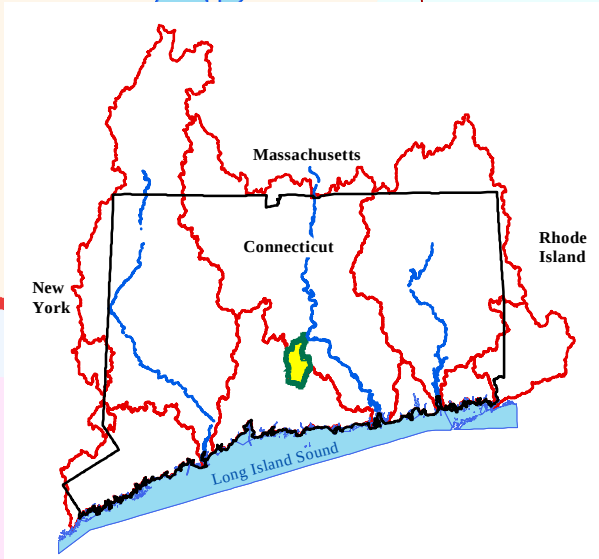


MAP 1: COGINCHAUG RIVER WATERSHED



South Central Coast
Major Basin

Connecticut River
Major Basin

Connecticut
River

Middletown

Coginchaug River Basin
4607

Middlefield

Allyn Brook Basin
4605

Wallingford

Sawmill Brook Basin
4606

Durham

Madison

North
Branford

Guilford

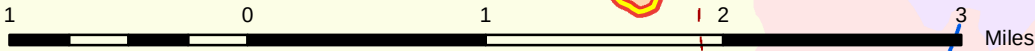
Myer Huber Pond:
headwaters of
Coginchaug River

Legend

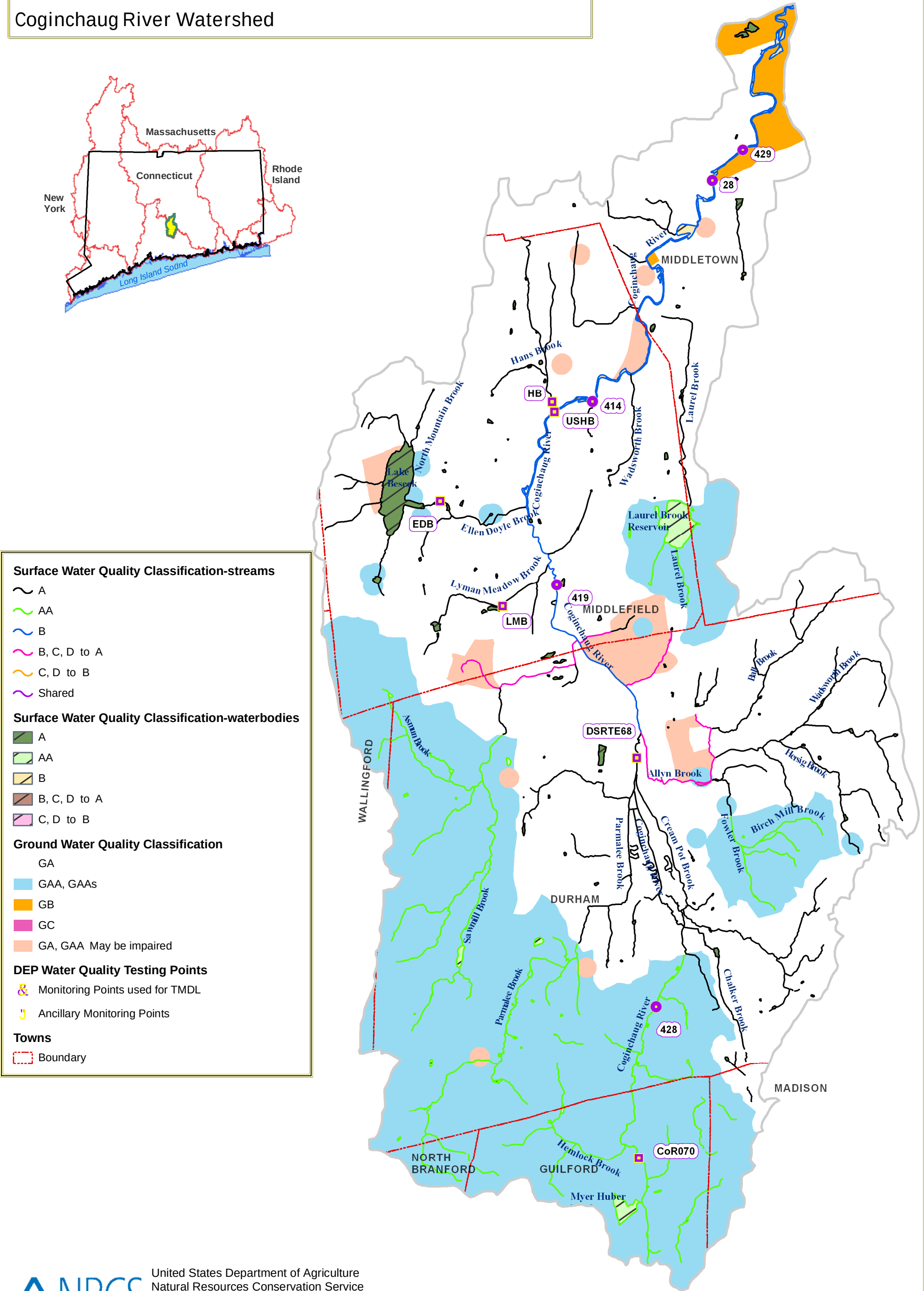
- Coginchaug Watershed Plan Boundaries
- Major River Basins
- Streams
- Local Basins
- Towns

