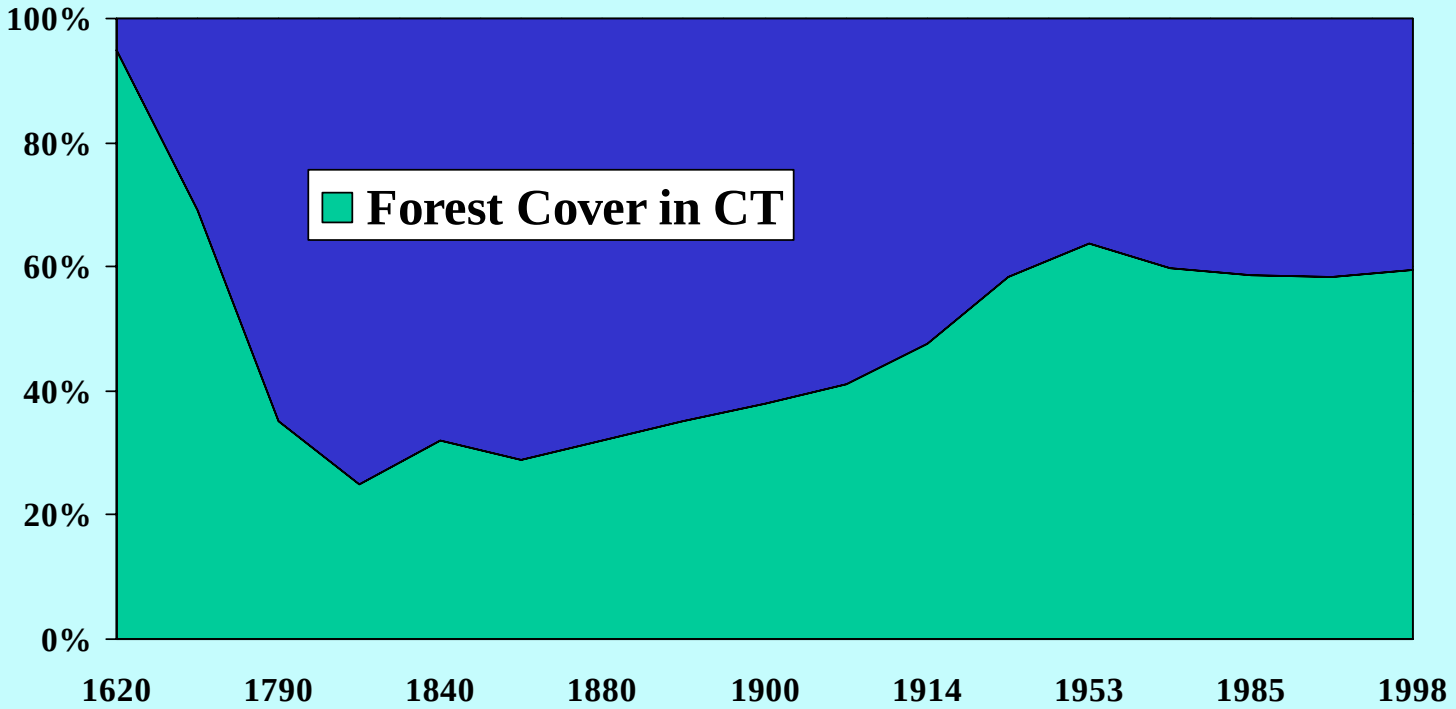
# Percent Forest Cover in Connecticut



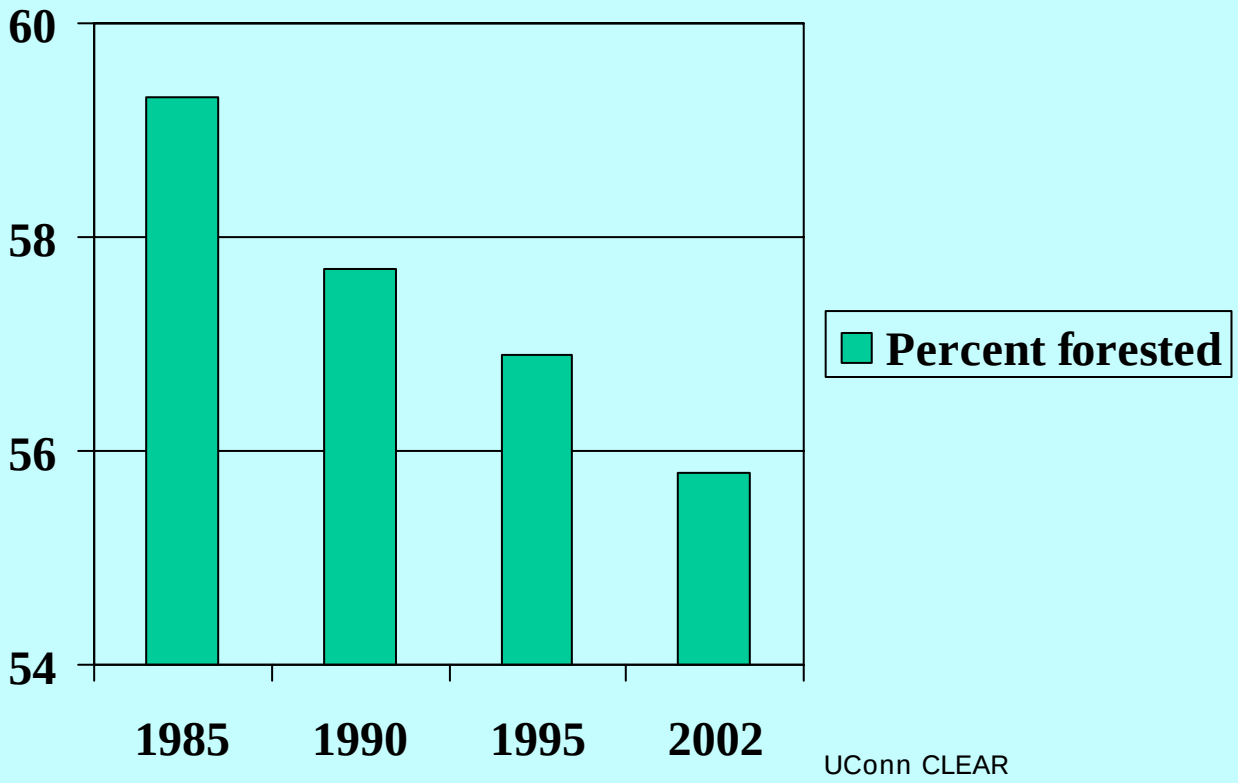

USDA U.S. Forest Service and Landsat World Referencing System, Laboratory for Earth Resources Information Systems (LERIS), University of Connecticut

From the 1600s through the 1800s, forest area decreased as land was cleared for agriculture, housing, and industry. In the 1900s, many farms were abandoned and the trees grew back. This resulted in a large increase in the amount of forest area for about 100 years.

