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Living Streets Corridor Study Project Kickoff



APRIL | 2012

Tonight's Discussion



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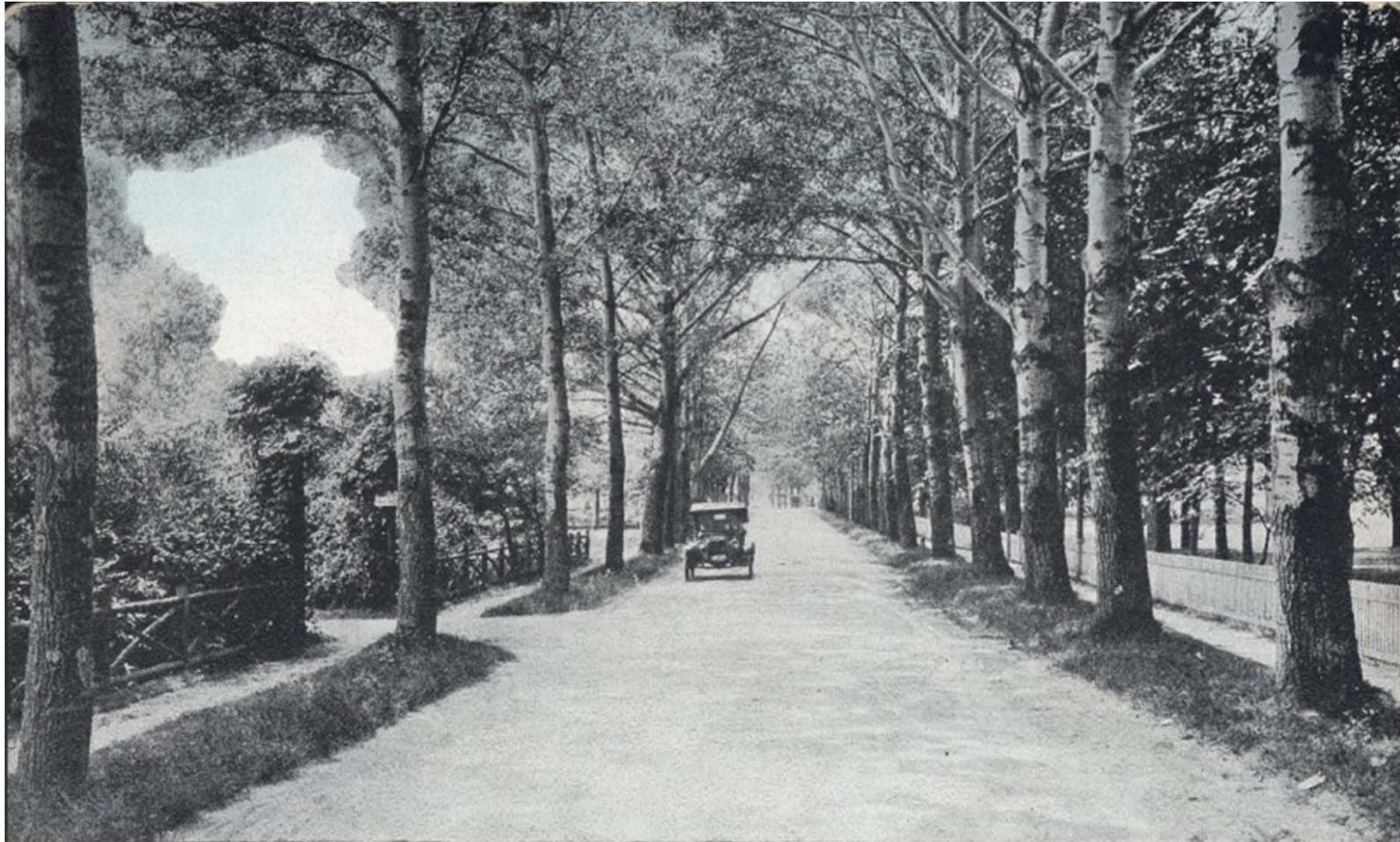
- **What is a Living Street?**
- **How the study area was chosen**
- **What is the Problem: Why implement Living Streets?**
- **Study area inventory and analysis**
- **Evaluating priority site considerations**
- **Next Steps**
- **Gathering your feedback**

What is a **Living Street**?