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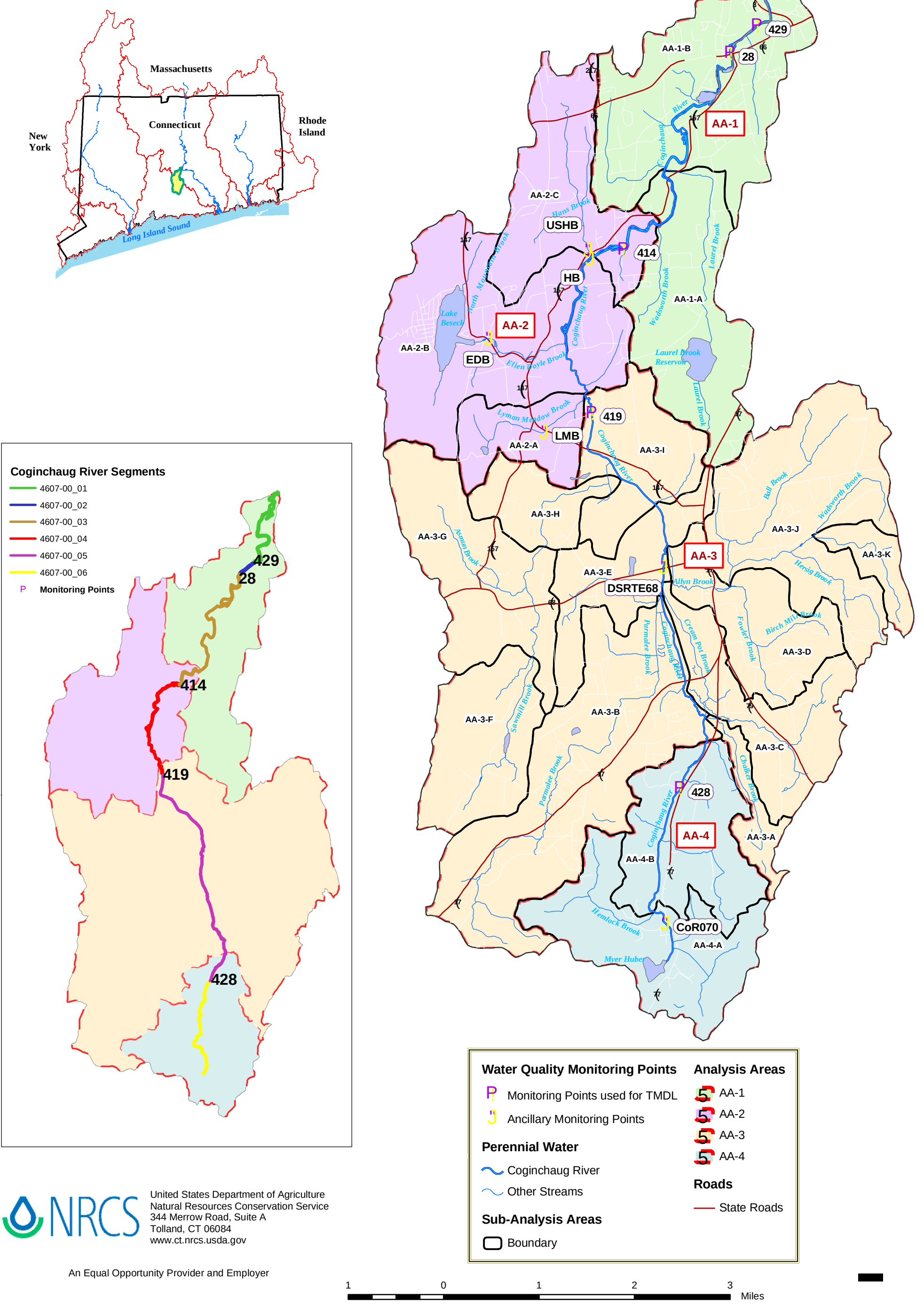
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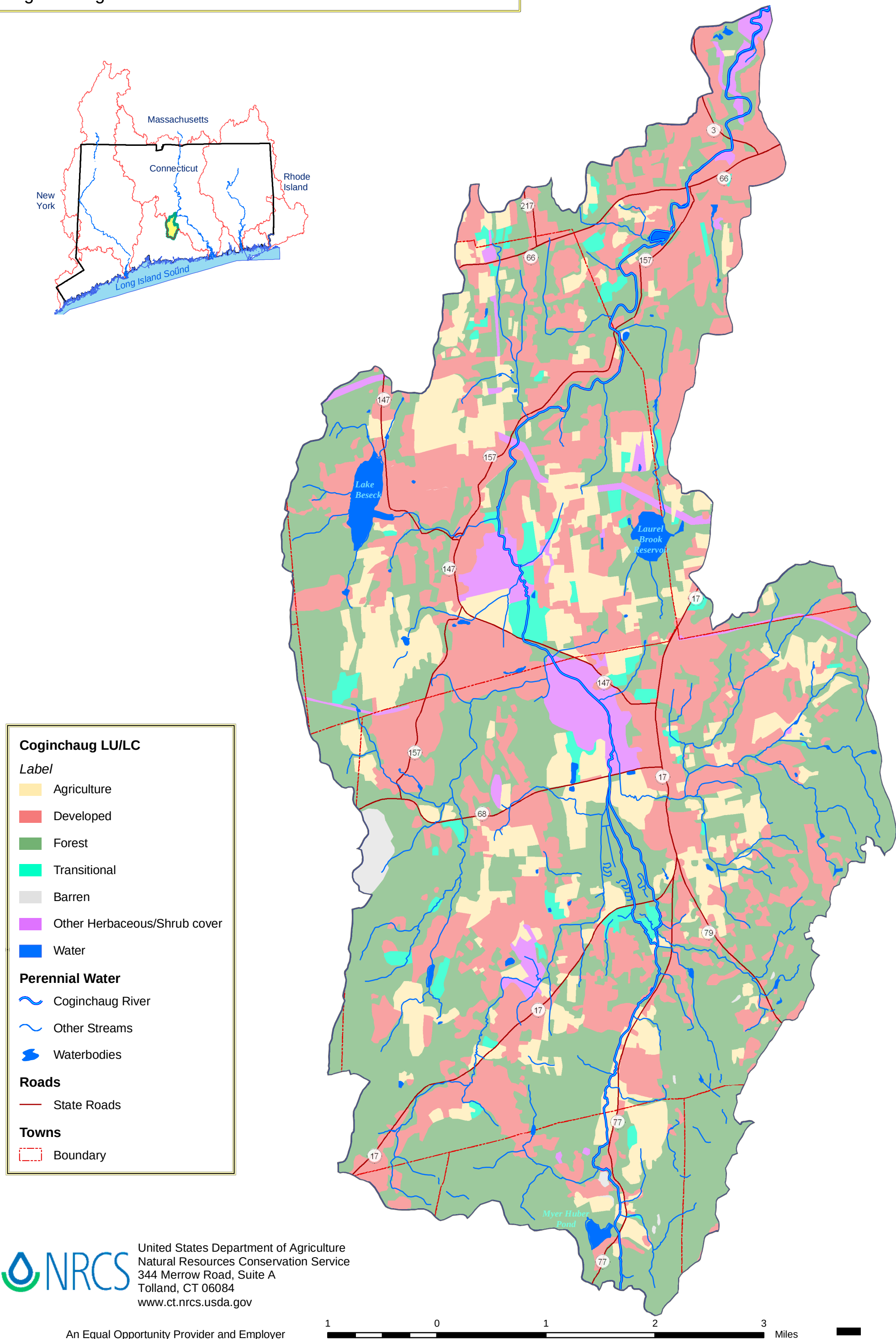
MAP 2: SURFACE & GROUND WATER QUALITY CLASSIFICATION
Coginchaug River Watershed