**Indicator Type: Driver**

**LISS Indicators: Land Use (5.1)**

# Forest Cover in Connecticut

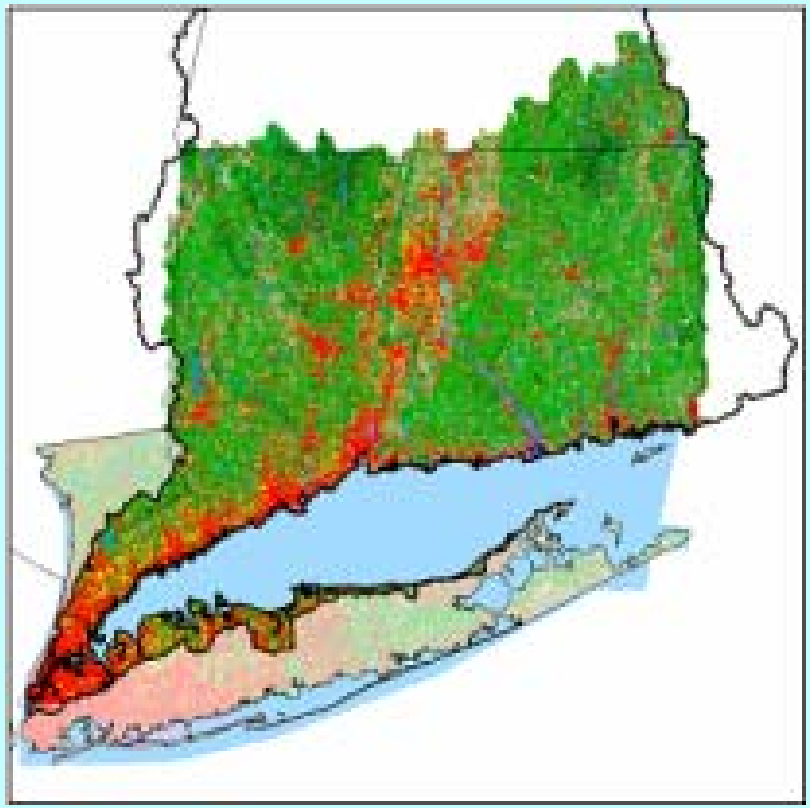



According to research from the University of CT's Center for Land Use and Education and Research (CLEAR), forested land in the late 20th and early 21st century is declining in CT—from about 2,945 square miles (1.88 million acres) in 1985 to 2,773 square miles (1.77 million acres) in 2002. The CLEAR research also indicates that about two-thirds of forested land (which includes forested wetlands as well as deciduous and coniferous forests) is fragmented forest—areas compromised by non-forested land.

