



Norwood, MA

# Hennessey Basin



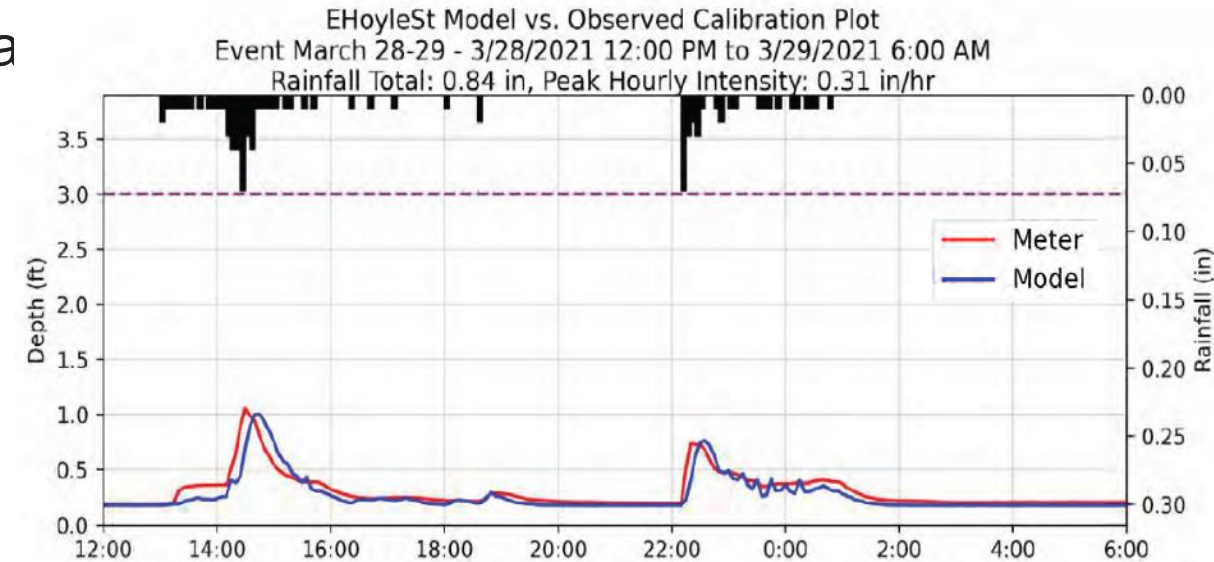
# Meadow Brook Drainage Study

Built and calibrated a hydraulic / hydrologic model

- Represent existing stormwater pipe network and ground surface
- Model input: rainfall over time
- Model output: flows in pipe and flooding on ground surface over time

Calibrated model

- Collected rainfall and pipe flow data for 3 months
- Compared modeled flows to measured data