We used to have Living Streets



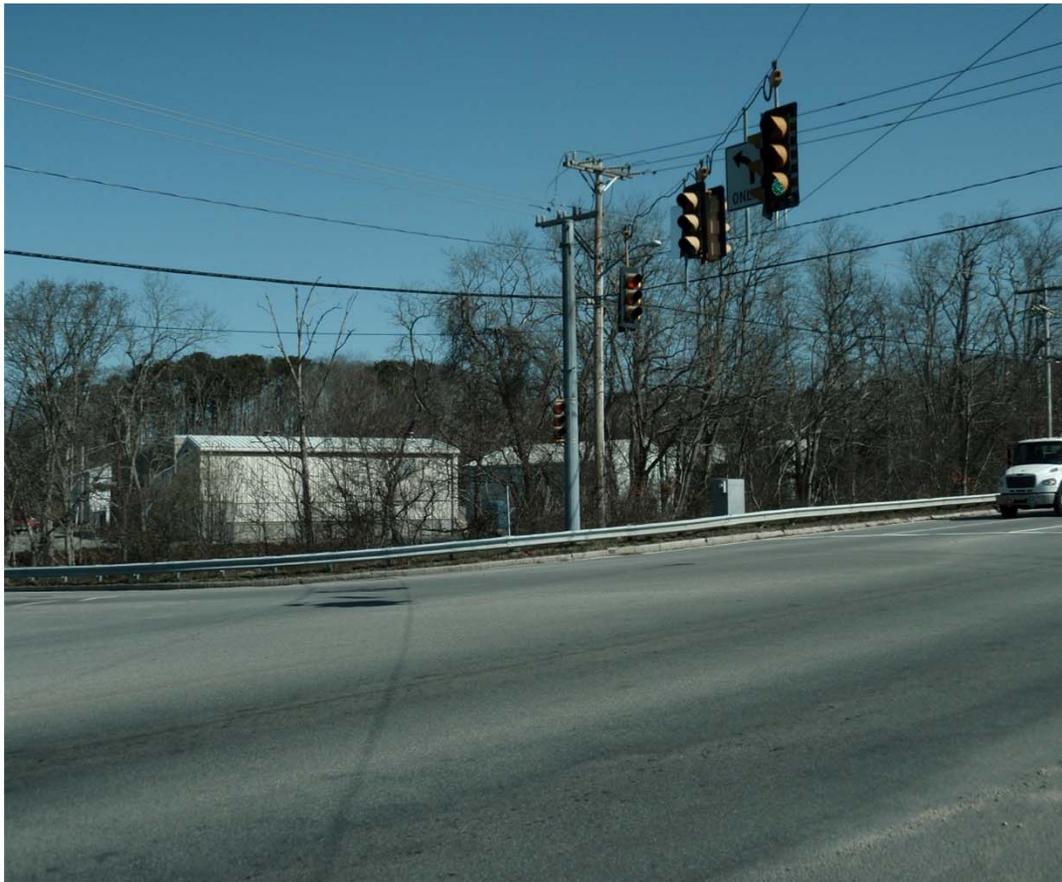
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Today, cars have taken over



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Living Streets: **What are they?**



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A Living Street considers the needs of all users (Children, bicyclists, the disabled, motorists) to design context-sensitive solutions to improve the streetscape.

- **Living Street Design can help to improve:**
 - Streets that are unsafe for pedestrians and bicyclists
 - Inconvenient street crossings
 - Uninviting or unsightly streets
 - Street water runoff systems that funnel water into the street or into impaired waterbodies
 - Tree canopy quality and coverage
 - Excessive hardscape leading to hotspots and runoff.

