre-2008<br>Fecal Coliform<br>Streamsheds<br>Mercury | Total Phosphorus |
| 02030104090060 | Shark River (below Remsen Mill gage) | Shellfish<br>Total Coliform<br>Streamsheds pre-2008<br>Fecal Coliform<br>Total Phosphorus | DO<br>PCBs in Fish Tissue |

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# Figure 5: TMDLs by Parameter

Watershed Inventory Report
Borough of Lake Como
Monmouth County, New Jersey

0 0.12 0.25 0.5 0.75 1 Miles

Scale: 1in = 0.5mi

N

Source: LSA, NJGIN, and Monmouth County GIS.

Revised: December 11, 2025

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# Overburdened Communities

Overburdened communities (OBC) data was obtained through the NJDEP's NJ-WET GIS service. The data was obtained in February 2025 and is publicly available.

An area in New Jersey is considered an OBC if it meets at least one of these three criteria according to the most recent US Census:

1. At least 35 percent of the households qualify as low-income households (at or below twice the poverty threshold as determined by the United States Census Bureau);
2. At least 40 percent of the residents identify as minority or as members of a State recognized tribal community; or
3. At least 40 percent of the households have limited English proficiency (without an adult that speaks English "very well" according to the United States Census Bureau).

The importance of clean surface water within OBCs is paramount for several reasons. Environmental justice is the idea that all people regardless of race, color, national origin, or income should have equal access to a healthy environment. Unfortunately, OBCs are often found in highly developed areas surrounded by a high percentage of impervious surfaces and little to no Green Infrastructure or other Best Management Practices (BMPs) in place to effectively convey stormwater. This allows more pollutants to run off into local waterways, decreasing the quality of surface waters nearby and in turn the health of community members. Oftentimes lower income people lack the resources to travel or take vacations to recreate in cleaner waters that are farther away. There are no OBCs within Lake Como Borough.

