



Yovani Baez-Rose
Assistant City Manager/DPD Director

Camilo Espitia
DPD Deputy Director

MEMORANDUM

TO: Thomas A. Golden, Jr., City Manager 

FROM: Yovani Baez-Rose, Assistant City Manager/DPD Director

CC: Katherine Moses, Energy Manager
Sophie Mortimer, Neighborhood Planner

SUBJECT: MOTION RESPONSE: May 9, 2023 - C. Yem – Request City Manager Update the Council on the MVP Grant Project for an Urban Forest Master Plan and Master Plan for Urban Heat Island Assessment

In August 2022, the City of Lowell was awarded a Municipal Vulnerability Preparedness (MVP) Action grant for \$93,000 from the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) to create a “Resilient Urban Forest Master Plan and Urban Heat Island Assessment.” The project builds off of priorities identified in Lowell’s initial MVP planning grant project, as well as those concerns elevated by City Council and local environmental activists. The attached presentation will provide: an overview of MVP program and the current grant project, a summary of preliminary findings and work completed, and an upcoming volunteer date on Sunday, June 25, from 1-4 PM, beginning at the North Common. Additional information will be shared through social media closer to the event for those who are interested in participating.

Anyone interested in further information about the project or volunteer activities can reach out to Katherine Moses, Energy Manager at kmoses@lowellma.gov or Sophie Mortimer, Neighborhood Planner smortimer@lowellma.gov .

KM/ybr

Attachments

City Council Meeting
May 11, 2023

City of Lowell Resilient Urban Forest Master Plan



THE CITY OF
LOWELL
THERE'S A LOT TO *like*

PROJECT FUNDING

Municipal Vulnerability Preparedness (MVP) Program



Executive Office of Energy and Environmental Affairs

MVP Opportunities:

- Improve **resilience and preparedness** of natural and climate-driven hazards
- **Collaborate with stakeholders** about climate change, natural hazards, and impacts
- Increase **education, planning, and implementation** of priority actions
- Fund both **resilience efforts** and efforts that are **not exclusively resilience-based** (i.e. parks, infrastructure, etc.)

MVP Action Grants:

- This project is an **Action Grant**
- **Up to \$2 million** for planning, design, permitting, construction
- **25% grant match** in cash or in-kind
- **\$10-15 million** available
- Late August through **June 30th**

PROJECT SCOPE & DELIVERABLES



Identify High Priority Areas for UHI Mitigation



Urban Forest Inventoring



Risk Analysis



Implementation & Maintenance Plan



Urban Forest Master Plan



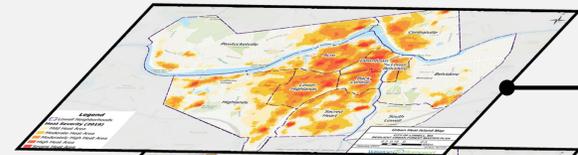
Urban Heat Island Assessment

Reviewing **temperature, vulnerable populations, and community resources/destinations** data to identify **priority planting areas**

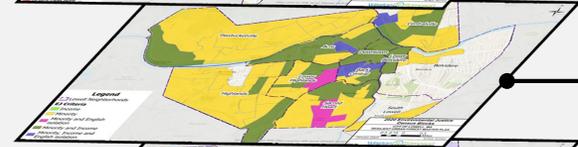


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THERE'S A LOT TO *like*

UHI ASSESSMENT LAYERS



Urban Heat Island Map



Environmental Justice Census Blocks



Vulnerable Population (Elderly and Minor)