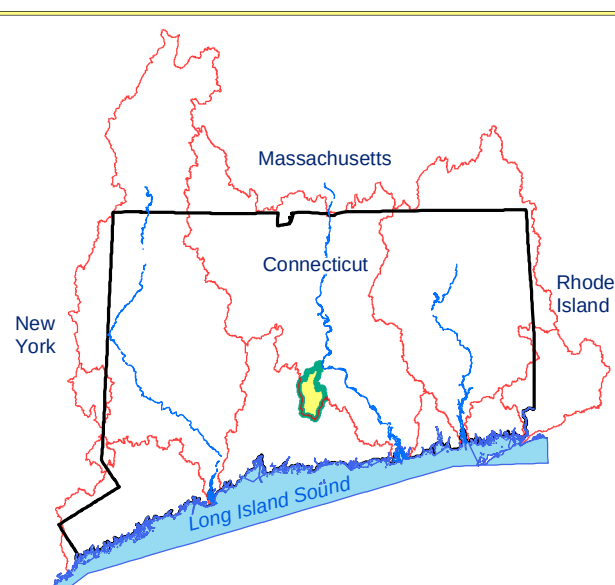
Map 3: ANALYSIS AREAS, WATER QUALITY MONITORING
POINTS & RIVER SEGMENTS
Coginchaug River Watershed