**Indicator Type: Driver**

**LISS Indicators: Land Use (5.1)**

# Land Cover Change



| | 1985 (%) | 2002 (%) |
|---|---|---|
| Developed | 18 | 21 |
| Turf | 5 | 5 |
| Grasses | 10 | 11 |
| Forest | 62 | 57 |
| Water | 3 | 3 |
| Wetlands | 1 | 1 |
| Other | 1 | 2 |

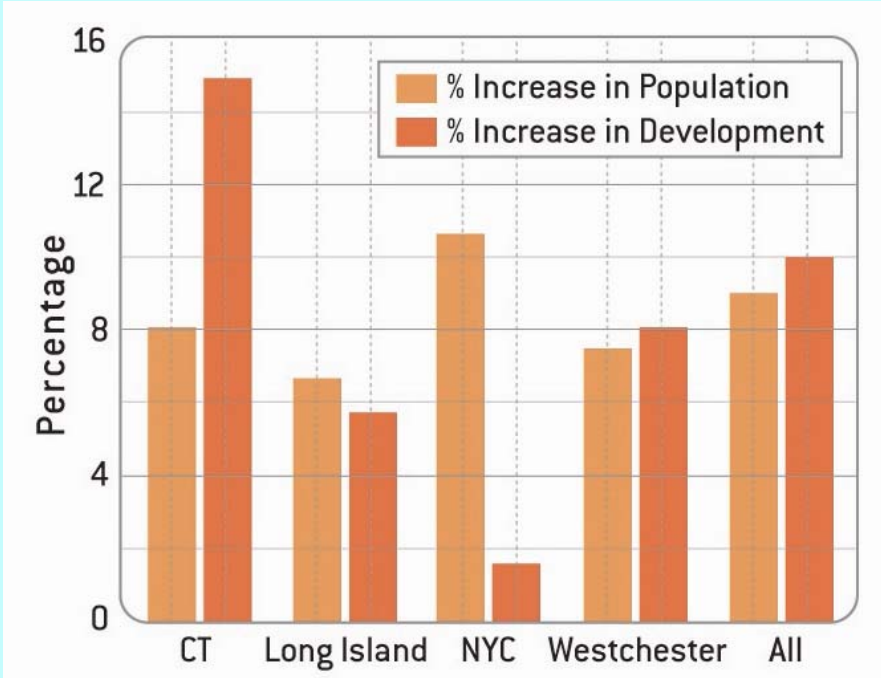
UConn CLEAR

Using satellite imagery, the UCONN CLEAR program has identified a percent loss of forest cover from 62% to 57% in CT and the NY portion of the Sound's watershed from 1985 to 2002, while developed land increased from 18% to 21%. From 1985 to 2002, 157 square miles of land had been developed in the Sound's watershed in NY and CT, while 231 square miles of forested land had been lost to other uses.