GoLowell Top Pedestrian and Bicycle Destinations



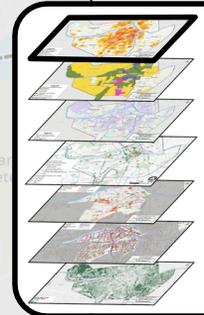
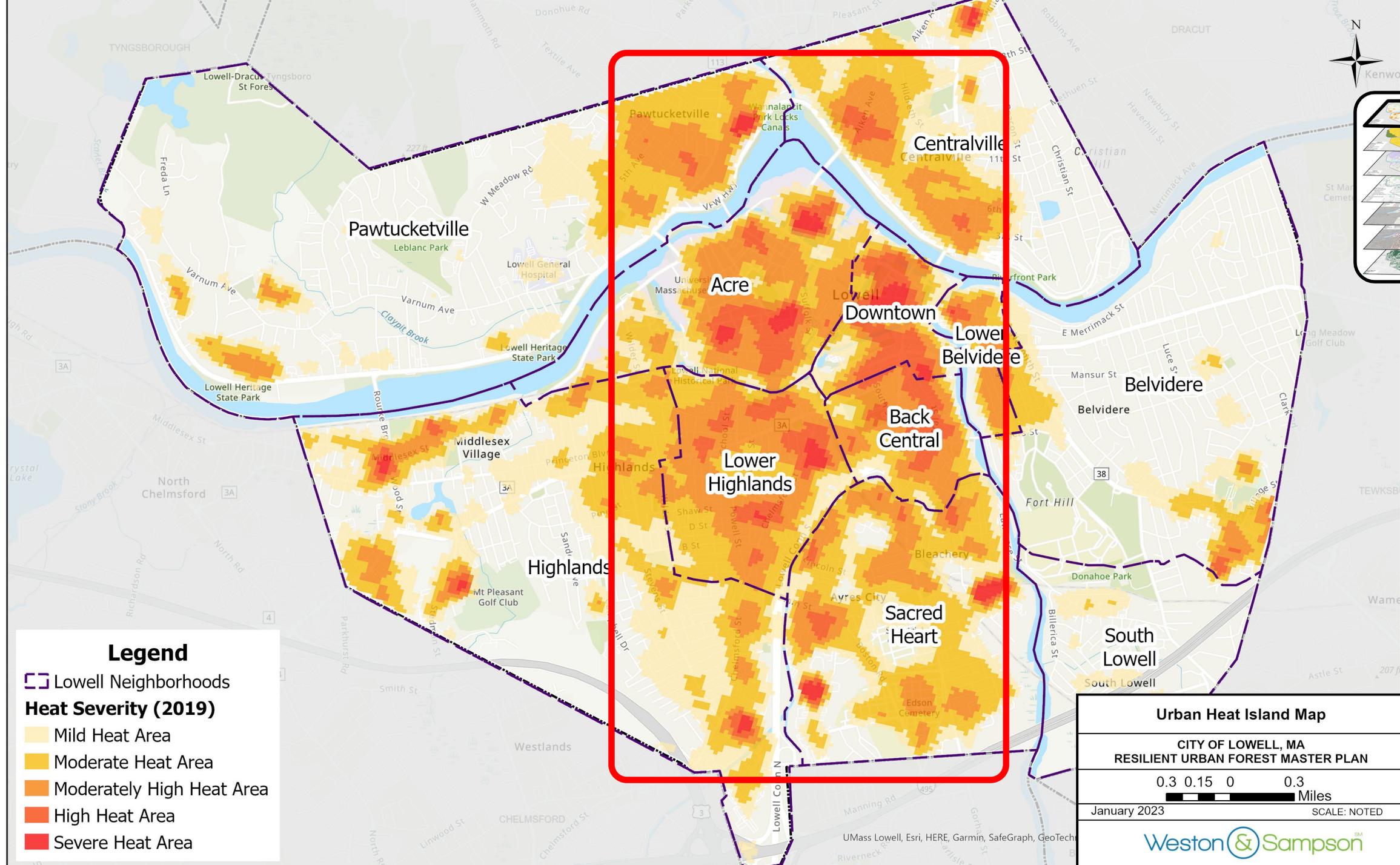
Community Resources Map



Transportation Map



Existing Trees Canopy



Legend

- Lowell Neighborhoods
- Heat Severity (2019)**
- Mild Heat Area
- Moderate Heat Area
- Moderately High Heat Area
- High Heat Area
- Severe Heat Area

Urban Heat Island Map

CITY OF LOWELL, MA
RESILIENT URBAN FOREST MASTER PLAN

0.3 0.15 0 0.3
Miles

January 2023 SCALE: NOTED



Urban Heat Island Map Mapa Urbano da Ilha de Calor
 Mapa De Isla De Calor Urbano ផែនទីតំបន់ក្នុងដីដែលមានអាកាសធាតុក្តៅ

