

A Rail Investment Plan for
the Northeast Corridor

TIER 1 DRAFT ENVIRONMENTAL IMPACT STATEMENT

Appendix A, Mapping Atlas

NOVEMBER 2015

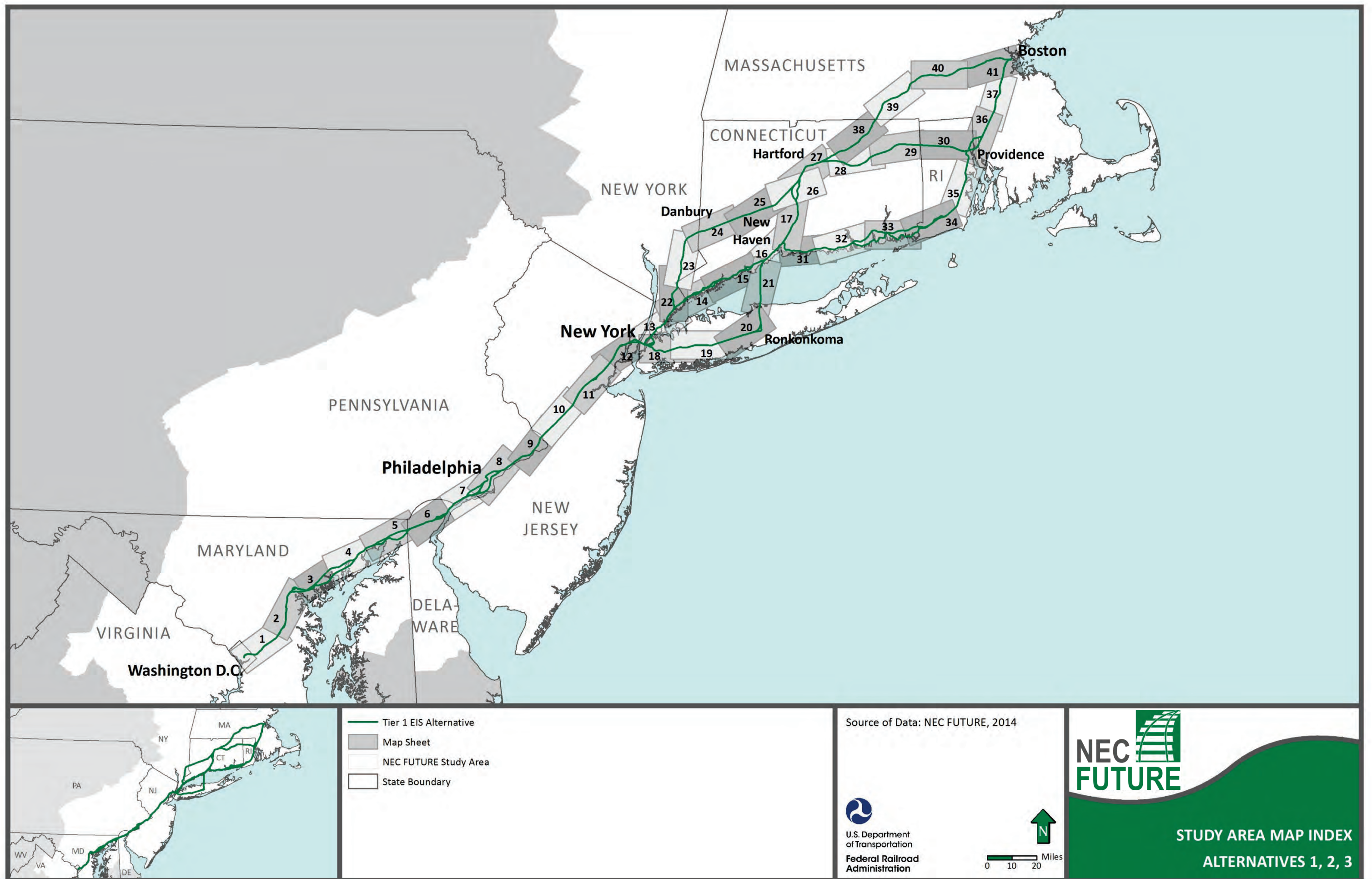


U.S. Department of Transportation
Federal Railroad Administration
































TIER 1 DRAFT ENVIRONMENTAL IMPACT STATEMENT
APPENDIX A, MAPPING ATLAS

Part 1 Environmental Resource Mapping Atlas










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Map Legend

	Major Hub Station		Milepost: Existing NEC
	Commuter Rail		
	Existing NEC (Present in all Action Alternatives)		
New Segment			
	Alternative 1		Alternative 2
Alternative 3			
	Washington, D.C. to New York City		
	New York City to Hartford via Central Connecticut		
	New York City to Hartford via Long Island		
	Hartford to Boston via Providence		
	Hartford to Boston via Worcester		
	Alternative 3: Modifications to Existing NEC		
	Geologic Resource		
	Hazardous Waste and Contaminated Material (H-P)		
	Cultural Resource (and total)		
	Stream		
	Wetland		
	Floodplain		
	Terrestrial ESH		
	Aquatic ESH		
	Parks and Recreation		
	Water		
	EJ - Minority and Low Income		
	EJ - Minority		
	EJ - Low Income		
	Airport (Large/Medium Hub)		
	Map Inset		
	State Boundary		County Boundary


Symbol Key

Symbol	Chapter	Resource
None	7.2	Land Cover
None	7.3	Agricultural Lands (Prime Farmland and Timberlands)
	7.4	Parklands and Wild and Scenic Rivers
	7.5	Hydrologic/Water Resources
	7.6	Ecological Resources
	7.7	Geologic Resources
	7.8	Hazardous Waste and Contaminated Material
	7.9	Cultural Resources and Historic Properties
None	7.10	Visual and Aesthetic Resources
	7.11	Environmental Justice
None	7.12	Noise and Vibration
None	7.13	Air Quality
None	7.14	Energy
None	7.15	Climate Change and Adaptation
None	7.16	Section 4(f) and Section 6(f) Resources
None	7.17	Electromagnetic Fields and Electromagnetic Interference
None	7.18	Safety
None	7.19	Public Health
None	7.20	Cumulative Effects Assessment
None	7.21	Commitment of Resources

Abbreviations

EJ: Environmental Justice Population
ESH: Environmentally Sensitive Habitats
H-P: High-Probability
NEC: Northeast Corridor
NHL: National Historic Landmark
NRHP: National Register of Historic Places

Milepost Key

 230 Milepost markings and annotation are provided every five miles on the existing NEC beginning at MP 100

General Notes

Action Alternatives presented in this Mapping Atlas are as described in Chapter 4, Alternatives Considered, of the Tier 1 Draft EIS. As a frame of reference, the existing Northeast Corridor (NEC) passenger rail line is represented as a single line and unique color. It is included within each of the Action Alternatives. New segments or curve modifications (for example, improvements that extend beyond the existing NEC) are represented as a single line with a unique color for each Action Alternative.

Insets maps are provided to highlight a particular resource referenced in the DEIS, or to show related data at larger scales. Bounding boxes are provided on Map Sheets.

Location reference annotation provided in *Italics* (e.g., *Prince George's County*).


The "Regional Coverage" column in the *Index of Map Sheets* (pages 4 through 8) highlight the Map Sheet that contains the best coverage of a particular county or counties.

Source of Resource Data: NEC FUTURE, 2014.

Airports are identified by their International Air Transport Association (IATA) 3-Letter Code.

Area outside 5-mile Context Area is muted intentionally.

Symbol Notes

- *None*: Symbolology not applied to Map Atlas. Representation in the Mapping Atlas is not relevant to the analysis of that resource presented in the EIS.
- *Chapter*: Location where resource is documented in Tier 1 Draft EIS.
- The location of the Cultural Resources and Historic Properties symbol () and accompanying "xx" represents the proximate location of the greatest concentration of, and total number of resources within the county they are located.
- Section 4(f) and Section 6(f) Resources are identified in Mapping Atlas as *Parklands and Wild and Scenic Rivers* and *Cultural Resources and Historic Properties*.

Date	Version Number	Revision
November 17, 2014	1.0	Initial version
February 06, 2015	1.1	Incorporates First Cut Changes
February 11, 2015	1.2	Update Alternative 3 Representation
February 23, 2015	1.3	Version 1 DEIS
May 22, 2015	2.0	Version 2 Submission to JV
June 19, 2015	2.1	Version 2 Submission to FRA
August 12, 2015	3.0	Version 3 submission to JV
August 24, 2015	3.1	Version 3 submission to FRA
September 22, 2015	4.0	
	Final Draft version	

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Index of Map Sheets

Sheet #	Existing NEC	Alt 1	Alt 2	Alternative 3					Regional Coverage	Resource Presence						
				D.C. to NY	New York City to Hartford		Hartford to Boston			7.4	7.5	7.6	7.7	7.8	7.9	7.11
					via Central CT	via Long Island	via Providence	via Worcester								
1	X	X	X	X					Washington D.C.; Prince George's County, MD							
2	X	X	X	X					Anne Arundel, Baltimore County, Baltimore City, MD							
3	X	X	X	X					Baltimore City, Baltimore County, MD							
4	X	X	X	X					Harford County, MD							
5	X	X	X	X					Cecil County, MD							
6	X	X	X	X					New Castle County, DE							
7	X	X	X	X					Delaware County, PA							
8	X	X	X	X					Philadelphia County, PA							
9	X	X	X	X					Bucks County, PA							
10	X	X	X	X					Mercer, Middlesex County, NJ							
11	X	X	X	X					Union, Essex, Hudson County, NJ; New York County, NY							

Notes:
Blank spaces indicate no New Segments in Action Alternative and corresponding map sheet.
The existing NEC is present in all Action Alternatives .



Index of Map Sheets

Sheet #	Existing NEC	Alt 1	Alt 2	Alternative 3					Regional Coverage	Resource Presence						
				D.C. to NY	New York City to Hartford		Hartford to Boston			7.4	7.5	7.6	7.7	7.8	7.9	7.11
					via Central CT	via Long Island	via Providence	via Worcester								
12	X	X	X	X	X	X			New York, Bronx County, NY							
13	X	X	X	X	X	X			Westchester County, NY; Fairfield County, CT							
14	X	X	X		X				Mercer, Middlesex County, NJ							
15	X	X	X			X			Fairfield County, CT							
16	X	X	X			X			New Haven County, CT							
17	X	X	X		X	X			New Haven County, CT							
18	X	X	X	X	X	X			New York, Kings, Queens County, NY							
19						X			Nassau, Suffolk County, NY							
20						X			Suffolk County, NY							
21	X					X			Suffolk County, NY; Long Island Sound							
22	X		X		X				Westchester County, NY							

Notes:
Blank spaces indicate no New Segments in Action Alternative and corresponding map sheet.
The existing NEC is present in all Action Alternatives .


























































Index of Map Sheets

Sheet #	Existing NEC	Alt 1	Alt 2	Alternative 3					Regional Coverage	Resource Presence						
				D.C. to NY	New York City to Hartford		Hartford to Boston			7.4	7.5	7.6	7.7	7.8	7.9	7.11
					via Central CT	via Long Island	via Providence	via Worcester								
23					X				Westchester County, NY							
24					X				Fairfield County, CT							
25					X				New Haven County, CT							
26			X		X	X	X	X	Hartford County, CT							
27			X		X	X	X	X	Hartford County, CT							
28			X				X	X	Tolland County, CT							
29			X				X		Windham County, CT							
30	X	X	X				X		Providence County, RI							
31	X		X			X			New Haven County, CT							
32	X	X							Middlesex, New London County, CT							
33	X	X							New London County, CT							

Notes:
Blank spaces indicate no New Segments in Action Alternative and corresponding map sheet.
The existing NEC is present in all Action Alternatives .

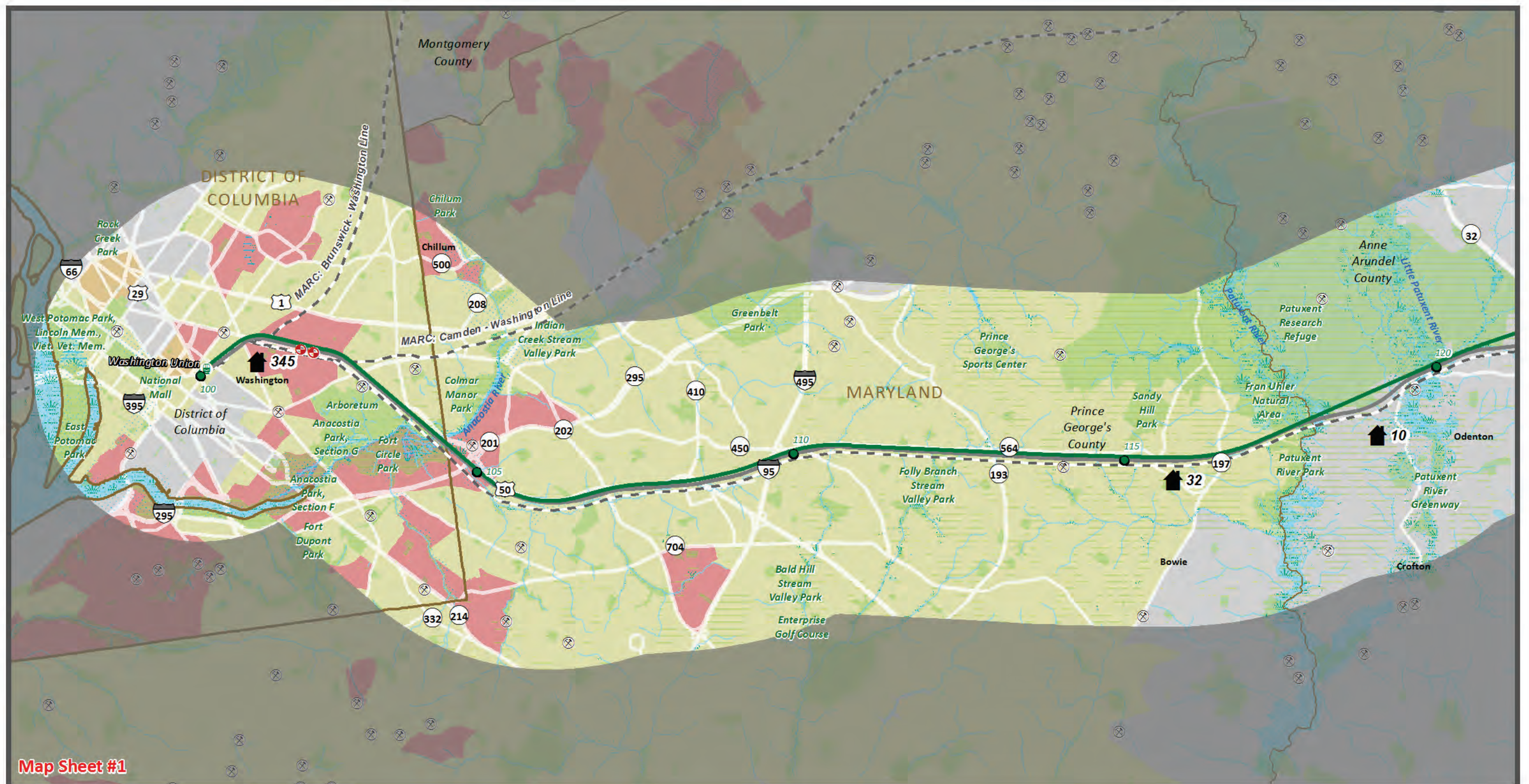


Index of Map Sheets

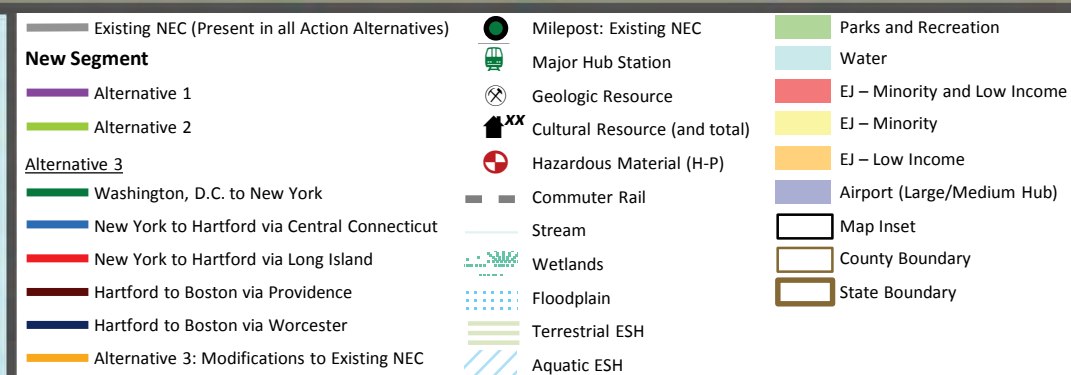
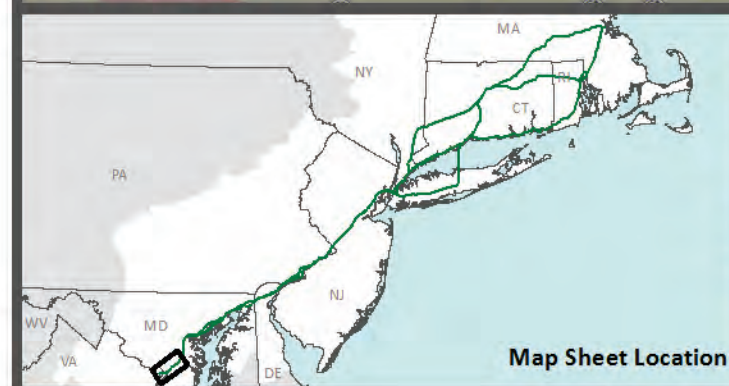
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				D.C. to NY	New York City to Hartford		Hartford to Boston			7.4	7.5	7.6	7.7	7.8	7.9	7.11
					via Central CT	via Long Island	via Providence	via Worcester								
34	X	X							Washington County, RI							
35									Washington, Kent County, RI							
36			X				X		Providence County, RI; Bristol County, MA							
37	X		X				X		Norfolk County, MA							
38			X				X	X	Tolland County, CT							
39								X	Worcester County, MA							
40								X	Worcester, Middlesex County, MA							
41	X		X				X	X	Middlesex, Norfolk, Suffolk County, MA							
END																

Notes:
Blank spaces indicate no New Segments in Action Alternative and corresponding map sheet.
The existing NEC is present in all Action Alternatives .