Living Streets: Some examples from Today



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*Wet weather
management*

*Pedestrian
Connectivity*

*Bicycle
Access & Safety*

Economic Benefits of Living Streets



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Recent studies show:

- For every \$1 million spent, bike/ped projects create a total of 11.4 jobs, versus road only projects which create 7.8 jobs.
- Transportation related green infrastructure has been found to reduce costs associated with flood management, pavement maintenance, operations and land acquisition.
- The promotion of healthy, active living benefits the local tourism economy and quality of life, raising local land values

How the study area was chosen

Background, Purpose and Goals: How we chose this stretch of 6A



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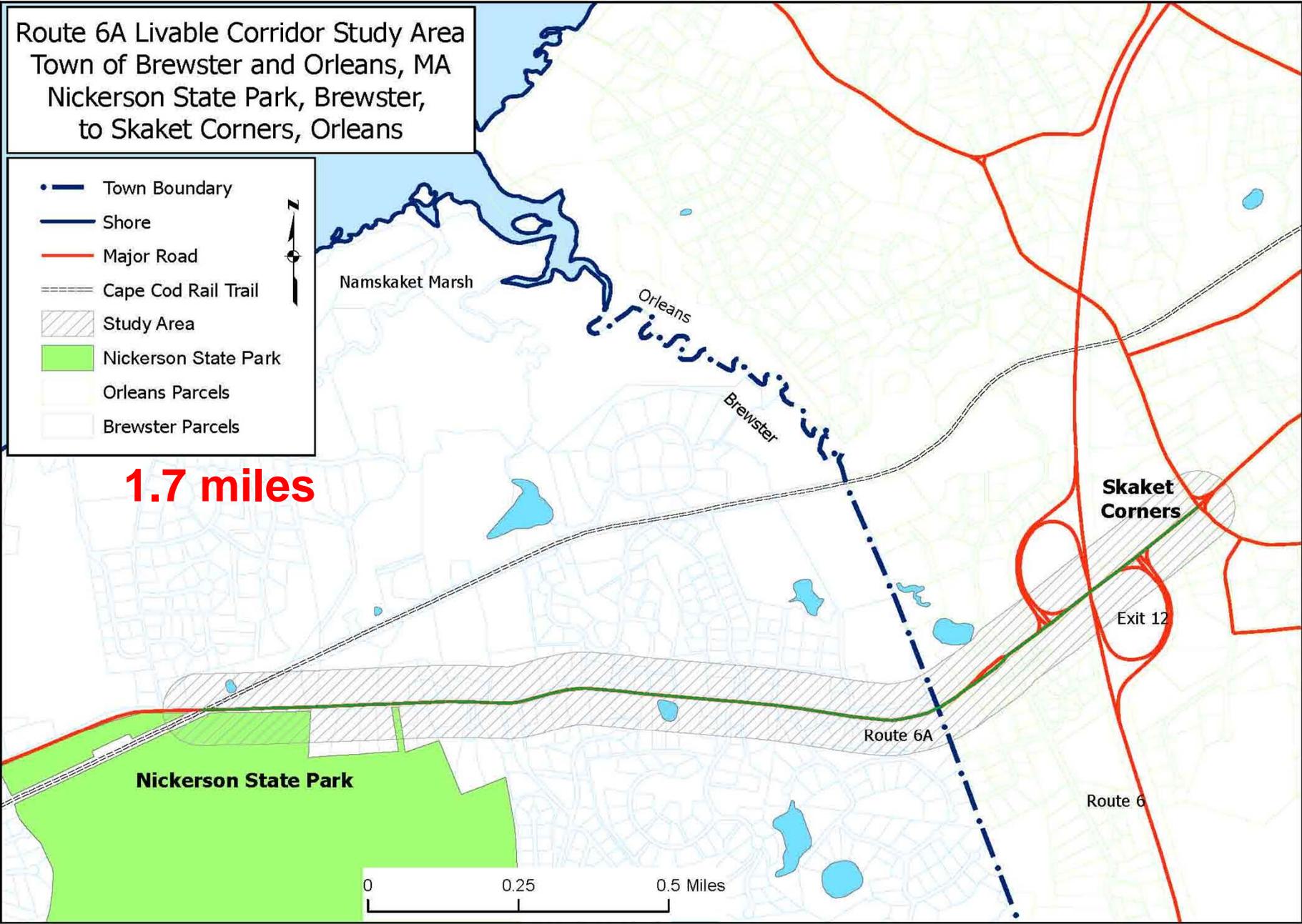
- **Background**
 - What we've heard in our regional work: safety, flooding, universal accessibility concerns, maintain community character
 - UPWP (Unified Planning Work Program)
Short/Long term planning project development:
Green Streets → complete Streets
- **Purpose**
 - Living Streets **Pilot** Study
 - Regional approach (Orleans-Brewster)
- **Goals**
 - To create an better understanding for living streets
 - To identify living street best management practices that may be implemented on Cape Cod
 - To discover a preferred alternative for future roadway improvements

Route 6A Livable Corridor Study Area
Town of Brewster and Orleans, MA
Nickerson State Park, Brewster,
to Skaket Corners, Orleans

- Town Boundary
- Shore
- Major Road
- Cape Cod Rail Trail
- ▨ Study Area
- Nickerson State Park
- Orleans Parcels
- Brewster Parcels



1.7 miles



What is the Problem?

