

Four Corners Project

Listening Session #2

December 11th, 2024

Clarksburg Community Center

Agenda: Listening Session #2

Floodplain Resiliency

20 minutes - Review Floodplain Resiliency Concept

20 minutes - Poster Viewing, Feedback, Discussion

Town Sites

20 minutes - Review Consolidated Town Sites Concept

20 minutes - Poster Viewing, Feedback, Discussion

Regroup

10 minutes – Lingering Questions + Next Steps

Reintroduction

Four Corners Project: Team

Berkshire Regional Planning Commission

Regenerative Design Group

Ecological Site Design, Resilience Planning, Agricultural Planning

Terry Reynolds

Civil Engineer

Meg Bandarra

Outdoor Accessibility Consultant

Flying Cloud

Art + Science Education

Four Corners Project: Objectives

Increase resiliency of the Four Corners Area to flooding and stormwater damage

Enhance Town Sites focus area to support more recreation and community events

Expand safe and accessible routes at and between the Community Center, Town Field, and the Elementary School

Four Corners Floodplain Resiliency

Why is Floodplain Resiliency Important?

- ⦿ Hazard + Mitigation study identified flooding in the Four Corners as the greatest climate change-related hazard facing the Town.
- ⦿ Flooding in the Four Corners area isn't a new thing – but the areas of impact, frequency + severity of floods are increasing.
- ⦿ Strategies that worked in the past - when land cover and management was different than it is now - cannot be relied upon to work in the future.

Guiding Principles for Floodplain Resiliency Strategies

- ‘Natural Infrastructure’ like forests + wetlands + riparian buffers provide the most inexpensive, reliable, effective, and multi-beneficial strategies for lessening the negative impacts of flooding – both in the project area and in downstream neighborhoods.



Guiding Principles for Floodplain Resiliency Strategies

- It's preferable to rely on intact natural infrastructure to mitigate floods than to alter these areas and try to recreate their functions elsewhere.



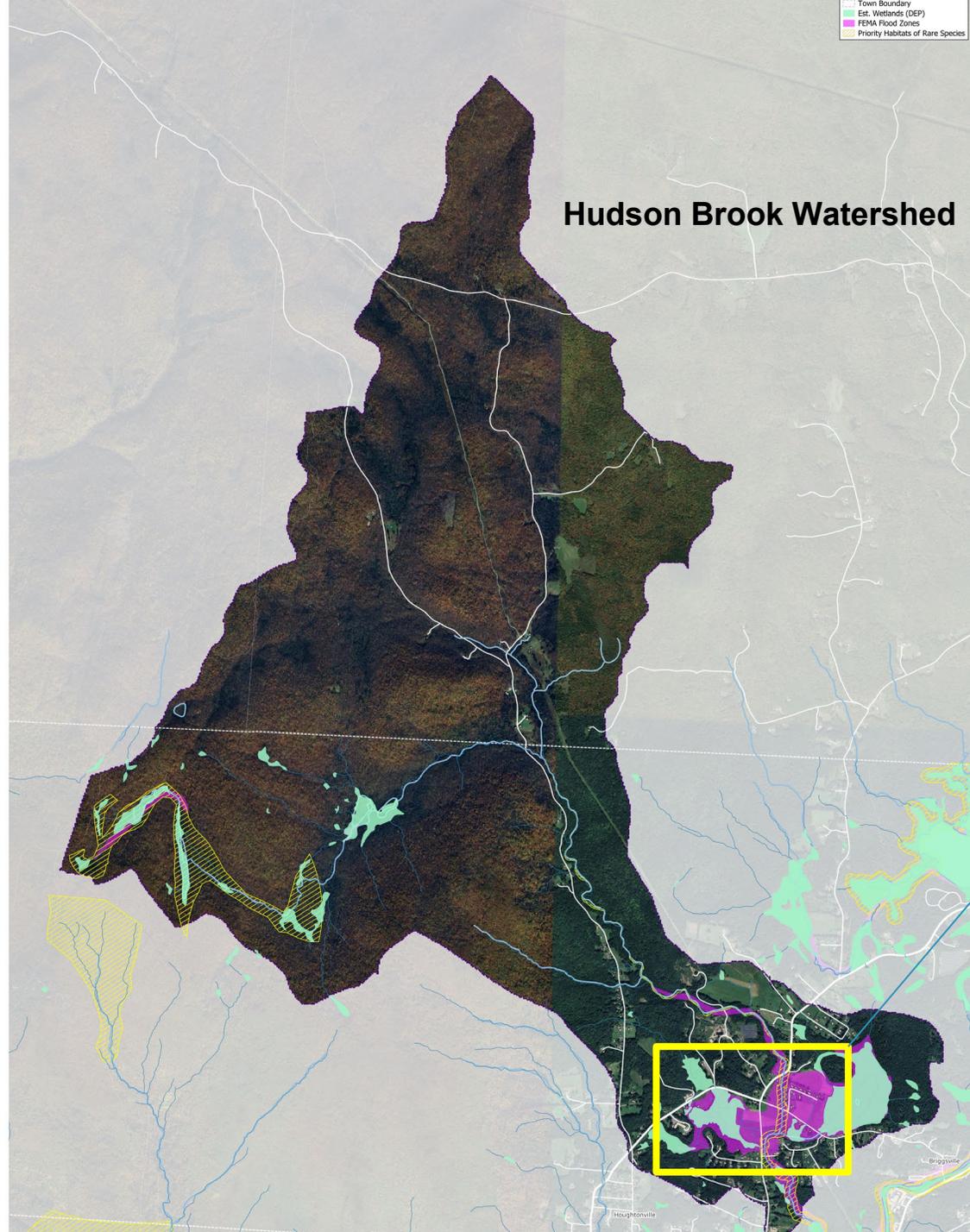
Guiding Principles for Floodplain Resiliency Strategies