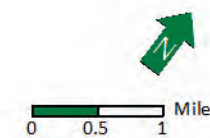




Map Sheet #1



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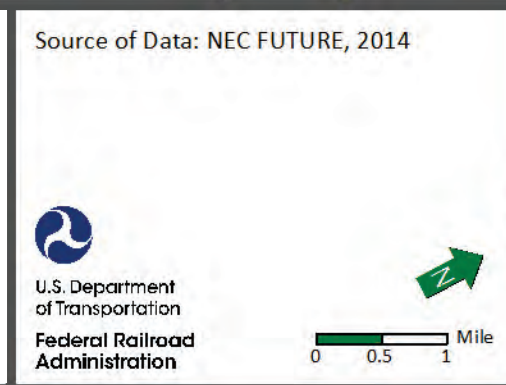
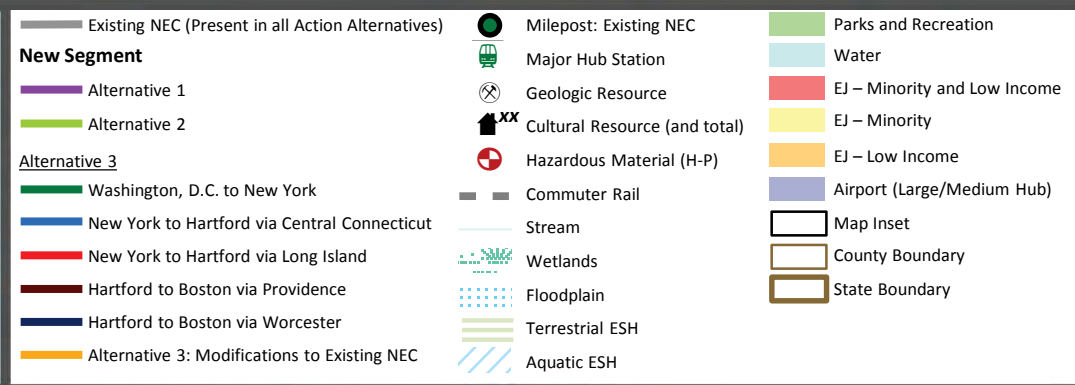
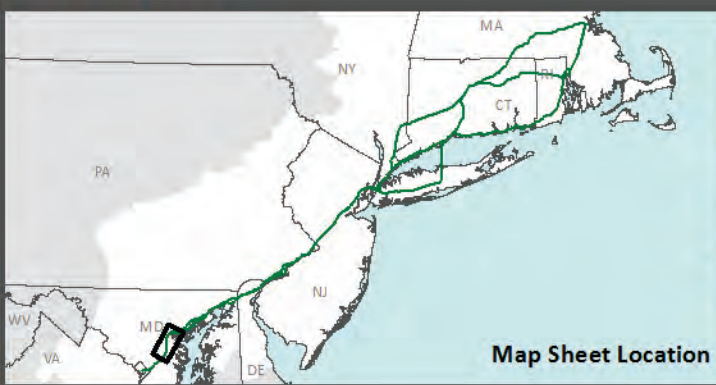
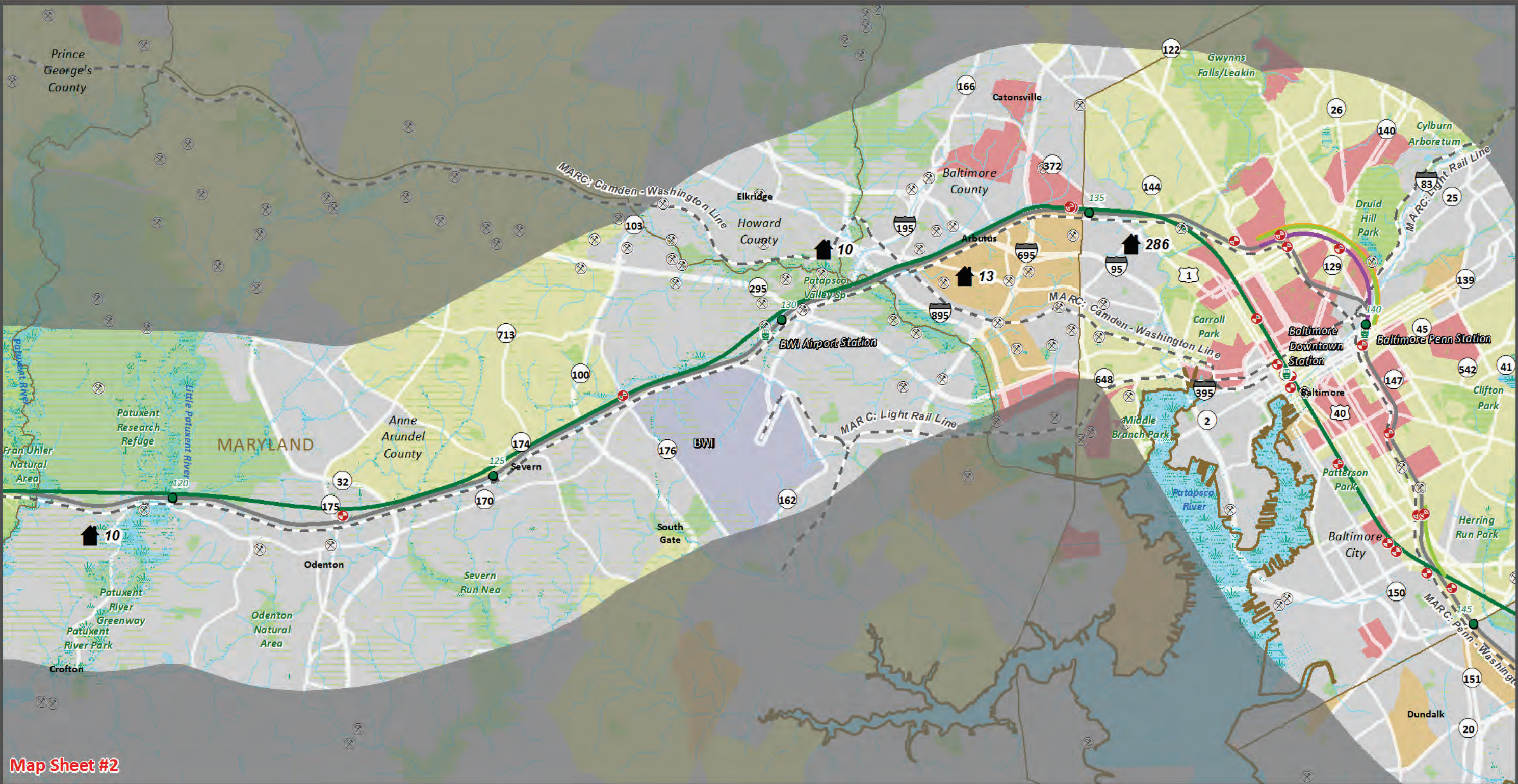


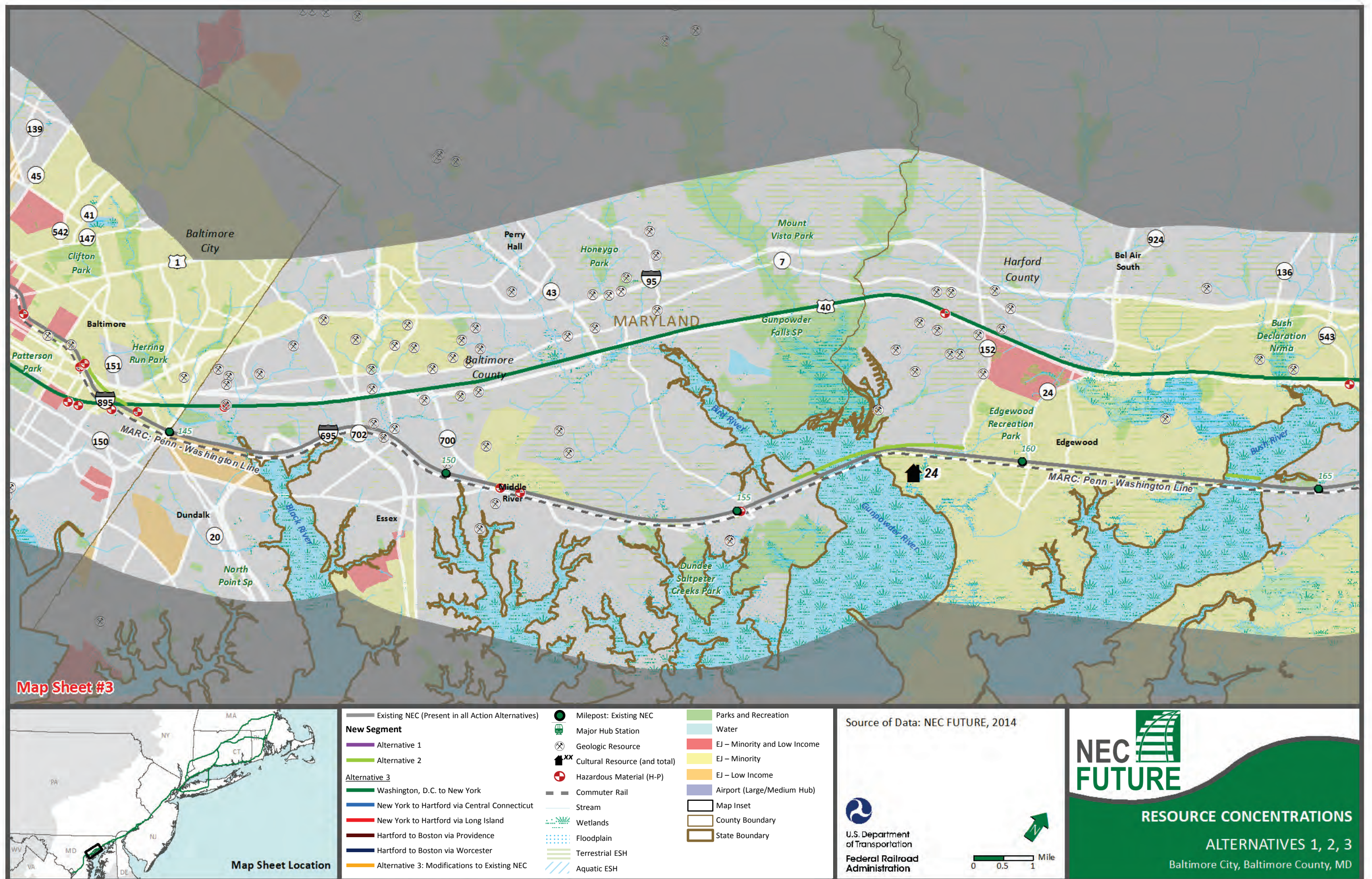


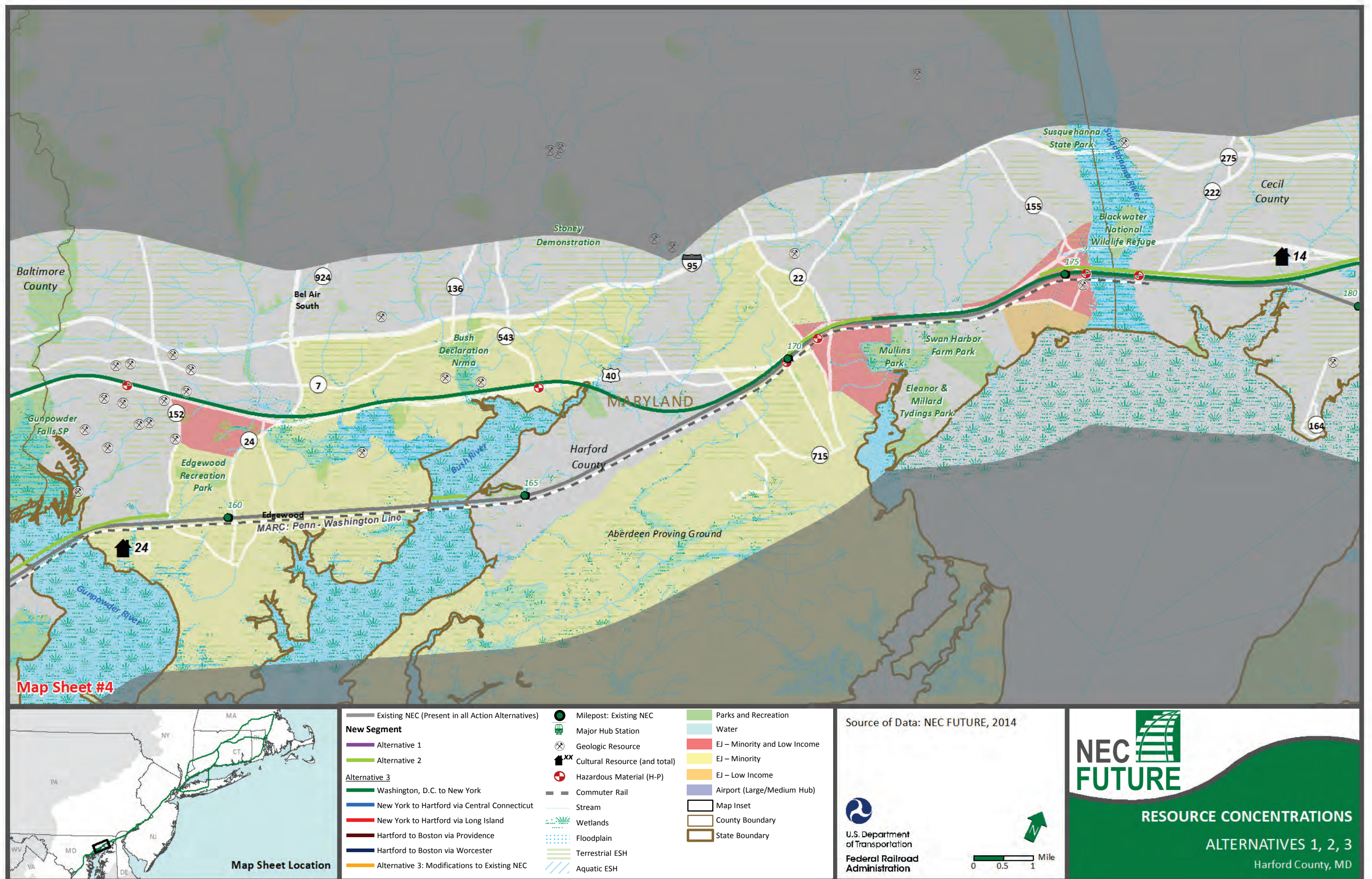
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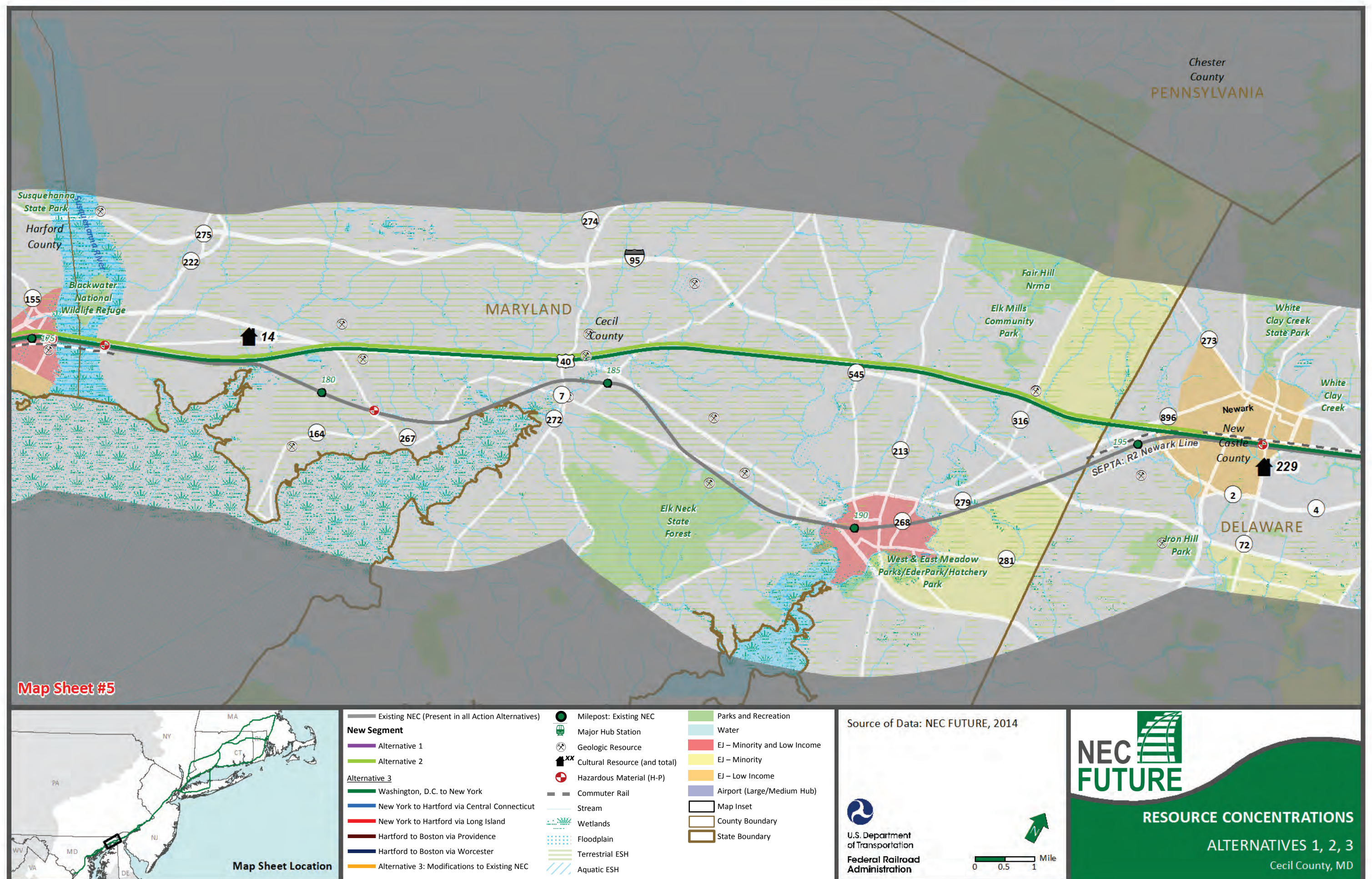
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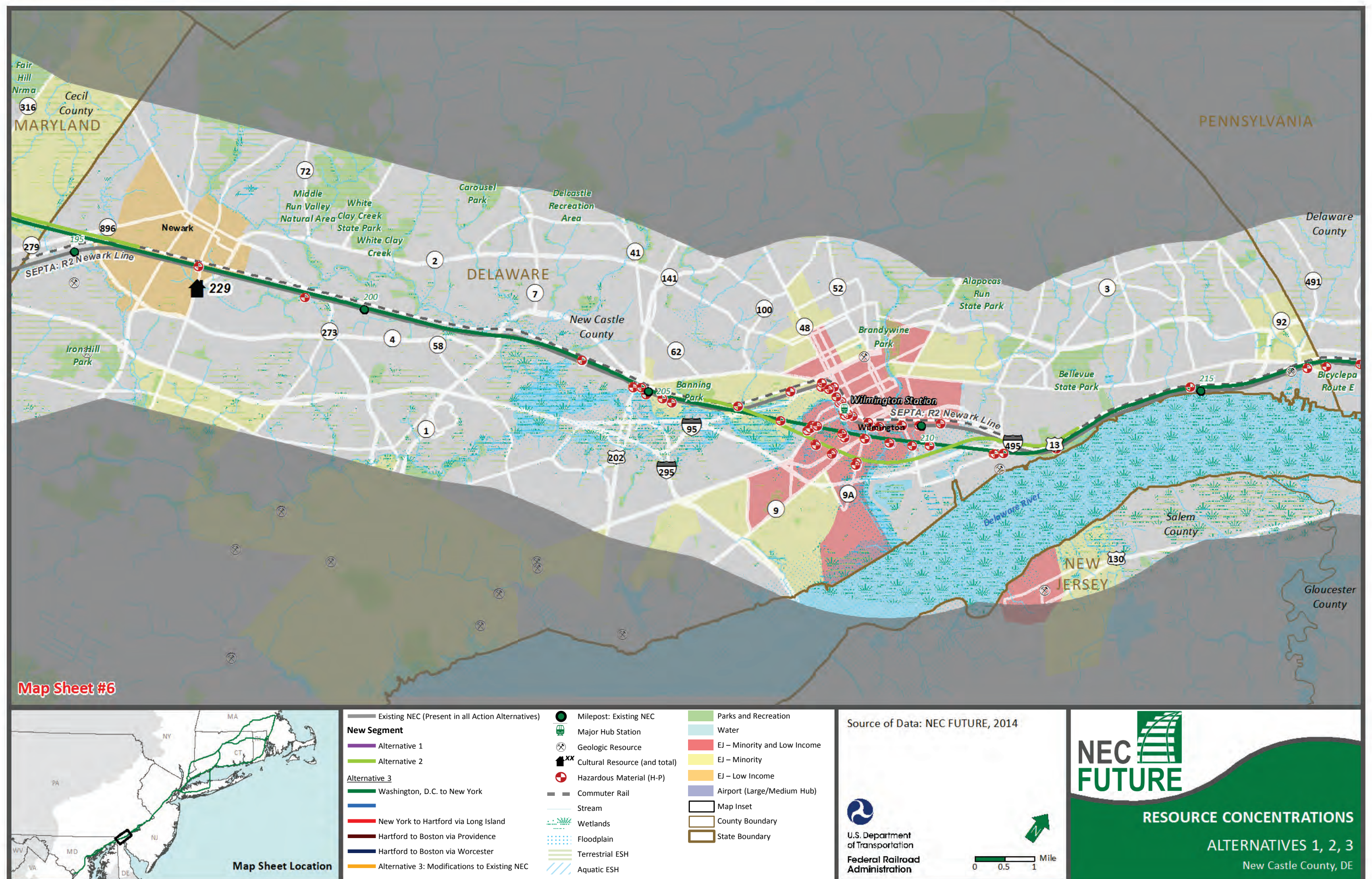
Washington D.C.; Prince George's County, MD