# Meadow Brook Drainage Study

## Evaluated Existing Conditions

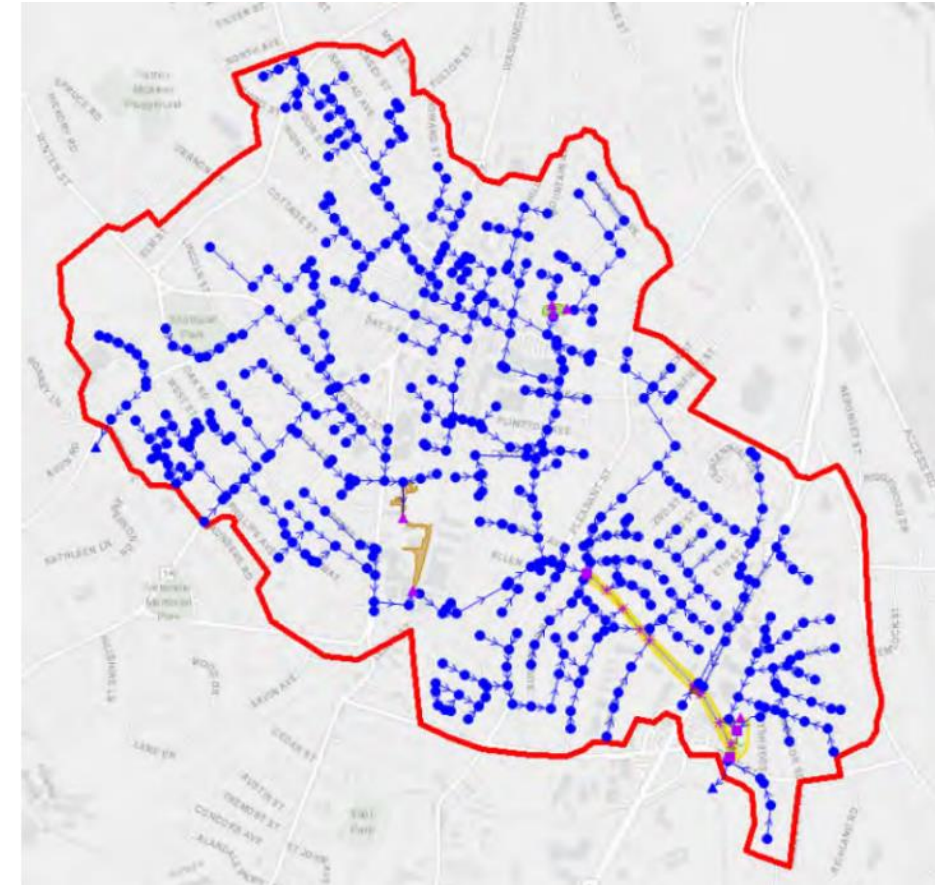
- Input the Design Storm: 2070 10-year rain event
- Evaluate how much flooding occurs in key neighborhoods

## Identified Drain Improvements to Managing Flooding

- Modify the pipes in the model
- Input the same Design Storm
- Evaluate how flooding changes

## Study Objectives

- Build and calibrate model
- Minimize flooding in key neighborhoods
- Do not increase peak flows to Neponset River