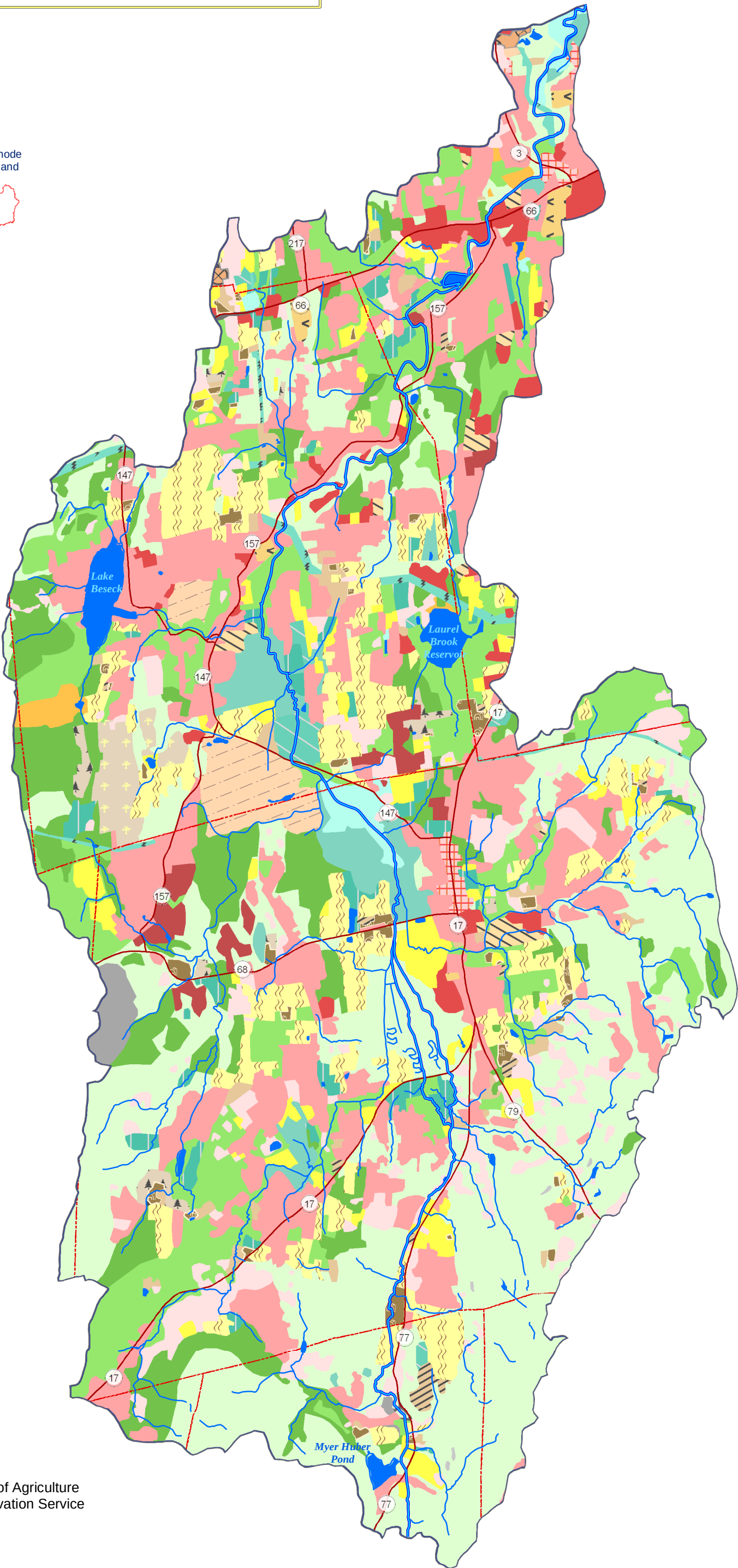
MAP 4: BROAD LAND USE/ LAND COVER CLASSIFICATION
Coginchaug River Watershed



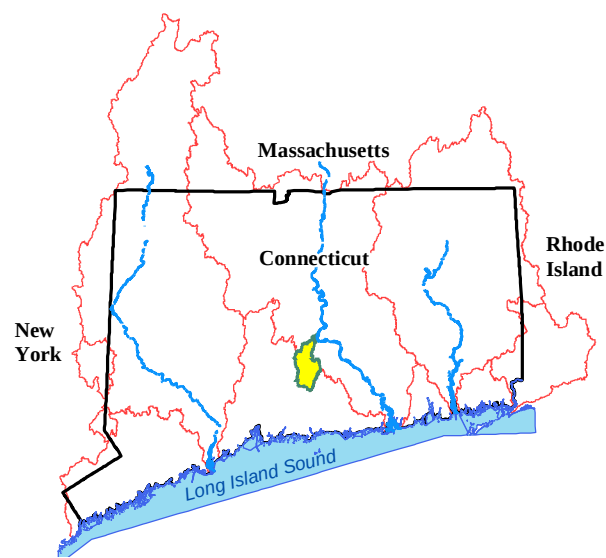
MAP 5: DETAILED LAND USE/ LAND COVER CLASSIFICATION
Coginchaug River Watershed