**Indicator Type: Driver**

**LISS Indicators: Land Use (5.1)**

# Population vs. Development (1985-2002)



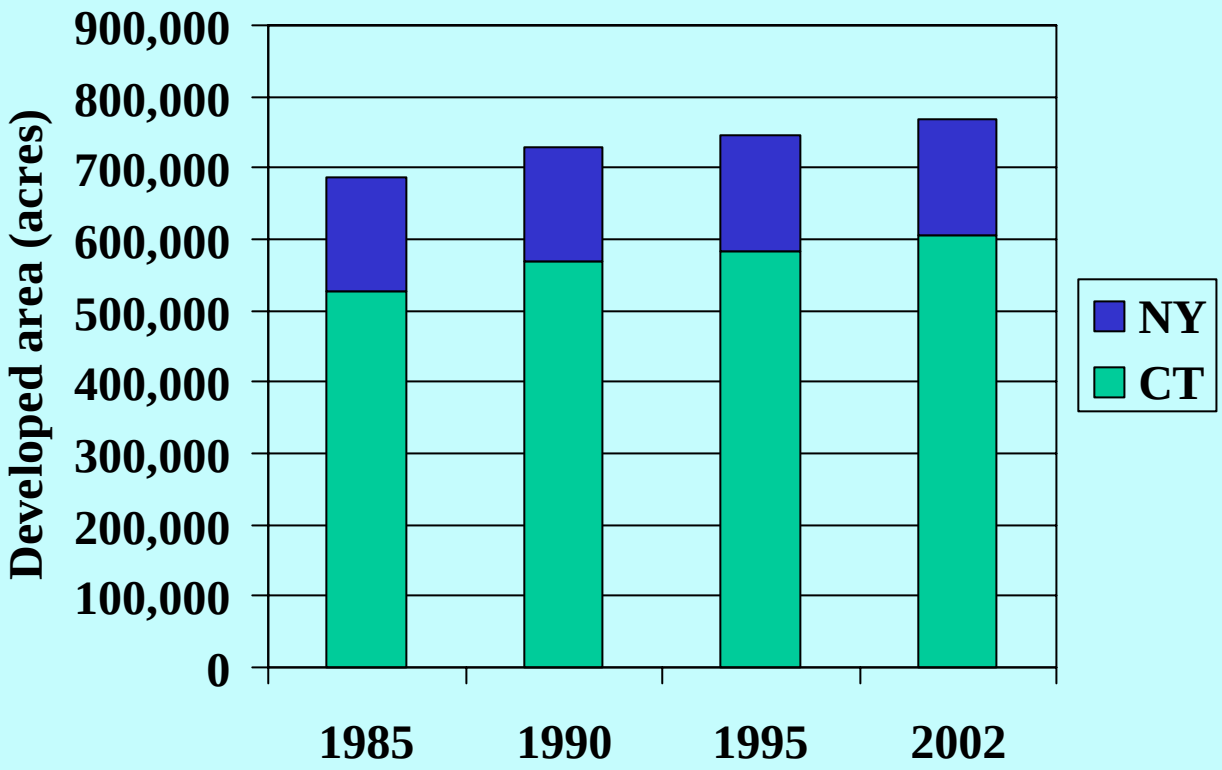

UConn CLEAR

In CT, development has increased at nearly twice the rate of population since 1985, an indicator of sprawl-type development, while in New York City, population increased faster than development.

**Indicator Type: Driver**

**LISS Indicators: Land Use (5.1)**

# Development in the LIS Watershed

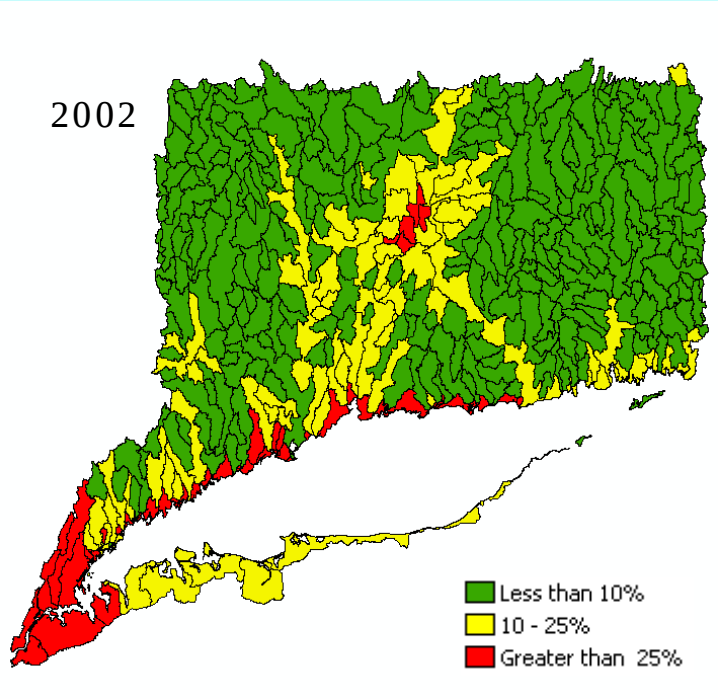



For the LIS region, the amount of developed area increased from 686,039 acres (1,072 sq. mi.), about 19% of the total land area, in 1985 to 768,747 acres (1,201 sq. mi.),, about 21.3% of the total land area, in 2002. This increase of 129 sq. mi. represents a 12% overall increase in development. (The total area of the LIS region in NY and CT is 3,602,067 acres (excluding water area of the Sound)—92% of the coverage is in CT and 8% is in NY.)