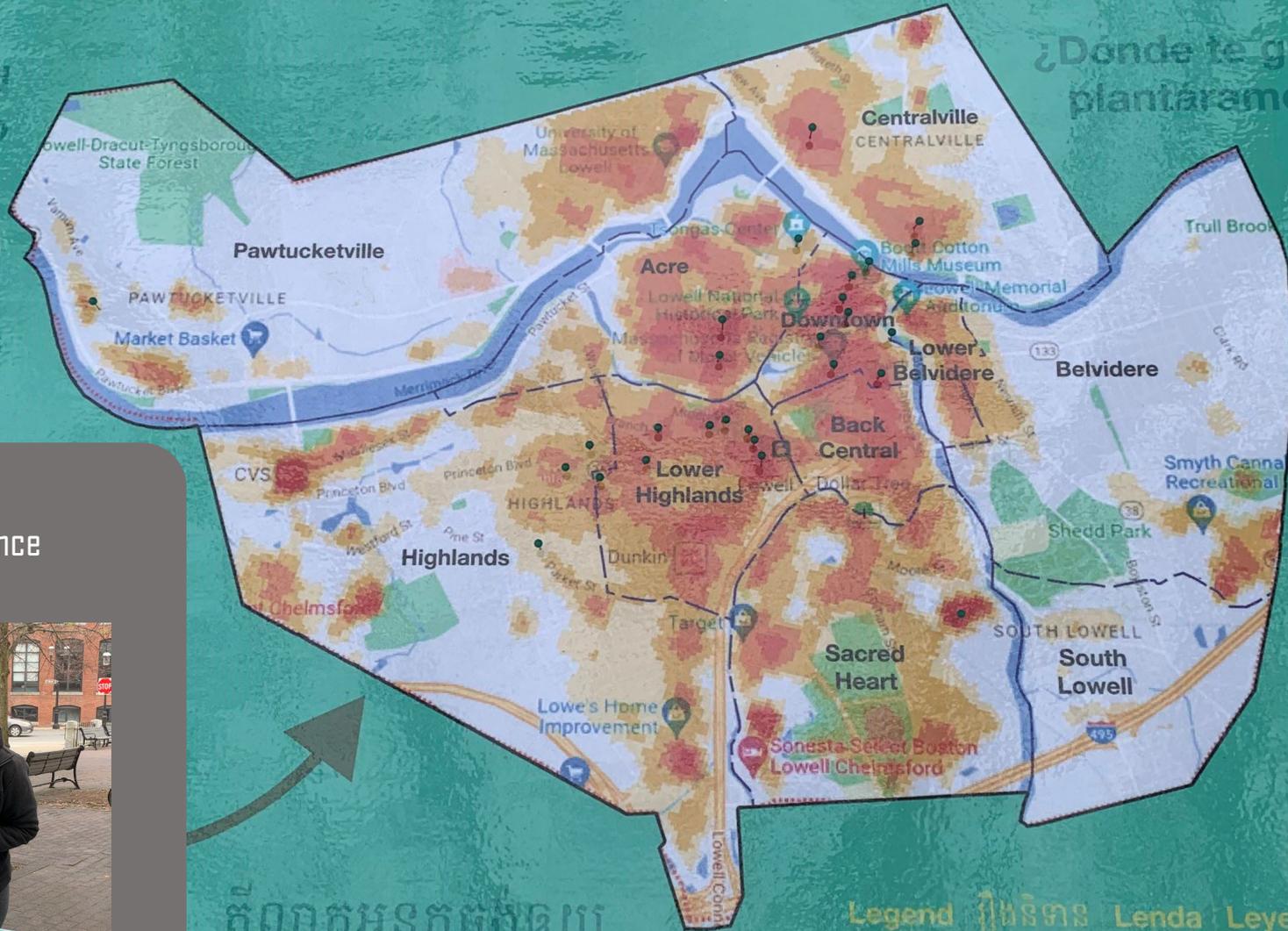


CITY of LOWELL

¿Donde te gustaría que plantáramos árboles?

Where would you like us to plant trees?

Onde você gostaria que plantássemos árvores?



Do you live in a hot spot?

តើលោកអ្នករស់នៅក្នុងតំបន់មានអាកាសធាតុក្តៅឬ?

Você mora em um ponto quente?

¿Vives en un punto caliente?

Where do residents experience extreme heat in Lowell?



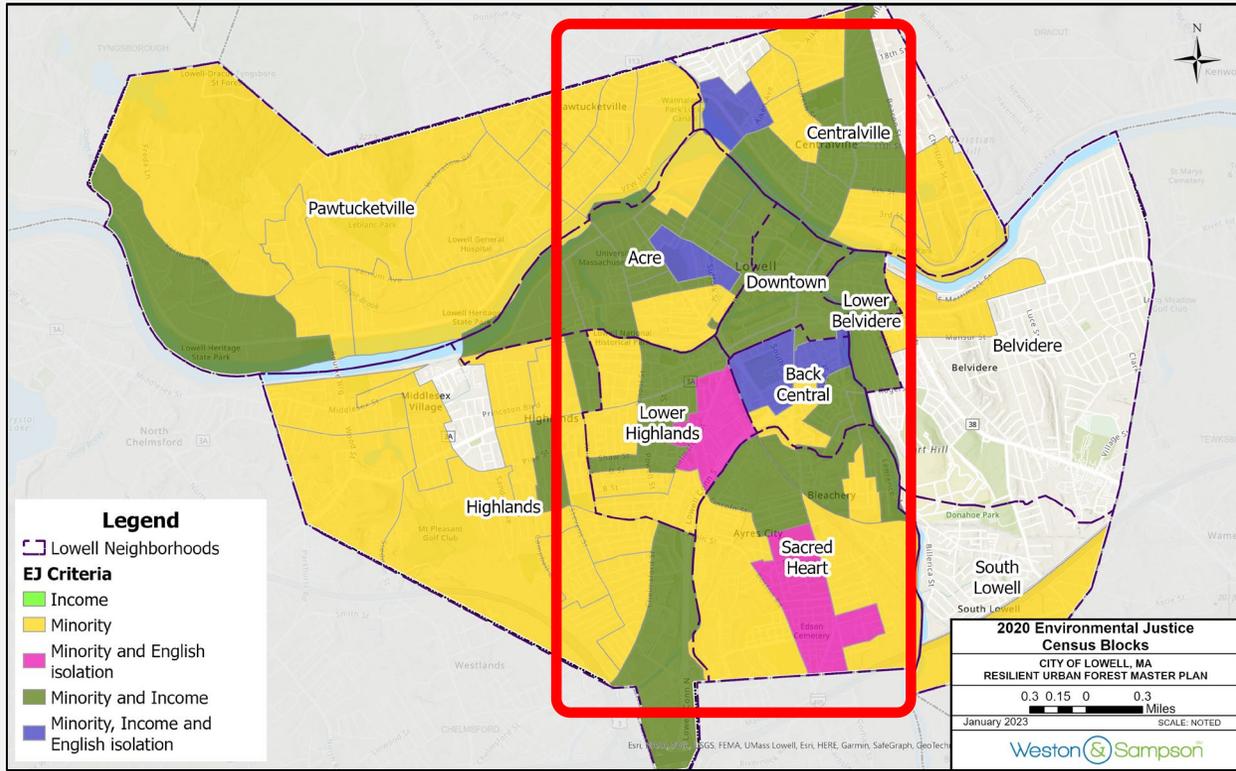
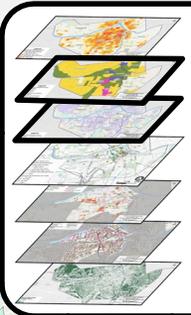
gustaria plantar un árbol!

