

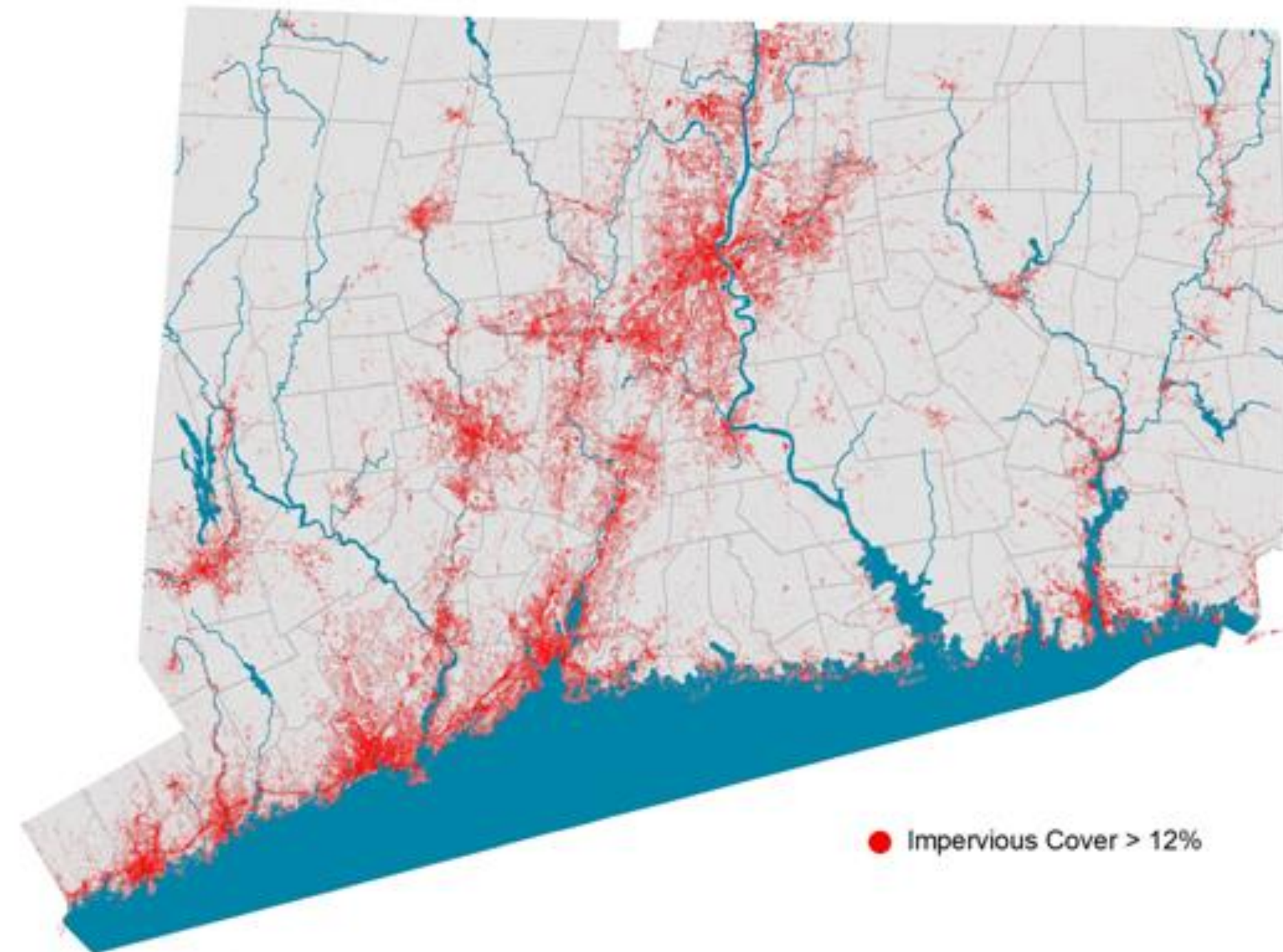
2022 303D Impairment List

933 miles of impaired rivers
and streams

1,159 acres of lakes

You can see the estuary map

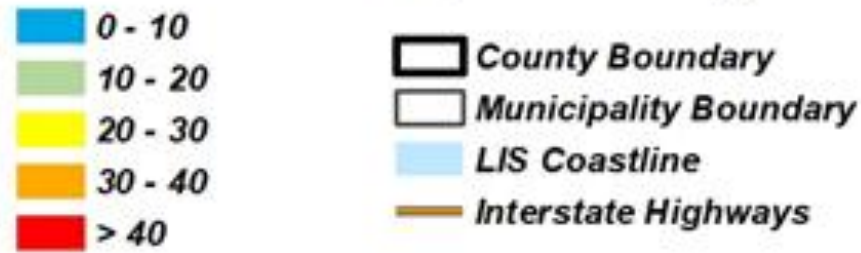
Impervious cover over
12% of the watershed
Correlates to impaired
Water quality