**Indicator Type: Driver**

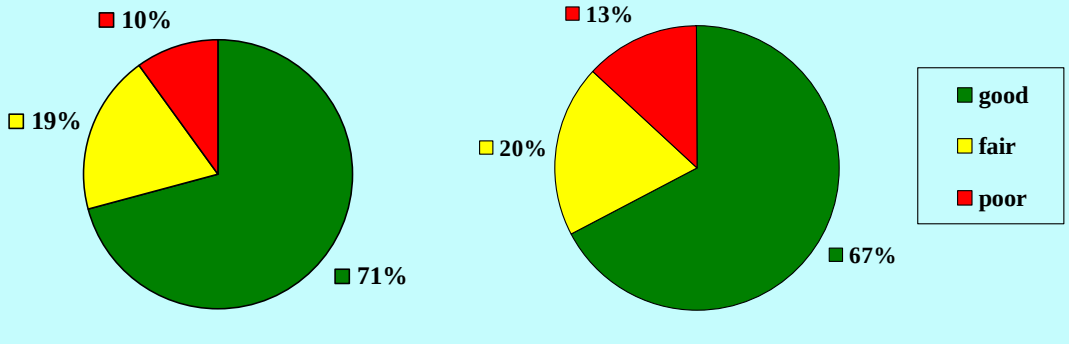
# Stream Health in the Sound's Sub-regional Watersheds (1985-2002)

**Impervious Surface Coverage Map**




Impervious Surface increased by 17% from 1985 to 2002

**Regional Watershed's Stream Health Rated as Good, Fair or Poor**




| Impervious Surface (IS) | Stream Health | # of Watersheds 2002 \| 1985 | Watersheds Area (square miles) 2002 \| 1985 |
|---|---|---|---|
| <10% | good-excellent | 278 \| 293 | 5,230 \| 5,578 |
| 10-25% | fair | 82 \| 80 | 1,546 \| 1,257 |
| >25% | poor | 54 \| 40 | 358 \| 299 |

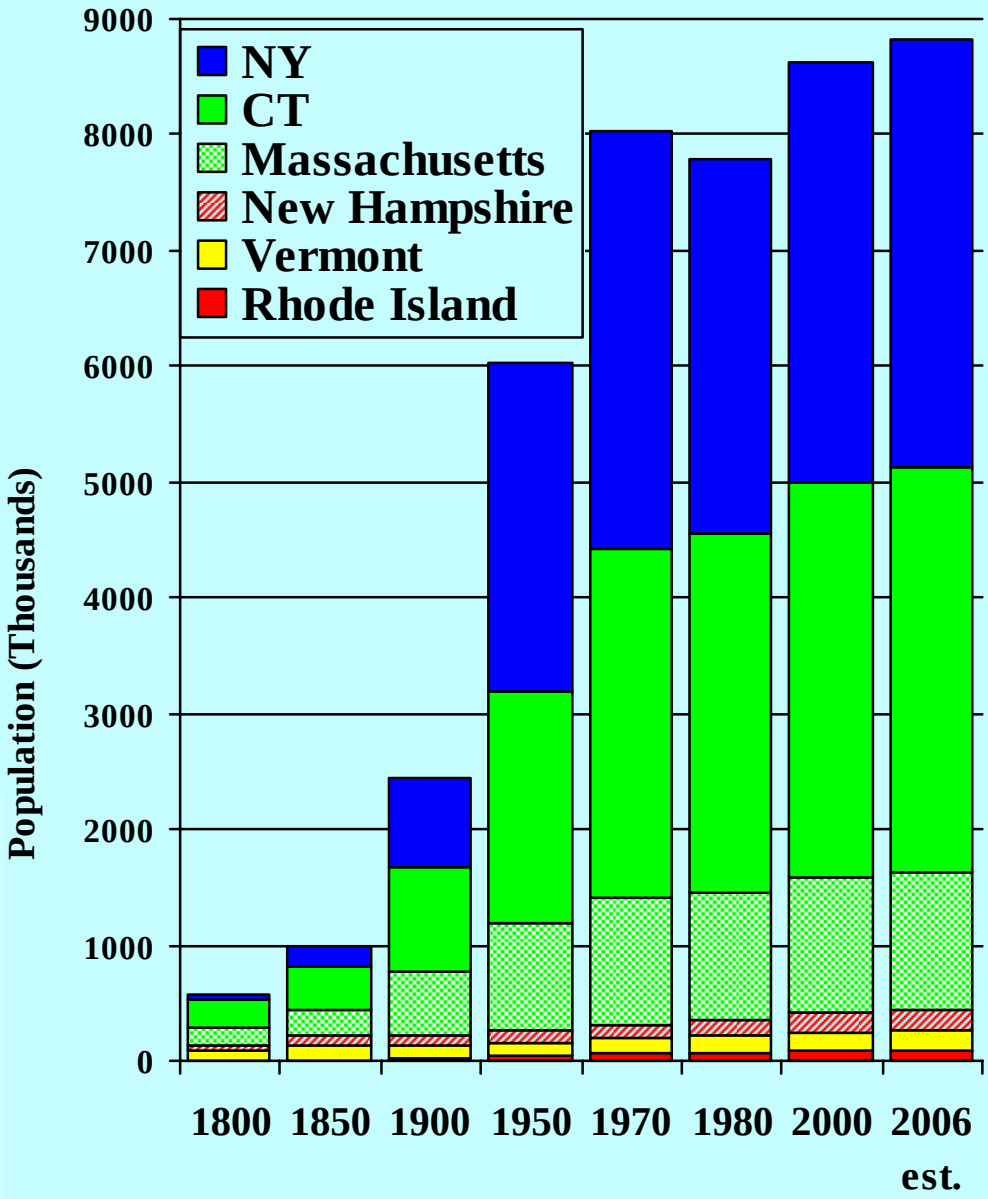
A growing body of national research indicates that water quality and overall stream health begin to decline in a local watershed when the level of hard surfaces (imperviousness) such as roads and rooftops exceed 10 percent. In the Sound's 414 sub-regional watersheds, the number of watersheds with impervious surfaces exceeding 25 percent is increasing, suggesting an increase in polluted runoff that will impair streams.