Getting to Living Streets: **What's the Problem?**

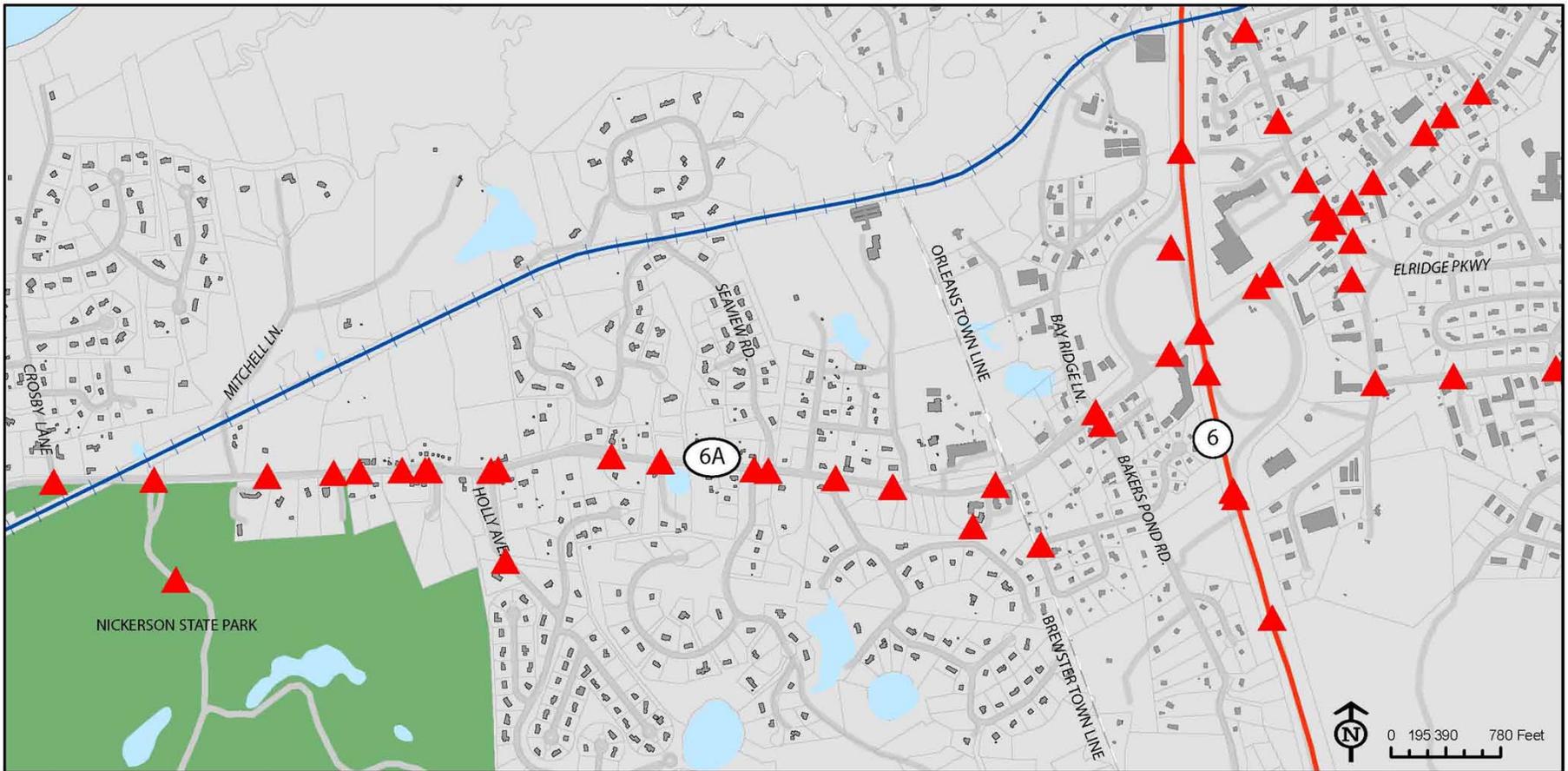


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- **Safety & Connectivity**
- **Wet weather Management**
- **Maintaining Community Character of 6A**

Safety & Connectivity Consideration: Crash Locations



The information depicted on these maps is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel level analysis. It should not substitute for actual on-site survey, or supersede deed research.