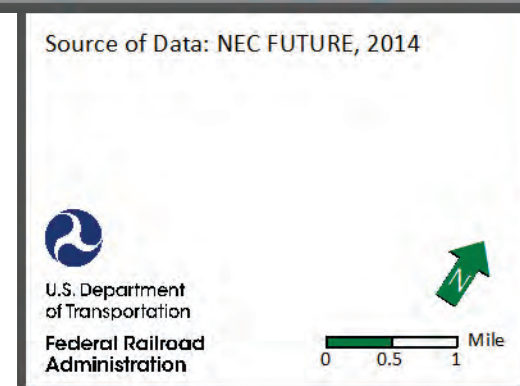
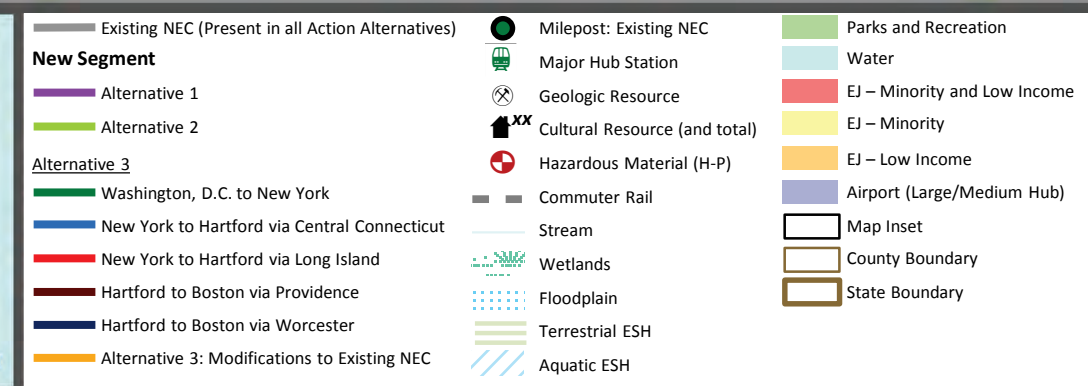
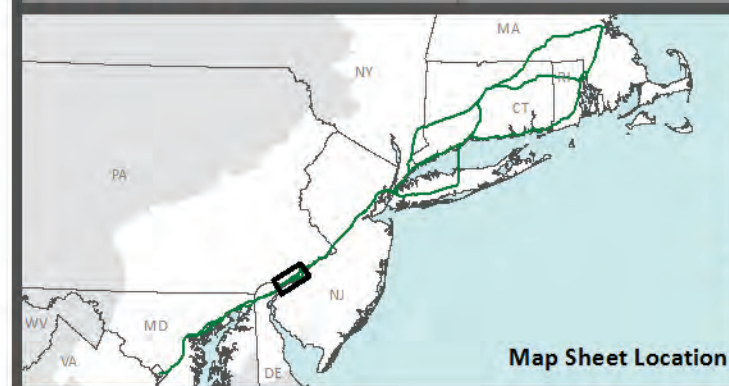
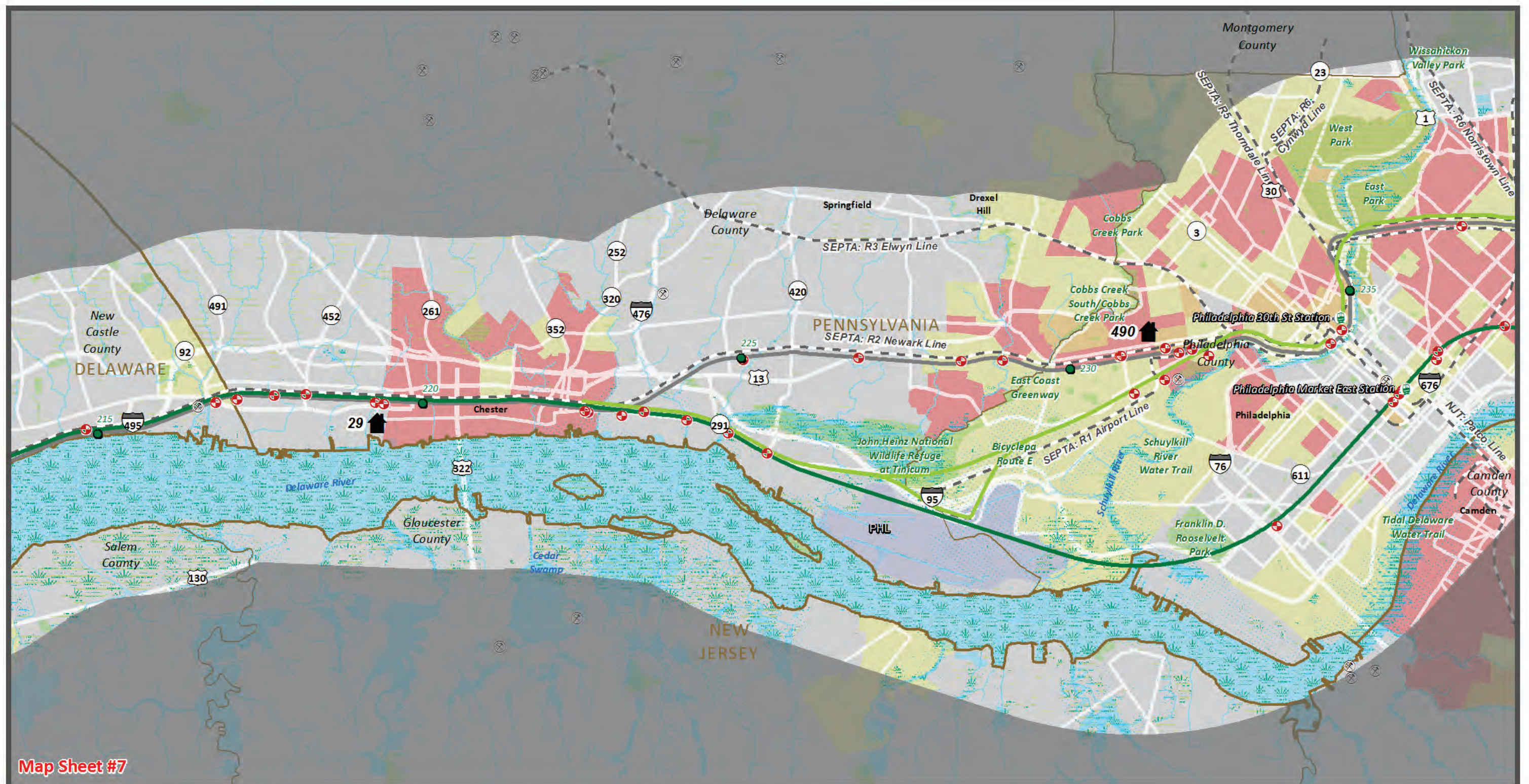


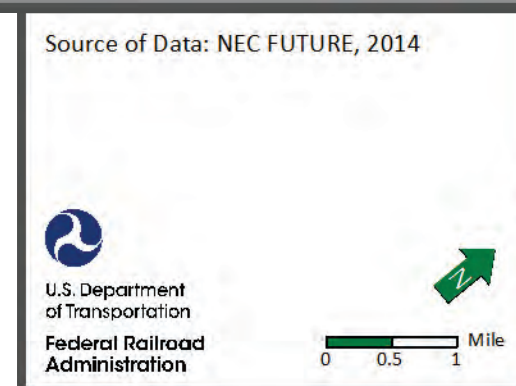
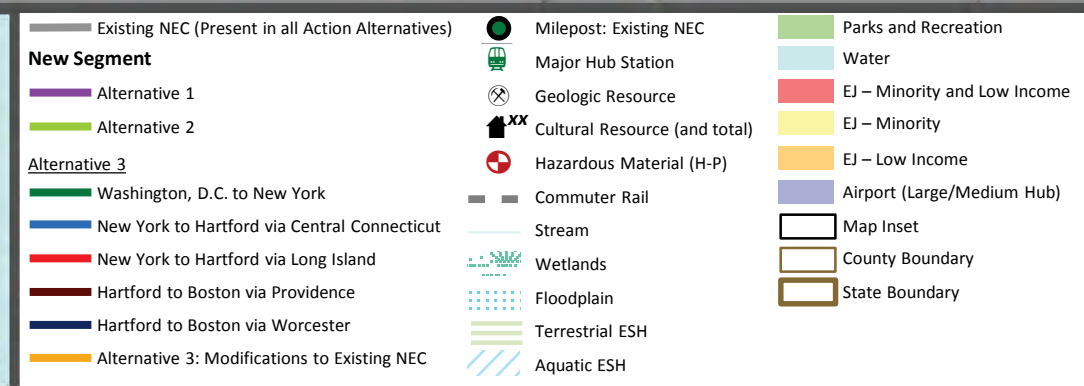
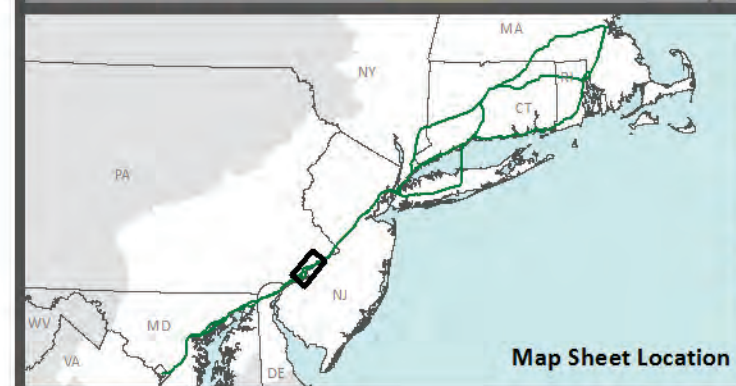
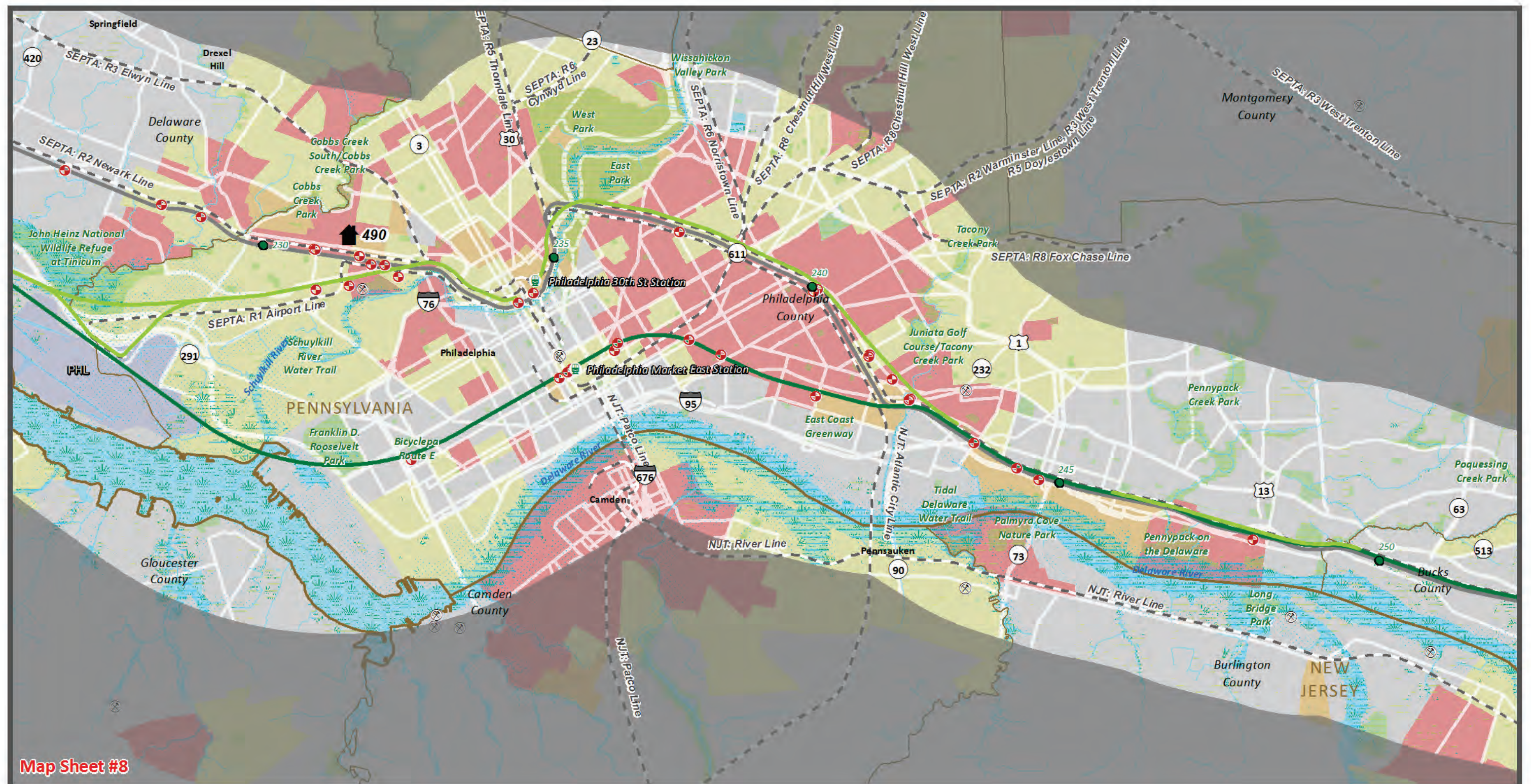


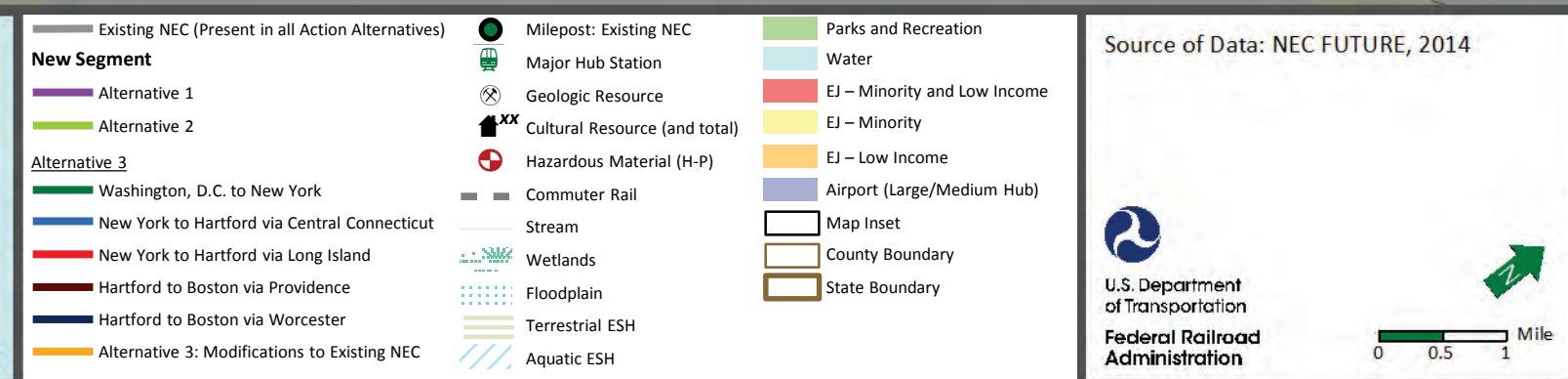
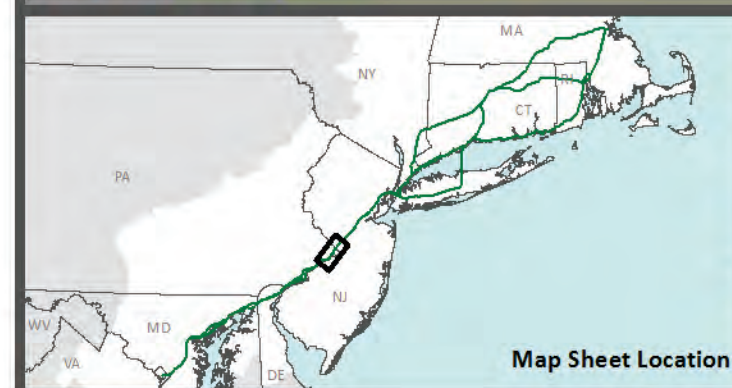
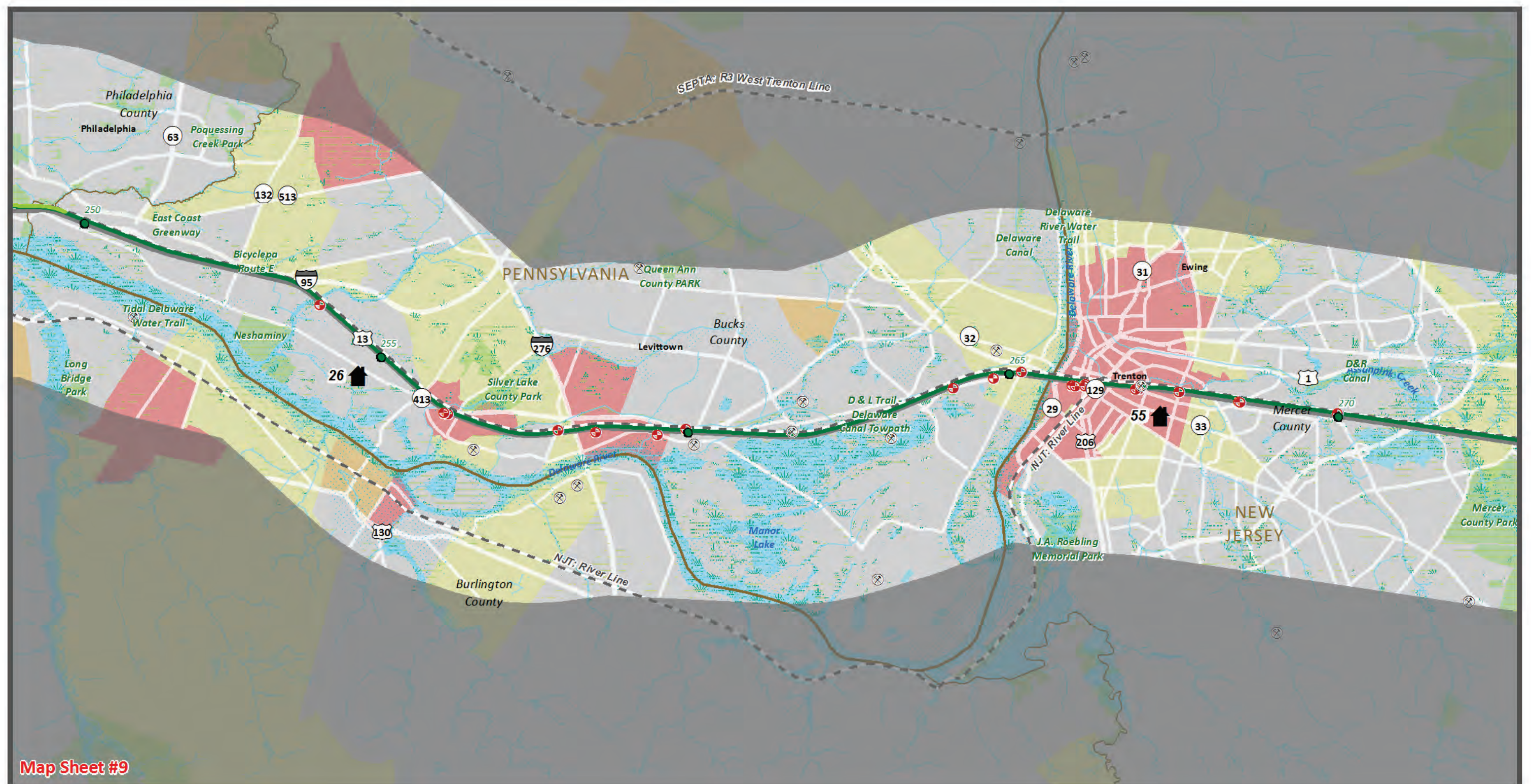










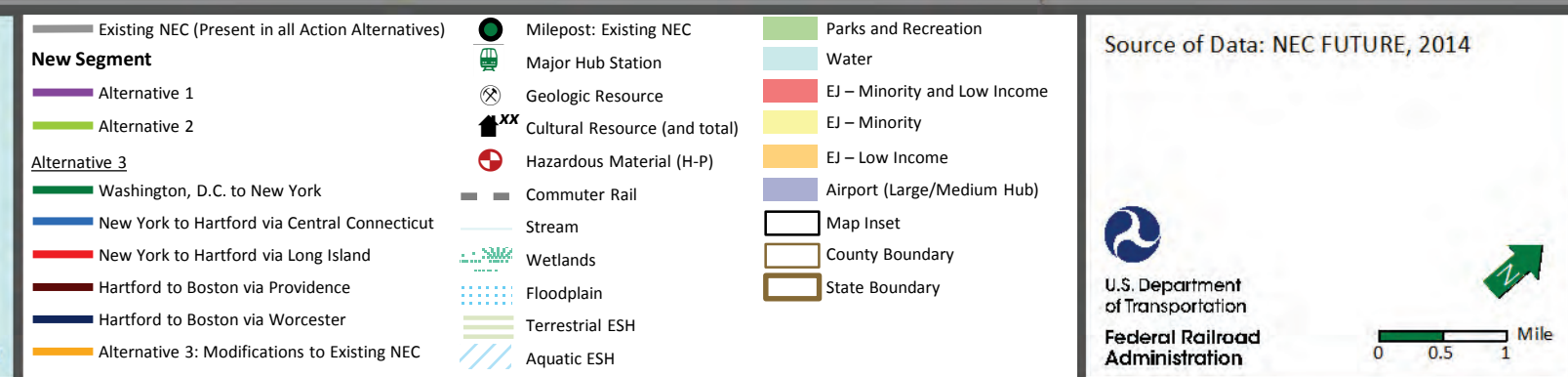
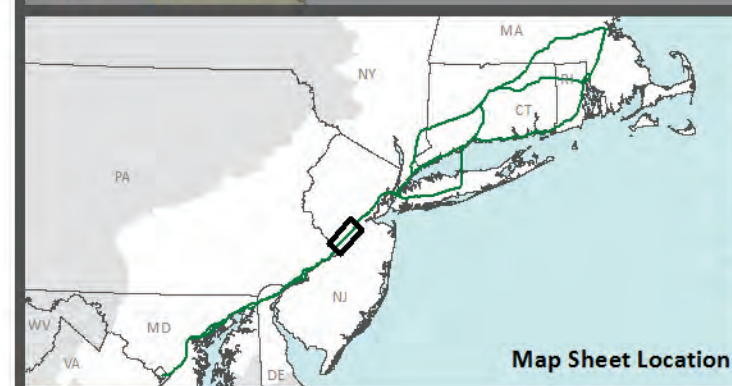
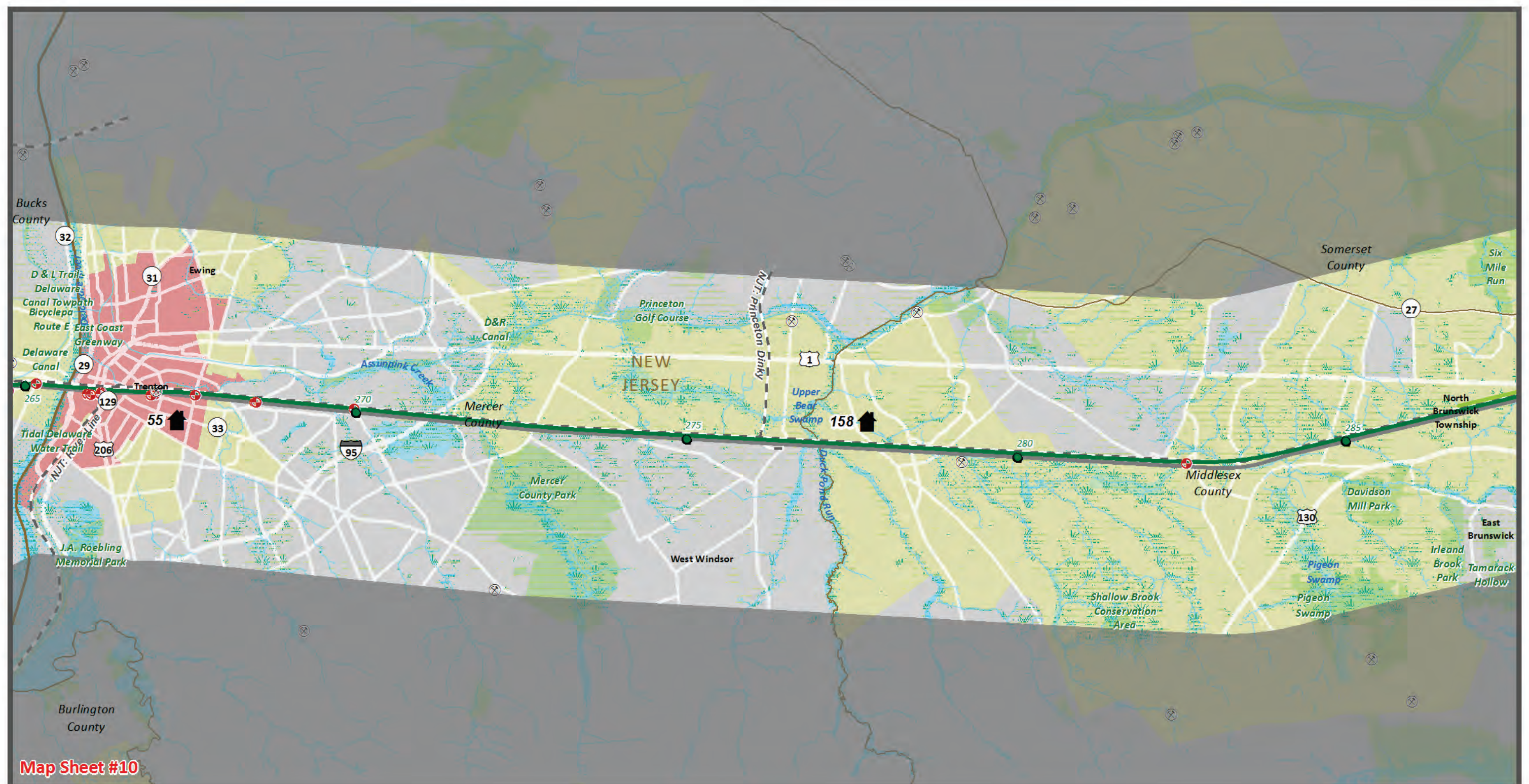


