

Human Environment Regional Observatory (HERO) 2023 Stakeholder Presentation

Assessment of tree health and resident perspectives in the Longhorned Beetle Regulation Zone
from 2008 to 2023

Aaron Richmond-Crosset,
Adlai Nelson, Amritha Pai,
Caleb Kluchman, Ksenia Smart,
Ramón Colón, Tanner Honnep



Worcester's Urban Forest: Past Observatory Research



HERO joins collaboration with USDA and DCR



HERO partners with GGC



2008

2012

2014

2017

2022

LB eradication program begins

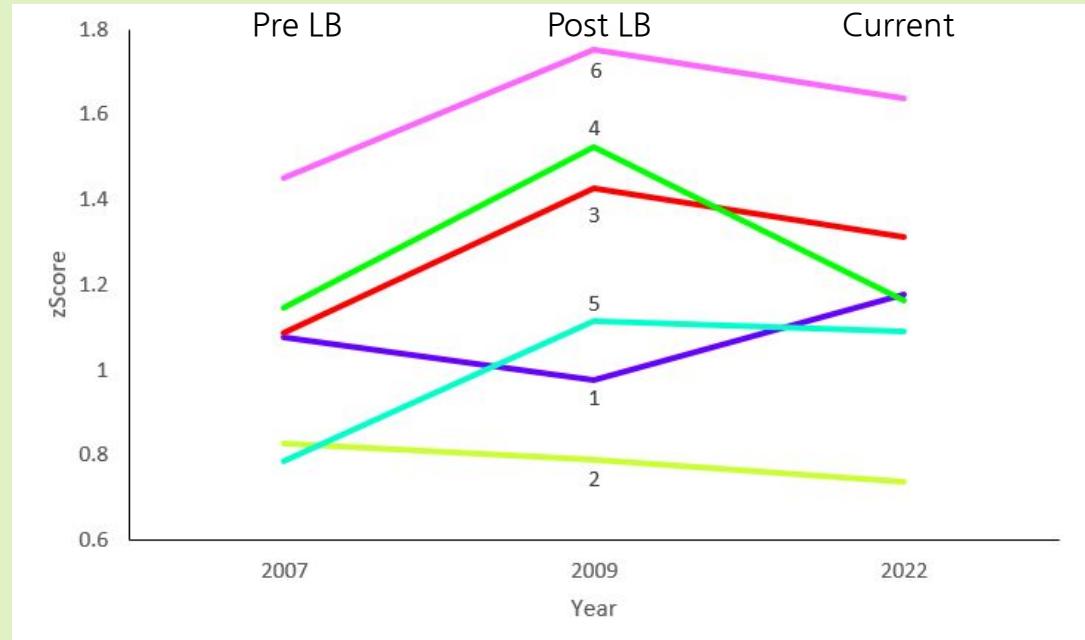
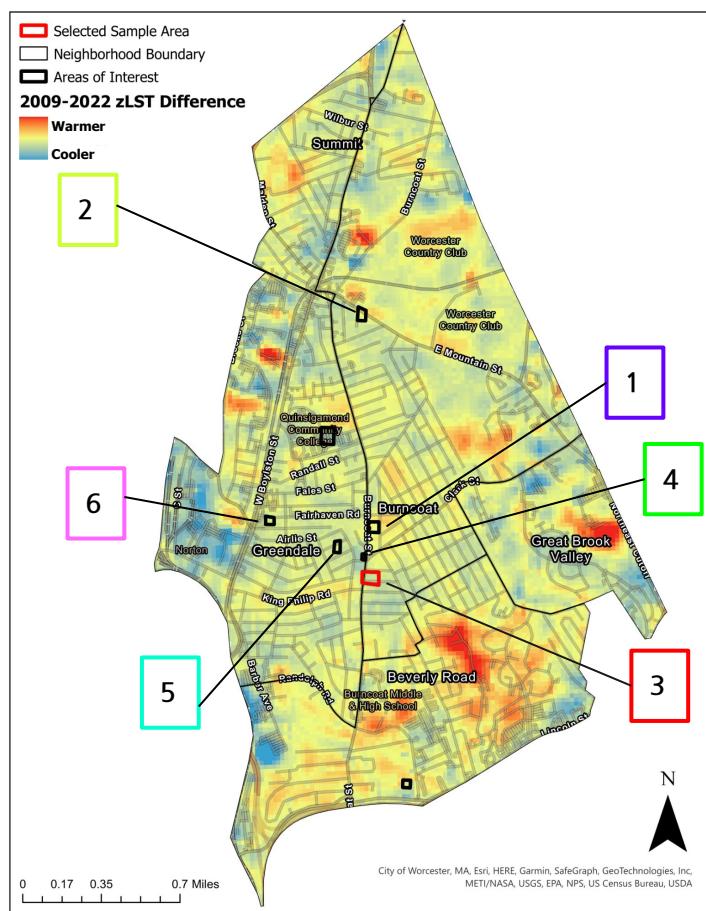


HERO begins survey in LB study area



HERO studies juvenile tree health, air quality, and stewardship

Tree Planting Impact on Surface Temperature



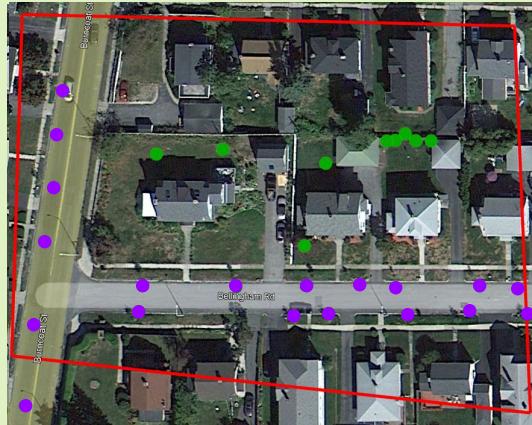
Residential areas with lots of removals get sharply warmer from 2007-2009, slowly cool following replanting

Satellite Images of Selected Sample Area 3

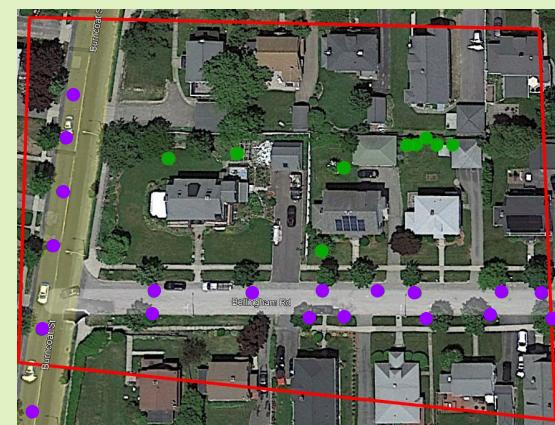
7/2007 Pre-LB



9/2010 - During Planting

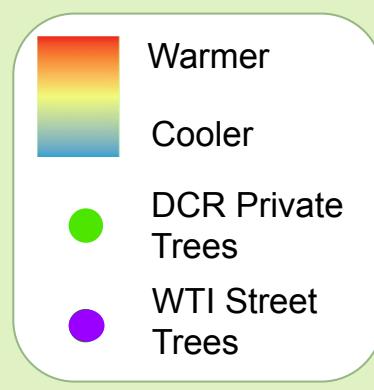


6/2022 - 13 years post LB



Land Surface Temperature (zLST) Difference

Between 2007 - 2009



Between 2009 - 2022