**Indicator Type: Driver**

**LISS Indicators: Land Use (5.1)**

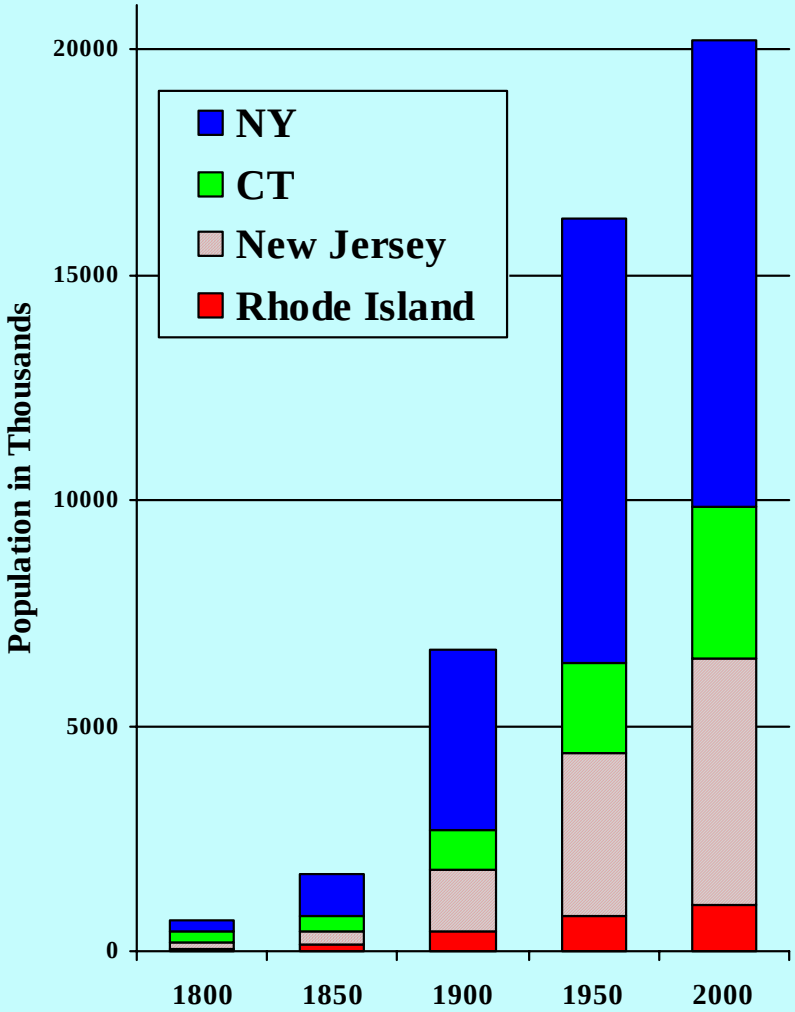
# Watershed Population Levels

Nearly 9 million people live in the Long Island Sound watershed. While population levels in the Sound's watershed are expected to remain fairly stable in the future, there has been an increasing population shift toward the coast.