តើលោកអ្នកមិនឃើញក្នុងផែនទីនេះដែរឬទេ តើមានតំបន់ណាដែលមានអាកាសធាតុក្តៅខ្លាំងណាស់?

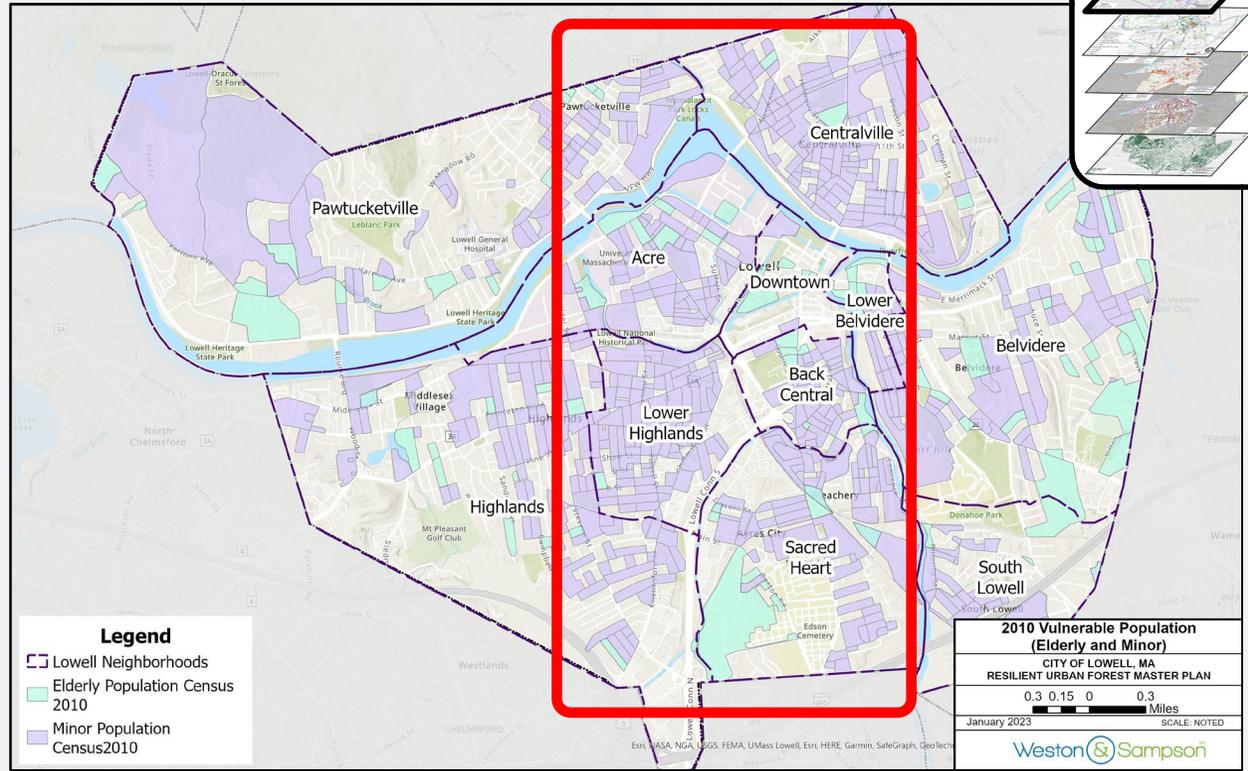
Legend រូបនិទាន Lenda Leyenda

Heat Severity Areas (2019) | តំបន់ក្តៅខ្លាំង (ឆ្នាំ២០១៩) |
 Áreas de severidade de calor (2019) | Áreas de severidad de calor