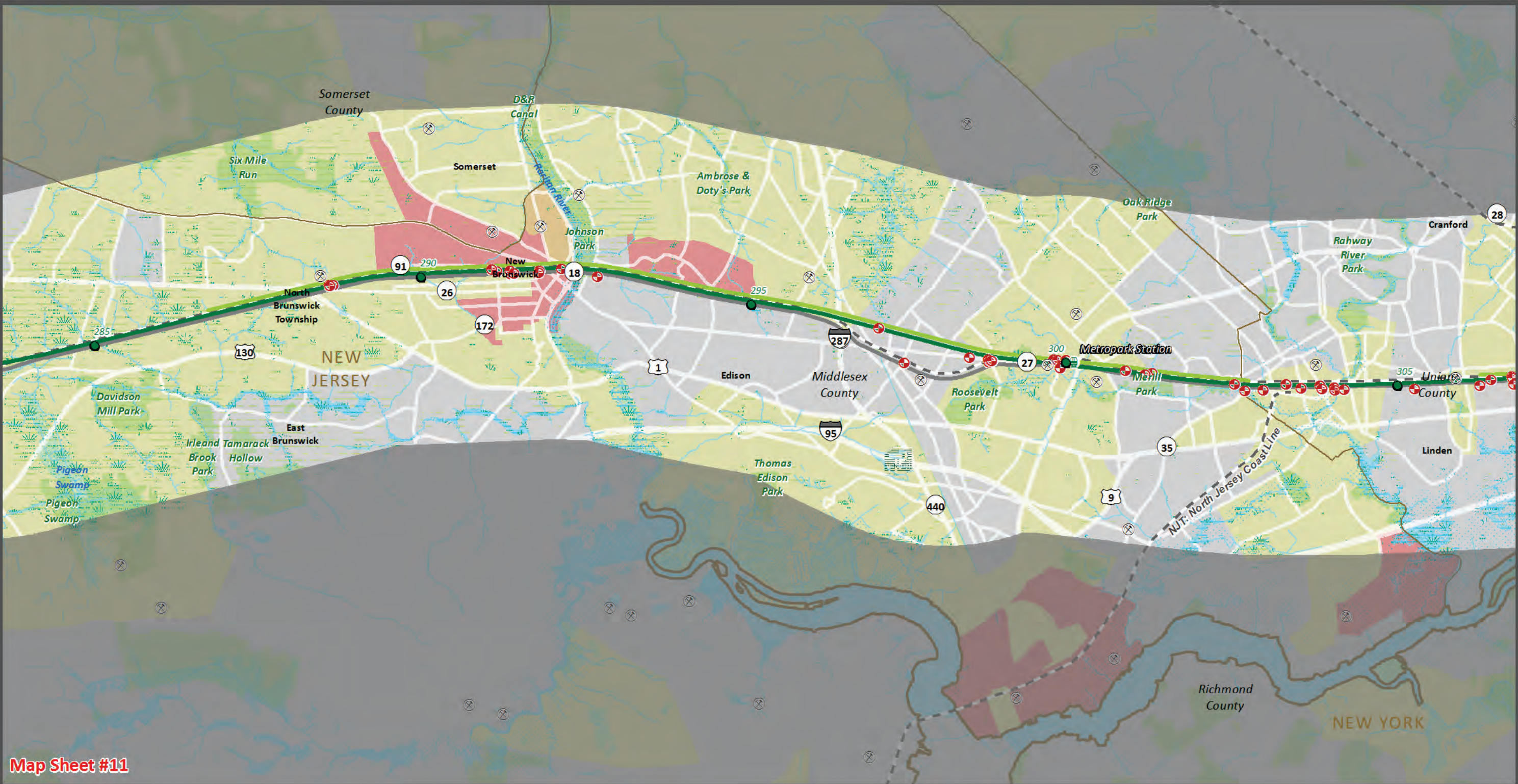
NEC FUTURE

RESOURCE CONCENTRATIONS

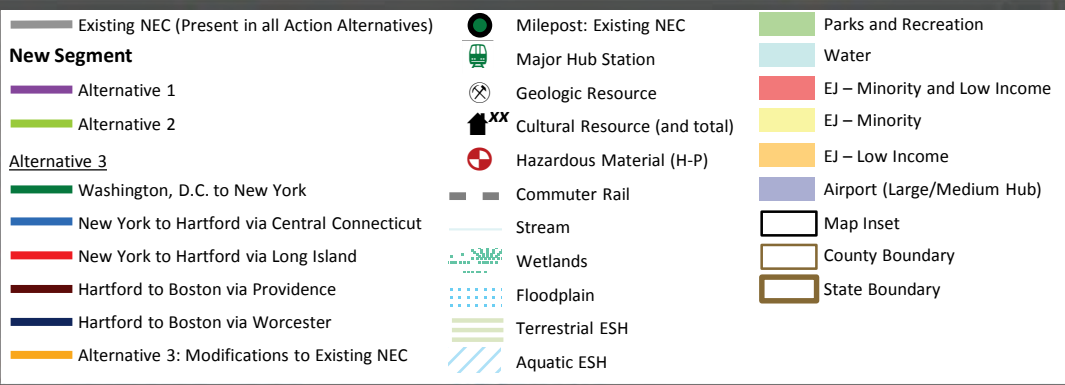
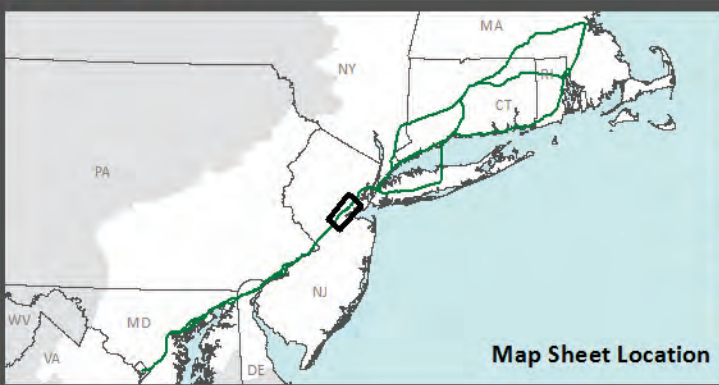
ALTERNATIVES 1, 2, 3

Bucks County, PA

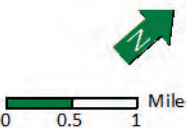




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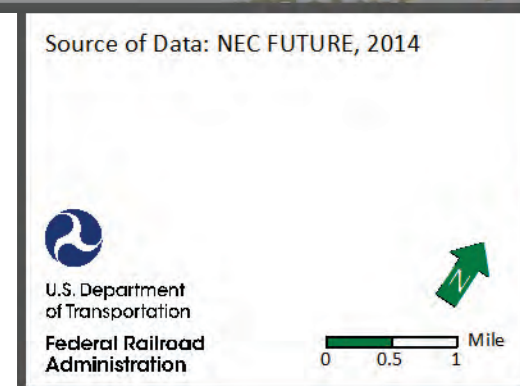
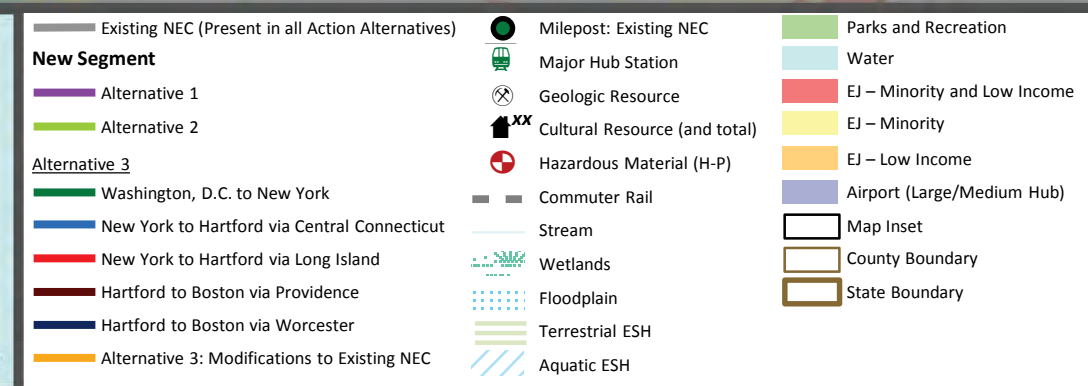
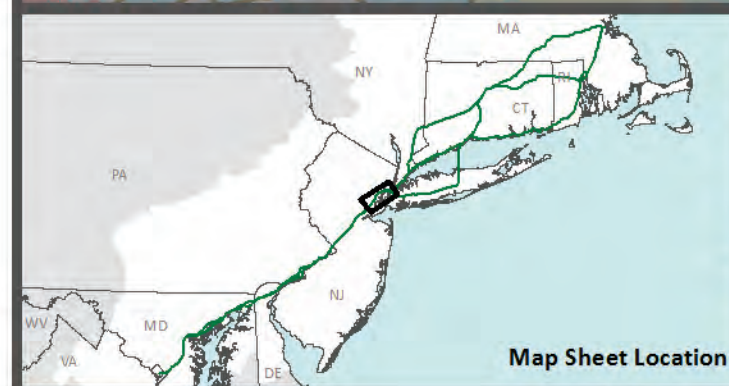
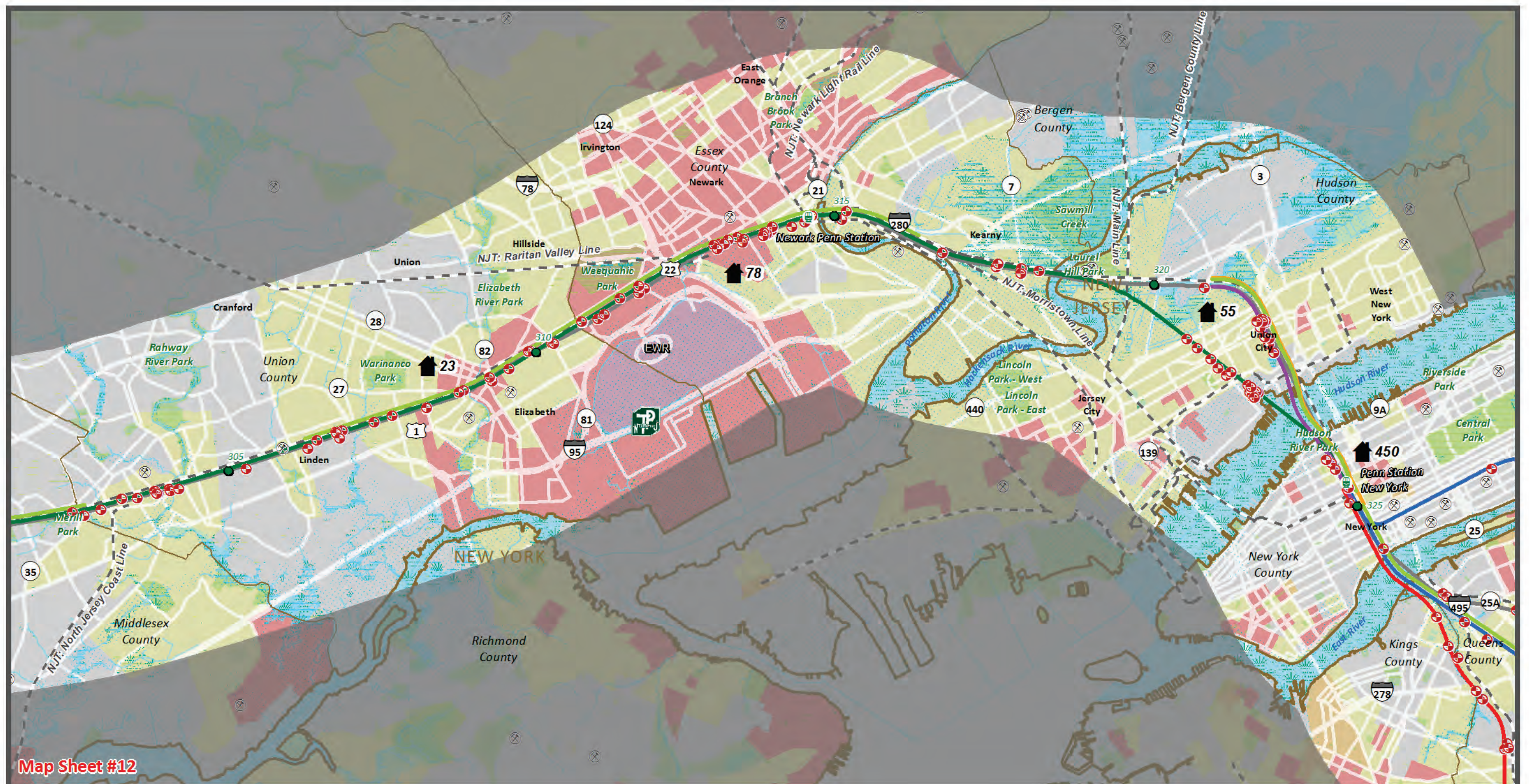
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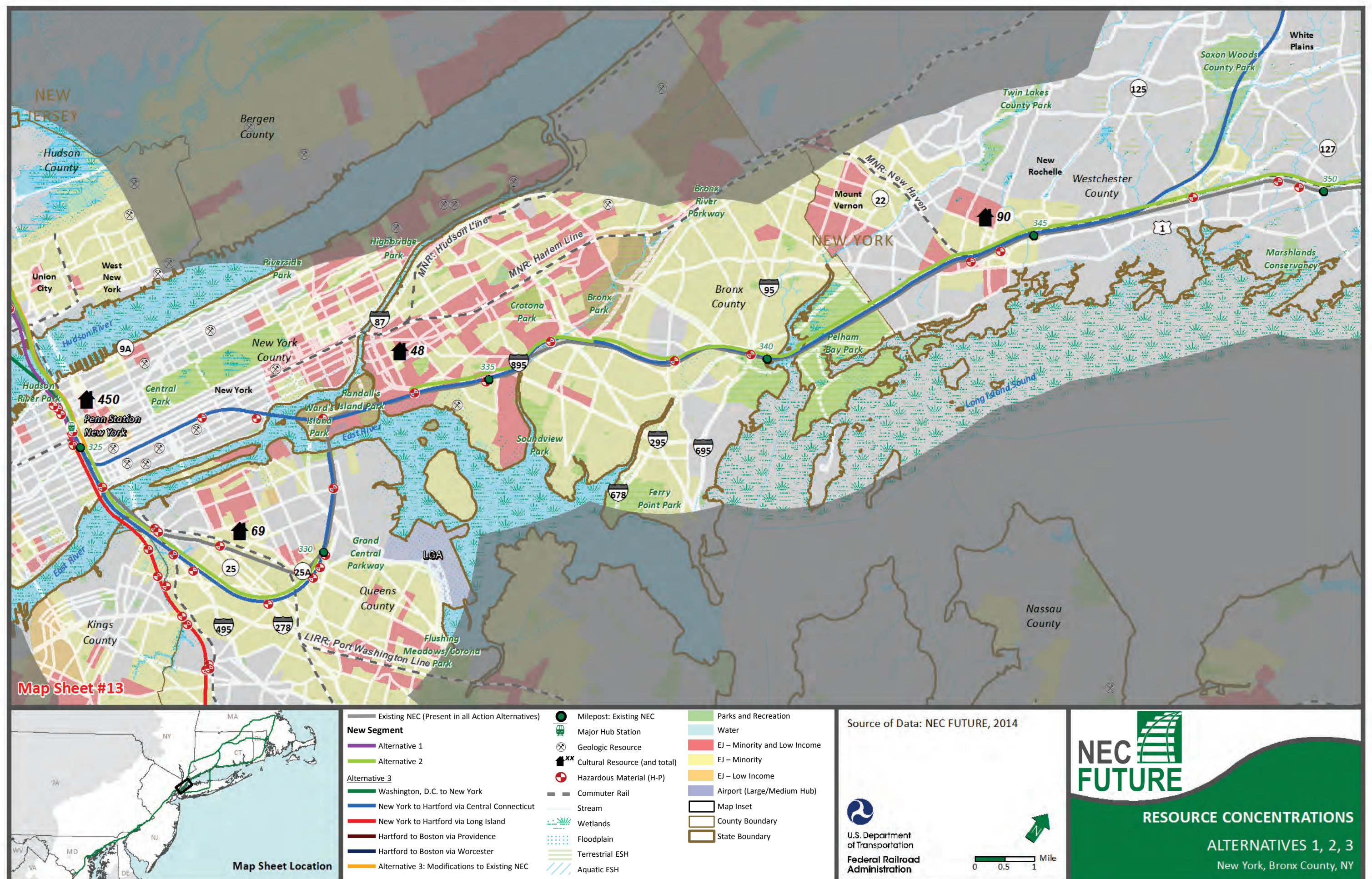


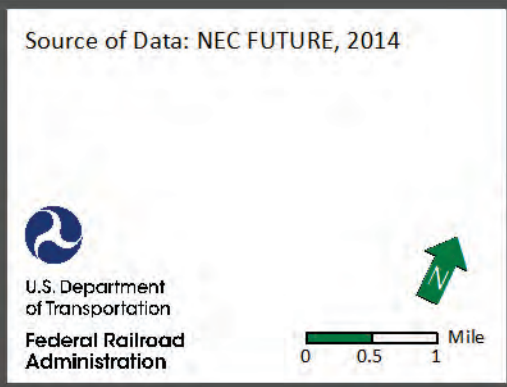
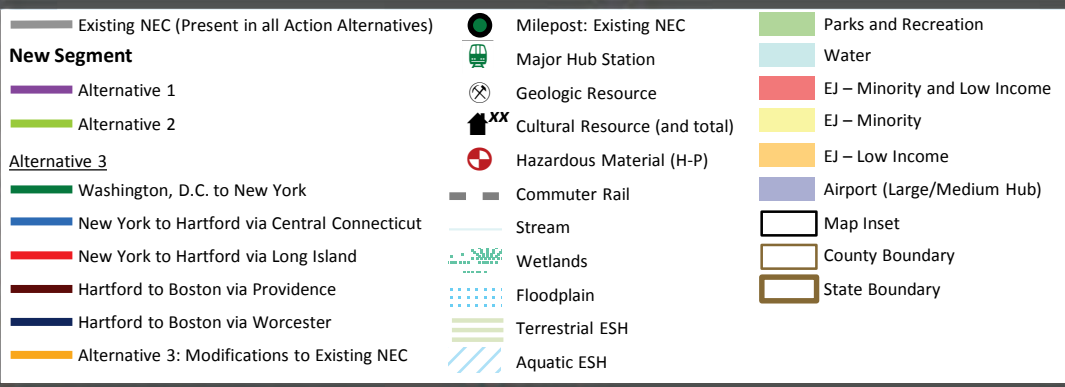
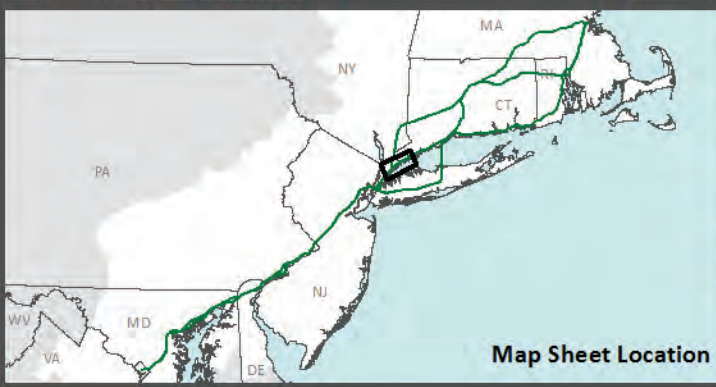
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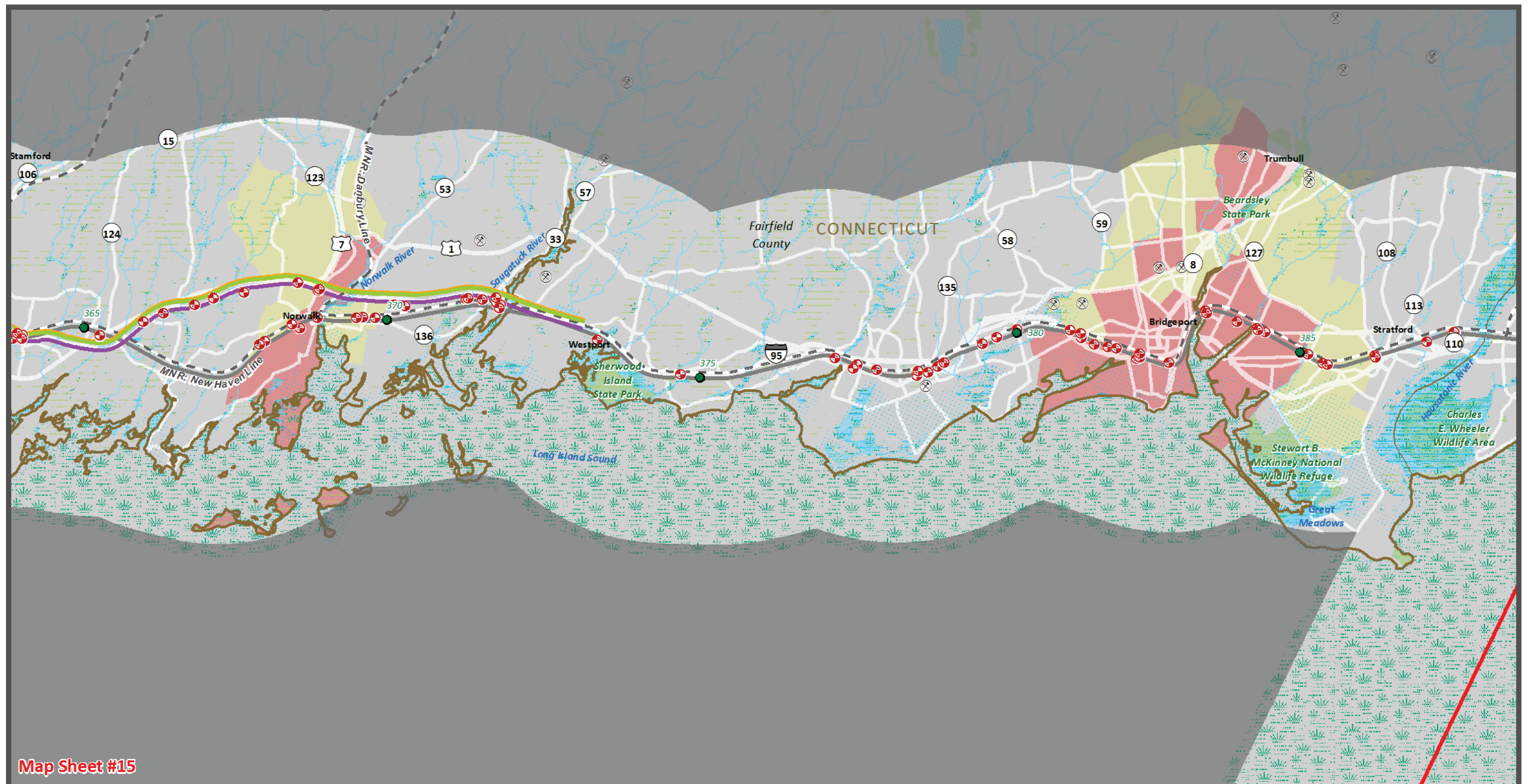
ALTERNATIVES 1, 2, 3