- Coginchaug LU/LC**
- ac: agriculture-cultivated
 - an: agriculture-noncultivated
 - ap: agriculture-pasture/idle field
 - ag: agriculture-grazed pasture
 - ao: agriculture-orchard
 - au: agriculture-nursery
 - af: agriculture-farmstead
 - drl: developed-low density residential
 - drh: developed-high density residential
 - dc: developed-commercial
 - di: developed-industrial
 - dm: developed-mixed
 - dob: developed other-ballfields
 - doc: developed other-cemeteries
 - dog: developed other-golf courses
 - dok: developed other-compacted grass
 - dol: developed other-landfill
 - dt: developed-transportation
 - bb: barren-beach
 - br: barren-rock
 - bm: barren-mine/quarry
 - fd: forest-deciduous
 - fc: forest-coniferous
 - fm: forest-mixed
 - oh: other-herbaceous
 - os: other-shrub
 - osu: other-utility right of way
 - tl: transitional-partial canopy
 - tm: transitional-mixed
 - ws/wr: water-stream/river
 - wl/wld: water-lake/reservoir
- Perennial Water**
- Coginchaug River
 - Other Streams
 - Waterbodies
- Roads**
- State Roads
- Towns**
- Boundary



MAP 6: STORMWATER RUNOFF MANAGEMENT
SOIL SUITABILITY FOR STORMWATER BASINS
Coginchaug River Watershed