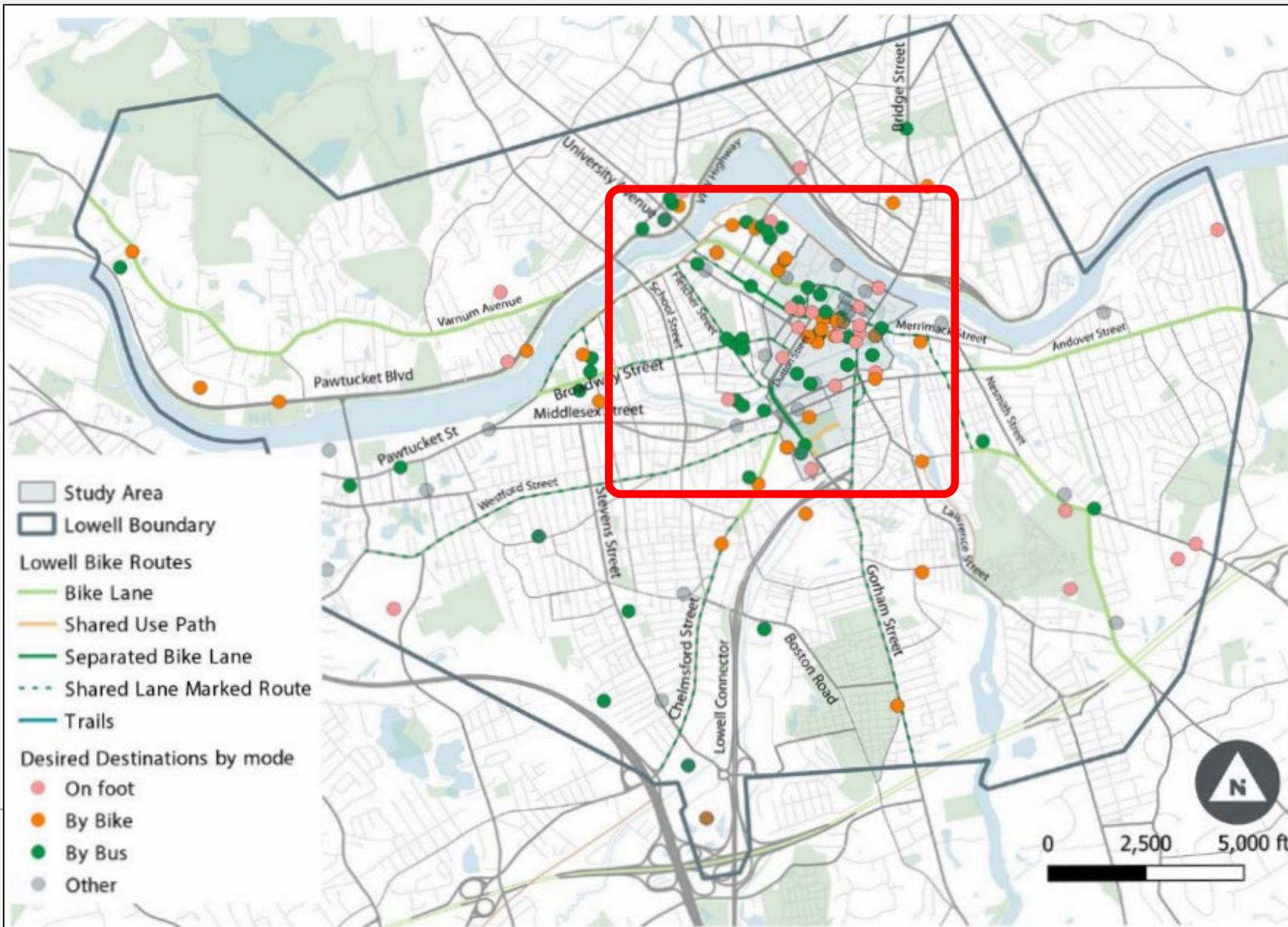
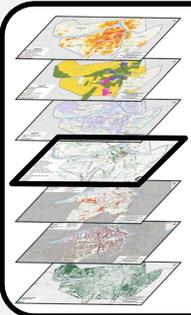
- Mild Heat | ក្តៅបន្តិច | Calor Leve | Calor suave
- Moderate Heat | ក្តៅល្មម | Calor moderado | Calor moderado
- Moderately High Heat | ក្តៅខ្លាំងល្មម | Calor moderadamente alto | Calor moderadamente alto
- High Heat | ក្តៅខ្លាំង | Temperatura elevada | Calor alto
- Severe Heat | ក្តៅខ្លាំងណាស់ | Calor forte | Calor severo