Middlesex County, NJ

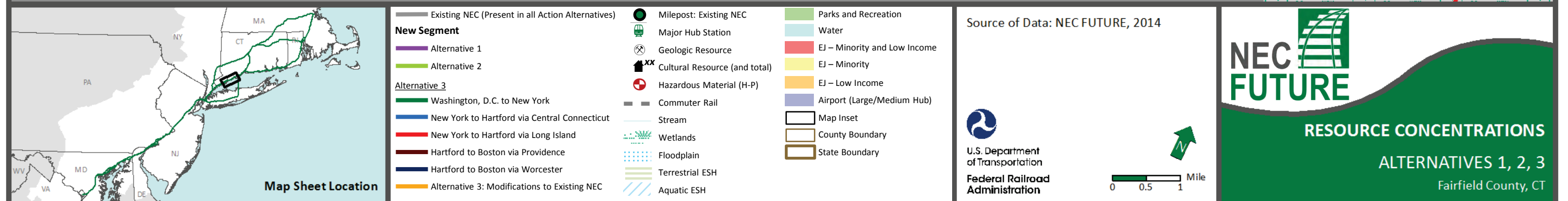


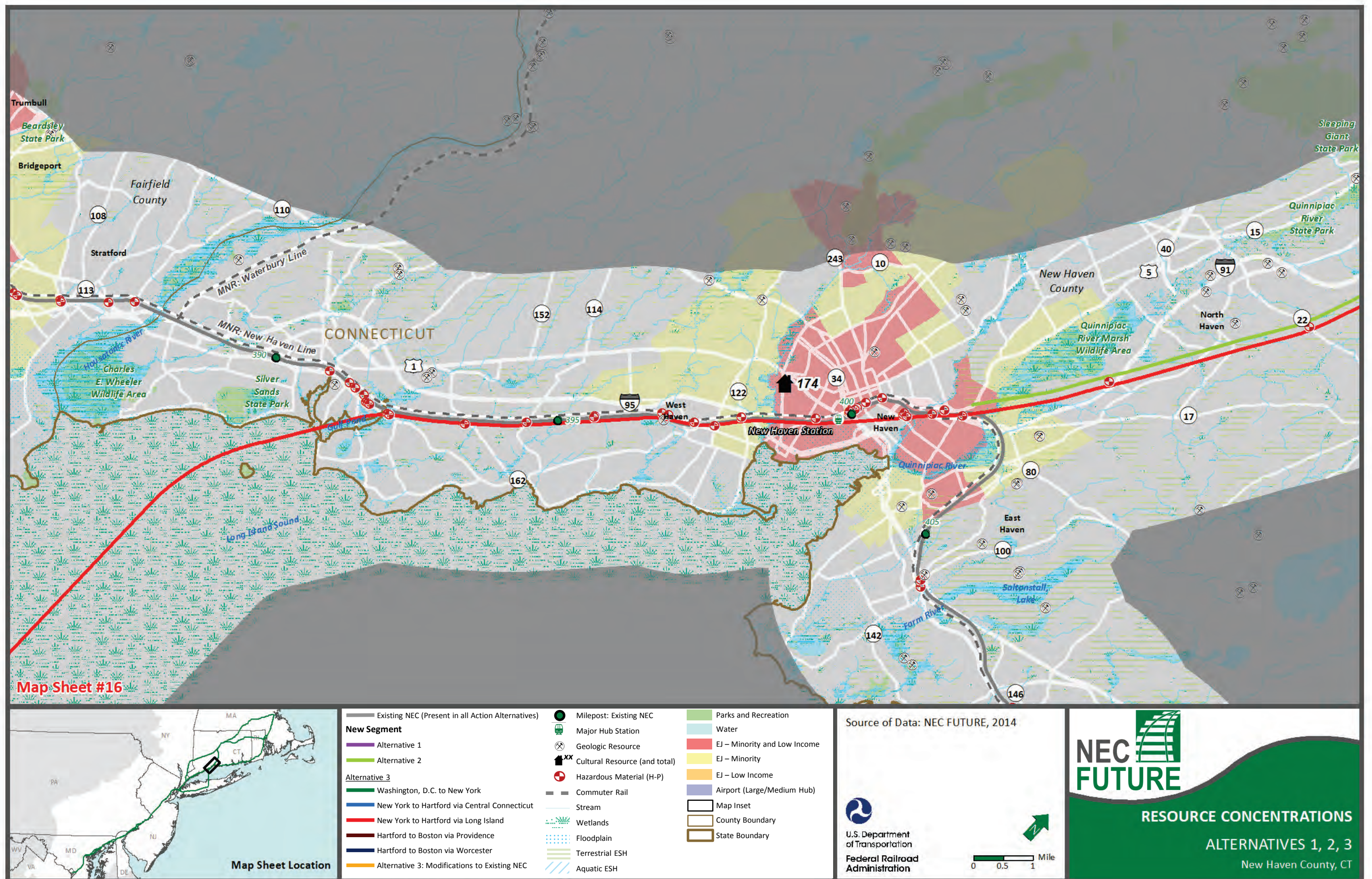


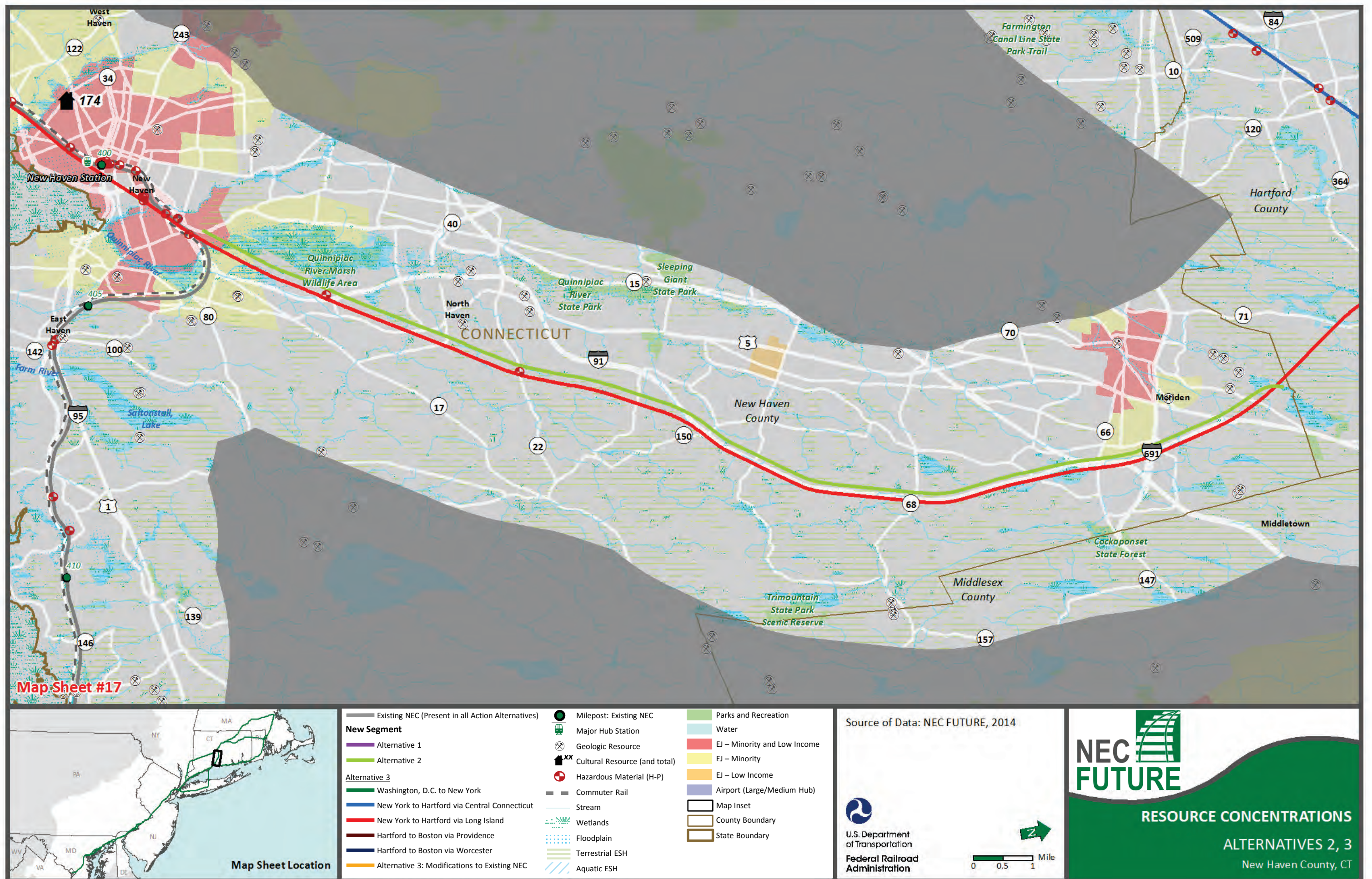


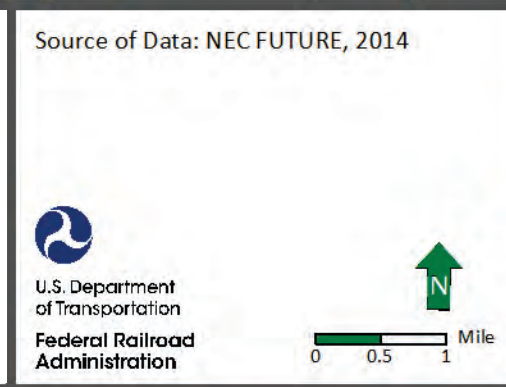
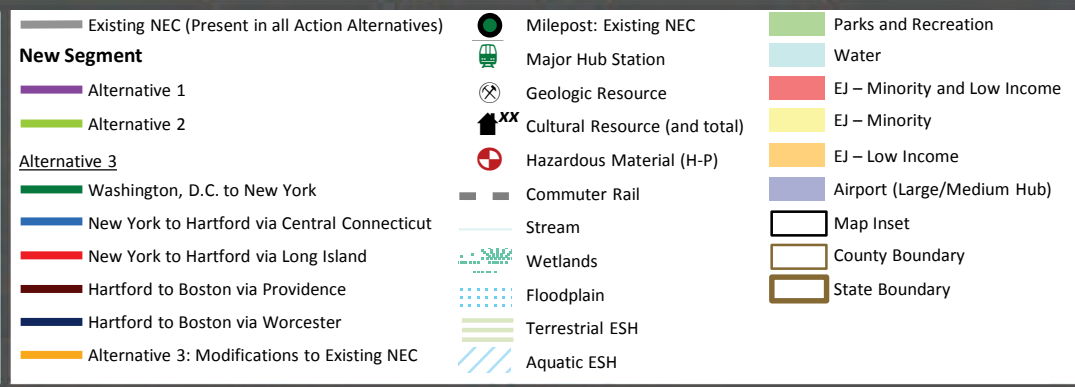
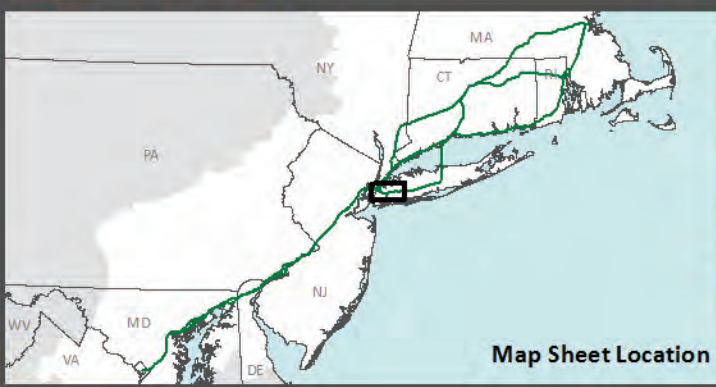


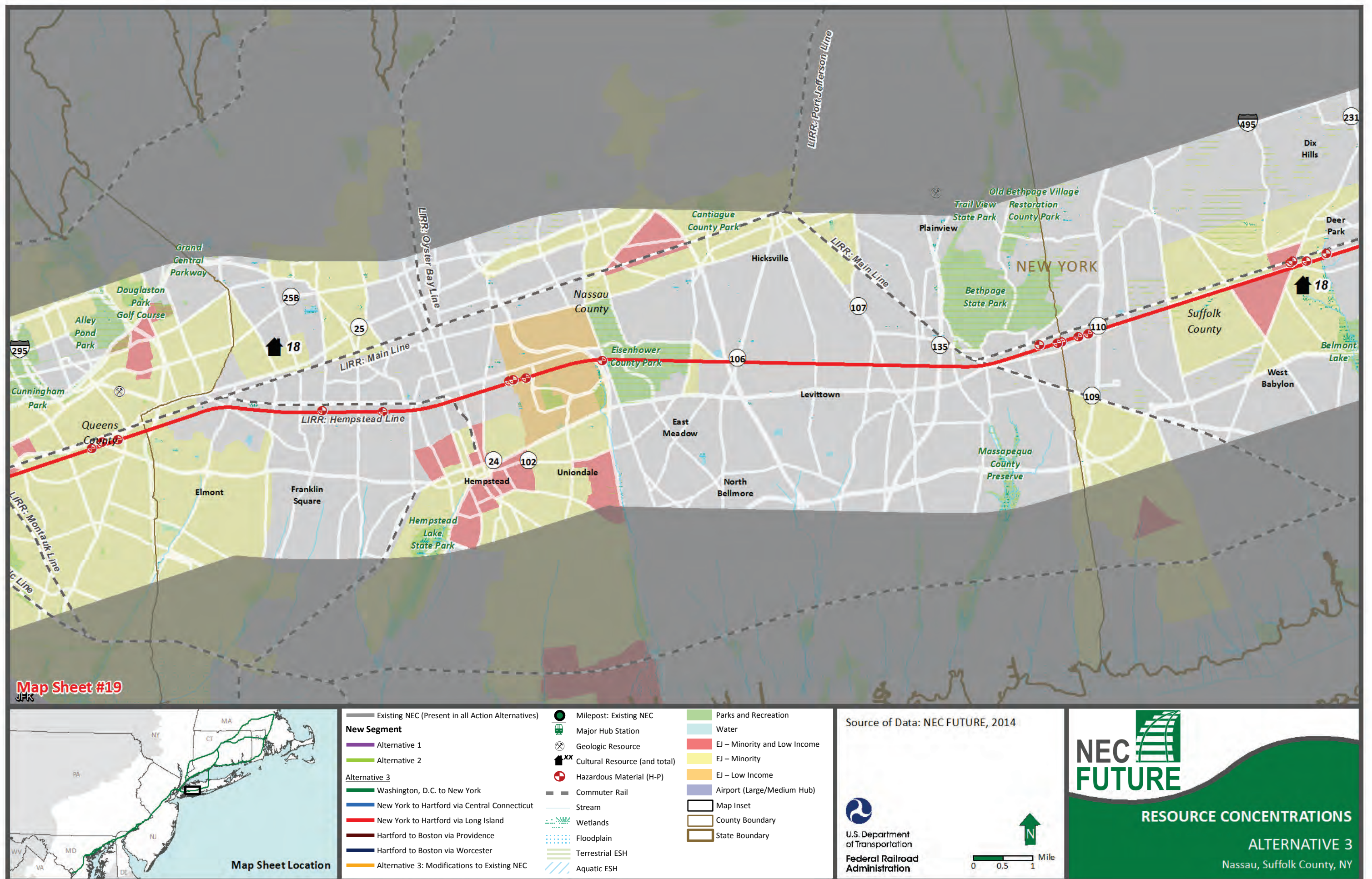
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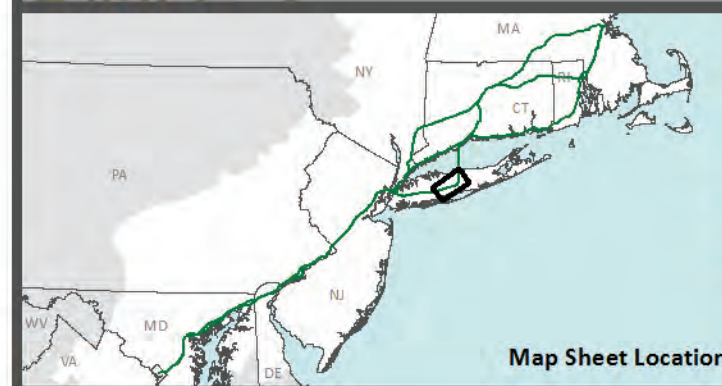








Map Sheet #20



<p>Existing NEC (Present in all Action Alternatives)</p> <p>New Segment</p> <ul style="list-style-type: none"> Alternative 1 Alternative 2 <p>Alternative 3</p> <ul style="list-style-type: none"> Washington, D.C. to New York New York to Hartford via Central Connecticut New York to Hartford via Long Island Hartford to Boston via Providence Hartford to Boston via Worcester Alternative 3: Modifications to Existing NEC 	<ul style="list-style-type: none"> Milepost: Existing NEC Major Hub Station Geologic Resource Cultural Resource (and total) Hazardous Material (H-P) Commuter Rail Stream Wetlands Floodplain Terrestrial ESH Aquatic ESH 	<ul style="list-style-type: none"> Parks and Recreation Water EJ – Minority and Low Income EJ – Minority EJ – Low Income Airport (Large/Medium Hub) Map Inset County Boundary State Boundary
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Source of Data: NEC FUTURE, 2014