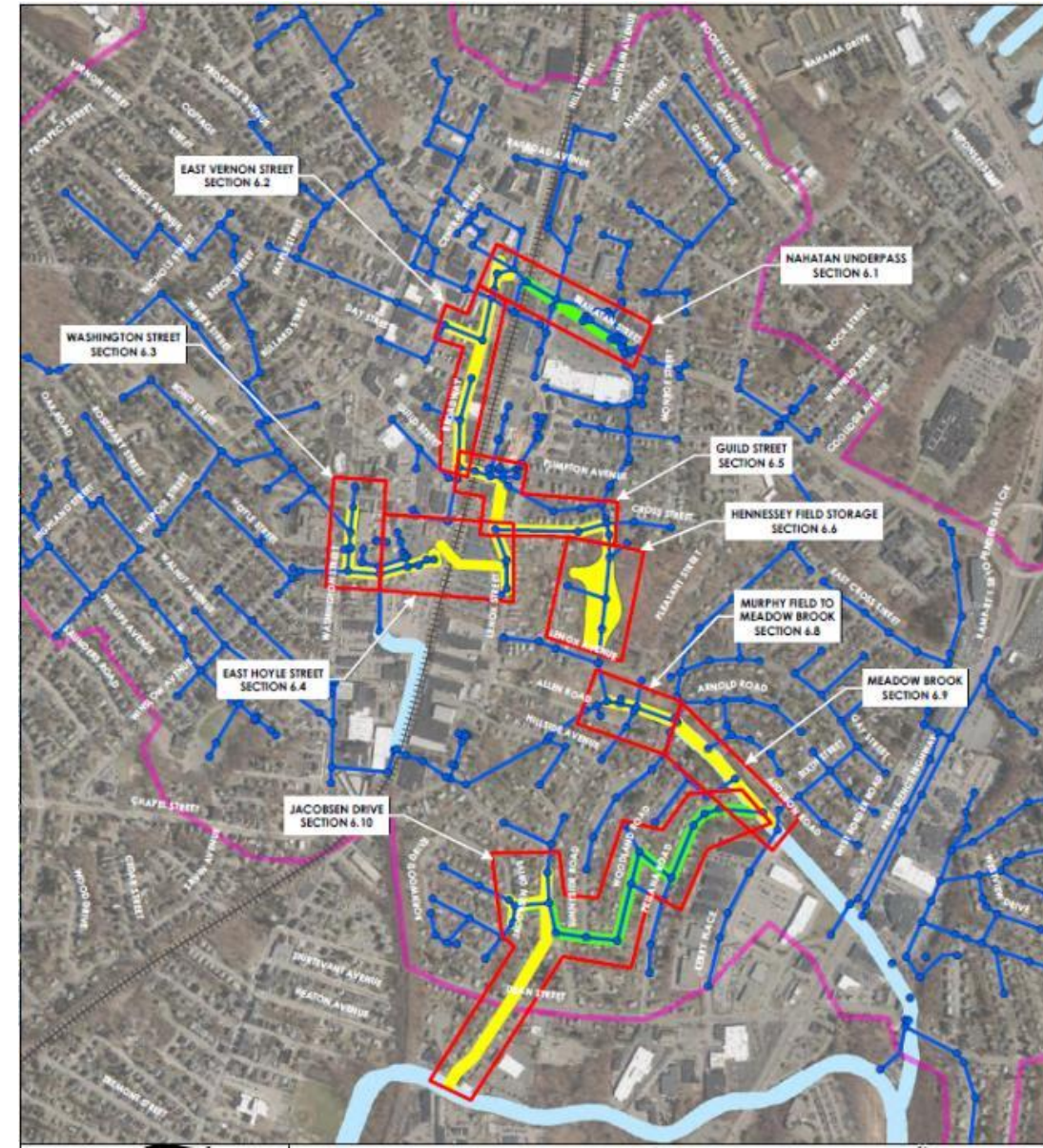




# Drain System Improvements

- Flood reduction projects (shown in yellow) move water faster
  - Away from neighborhoods
  - Toward Meadow Brook