- 💧 Strategies implemented in the floodplain only go so far – for long-term solutions, it's necessary to look at the whole watershed.



Four Corners Project: Hudson Brook Watershed

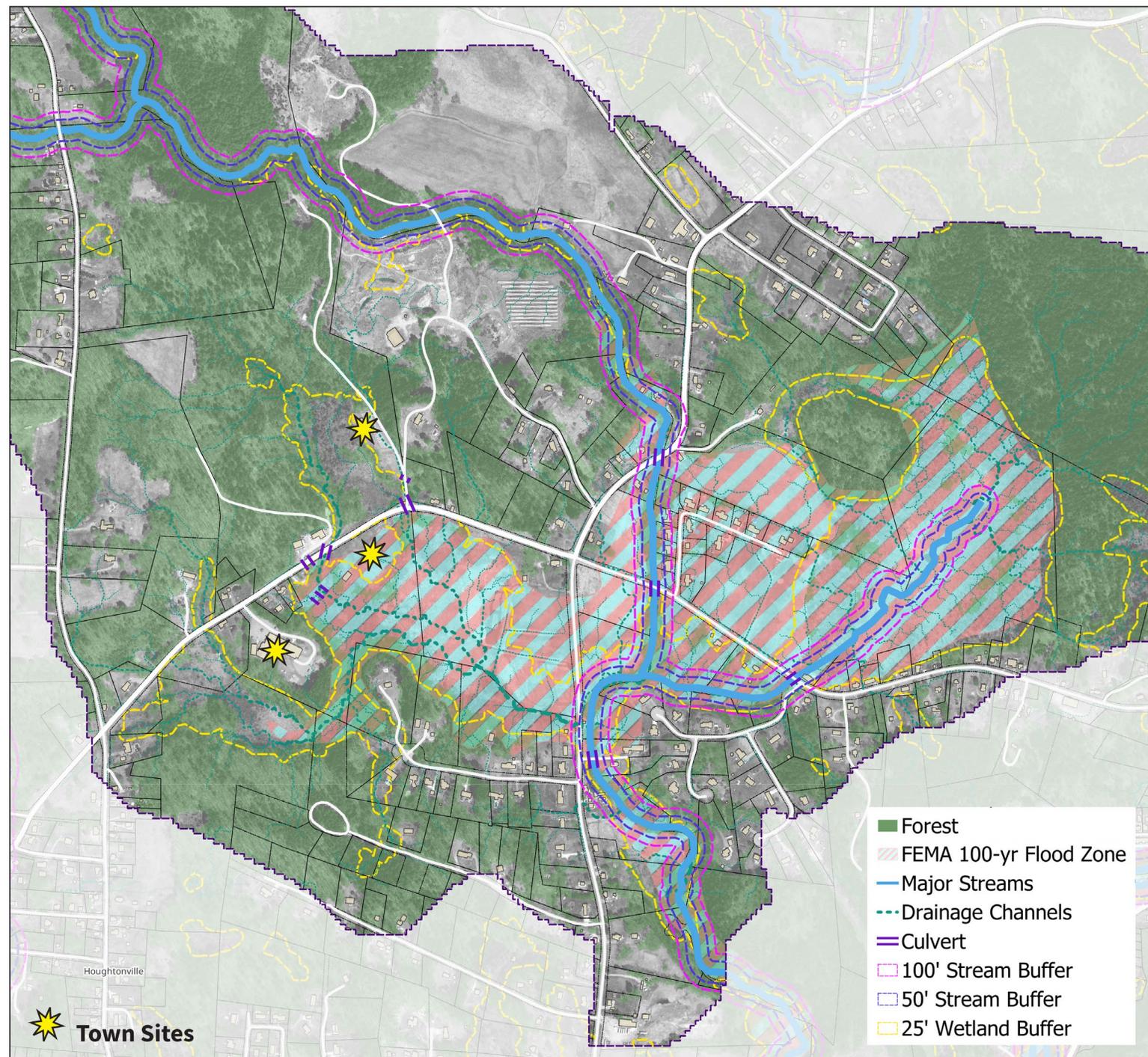
7.4 square miles; 4,710 acres; VT/MA



Floodplain Resiliency Strategies in the Watershed

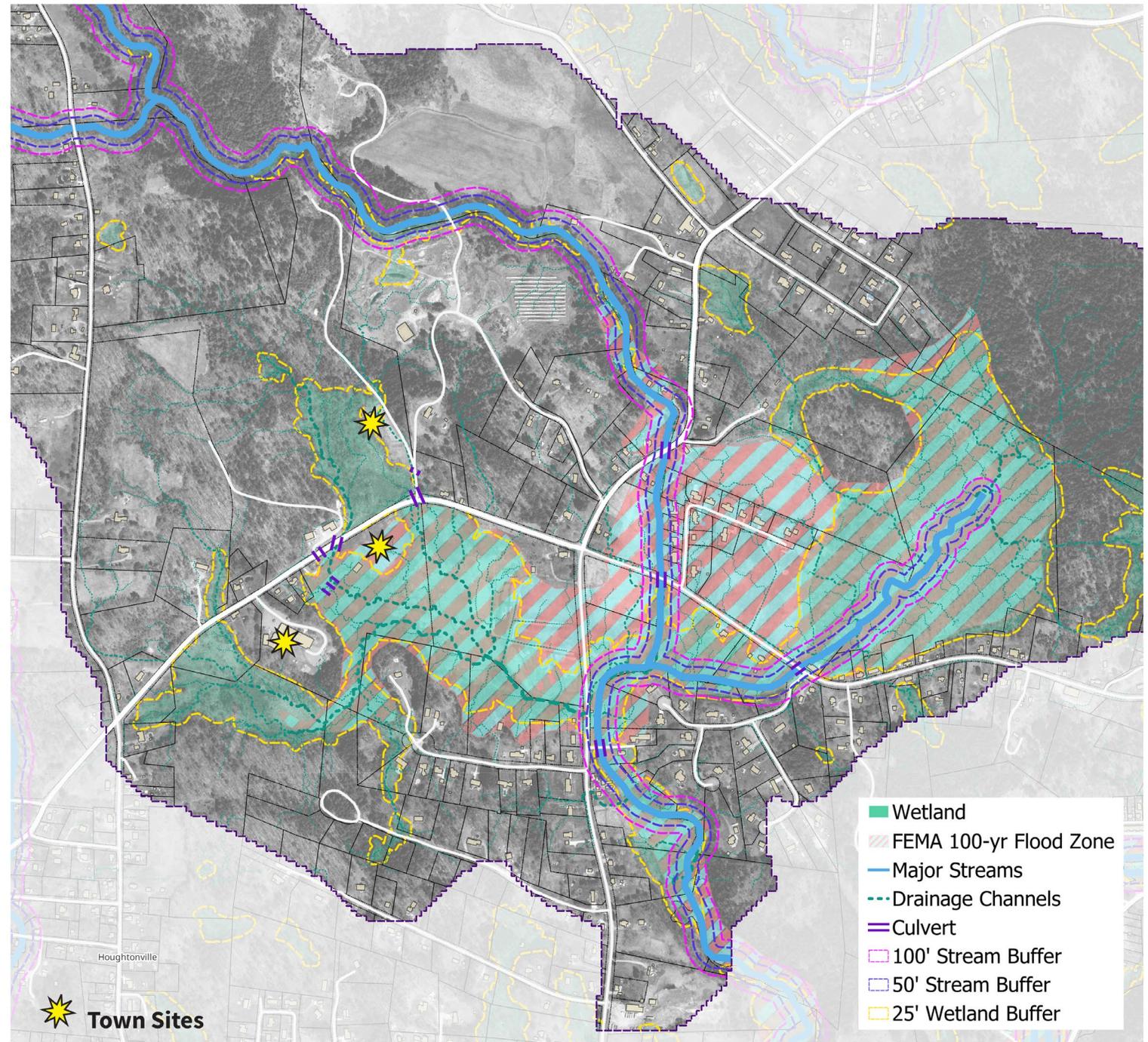
FOREST

- » Identify parcels for permanent protection, especially in areas of steep slopes or in buffer zones of water resources.
- » Incentivize climate-resilient forest management.
- » Adopt Smart Growth planning + policies that direct development away from intact woodlands.
- » Reforest abandoned agricultural lands within the forest matrix, especially with steep slopes or in buffer zones of water resources.
- » Local Bylaw: No net loss of forests.