2020 Environmental Justice Census Blocks

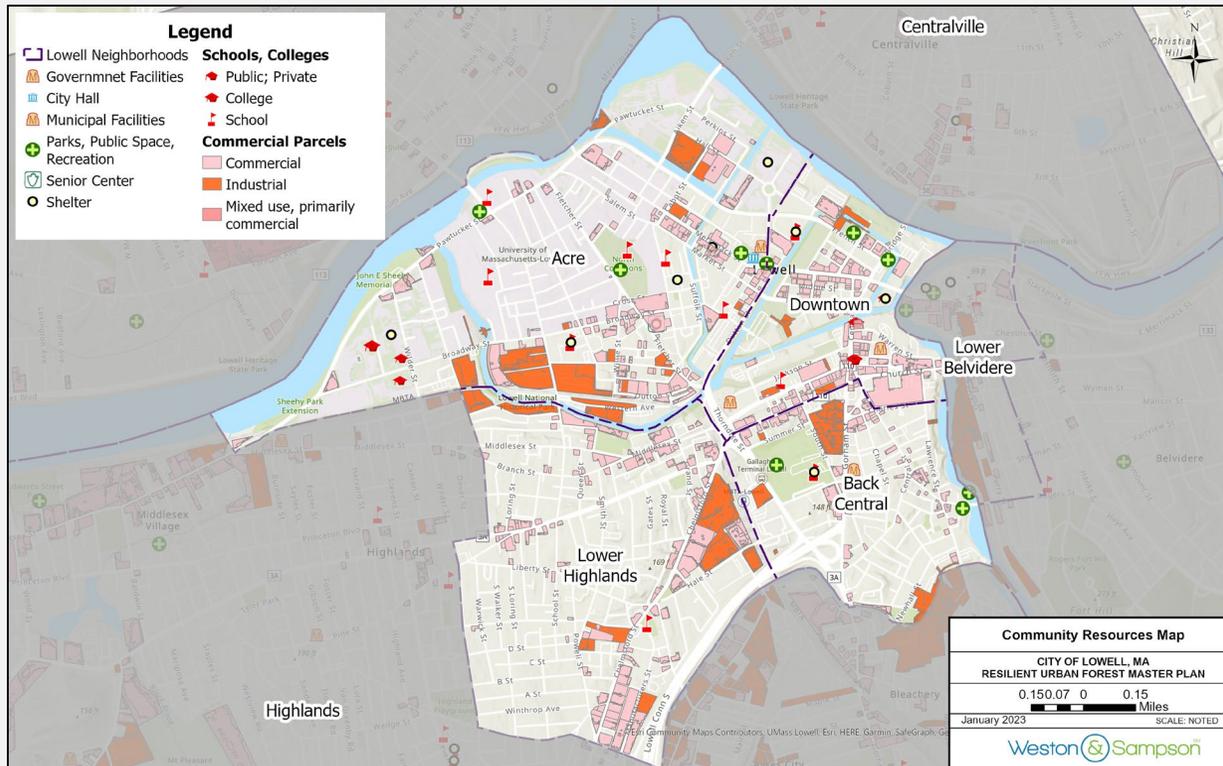
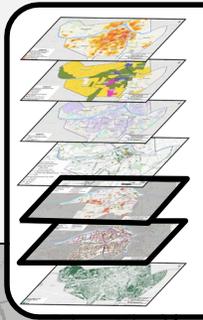