U.S. Department of Transportation
Federal Railroad Administration

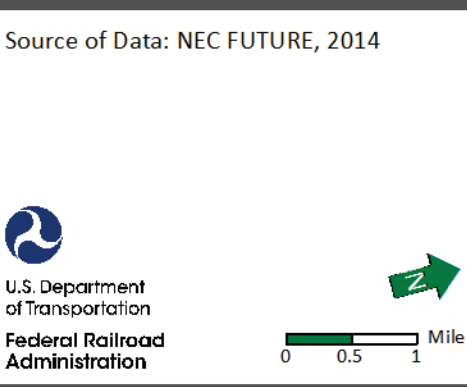
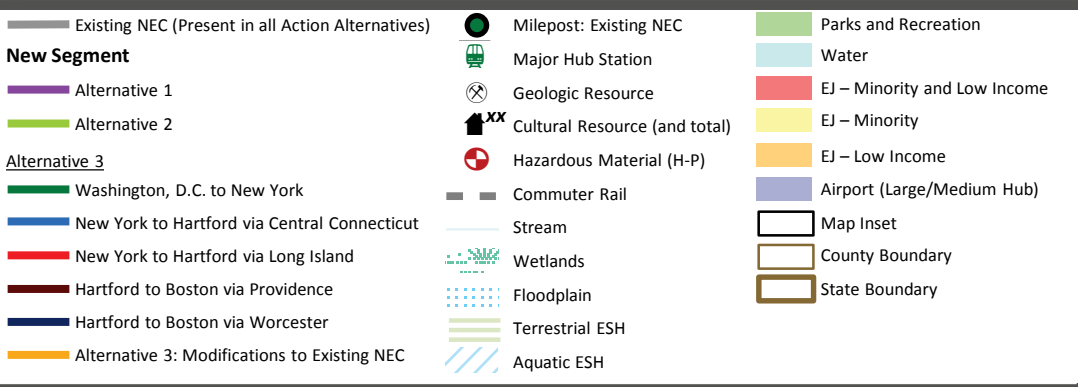
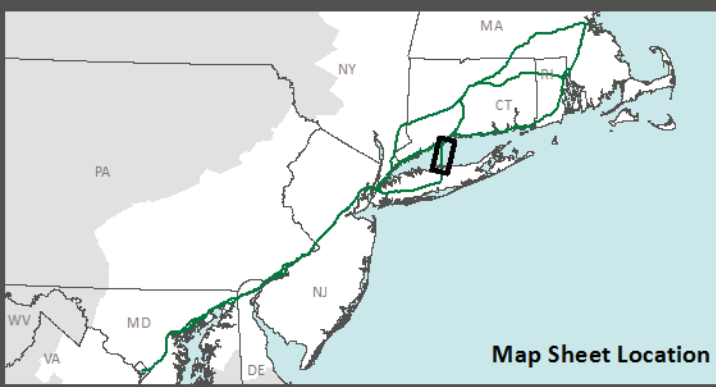
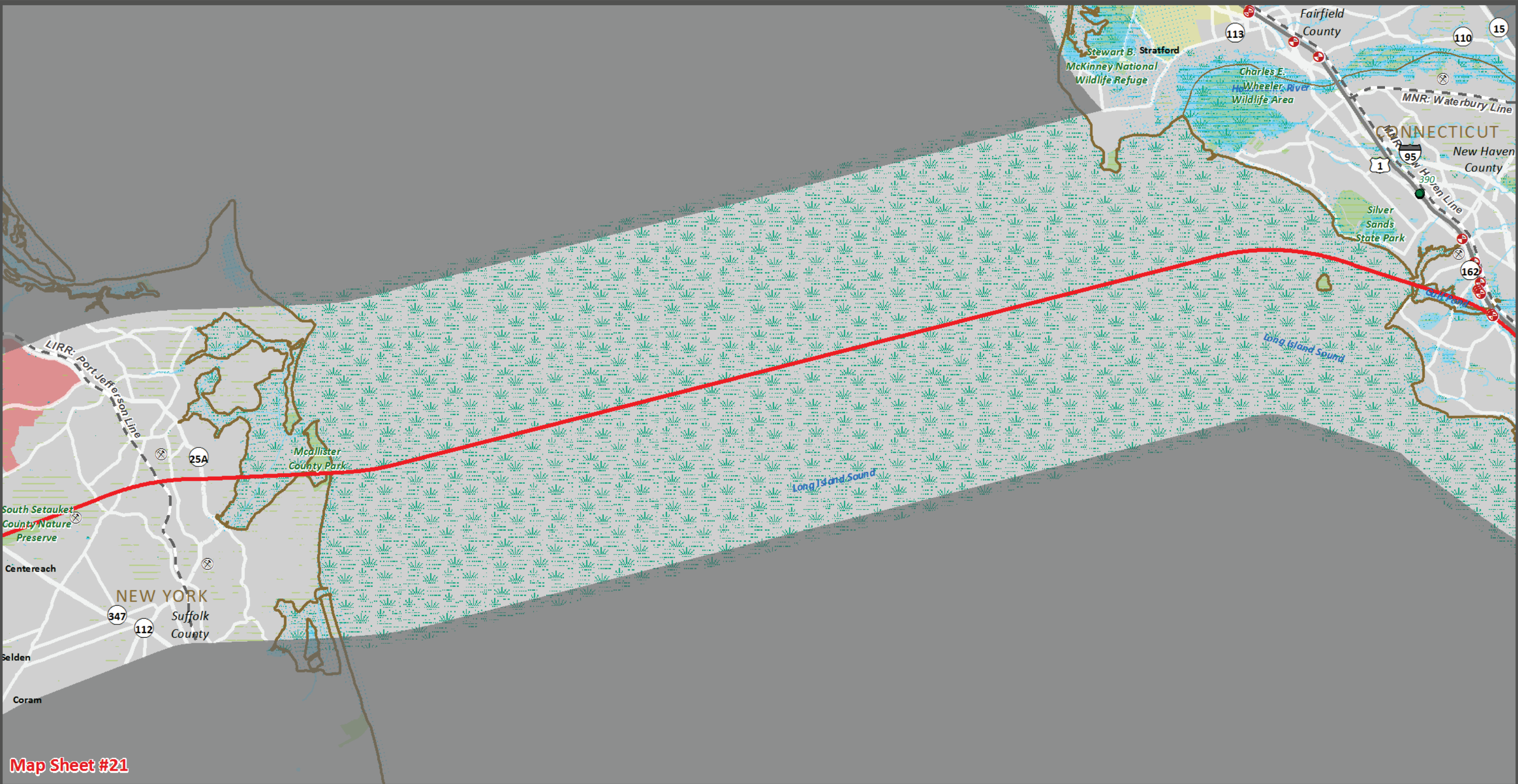
0 0.5 1 Mile

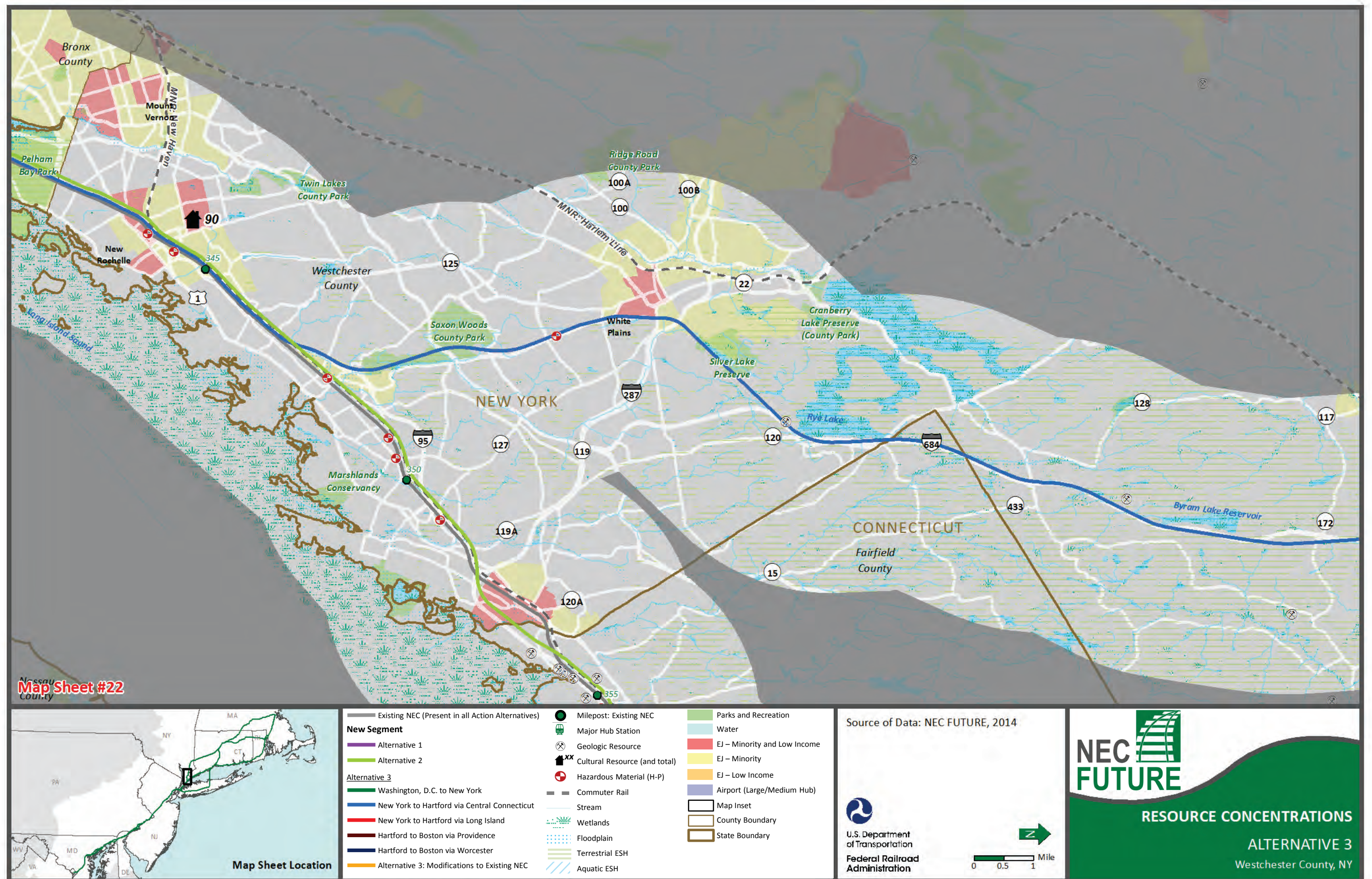
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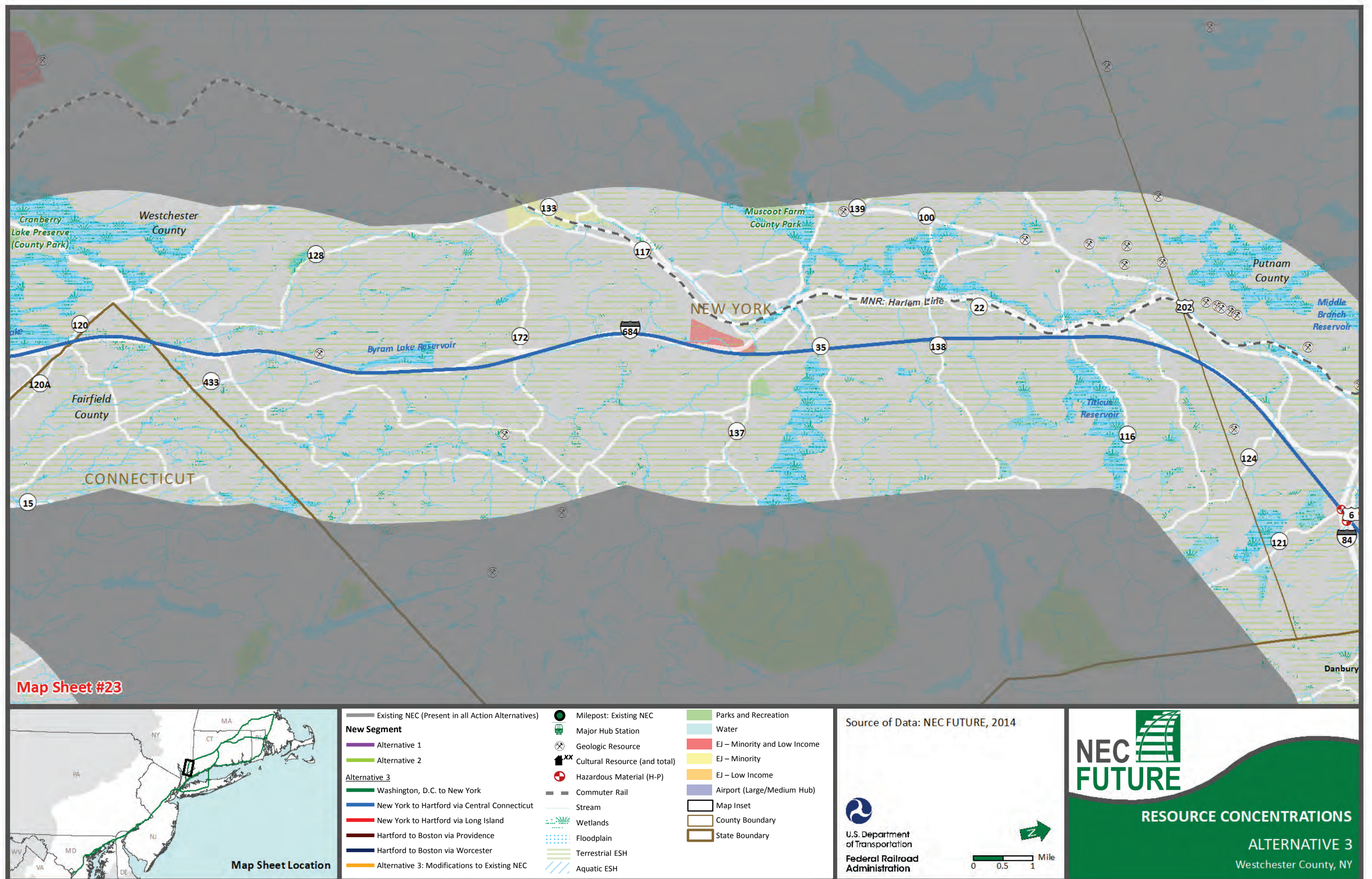
RESOURCE CONCENTRATIONS