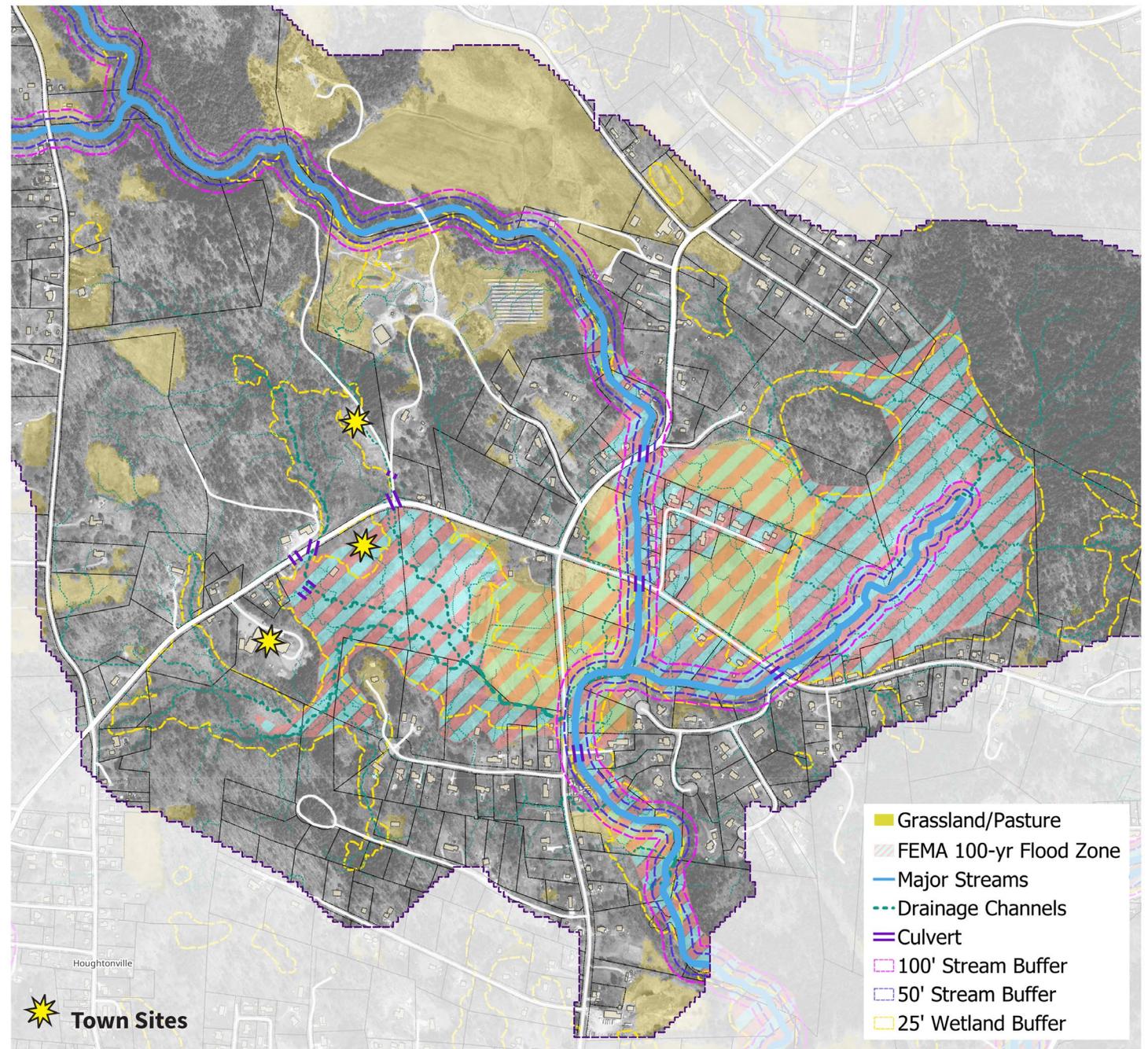
WETLANDS + STREAMS

- » Prioritize conservation, restoration, and expansion of wetlands + their vegetative buffers.
- » Where disturbance is unavoidable, wetland replication should include translocation of full wetland soil profile and living vegetation.
- » Establish diverse vegetative buffers within regulatory buffer zones (up to 100' from edge of resource area) where possible.
- » Implement flow devices where beaver damming is most prevalent.
- » Local Bylaw: No net loss of wetlands.