Compiled by M.A. Parker, CT DEP, from population data estimates maintained by the U.S. Census Bureau (2006) at http://www.census.gov/main/www/cen2000.html, the University of Virginia Library with the cooperation and consent of the Inter-University Consortium for Political and Social Research at http://fisher.lib.virginia.edu/census, and New York census 2000 town/city data from the Empire State Development - DataCenter at http://www.empire.state.ny.us/nysdc/ftp/census2000/pl94_local.html.

# Population Within 50 miles of the Sound

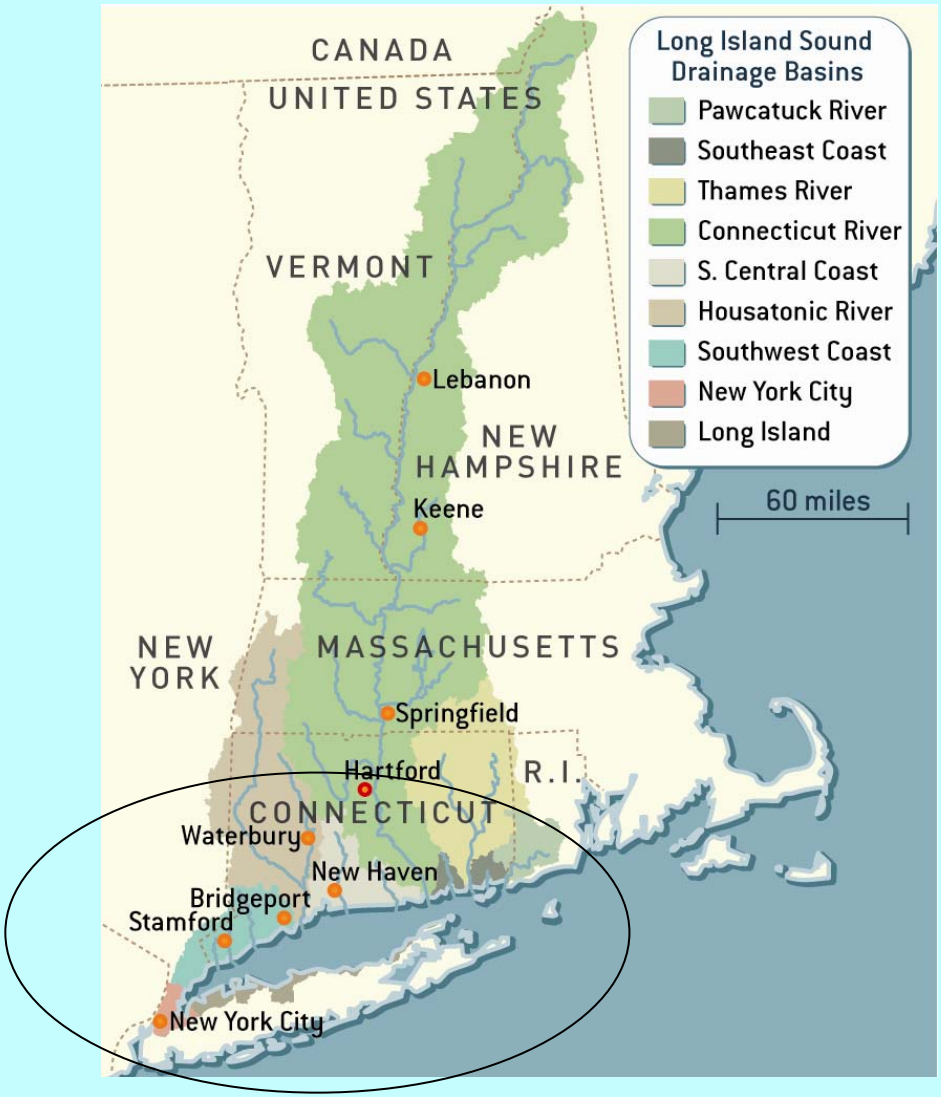




More than 21 million people live within a 50-mile radius of the Sound. With about 7% of the nation's population crowded around Long Island Sound, it is an estuary struggling to cope with many stressors.