Stormwater Basins

Rating

Least limited

Somewhat Limited

Most Limited

Perennial Water

Coginchaug River

Other Streams

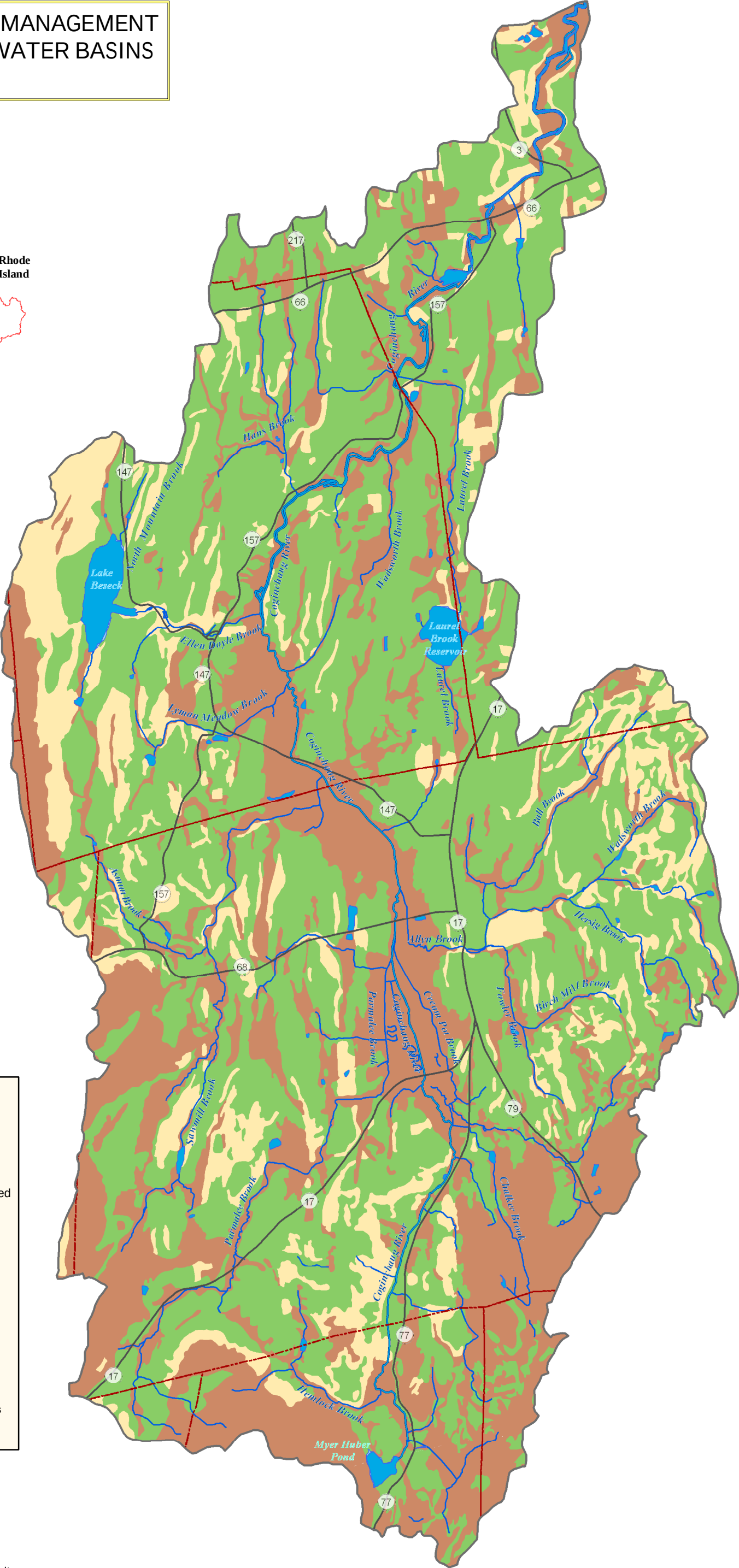
Waterbodies

Roads

State Roads

Towns

Boundary



Stormwater Basins

A wide range of soils will accommodate some type of stormwater basin. A distinction was not made here between soils that would retain stormwater and those that would allow infiltration. Soils rated most limited have very steep slopes, shallow bedrock, or saturated soil conditions. Somewhat limited soils will have slopes and or depths that may restrict their application and/or require special design consideration.

The following data elements were used to evaluate soil suitability for Stormwater Basins:

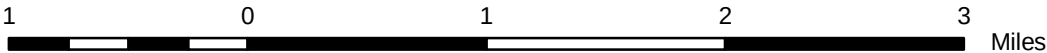
- * Depth to Bedrock
- * Hydrologic soil group
- * Flooding
- * Slope

Note: to protect ground water resources, the Connecticut DEP requires that field-measured soil infiltration rates be less than 3.0 inches per hour for primary treatment systems. Soils with higher infiltration rates are not suitable for contaminated waste.

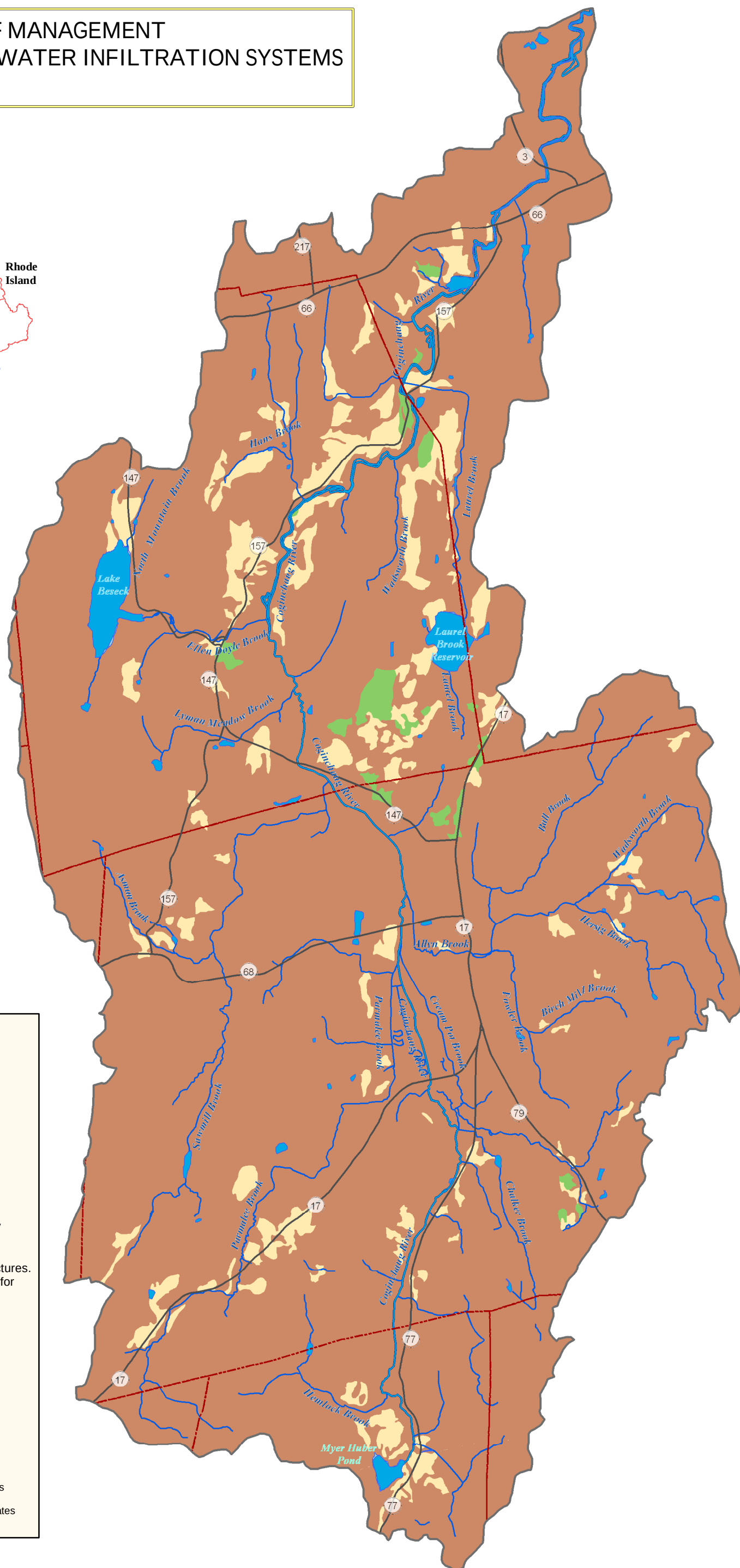
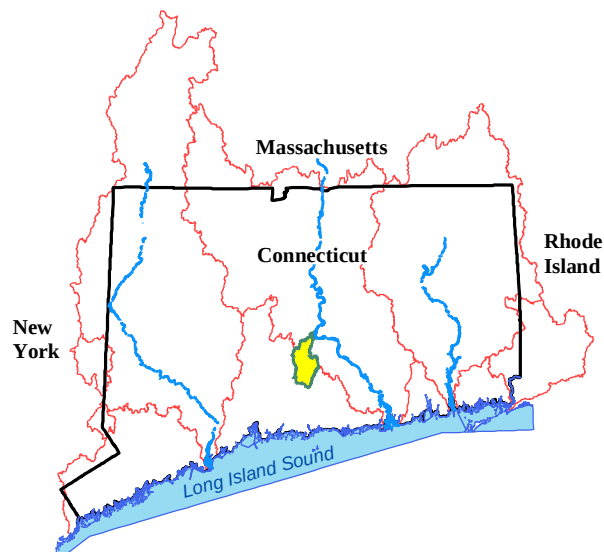