- Peak flows to the Neponset River can't increase due to river flooding downstream
- The Town needs a place to store and infiltrate water.

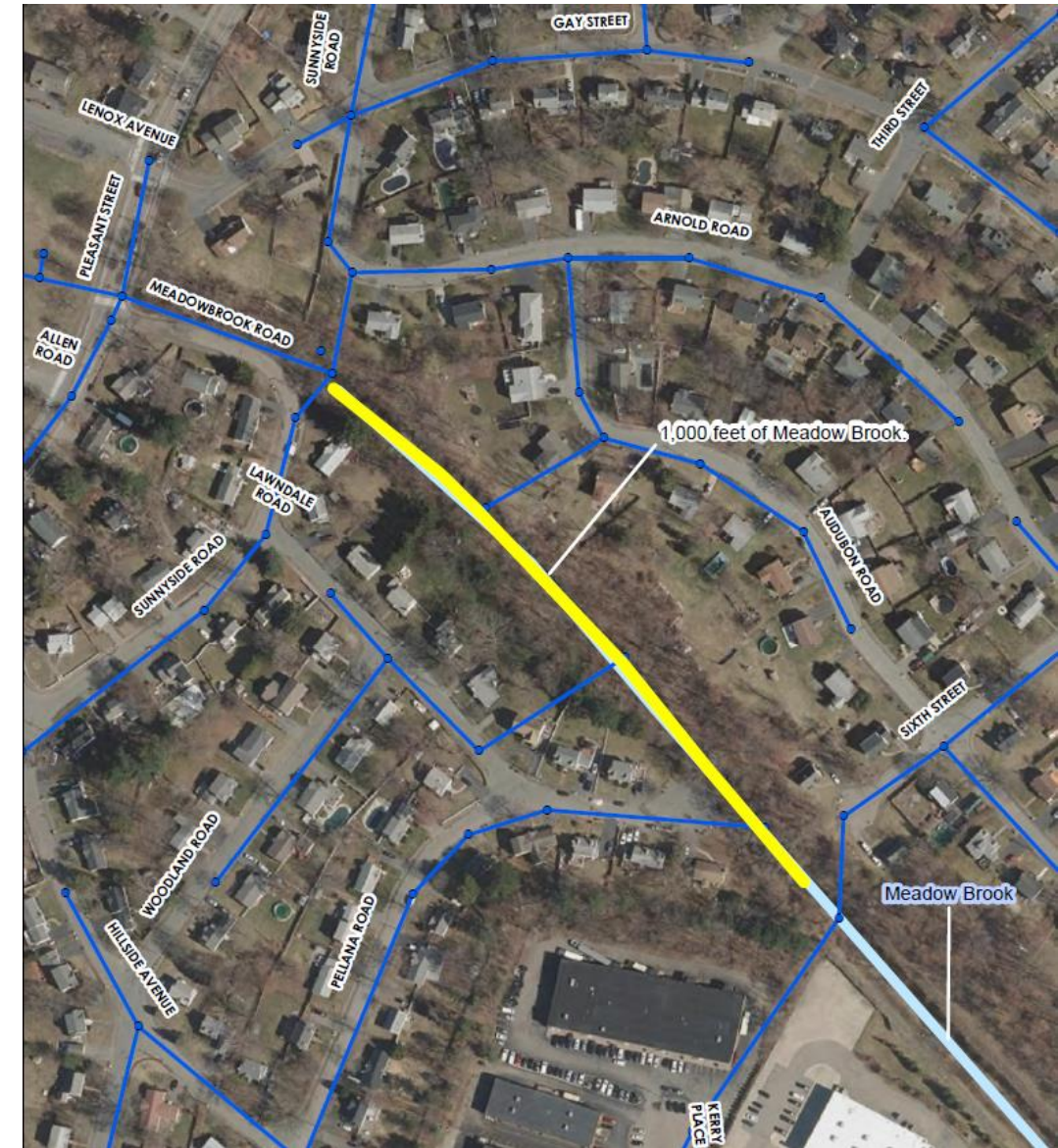
*Hennessey Field is ideally located for this purpose.*