Legend

-  Crash Locations 2006-2008
-  Cape Cod Rail Trail
-  Ponds
-  Route 6: Mid Cape Hwy
-  Nickerson State Park



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Created by: TH
Source CCC GIS ArcMap
9.3.1, modified with CS.4

Wet Weather Management: Improving Watershed Health & Safety from flooding



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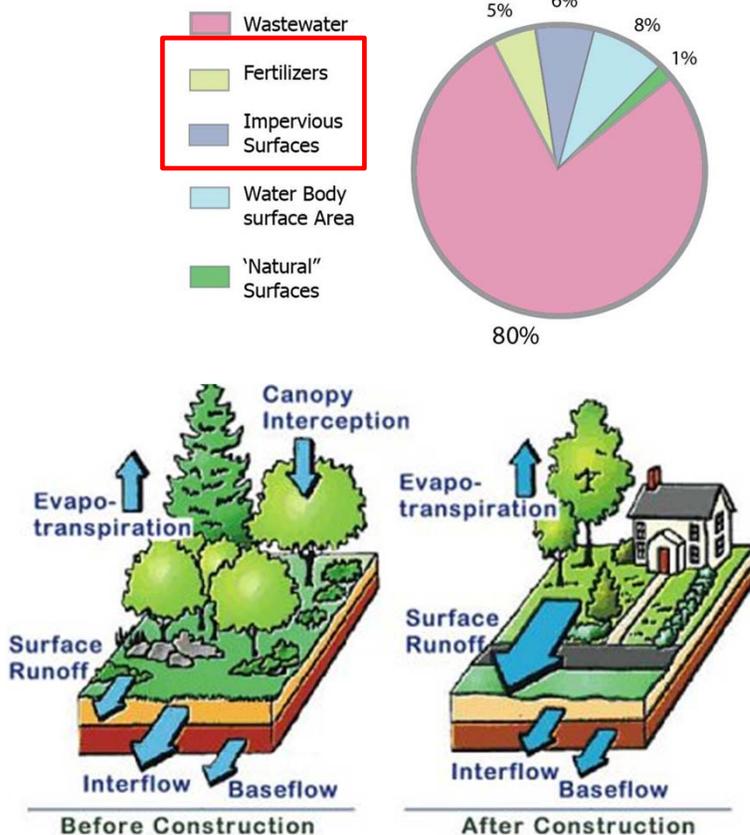
- Cape Cod annual rainfall: 43"
- Frequent flooding along 6A causes erosion, safety hazards
- Federal and State regulators recommend Low Impact Development (LID) and green infrastructure techniques
- Stormwater management infrastructure can reduce peak flows, benefit environment and economy

Wet Weather Management: Improving Watershed Health & Safety from flooding



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Nitrogen Sources impairing our embayments

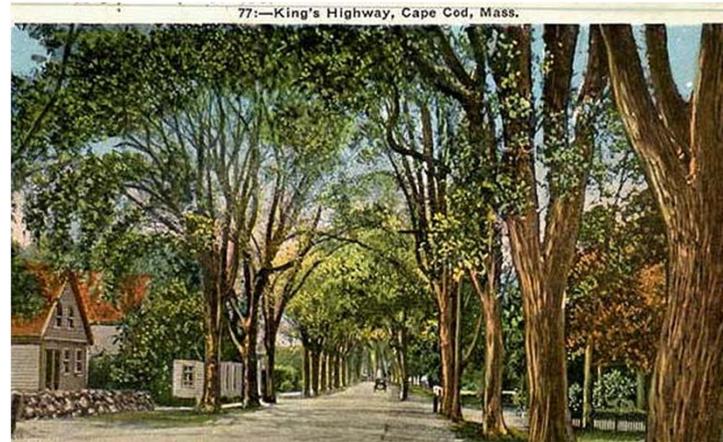


- Our region has several impaired embayments: Nitrogen is the culprit
- Stormwater runoff contributes to this impairment: Excess chemicals that accumulate on roofs, pavement and other impervious surfaces, are transported by stormwater to surface and ground waters.
- On-site Stormwater management can remove 40-60% of the Nitrogen in runoff