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MAP 7: STORMWATER RUNOFF MANAGEMENT SOIL SUITABILITY FOR STORMWATER INFILTRATION SYSTEMS Coginchaug River Watershed



Stormwater Infiltration Systems

Rating

- Least limited
■ Somewhat Limited
■ Most Limited

Perennial Water

-  Coginchaug River
 Other Streams
 Waterbodies

Roads

- State Roads

Towns

-  Boundary

Stormwater Infiltration Systems

Soils rated least or somewhat limited have high infiltration capacity and can accommodate significant amounts of stormwater runoff into systems like infiltration trenches, underground galleries, and engineered, large scale rain gardens such as bio-retention systems in parking lots. Many additional soils are capable of infiltration of smaller amounts of runoff using filtering practices or low impact development techniques.

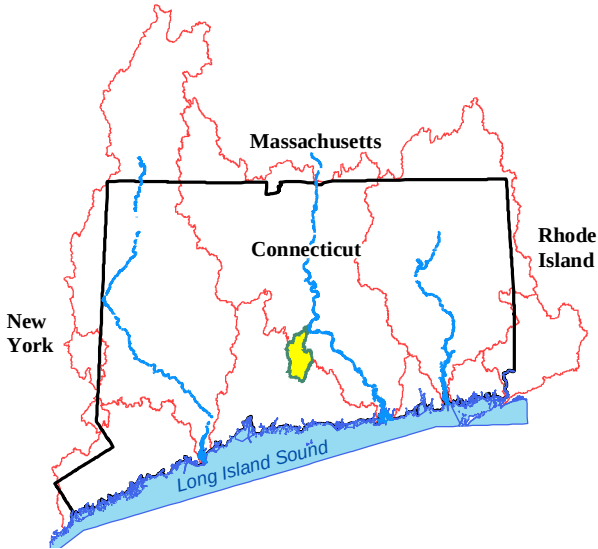
"Infiltration practices are highly dependent on the infiltration capacity of the underlying soils. Low soil infiltration capacity requires structures with larger infiltration surface area and storage capacity to account for slower infiltration rates. Higher soil infiltration rates allow for smaller infiltration structures. Accurate field measurements of infiltration rates are critical for the successful design and implementation of stormwater treatment practices that rely on infiltration of stormwater to underlying soils." (2004 CT Stormwater Quality Manual)

The following data elements were used to evaluate soil suitability for Infiltration Systems:

- * Depth to restrictive layer (bedrock, dense till)
- * Depth to seasonal high water table
- * Permeability
- * Bulk Density
- * Flooding
- * Slope

Note: to protect ground water resources, the Connecticut DEP requires that field-measured soil infiltration rates be less than 3.0 inches per hour for primary treatment systems. Soils with higher infiltration rates are not suitable for contaminated waste.

MAP 8: STORMWATER RUNOFF MANAGEMENT
SOIL SUITABILITY FOR STORMWATER WETLAND SYSTEMS
Coginchaug River Watershed



Stormwater Wetland Systems

include ponds/wetland systems, extended detention wetlands, pocket wetlands, shallow marsh systems and constructed wetlands.