# Project: Meadow Brook Restoration

- Project Area: Meadow Brook from Sunnyside Road to West 6<sup>th</sup> Street
- Objectives: Stabilize banks and improve conveyance
- Project Design: Localized treatments that minimize impacts to natural resources





# Project: Hennessey Field Stormwater Storage

- Project Area: Hennessey Field
- Objective: Store and infiltrate stormwater in large storms
- Project Concept: “Daylight” stormwater pipe, build a berm to retain stormwater in large storms, add recreational amenities







Town of Norwood  
Hennessey Field

Existing Site





Town of Norwood  
Hennessey Field

Proposed Regrade

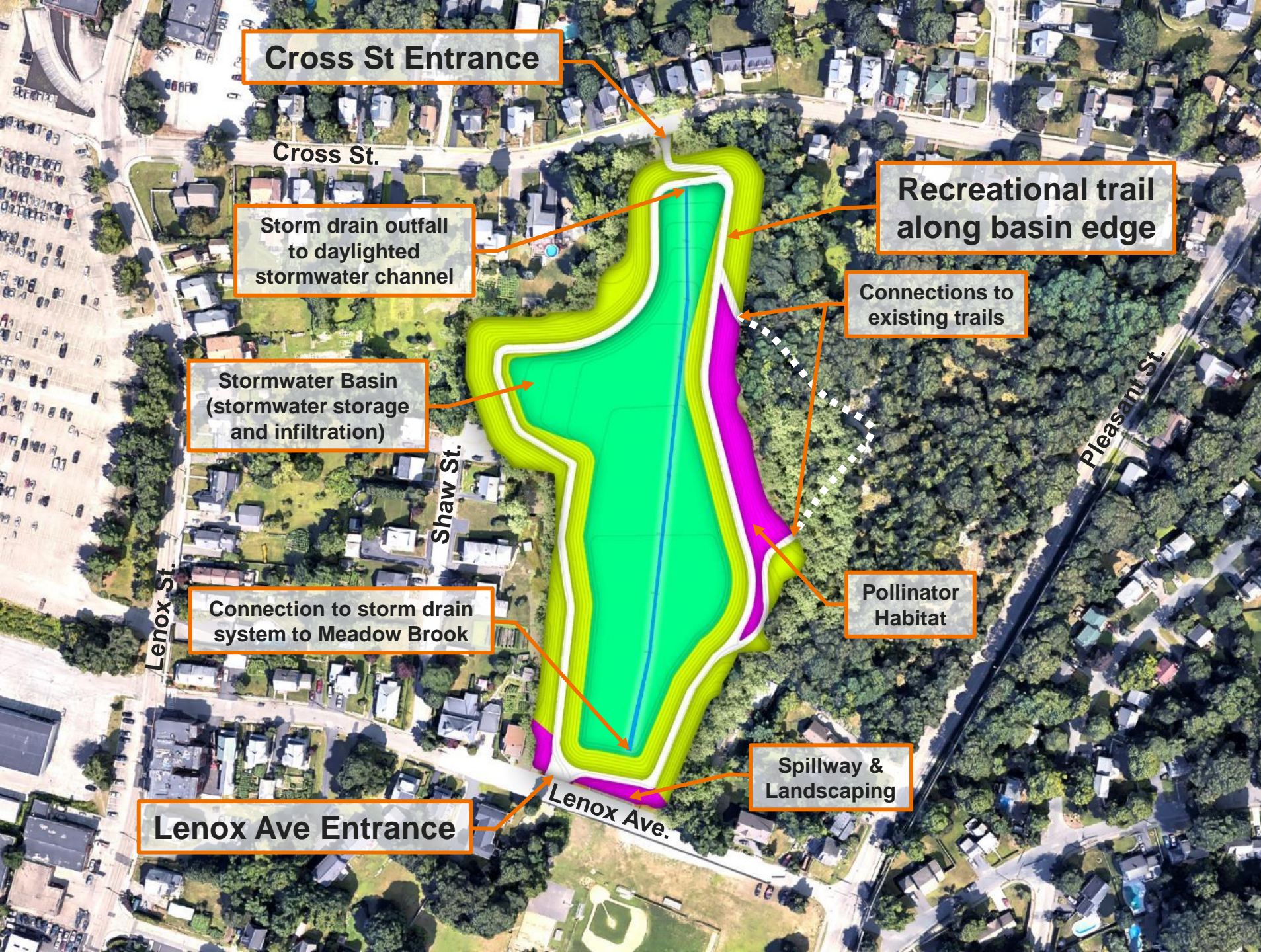




## Town of Norwood Hennessey Field

Proposed Regrade  
with Plantings and  
Recreation





**Cross St Entrance**

**Cross St.**

**Storm drain outfall  
to daylighted  
stormwater channel**

**Stormwater Basin  
(stormwater storage  