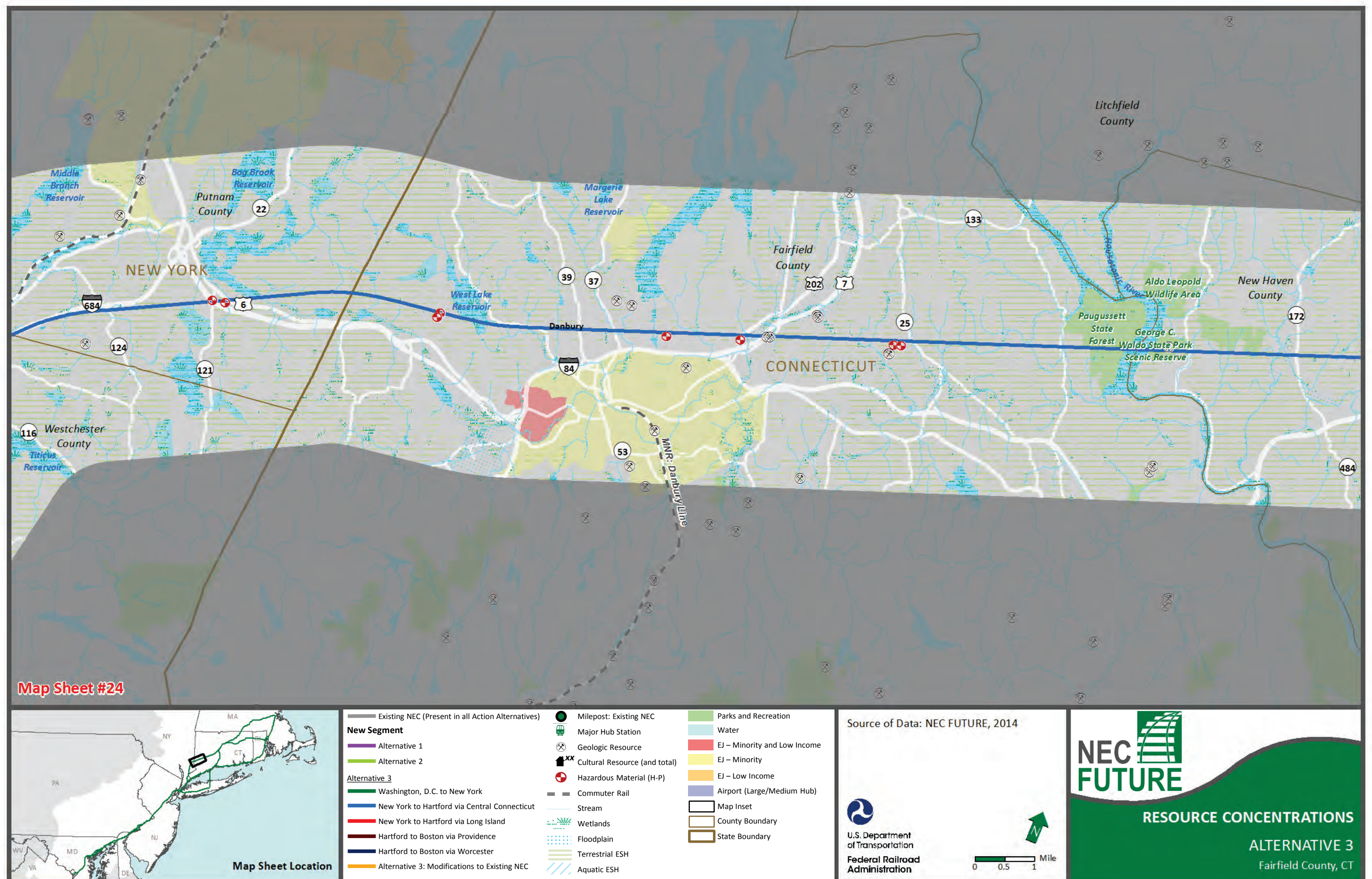
ALTERNATIVE 3

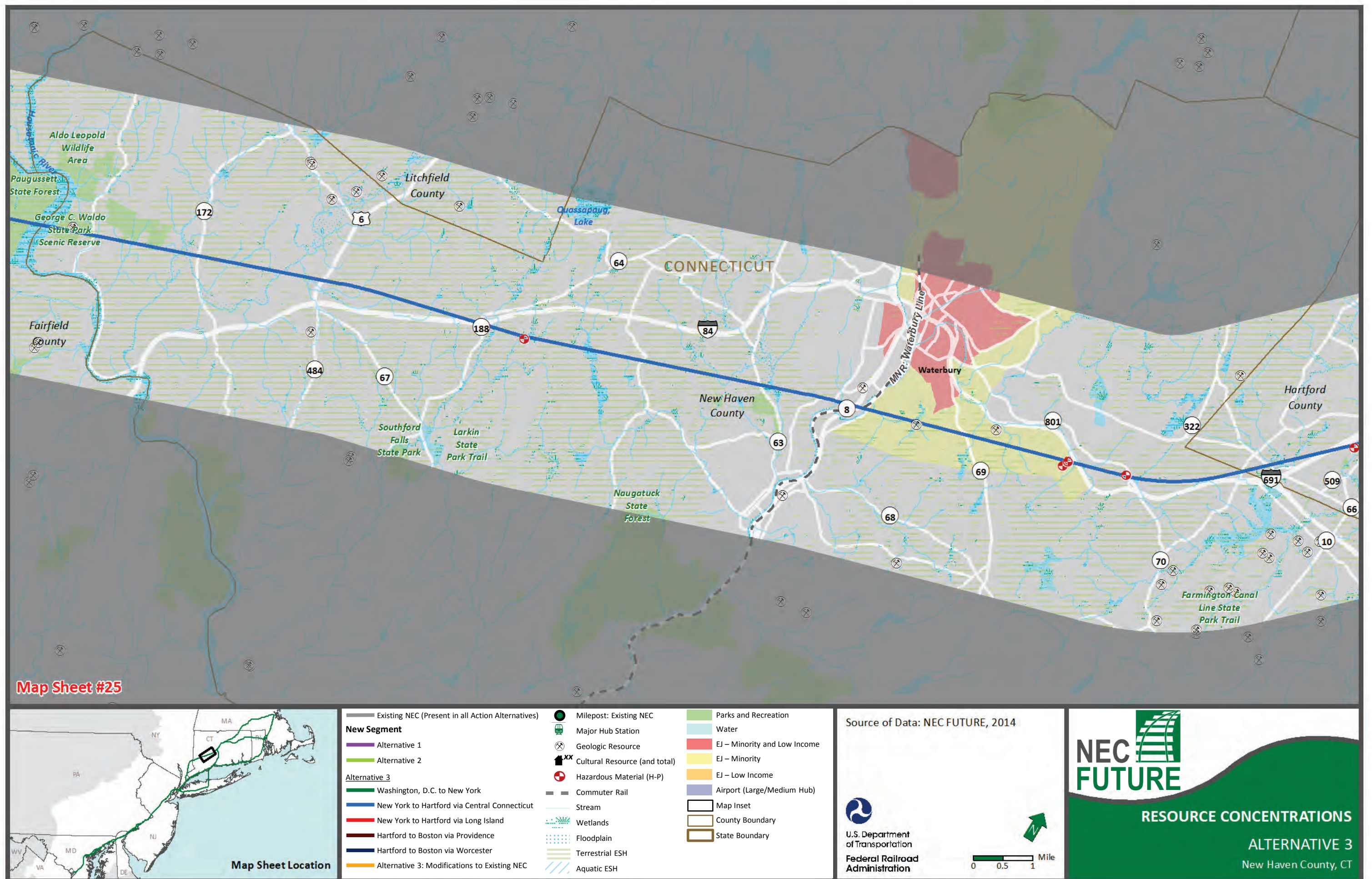
Suffolk County, NY

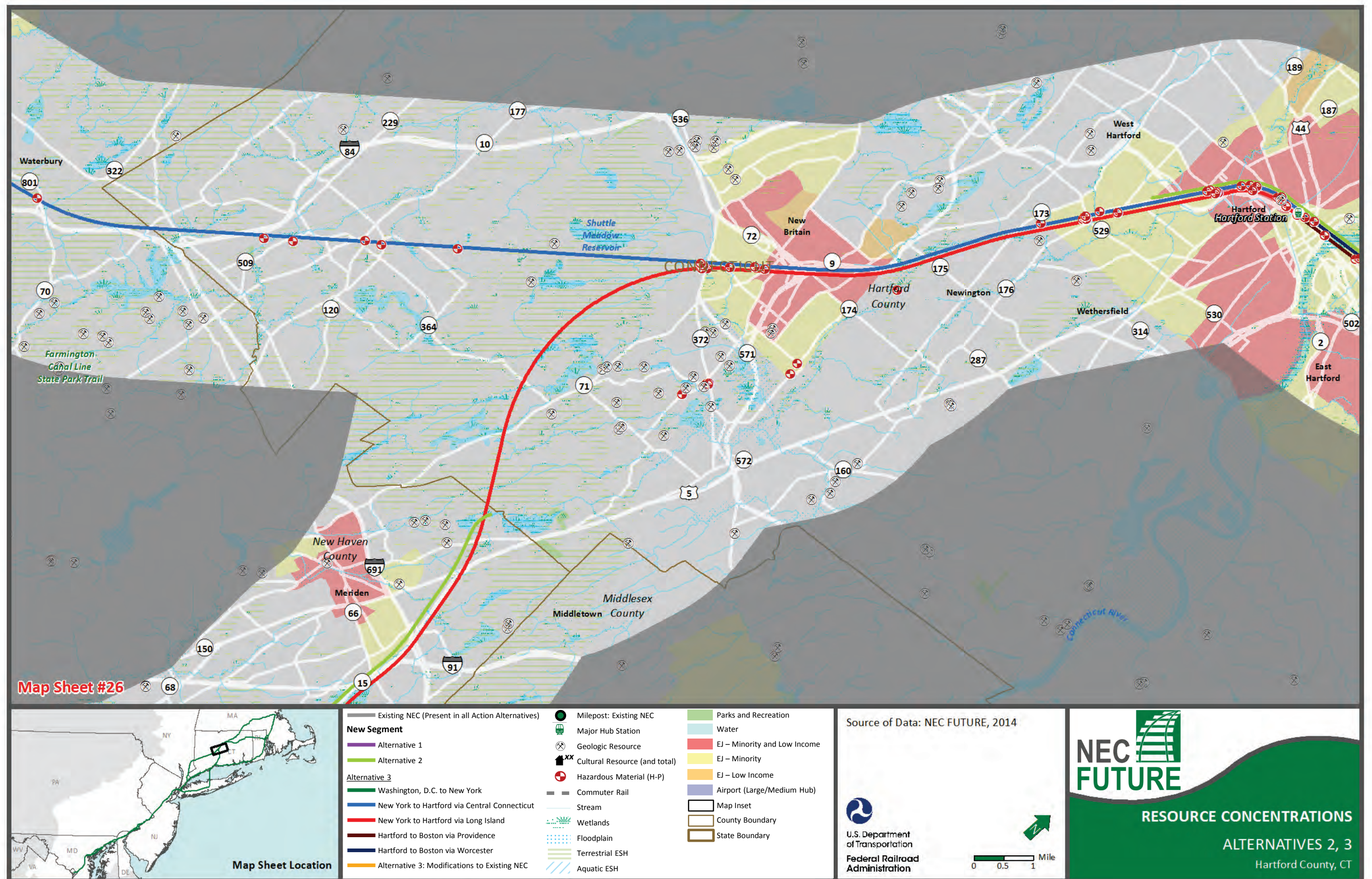


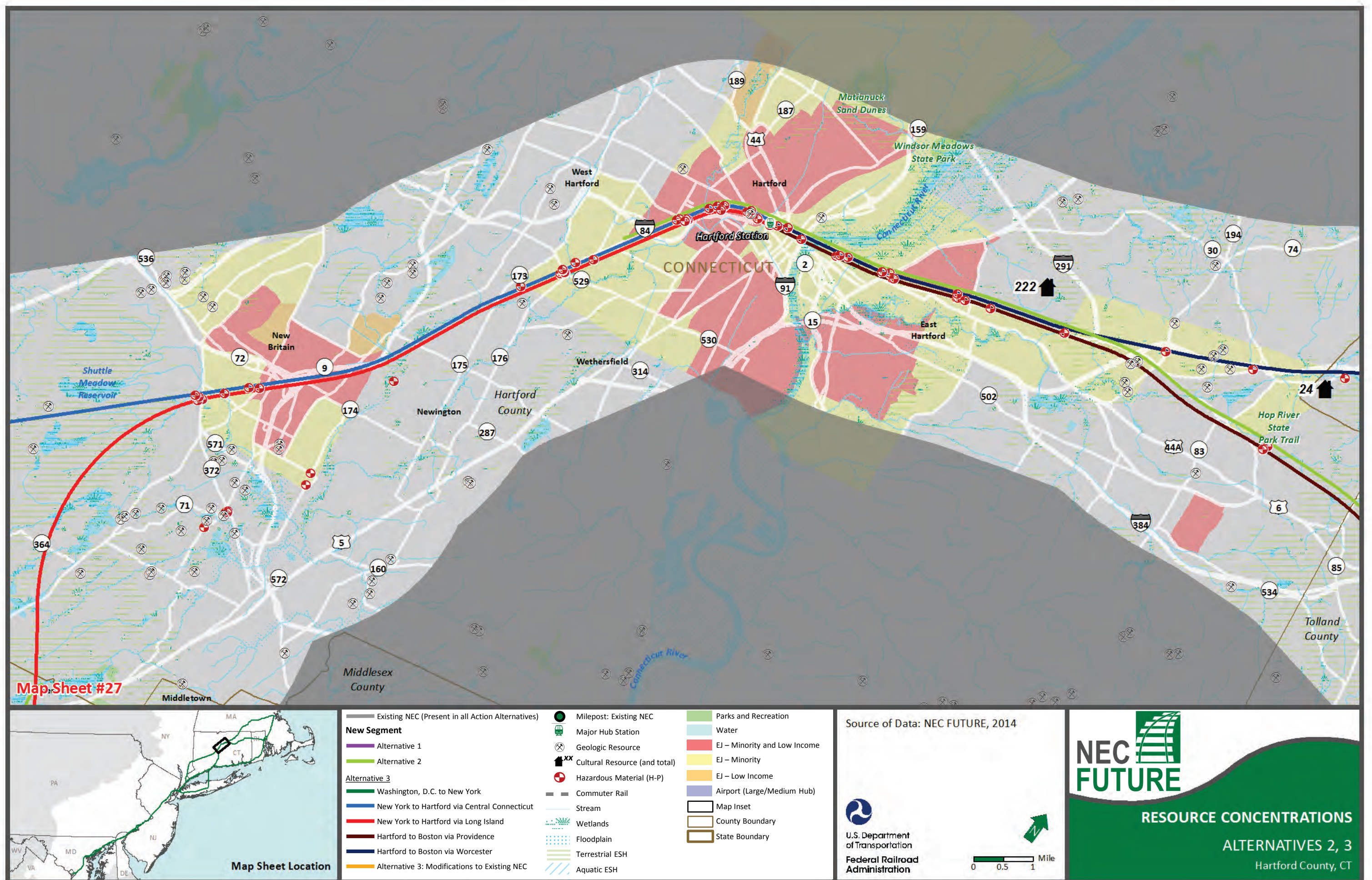


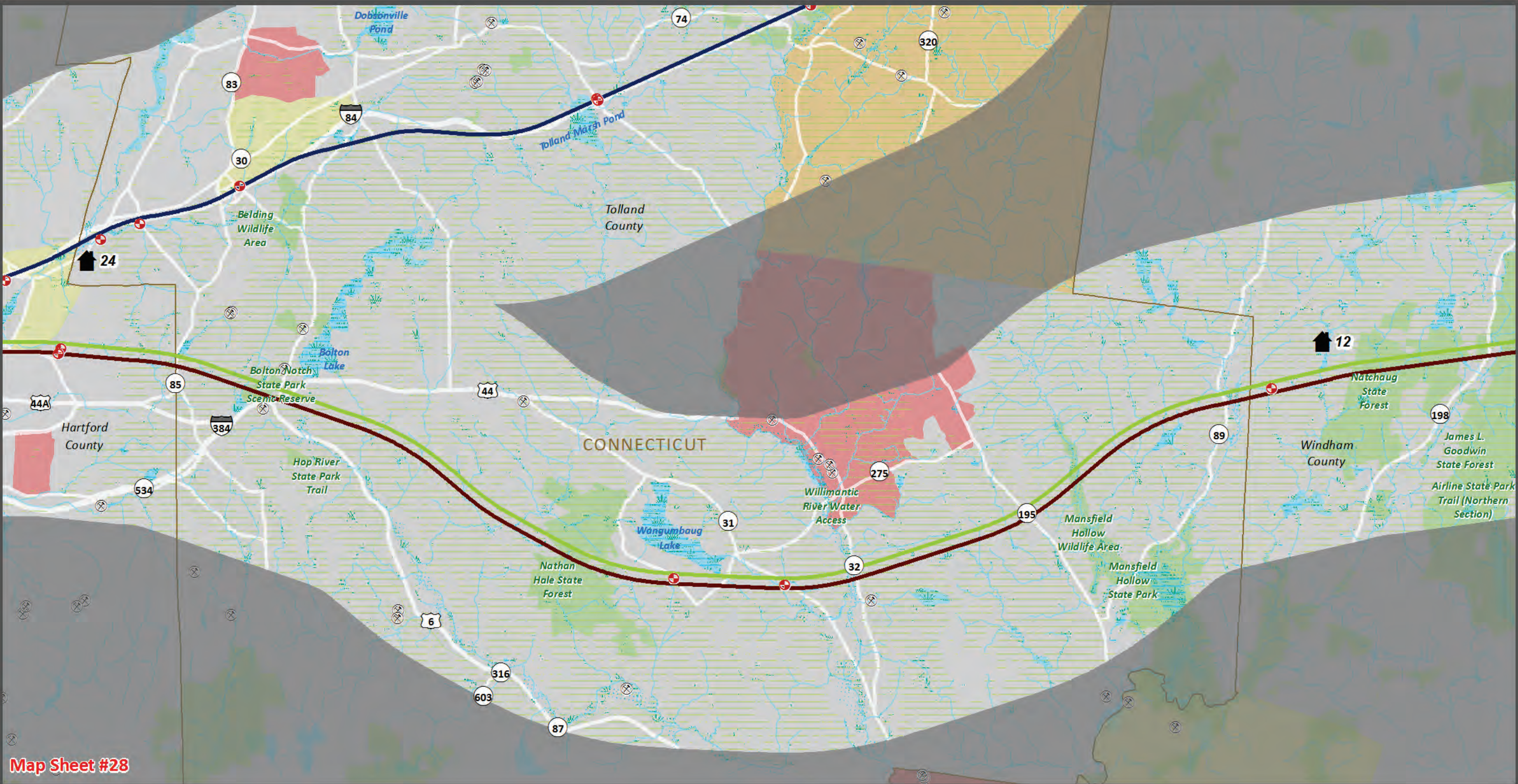




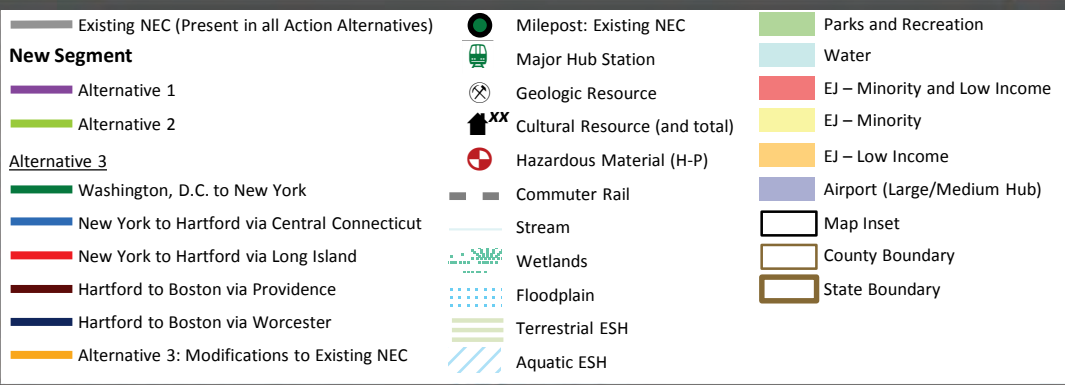
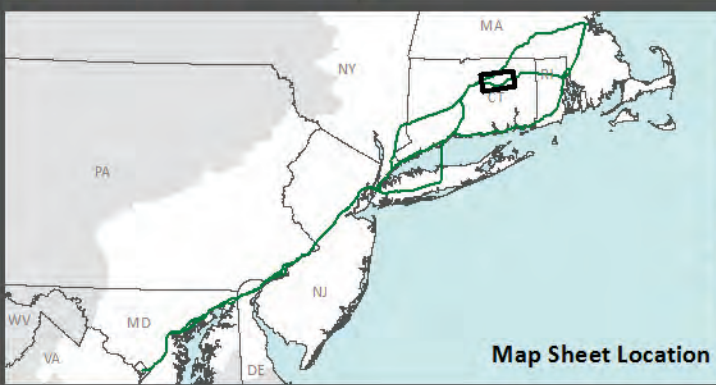




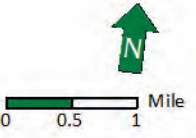




Map Sheet #28



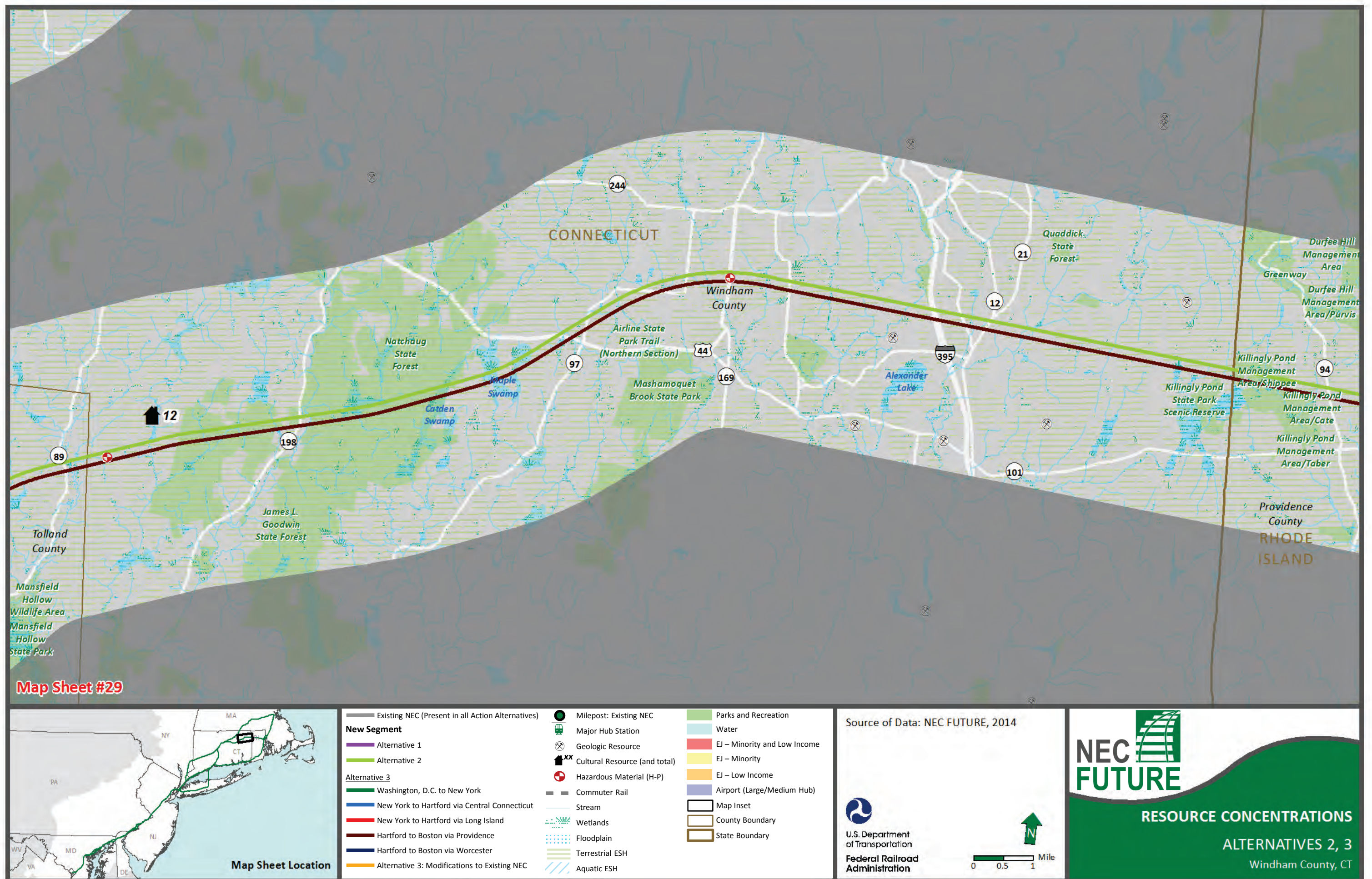
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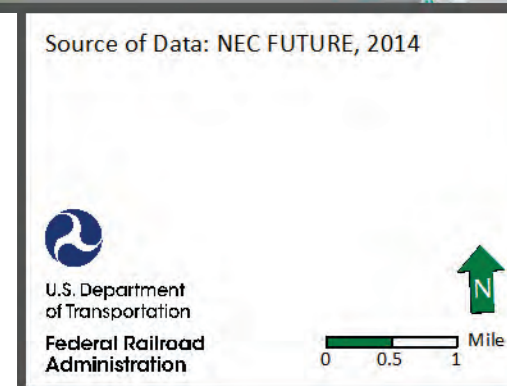
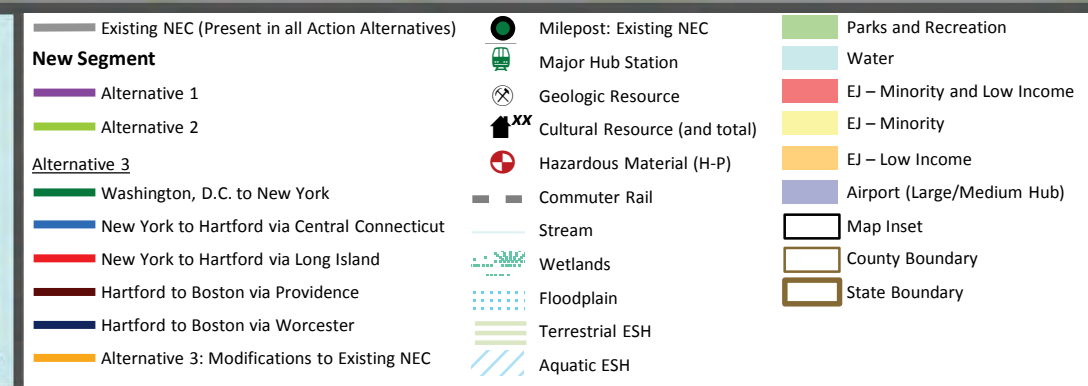
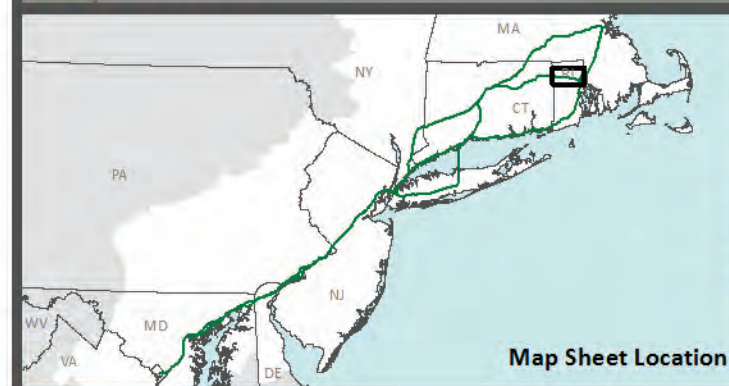


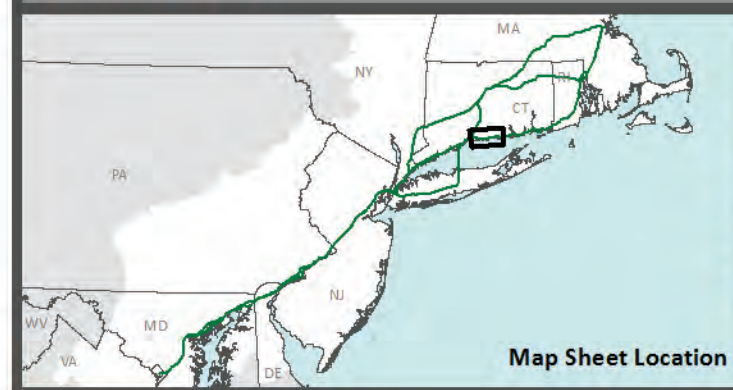
RESOURCE CONCENTRATIONS

ALTERNATIVES 2, 3

Tolland County, CT







<p>Existing NEC (Present in all Action Alternatives)</p> <p>New Segment</p> <p>Alternative 1</p> <p>Alternative 2</p> <p>Alternative 3</p> <p>Washington, D.C. to New York</p> <p>New York to Hartford via Central Connecticut</p> <p>New York to Hartford via Long Island</p> <p>Hartford to Boston via Providence</p> <p>Hartford to Boston via Worcester</p> <p>Alternative 3: Modifications to Existing NEC</p>	<p>Milepost: Existing NEC</p> <p>Major Hub Station</p> <p>Geologic Resource</p> <p>Cultural Resource (and total)</p> <p>Hazardous Material (H-P)</p> <p>Commuter Rail</p> <p>Stream</p> <p>Wetlands</p> <p>Floodplain</p> <p>Terrestrial ESH</p> <p>Aquatic ESH</p>	<p>Parks and Recreation</p> <p>Water</p> <p>EJ - Minority and Low Income</p> <p>EJ - Minority</p> <p>EJ - Low Income</p> <p>Airport (Large/Medium Hub)</p> <p>Map Inset</p> <p>County Boundary</p> <p>State Boundary</p>
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Source of Data: NEC FUTURE, 2014