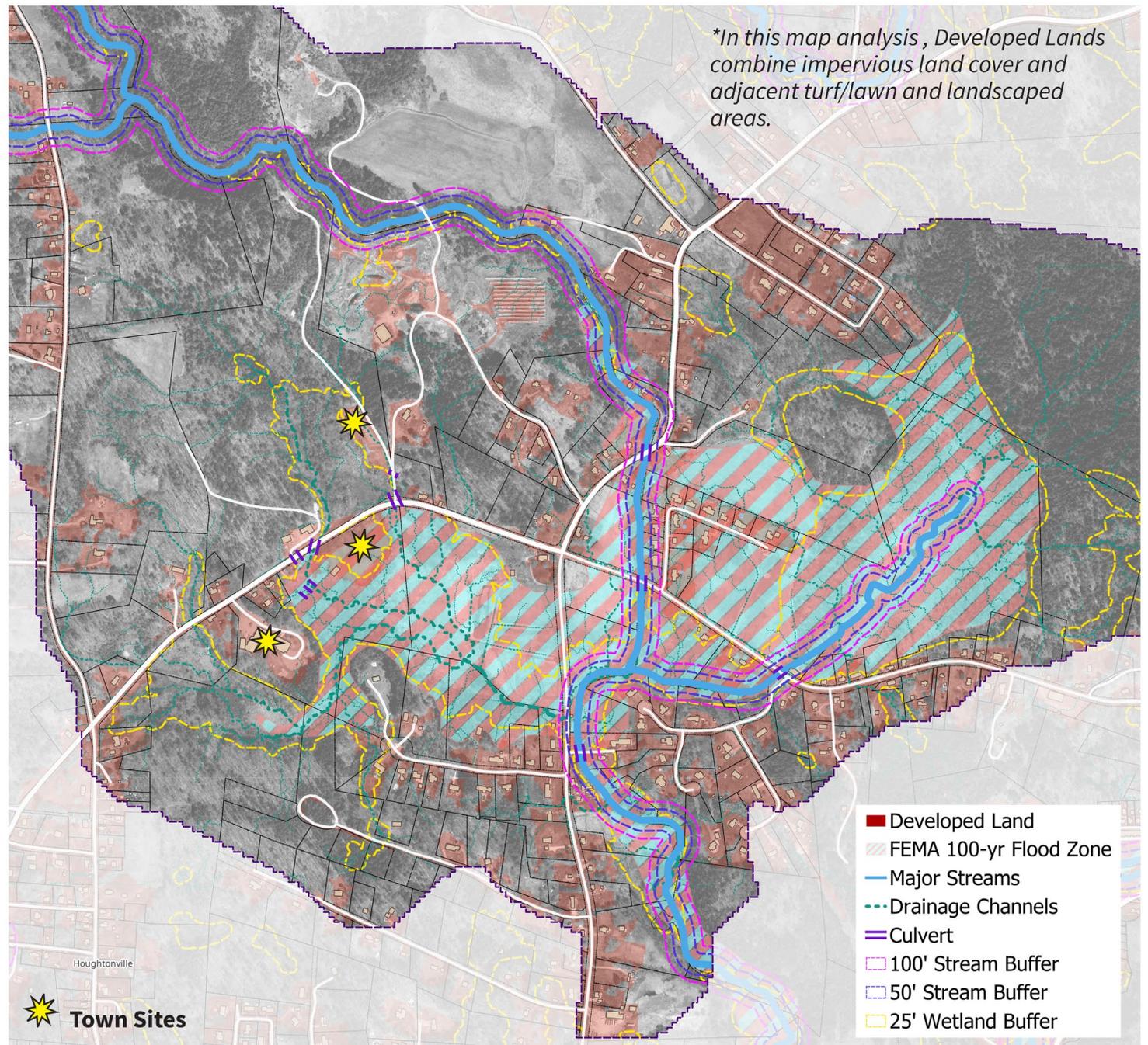
AG/GRASSLANDS

- » Expand enrollment in the Agricultural Preservation Program (APR) to minimize conversion of ag lands.
- » Incentivize healthy soils practices such as permanent vegetative cover, cover cropping, crop rotations, and low till that build the water-holding capacity of farm fields.
- » Integrate perennial plantings like windbreaks, pollinator hedgerows, and buffers at field edges and in riparian areas.
- » Expand agroforestry practices such as alley cropping and silvopasture.