and infiltration)**

**Shaw St.**

**Connection to storm drain  
system to Meadow Brook**

**Lenox Ave Entrance**

**Lenox Ave.**

**Spillway &  
Landscaping**

**Recreational trail  
along basin edge**

**Connections to  
existing trails**

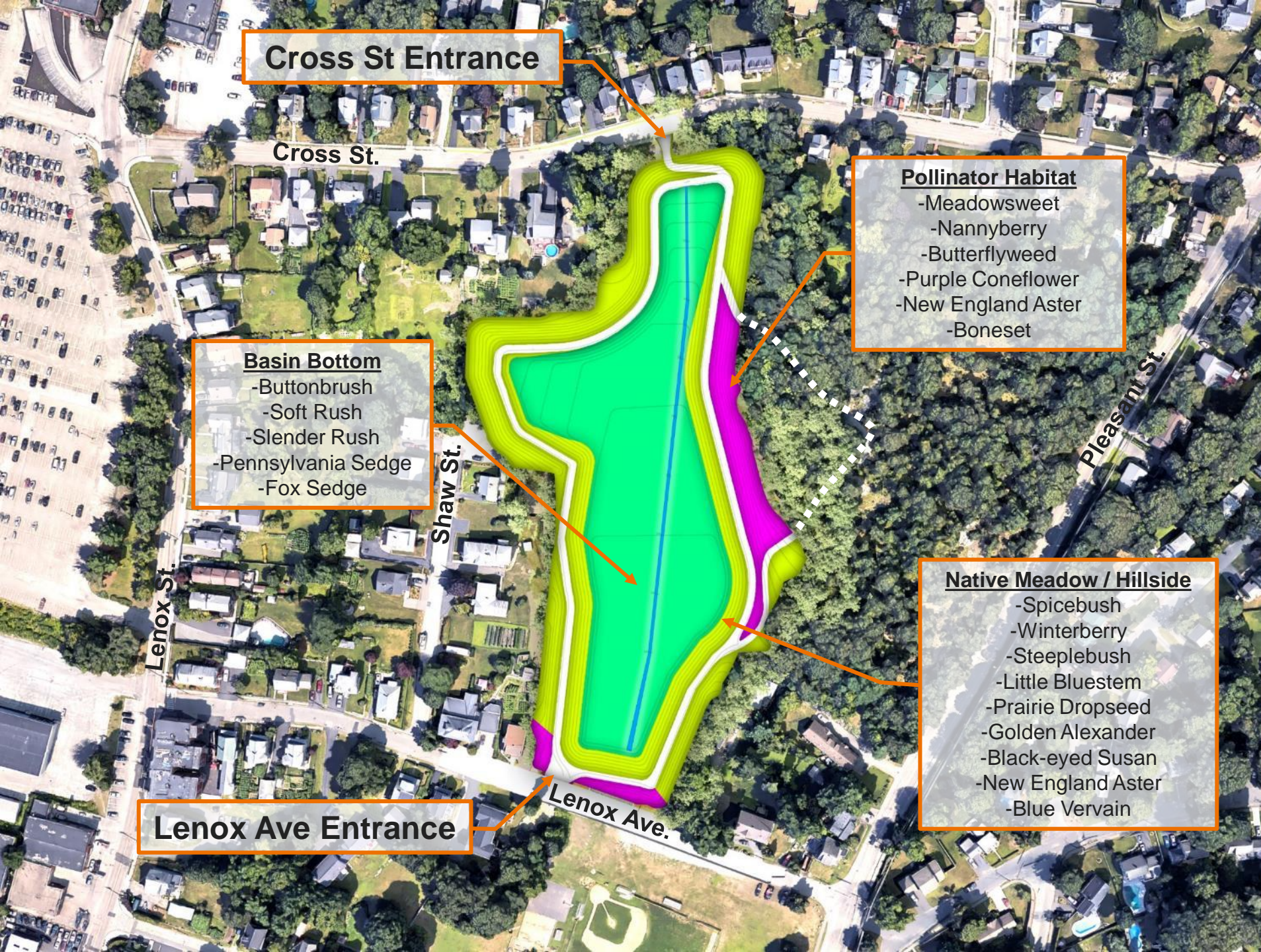
**Pollinator  
Habitat**

**Pleasant St.**

Town of Norwood  
Hennessey Field

Proposed Project  
Major Features





### Cross St Entrance

Cross St.

### Basin Bottom

- Buttonbrush
- Soft Rush
- Slender Rush
- Pennsylvania Sedge
- Fox Sedge

Shaw St.

### Pollinator Habitat

- Meadowsweet
- Nannyberry
- Butterflyweed
- Purple Coneflower
- New England Aster
- Boneset

Pleasant St.

### Native Meadow / Hillside

- Spicebush
- Winterberry
- Steeplebush
- Little Bluestem
- Prairie Dropseed
- Golden Alexander
- Black-eyed Susan
- New England Aster
- Blue Vervain

### Lenox Ave Entrance

Lenox Ave.