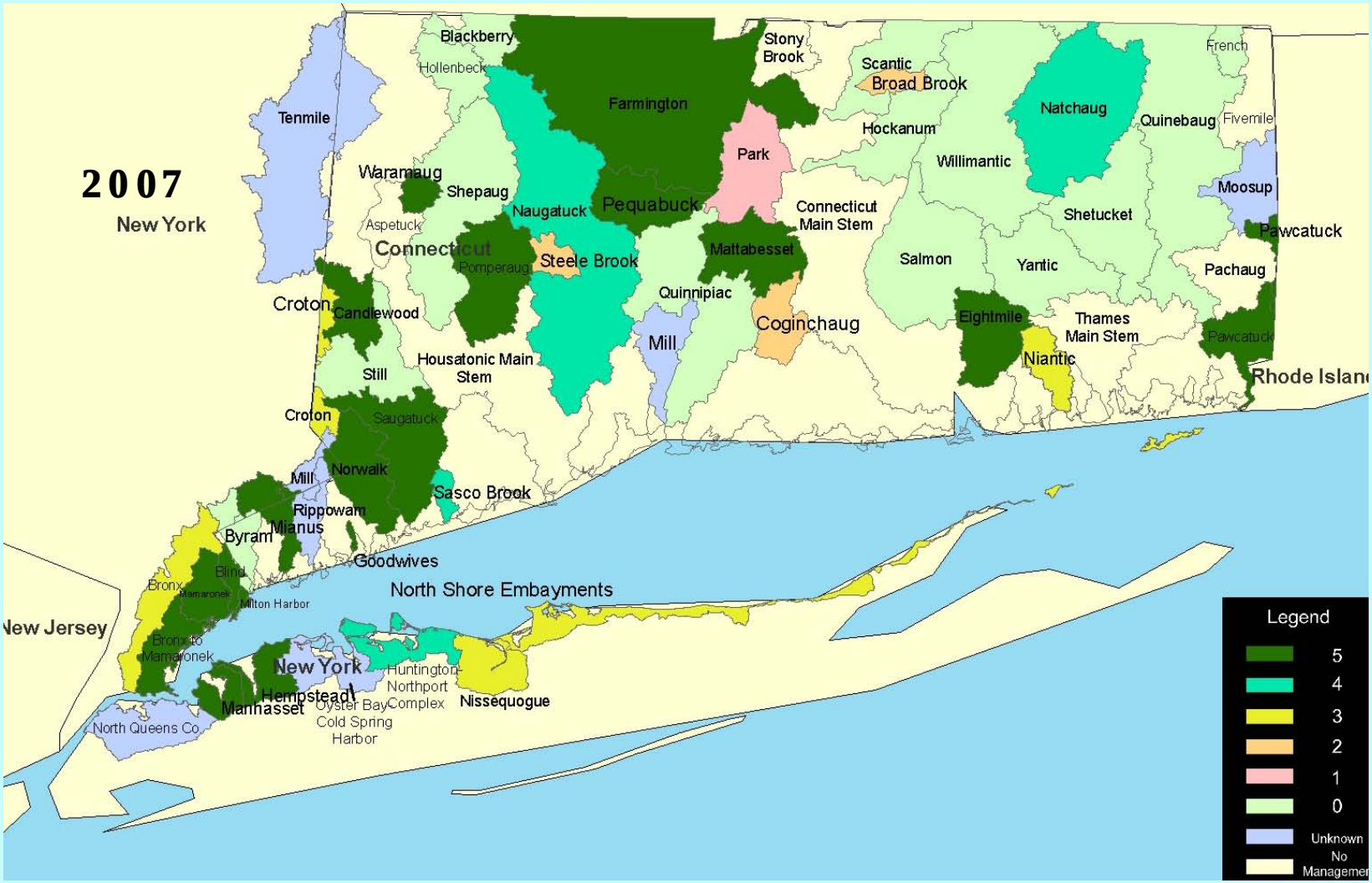
**Indicator Type: Driver**

**LISS Indicators: Land Use (5.1)**

# Watershed Management in CT and NY




Watershed restoration strategies are effective ways to support vibrant and healthy aquatic life, and to minimize the negative effects of erosion, sedimentation, and flooding in the basins that drain into the Sound as well as the Sound and its embayments. They are often implemented by municipalities working together. By 2010, CT and NY will work toward a goal of having 50 percent of their respective areas in the watershed developing or implementing watershed restoration strategies. So far 33 percent of watershed have reached that goal (see green areas, next slide).




0. Fragmented project implementation
1. Organization with goal of developing plan/strategy.
2. Actively working to develop plan/strategy.
3. Complete plan but not actively implementing.
4. Working to develop plan and strategy, and implementing projects.
5. Actively implementing plan and strategy.

U.S. EPA Region 2

**Indicator Type: Response**

**LISS Indicators: Land Use (5.1)**