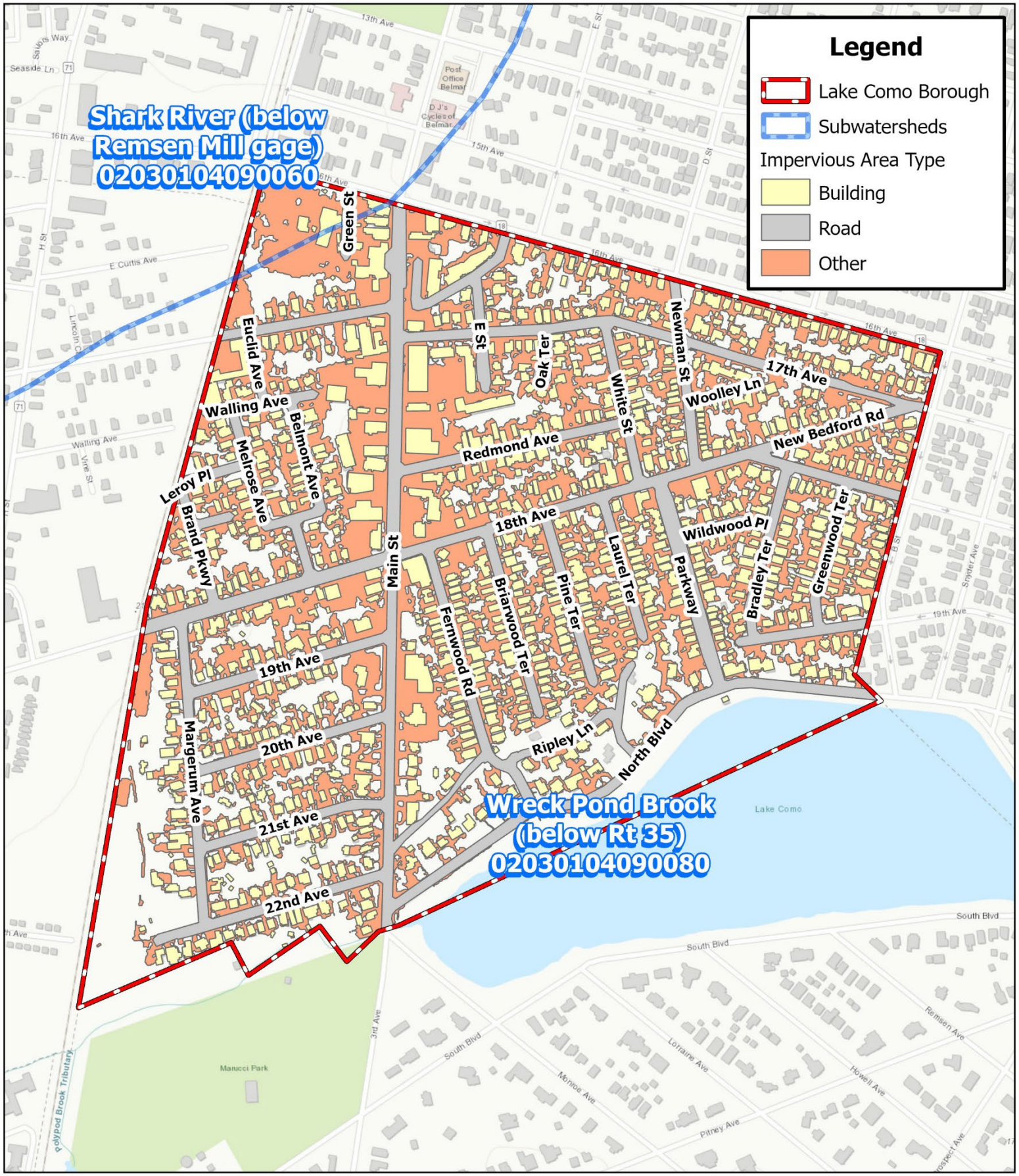
# Impervious Area

Impervious area data was obtained through the NJDEP's NJ-WET GIS service. Impervious cover percentages within subwatersheds were determined by analyzing NJ-WET GIS geodatabases in ArcGIS Pro. The data was obtained in February 2025 and is publicly available.

Impervious cover is any surface that does not allow water to infiltrate into it and eventually reach groundwater. Features like roads & parking lots (aside from pervious pavement), sidewalks, rooftops, basketball courts, etc. are examples of impervious cover. Impervious surfaces present a large problem to the hydrologic cycle and local water quality. Stormwater runoff that would naturally seep into groundwater aquifers through soils are instead diverted elsewhere, reducing groundwater recharge. This stormwater picks up nitrogen, phosphorus, fecal coliforms, motor oil, total suspended solids, floatables, and other pollutants lying on impervious cover and transports it directly to local waterways if not collected by storm drains or filtered through vegetation. This causes significant harm to the ecosystems present in the waterways as well as the water quality, causing issues such as harmful algal blooms and bioaccumulation of pollutants in fish. Creating more pervious land in large areas of impervious cover via Green Infrastructure like vegetative buffers surrounding waterways is essential to the health of local watersheds.

The percent impervious cover in each subwatershed within Lake Como Borough's jurisdiction is as follows:

- Wreck Pond Brook (below Route 35) (HUC 02030104090080): 70.64% impervious cover (0.18 out of 0.25 square miles)
- Shark River (below Remsen Mill gage) (HUC 02030104090060): 84.32% impervious cover (0.0034 out of 0.0040 square miles)

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# Figure 6: Impervious Area

Watershed Inventory Report
Borough of Lake Como
Monmouth County, New Jersey

0 125 250 500 750 1,000 Feet

Scale: 1in = 500ft

N

Source: LSA, NJGIN, and Monmouth County GIS.

Revised: December 11, 2025

*This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized or endorsed.*

# Non-Municipally Owned or Operated Stormwater Facilities

Non-municipally owned or operated stormwater facility data was obtained through the Rutgers University H&H and NJDEP Land Use Land Cover 2020 datasets. Known lists of non-municipally owned or operated stormwater facilities were also consulted. The data was obtained in May 2025 and is publicly available.

There are two (2) non-municipally owned or operated stormwater facilities in Lake Como Borough.

**Table 3: Non-municipally Owned/Operated Stormwater Facilities**

| Subwatershed (HUC 14) | Type | Block | Lot | Owner |
|---|---|---|---|---|
| Wreck Pond Brook (below Route 35) | Subsurface Infiltration/Detention Basin | 24 | 6 | VILLAS AT LAKE COMO CONDOMINIUM |
| | Subsurface Infiltration/Detention Basin | 11 | 4.01 | FIELDS AT LAKE COMO,THE CONDO ASSOC |


LEON S. AVAKIAN, Inc.

Consulting Engineers

# Figure 7: Non-municipally Owned/ Operated Stormwater Facilities

Watershed Inventory Report
Borough of Lake Como
Monmouth County, New Jersey

0 125 250 500 750 1,000 Feet

Scale: 1in = 500ft

N

Source: LSA, NJGIN, and Monmouth County GIS.

Revised: March 17, 2026

*This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized or endorsed.*

# Conclusion

The Watershed Inventory Report, Phase 1 of the Watershed Improvement Plan, identifies stormwater infrastructure, as required in the MS4 permits. It also summarizes water quality data, including stream classifications, TMDLs, and water quality impairments. The data that accompanies this inventory report has been compiled as an electronic map and submitted to the NJDEP through NJDEP Online via the Document Submittal Service. The information from this inventory report will be used to make informed decisions during the creation of the Watershed Assessment Report, Phase 2 of the Watershed Improvement Plan. The work done in Phase 2 will identify areas of potential concern and where potential water quality improvement projects may be implemented to address the highlighted water quality and quantity issues identified in this inventory report.

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