To buffer or not to buffer

Predicted annual nitrogen fertilizer application (lbs/year)



Johnson and Vaudrey 2022

Just these counties apply
4.5 million lbs. of fertilizer
each year along LIS

Meta-Analysis of Nitrogen Removal in Riparian Buffers

Paul M. Mayer,* Steven K. Reynolds, Jr., Marshall D. McCutchen, and Timothy J. Canfield

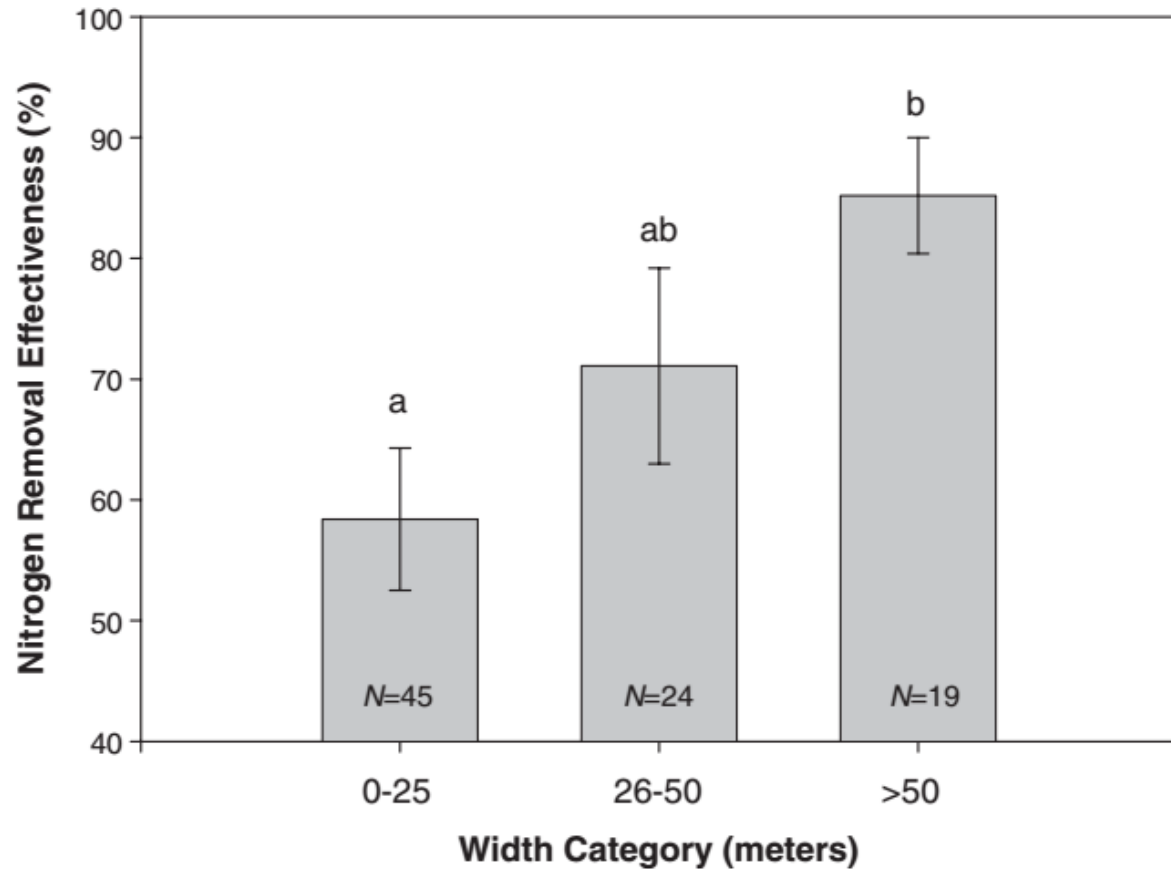


Fig. 2. Nitrogen removal effectiveness in riparian buffers by buffer width category. Bars represent means ± 1 standard error. Mean ranks of width categories differ if denoted by different letters (Kruskal–Wallis one-way analysis of variance on ranks with Dunn’s method of multiple comparisons, $P < 0.05$).