The following data elements were used to evaluate soil suitability for Stormwater Wetland systems:

- * Seasonal high water table
- * Permeability
- * Hydrologic soil group
- * Slope

IMPORTANT NOTE: Criteria for selecting these soils were based on their ability to support hydrophytic vegetation. Most soils are poorly and very poorly drained and are Connecticut wetlands. These areas are regulated and permits may be required before any activity in or around them can begin. Care should be taken that no activities degrade these areas. On sites where degradation has already taken place, good opportunities for wetland restoration exist. Soils rated least limited are ponded or saturated most of the time. Soils rated somewhat limited may dry out for periods of the growing season.

Note: to protect ground water resources, the Connecticut DEP requires that field-measured soil infiltration rates be less than 3.0 inches per hour for primary treatment systems. Soils with higher infiltration rates are not suitable for contaminated waste.

Stormwater Wetland Systems

Rating

- Least limited
- Somewhat Limited
- Most Limited

Perennial Water

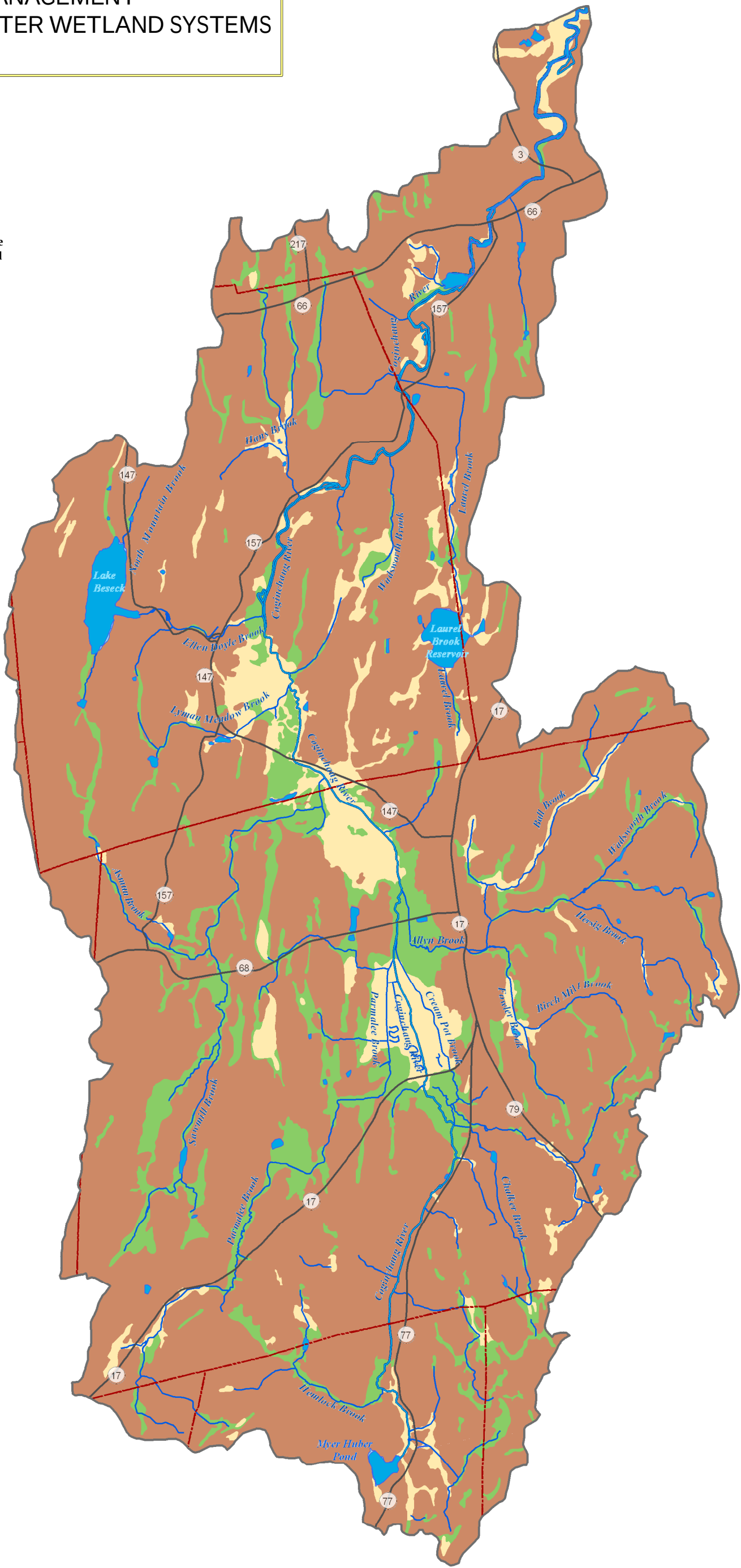
- Coginchaug River
- Other Streams
- Waterbodies

Roads

- State Roads

Towns

- Boundary



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