Town of Norwood  
Hennessey Field

Representative  
Plantings



**EXISTING**  
(LOOKING NORTH)



**PROPOSED**  
(LOOKING NORTH)

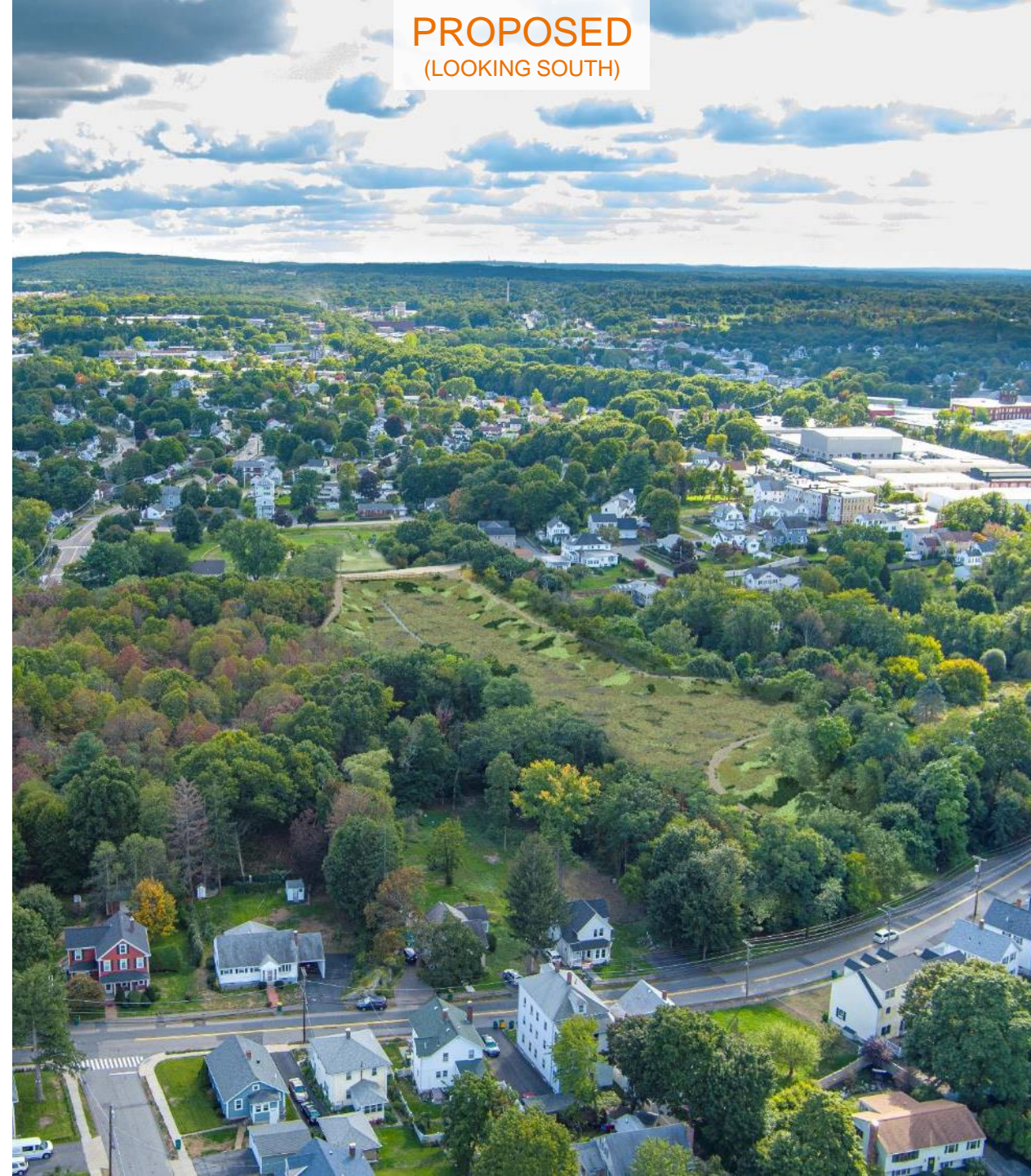




EXISTING  
(LOOKING SOUTH)



PROPOSED  
(LOOKING SOUTH)





# CROSS STREET ENTRANCE





# LENOX AVENUE ENTRANCE

EXISTING



PROPOSED







# BASIN INTERIOR RECREATONAL TRAIL AND POLLINATOR HABITAT



# BASIN INTERIOR

## BRIDGE AT CROSS STREET ENTRANCE