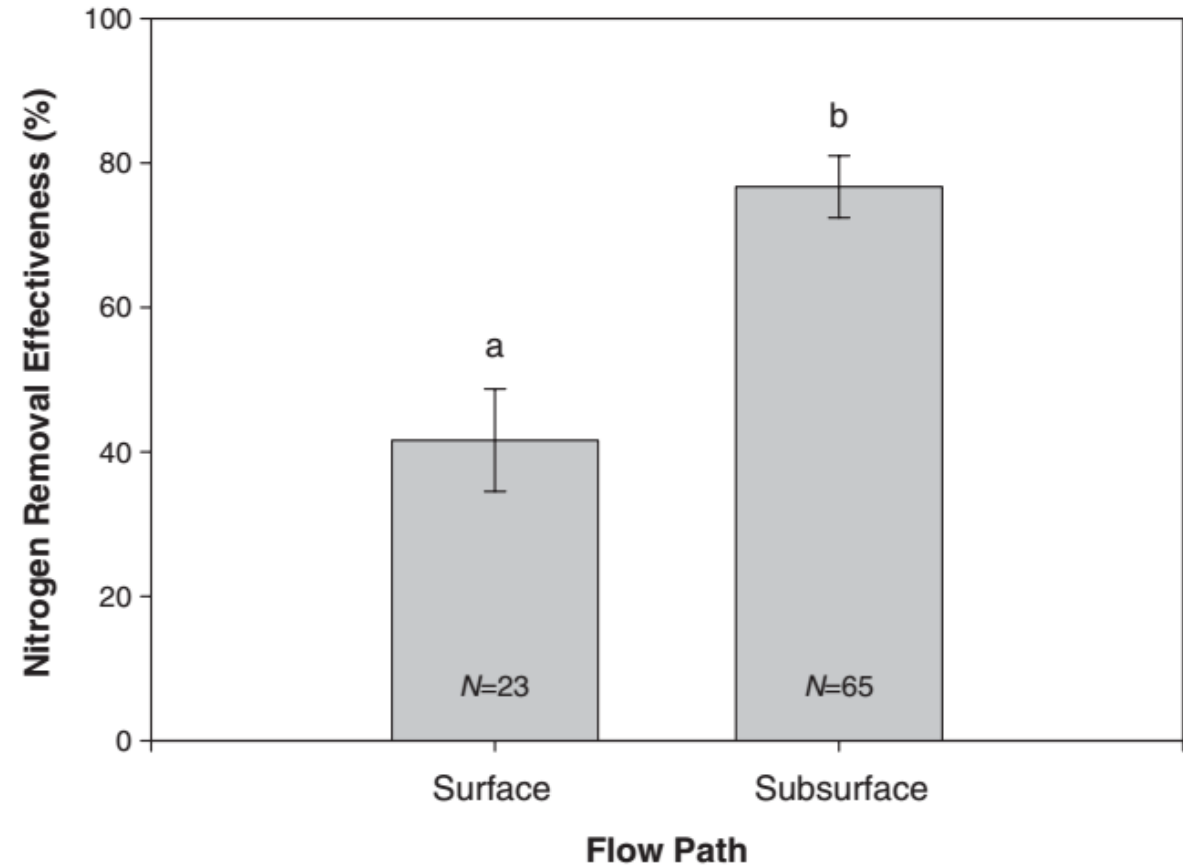


Fig. 3. Nitrogen removal effectiveness in riparian buffers by water flow path. Bars represent means ± 1 standard error. Mean ranks of flow paths differ if denoted by different letters (Mann–Whitney U test on ranks, $P < 0.001$).



Series of low
buffer
Ponds leading into
Deep River



Image © 2025 Airbus

Inconsistent regard
for buffering



CT River

Google Earth

Fertilized lawns straight to the water's edge



Gateway Commission
CT River Watershed
Buffer with a View



Westchester County
No mow strip



Degraded banks



Same view three years later



Restoring degraded
Pasture and Riparian
Area while maintaining
ford to adjacent
pasture



Angler casting into
Shaded brook

How Healthy is My Watershed?

select your basin/town to get key stats.