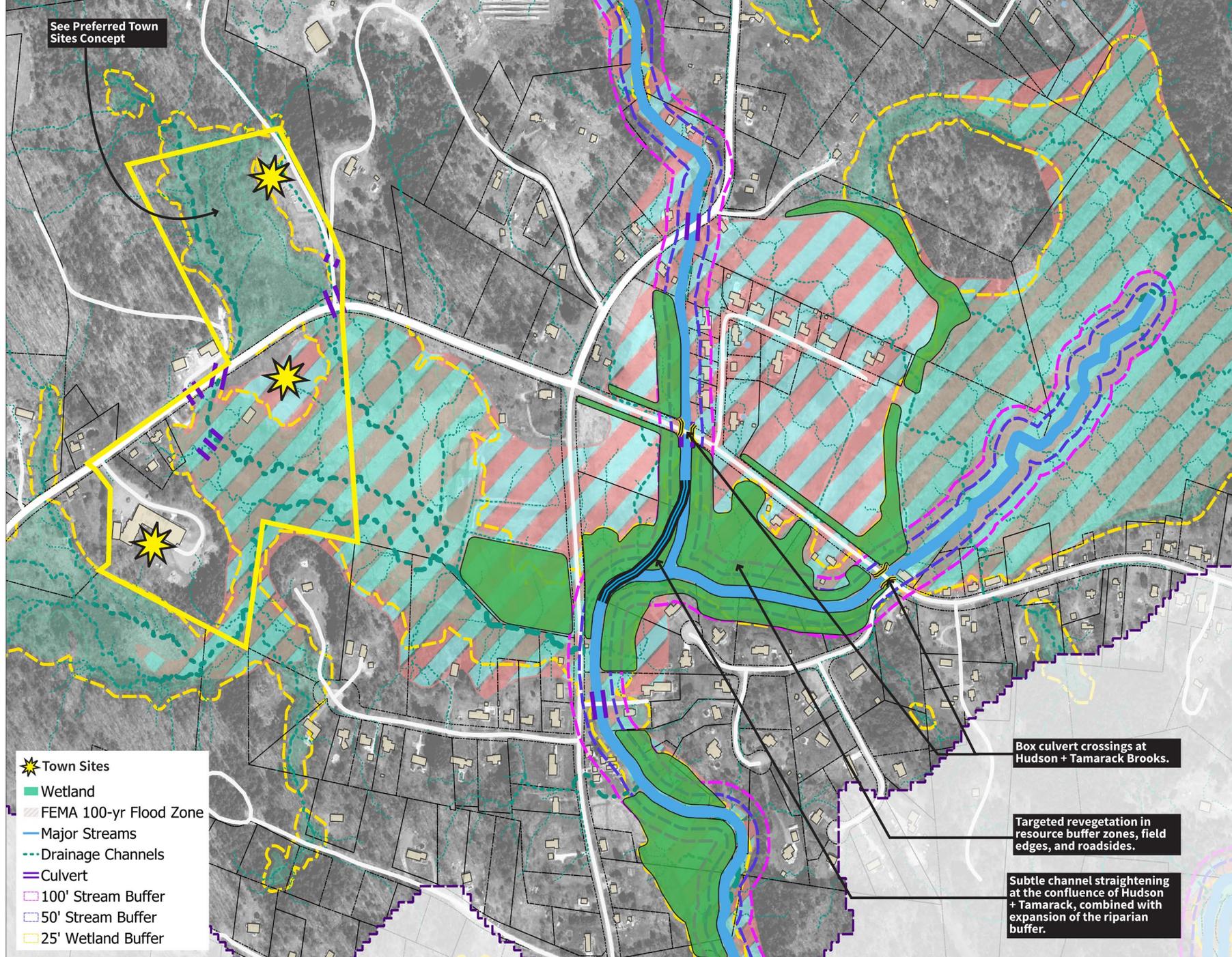


DEVELOPED LANDS*

- » Expand green stormwater infrastructure like vegetated swales, rain gardens, and tree trenches, especially upland of the floodplain.
- » Plant trees like red maple, weeping willow, river birch, and black gum in the floodplain.
- » Restore unused impervious surfaces to greenspace.
- » Upgrade culverts to meet stream crossing standards (stream bed material, channel dimensions, etc.).
- » Acquire properties at highest risk of continued flooding for floodplain restoration.
- » Local Bylaw: Low Impact Development (LID).