2010 Vulnerable Population (Elderly and Minor)

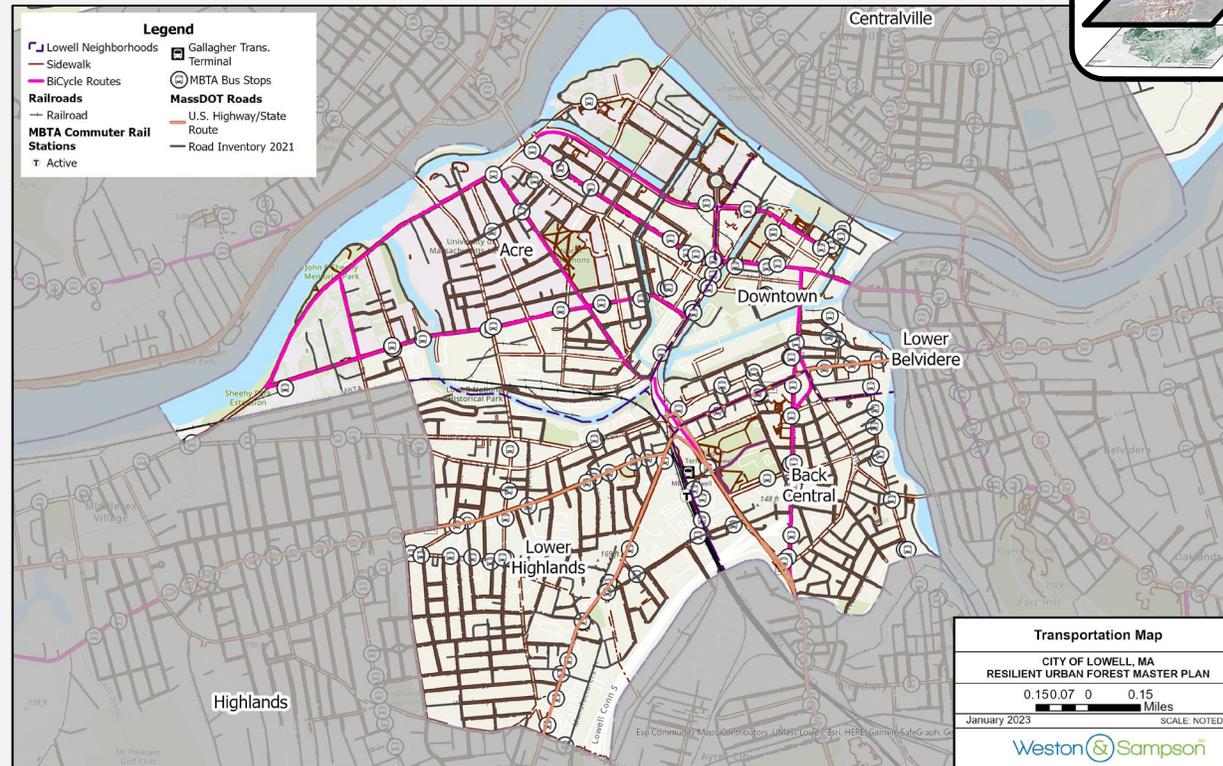


GoLowell Top Pedestrian and Bicycle Destinations

Data from Lowell HMP Planning Grant

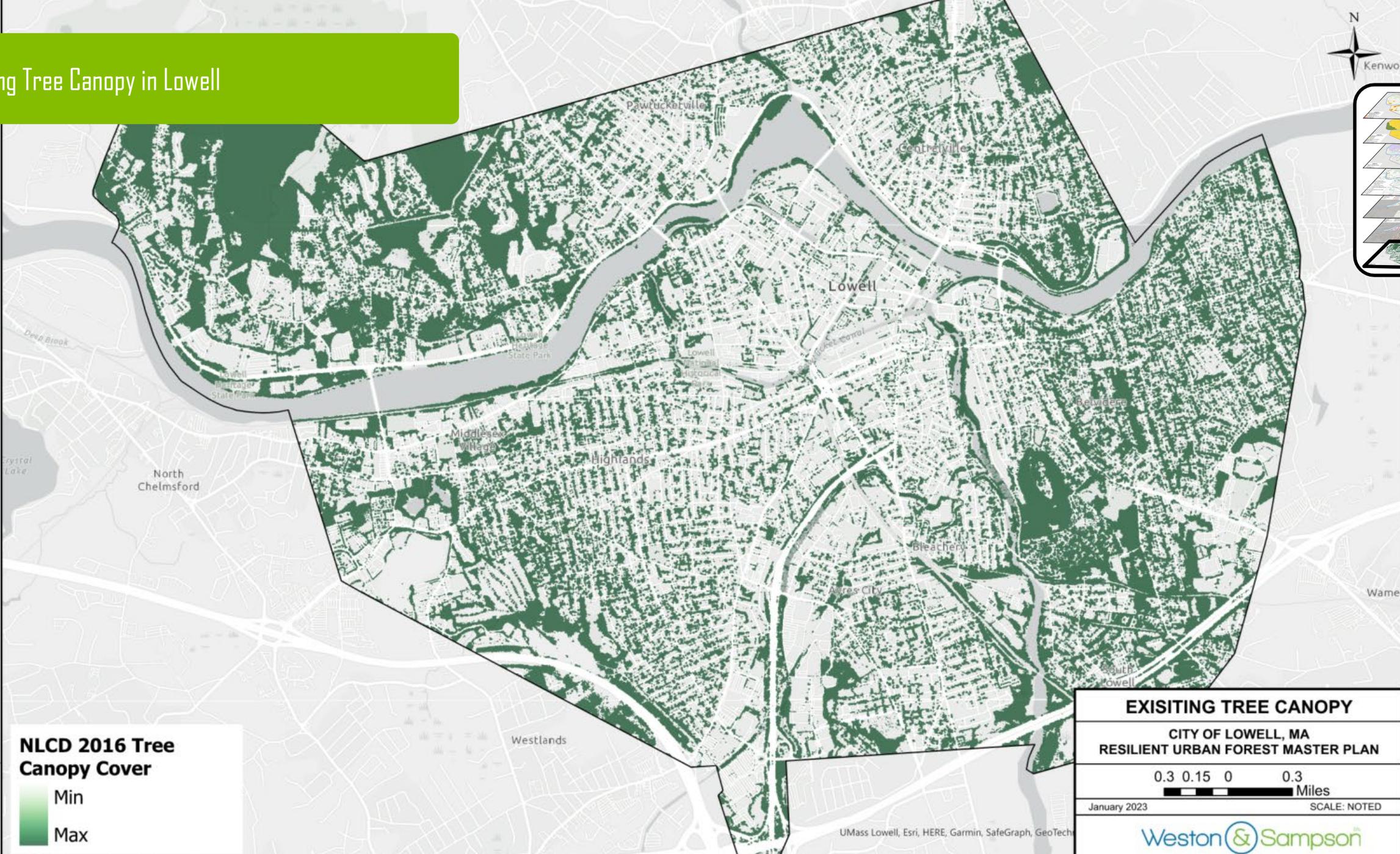
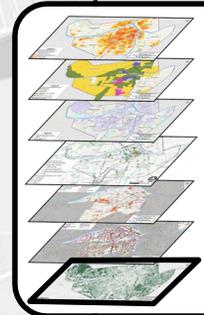