Maintaining Community Character



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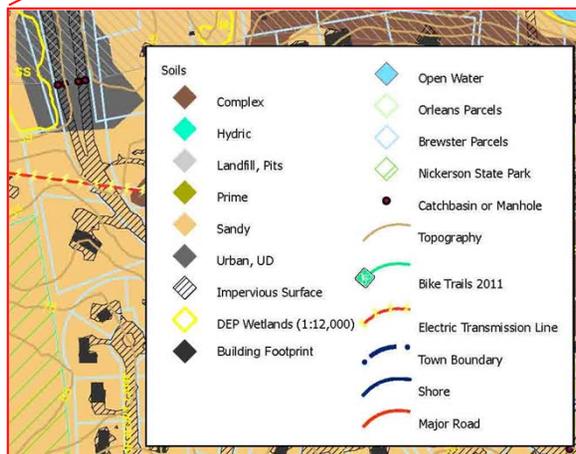
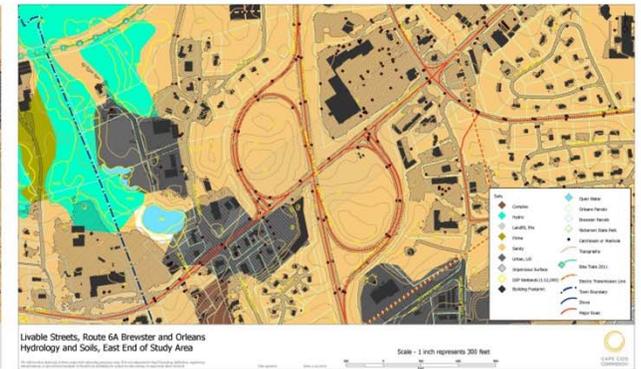
- **Considering Route 6A's history**
- **Improving roadway with context-sensitive design**

Study Area Analysis

Site Inventory and Analysis: What are the current conditions?



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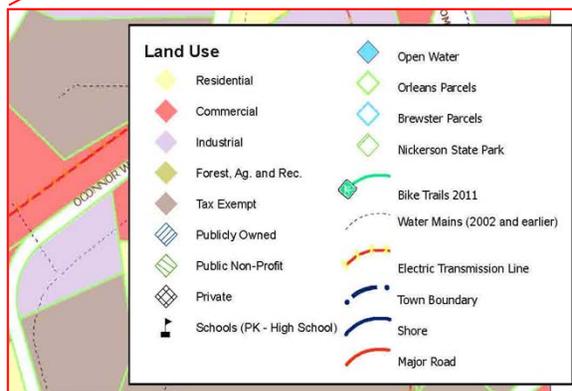
Soils and Hydrology:

- What direction are flows?
- Where are there areas of impervious cover?
- Where are the existing flood management structures?

Site Inventory and Analysis: What are the current conditions?



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Land Uses:

- What land is public?
- Where should connections be strengthened?

Site Inventory and Analysis: What are the current conditions?