Resiliency Strategies in the Floodplain



Preliminary Strategies

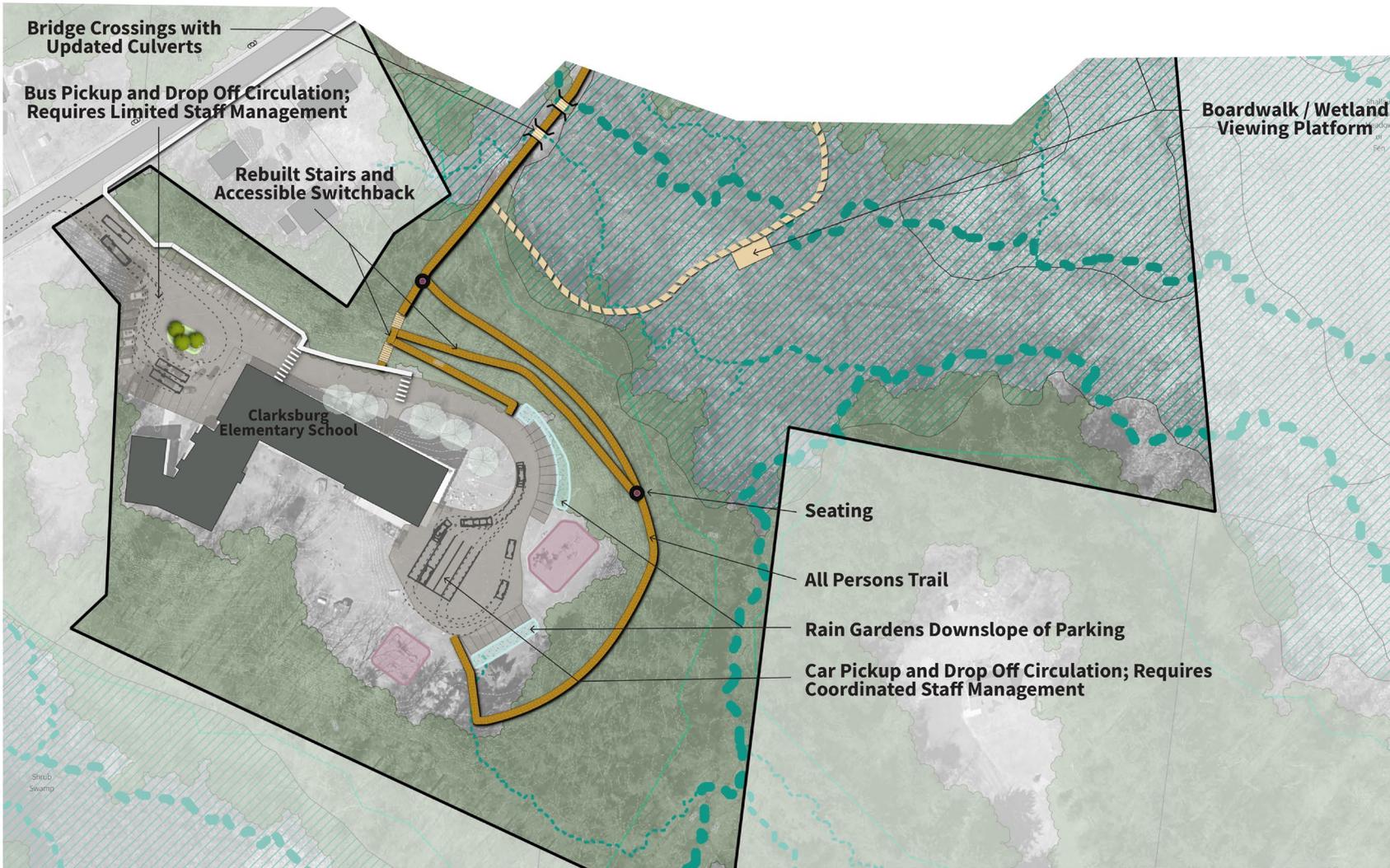
- Prioritize conservation and restoration of wetlands and their vegetative buffers.
- Upgrade culverts to meet stream crossing standards (stream bed material, channel dimensions, habitat, etc.)
- Expand green stormwater infrastructure like subsurface drainage improvements, vegetated swales, rain gardens, and tree trenches, especially in the uplands.
- Expand riparian buffers plantings and vegetative buffers at field and road edges.
- Targeted stream channel modification combined with expanded riparian buffer.