by Basin

Combined Condition Index by Basin

CCI

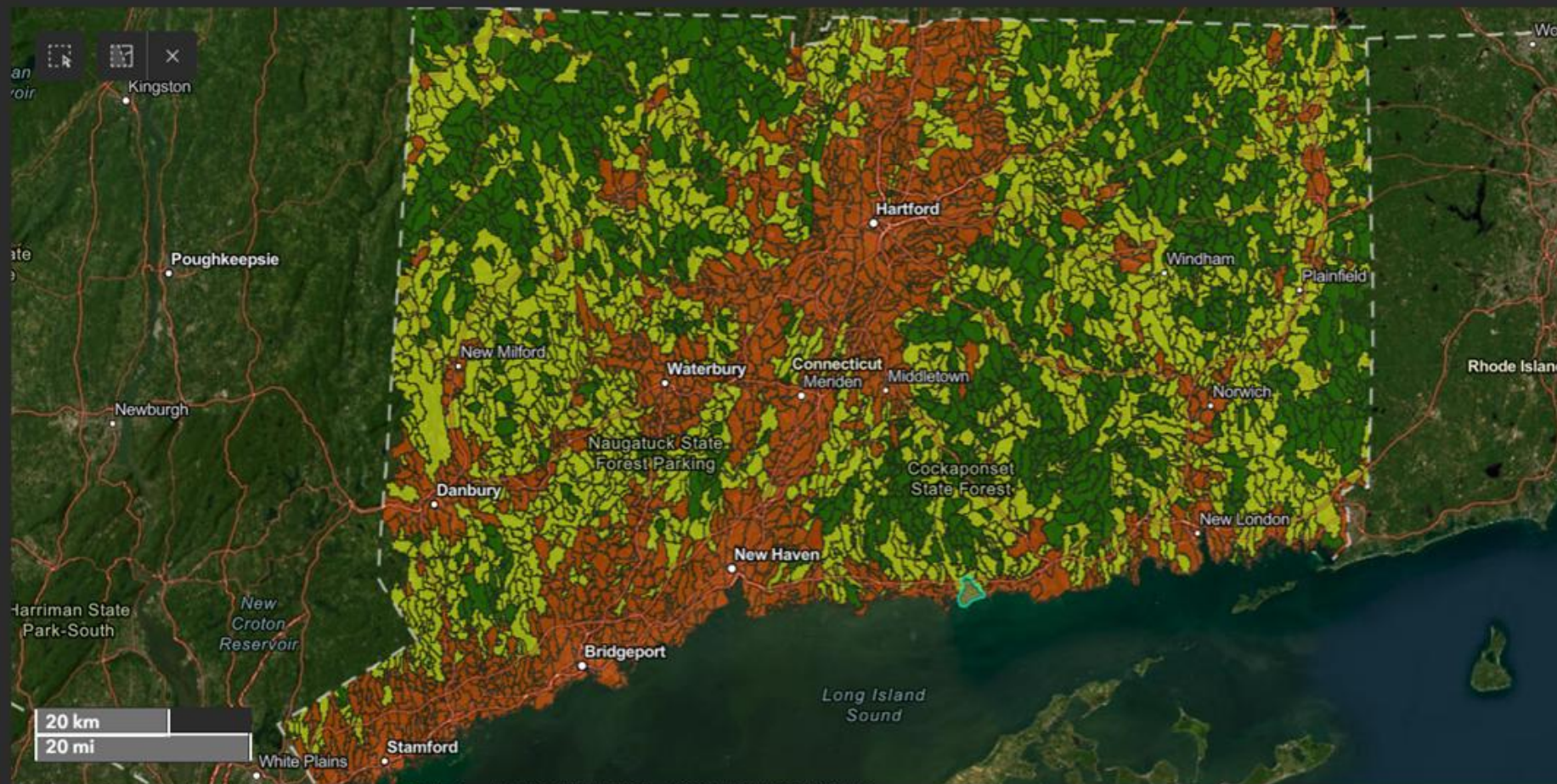
-  ≥ 0.75 , Conservation
-  0.43 - 0.74, Recovery
-  0 - 0.42, Mitigation

Do we do this with IWCs
or P&Z

What is Combined Condition Index?

Combined Condition Index (CCI) is an index that describes the probable health of a watershed. CCI of a watershed is calculated by the ratios of **natural**, **impervious**, and **agriculture-like** land cover based on **C-CAP High Resolution Land Cover dataset** for 100-ft **riparian zone** and upland area within the watershed. CCI ranges between 0 and 1. A CCI of 0.75 or above is a sign of healthy watershed.

TO GET INFORMATION FOR SPECIFIC BASIN(s) Click the **Select** tool (upper left corner of the map) and then zoom in on the map to select basin(s) of your interest. The selected basin(s) will be highlighted in **blue** and the information about the basin(s) will appear in the charts below and the box on the right. The box and charts will be interactively updated for the selected basin(s). The box and charts will be interactively updated for the selected basin(s). The box and charts will be interactively updated for the selected basin(s). The box and charts will be interactively updated for the selected basin(s).



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