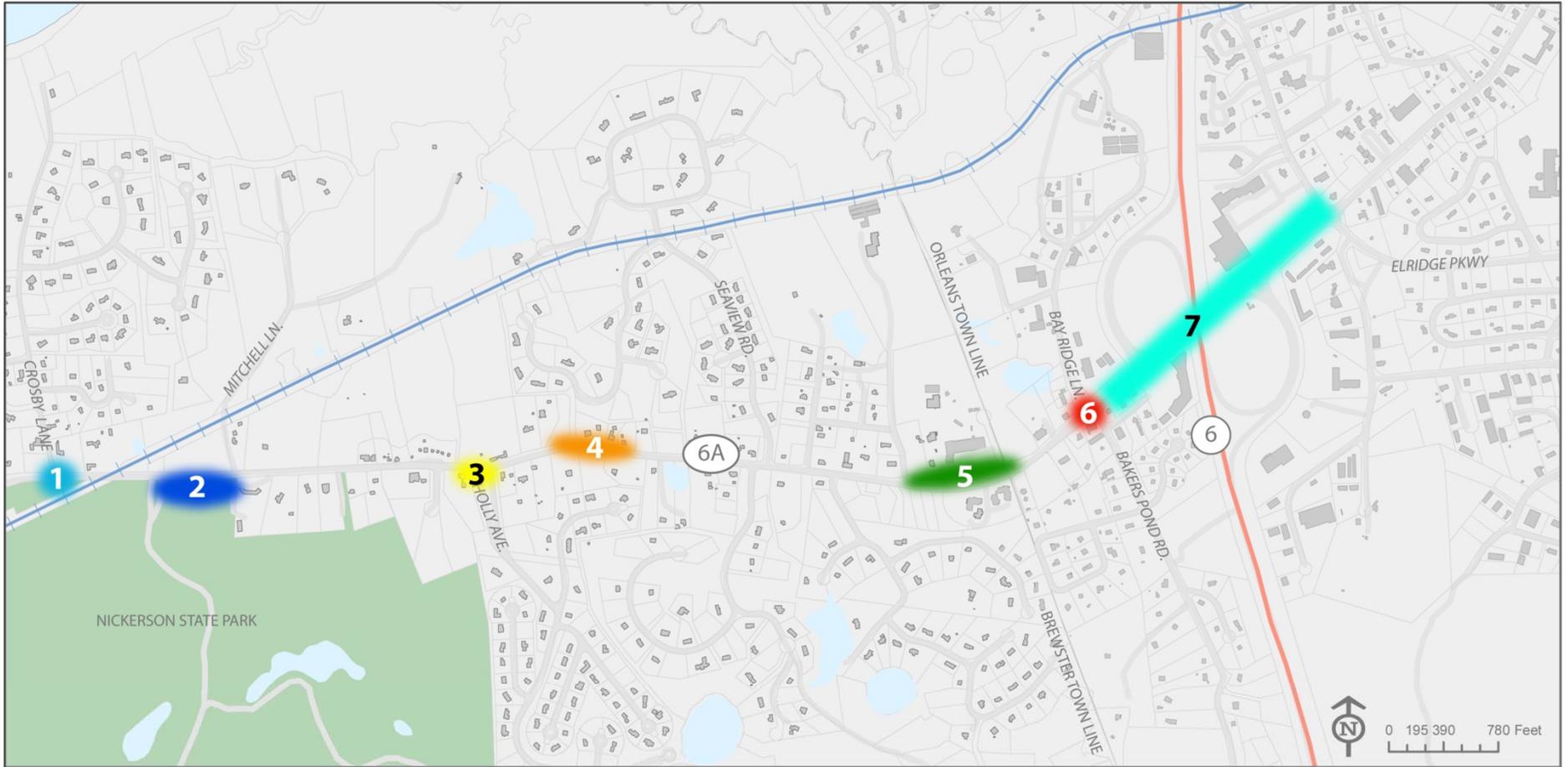
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Ground-Truthing:

- What are the conditions on the ground?
- Are the maps telling the whole story?
- What local information can be gathered?

From analysis, came identification of Opportunities/Constraints: Evaluating Priority Sites



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-  Ponds
-  Route 6: Mid Cape Hwy
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Source CCC GIS ArcMap
9.3.1; modified with CS4

Initial Priority Areas



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Area 1 Crosby



Area 2 Nickerson entrance



Area 3 Holly Ave



Initial Priority Areas



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Area 4 Old Layout



Area 6 Bakers Pond Rd/BayRidge



Area 5 Old Layout Orl/Brew Industrial



Initial Priority Areas



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Area 7A Underground Mall-underpass/east



Area 7B Underpass-Skaket/West

Next Steps:

What we'll be working on, and how you can get more involved



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- **Research of design alternatives, best management practices, engineering details**
- **Refinement of study area and further roadway analysis**
- **Conceptual design plans of preferred alternatives for focus areas and connections**
- **Public outreach to local business owners and residents throughout the summer**
- **Additional public meetings as necessary**
- **Final draft presentation: September 2012**

We'd like to hear from you --



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Questions/Comments?

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