Outstanding Needs

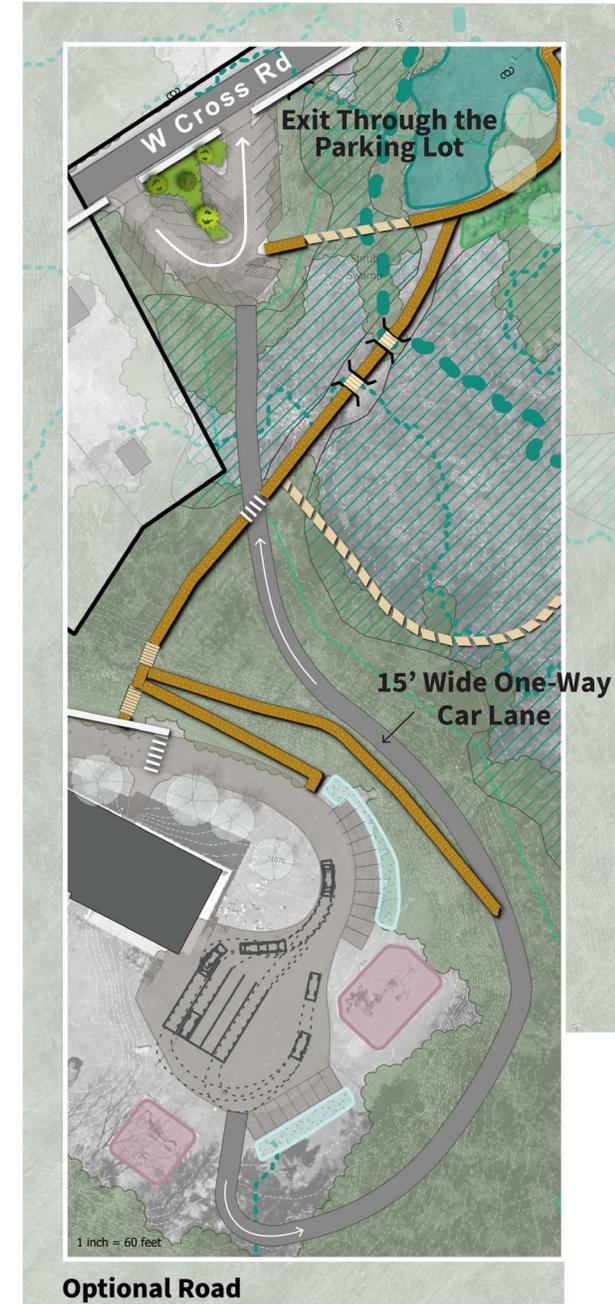
- ◊ Hydrologic + Hydraulic (H+H) Study – models the movement of water and its volume and rate of flow through a given area (watershed, basin, channel, or man-made structure)
- ◊ Official wetland delineation

Poster Viewing, Feedback, Discussion

Preferred Town Sites Concept



Elementary School + Surrounding Wetland



Town Field

Pedestrian Walkway at 5% Maximum Grade

Shade Tree Buffer with Infiltration Trenches

18 Grass Parking Spaces

20' Wide Vehicle Access at 10% Grade

Pickleball

Linear Rain Garden

Playground

New Headwalls & Pipe Outlets

Memorial Grove

Improved Parking

W Cross Rd

Crosswalk

Basketball

Seating

Youth Soccer

Native Plant Restoration

All Persons Trail

Baseball

Pavillion



Community Center



Poster Viewing, Feedback, Discussion

Regroup + Next Steps