Community Resources Map



Transportation Map

Existing Tree Canopy in Lowell



NLCD 2016 Tree Canopy Cover

Min

Max

EXISTING TREE CANOPY

CITY OF LOWELL, MA
RESILIENT URBAN FOREST MASTER PLAN

0.3 0.15 0 0.3
Miles

January 2023 SCALE: NOTED

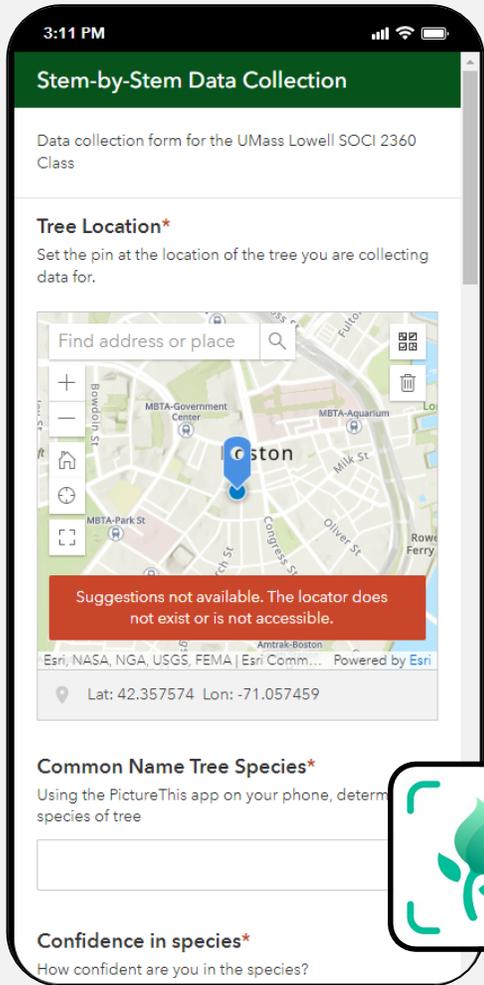
Weston & Sampson

UMass Lowell, Esri, HERE, Garmin, SafeGraph, GeoTech

Preliminary Urban Forest Inventory

With UMass Lowell Students





We worked with the UMass Lowell Class "Climate Crisis and Society" to collect preliminary data points using Survey123 and PictureThis tree ID app

- GPS Location
- Species
- DBH
- Tree pit condition / description

Trained City and consultant staff verified this data and added apparent tree condition data.

250+ data points collected so far!

URBAN FOREST INVENTORY

UMASS LOWELL



Upcoming Urban Forest Inventory Day

With Volunteers!



URBAN FOREST INVENTORY

VOLUNTEER DAY

¡Reúna datos del árbol de Lowell con nosotros!

សូមប្រមូលទិន្នន័យដើមឈើជាមួយពួកយើង!

Gather Lowell Tree Data With Us!

Reúna os dados da árvore Lowell conosco!

Join us for Volunteer Data Collection Day! We will be gathering information on the existing trees in Lowell for the Resilient Urban Forest Master Plan.

Junte-se a nós para o Dia Voluntário de Coleta de Dados! Estaremos coletando informações sobre as árvores existentes em Lowell para o Plano Diretor de Floresta Urbana Resiliente.

More information here!
ព័ត៌មានបន្ថែមទៀតនៅទីនេះ!
Mais informações aqui!
¡Más información aquí!



¡Únase para el Día de recolección de datos de voluntarios! Recopilaremos información sobre los árboles existentes en Lowell para el Plan Maestro de Bosques Urbanos Resilientes.

សូមចូលរួមជាមួយពួកយើងដើម្បីប្រារព្ធច្រើនថ្ងៃប្រមូលទិន្នន័យដោយស្ម័គ្រចិត្ត! ពួកយើងនឹងប្រមូលព័ត៌មានអំពីដើមឈើដែលមានស្រាប់នៅក្នុងទីក្រុងលើ ដើម្បីជំរុញគម្រោងមកុនុងការដាំពុទ្ធលើលម្អអក្រុង។



Sunday, June 25, 1 - 4 pm at the Lowell North Common



Questions or Comments?

