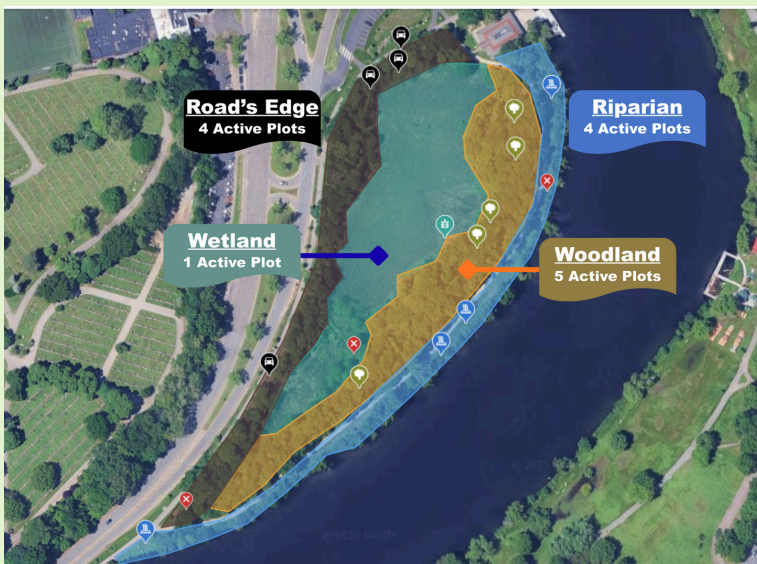


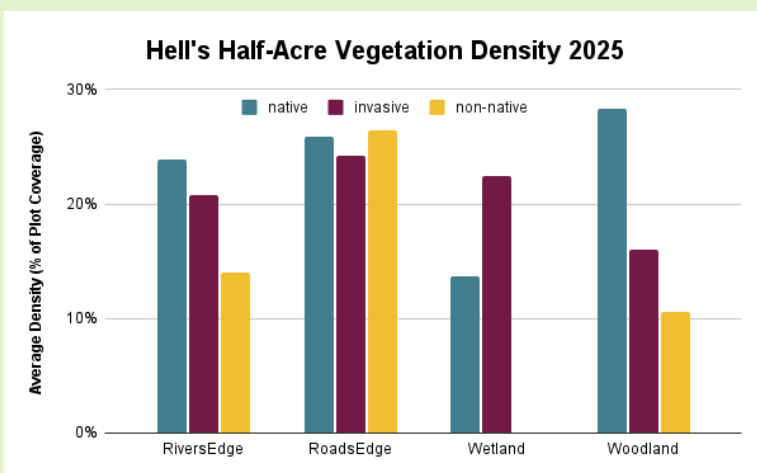
Hell's Half-Acre Vegetation Monitoring 2025 Progress Report

HELL'S HALF-ACRE (HHA) is a 7.5-acre tract of urban wilderness between Greenough Boulevard and the Charles River in Cambridge, MA. **Four distinct habitat types** give the site tremendous ecological and community value, but decades of neglect and degradation led to the proliferation of **invasive plant species**, which have severely impaired biodiversity and ecosystem health.



Since 2019, the Charles River Conservancy (CRC) has worked with the Dept. of Conservation and Recreation to remove invasive species from HHA and **restore natural biodiversity**.

In 2024, CRC volunteers began monitoring test plots across the four habitat types (see map), providing crucial data on the effectiveness of restoration efforts.



Volunteers report on the **density, diversity, and distribution** of native and invasive species. These parameters are showing that the HHA plant community is becoming **more diverse and naturalized** as a result of restoration efforts!



The **RIPARIAN** habitat has historically seen a high density and diversity of invasive plants

Following targeted treatment and removal, **native diversity now exceeds invasive diversity for the first time!**
Areas that were previously invasive monocultures are showing **signs of native re-establishment**



The **ROAD'S EDGE** area is subject to long-term disturbance, making it prime habitat for invasive species

Thanks to management, native and invasive plants are **now present in equal densities!**
This is a sign that removing invasives is allowing re-emergence of the **soil's native seed bank**



The **WETLAND** is dominated by *Phragmites australis*, a notorious invasive reed with few treatment options.

Treatment has **reduced Phragmites density, allowing diverse natives to re-emerge** at the wetland edge
Remaining invasive species are present in **moderate density (no monoculture) and will be easier to manage**



The **SUCCESSIONAL FOREST** is made up of native and invasive species that readily colonize disturbed areas

Native species are dominant in terms of **both density and diversity**, especially in the tree canopy
Weedy invasives are scattered in the undergrowth: widely distributed but low density and diversity

It's clear from two years of data: restoration and management are allowing native species to recover, but invasives remain a threat to HHA's long-term stability

To build on this progress, the CRC plans to begin **native replanting** of three initial test plots in spring 2026!