U.S. Department of Transportation
Federal Railroad Administration

0 0.5 1 Mile

NEC FUTURE

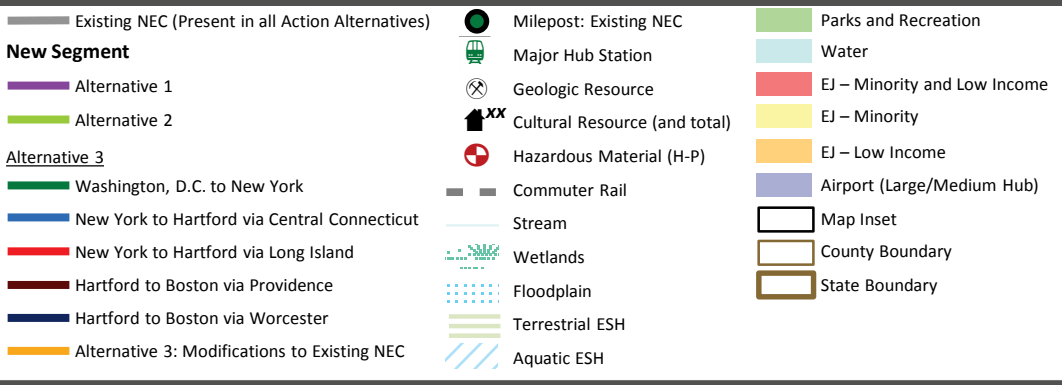
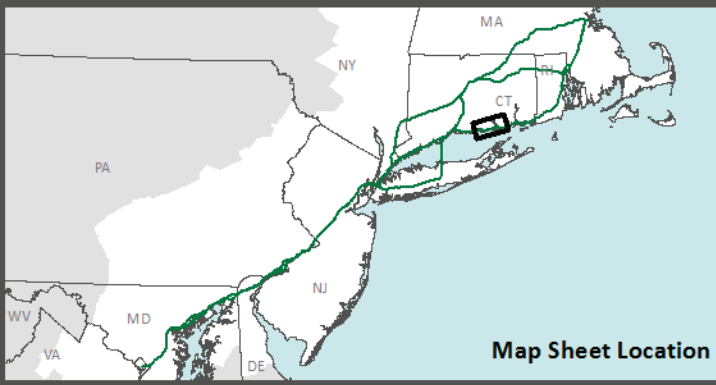
RESOURCE CONCENTRATIONS

ALTERNATIVES 1, 2, 3

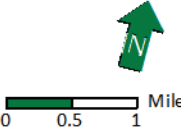
New Haven County, CT



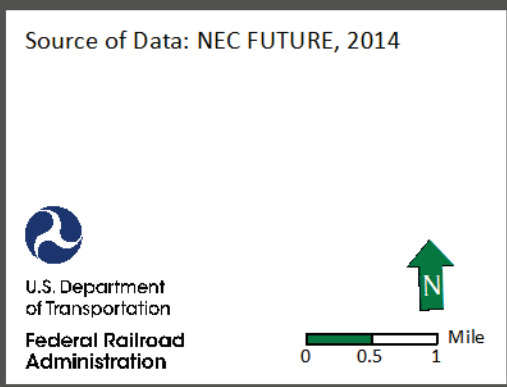
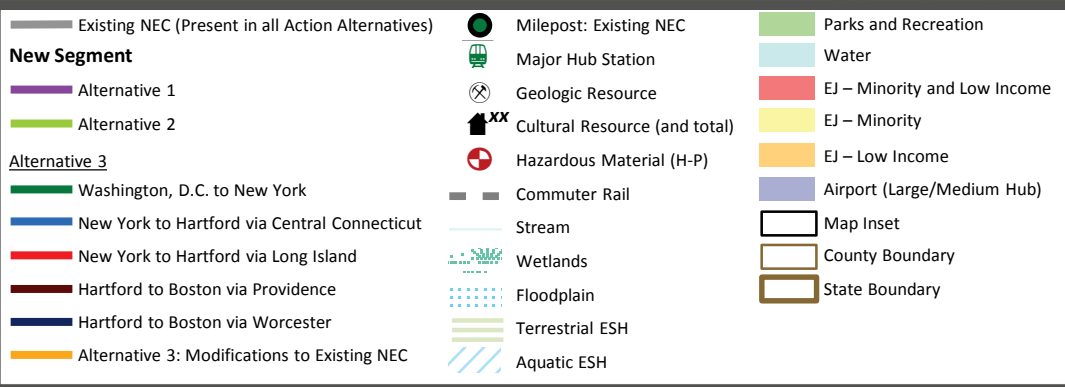
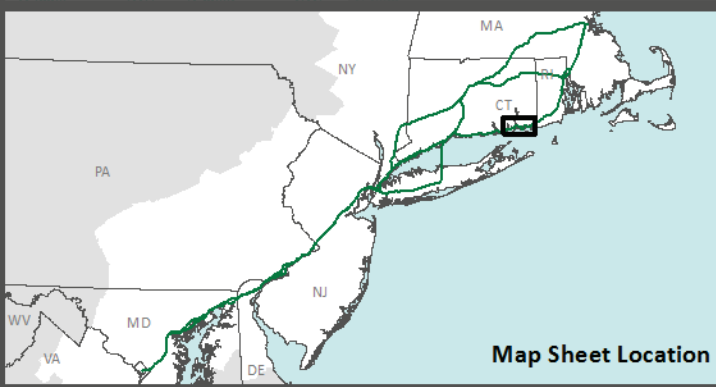
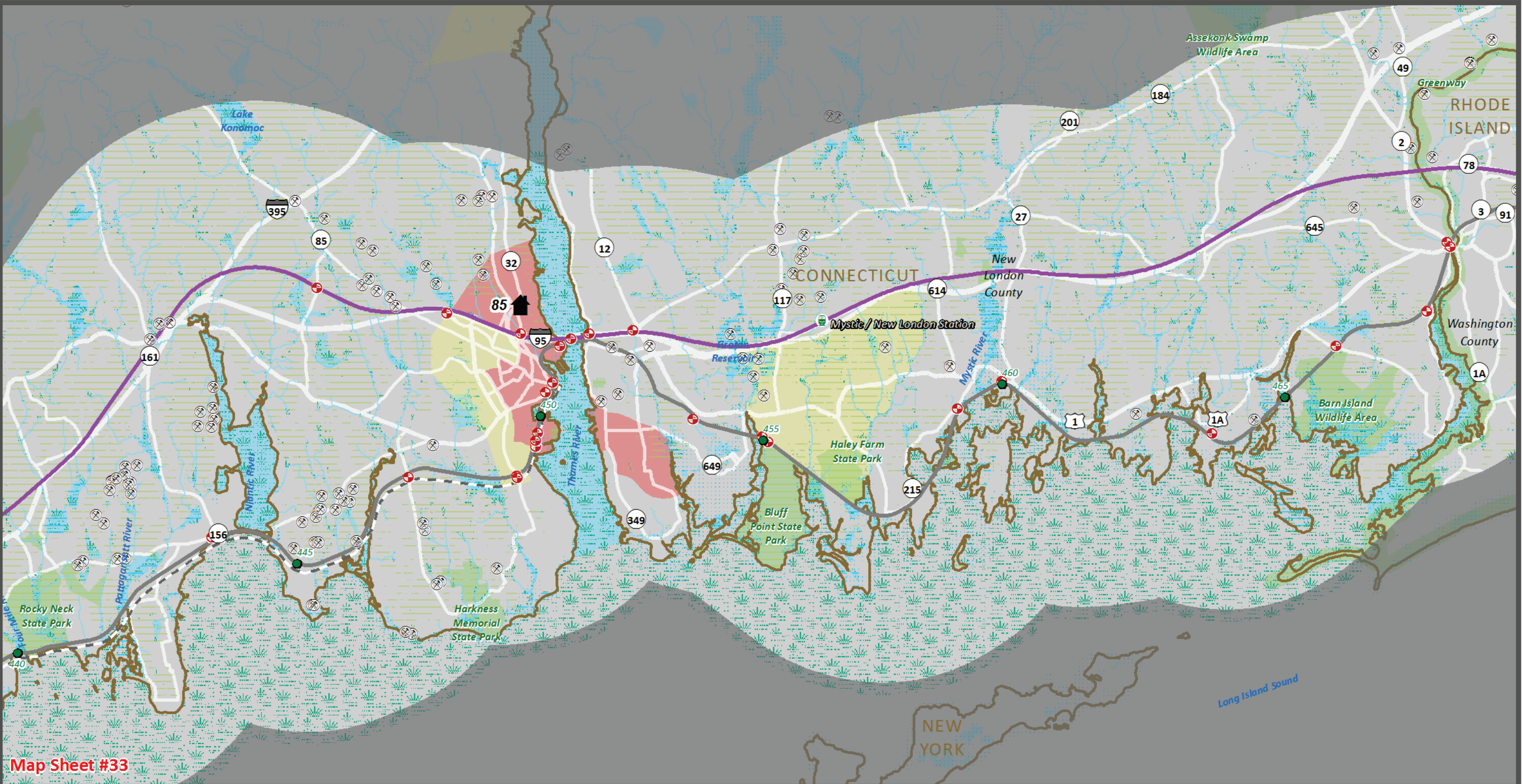
Map Sheet #32

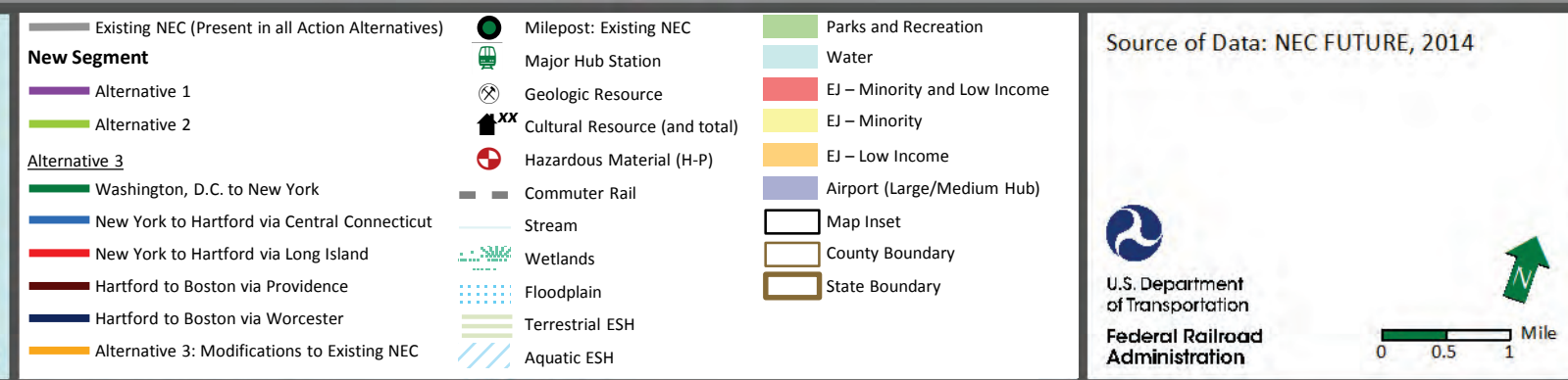
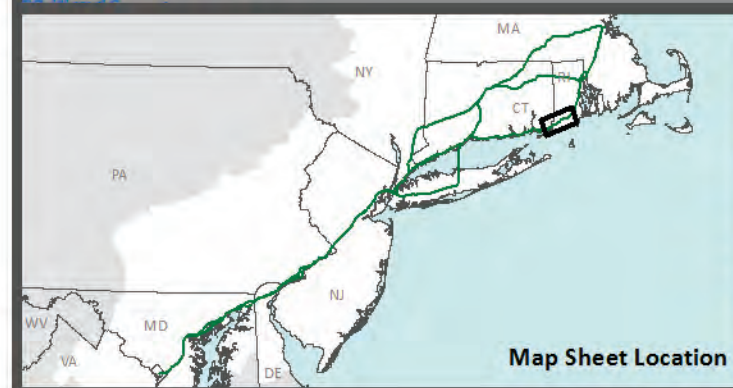
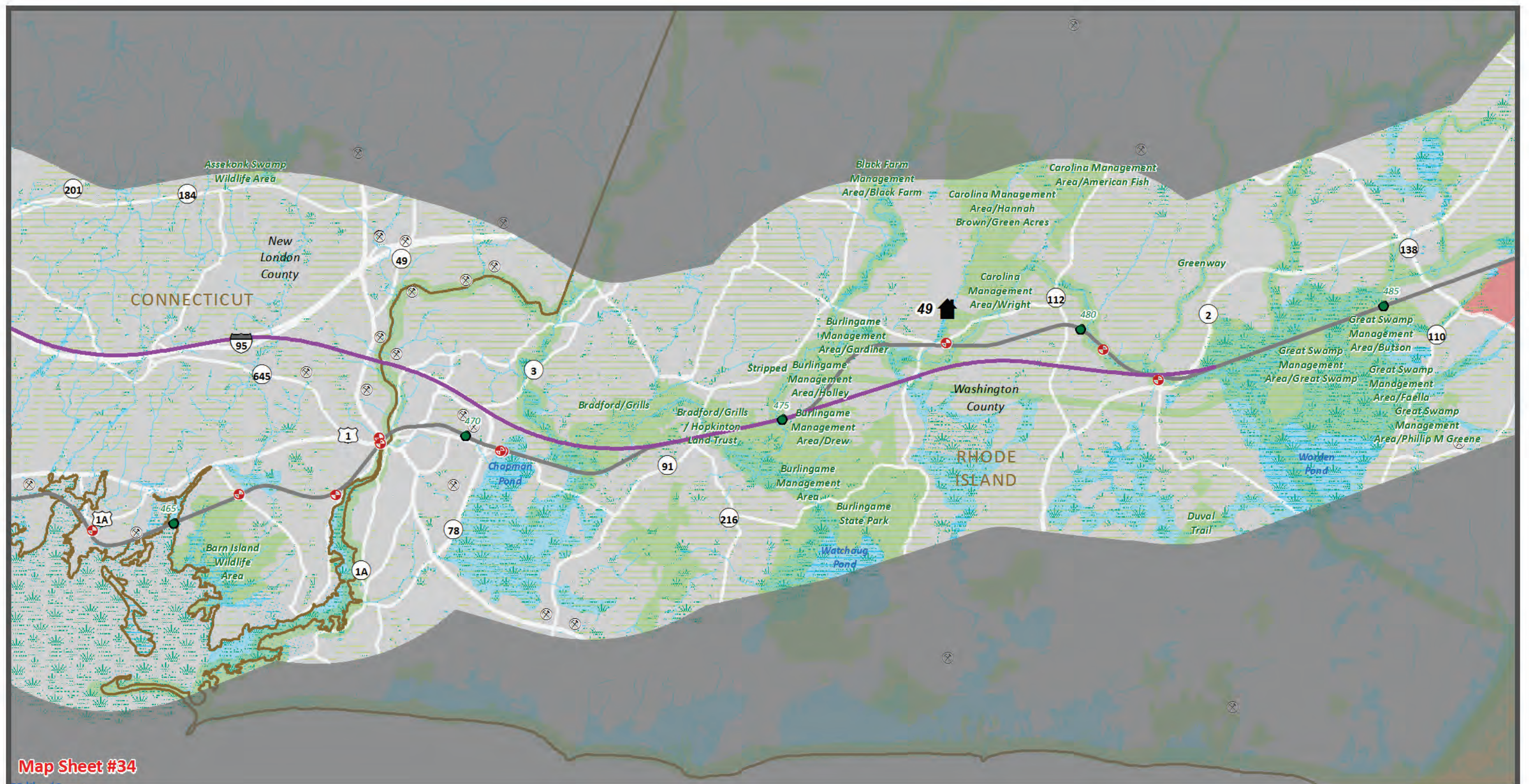


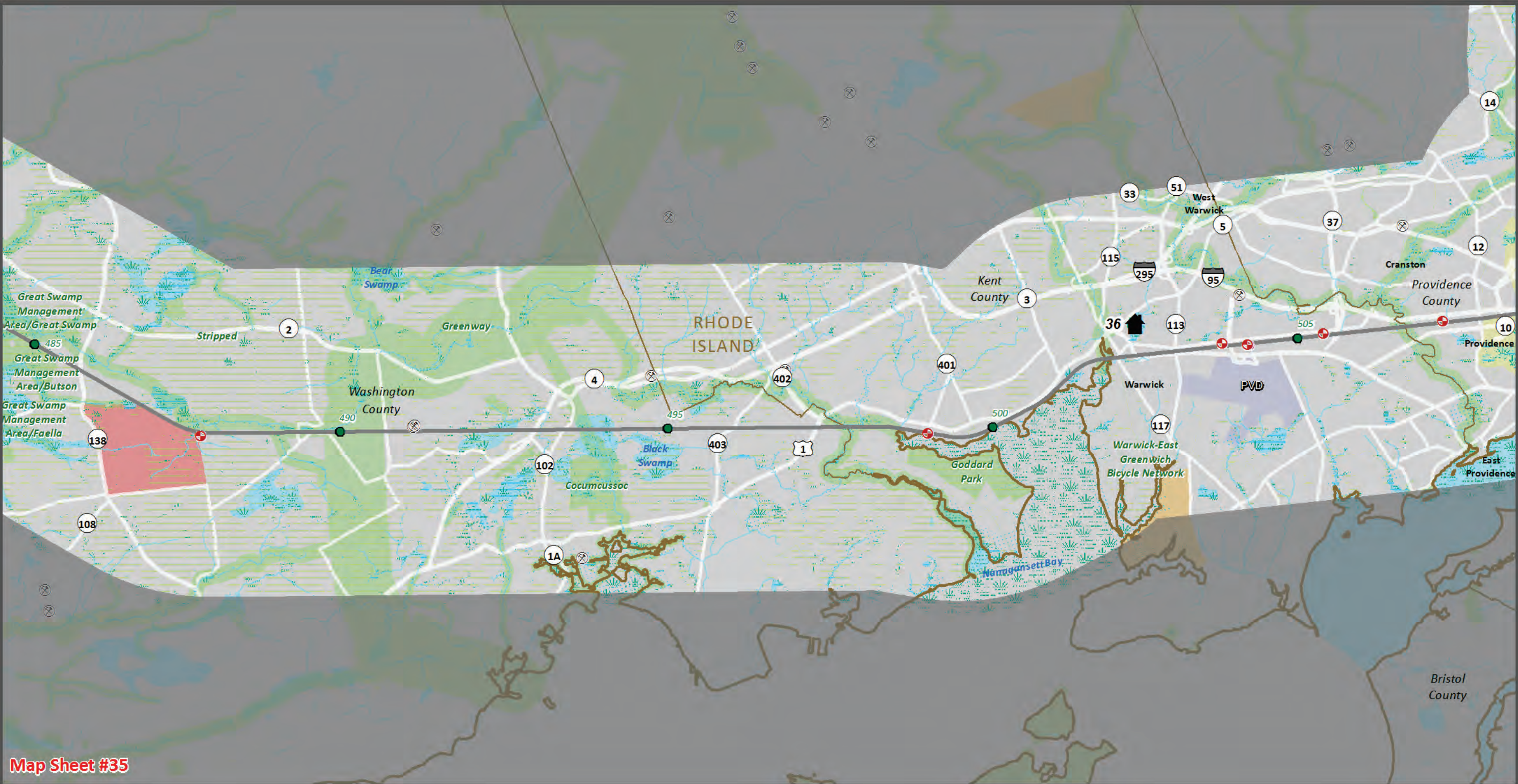
Source of Data: NEC FUTURE, 2014



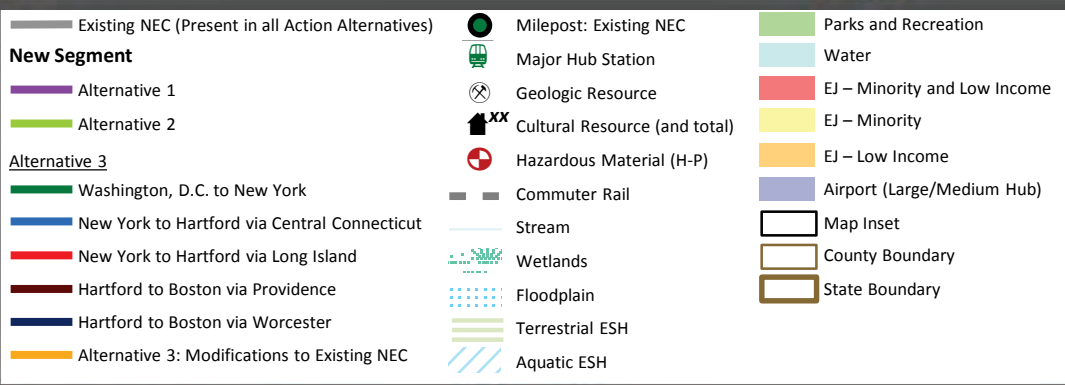
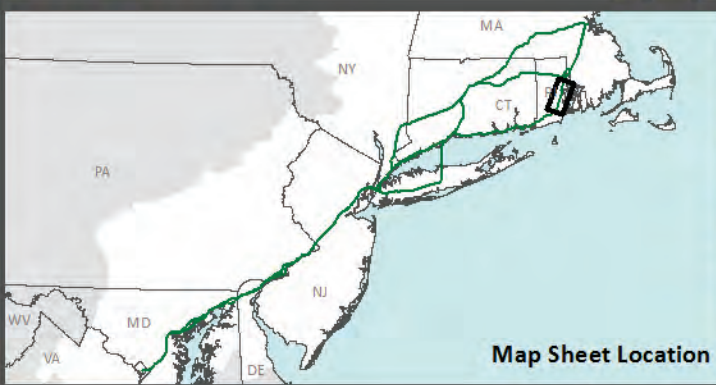
RESOURCE CONCENTRATIONS
ALTERNATIVES 1, 2, 3
Middlesex, New London County, CT



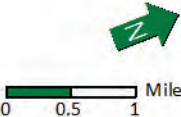


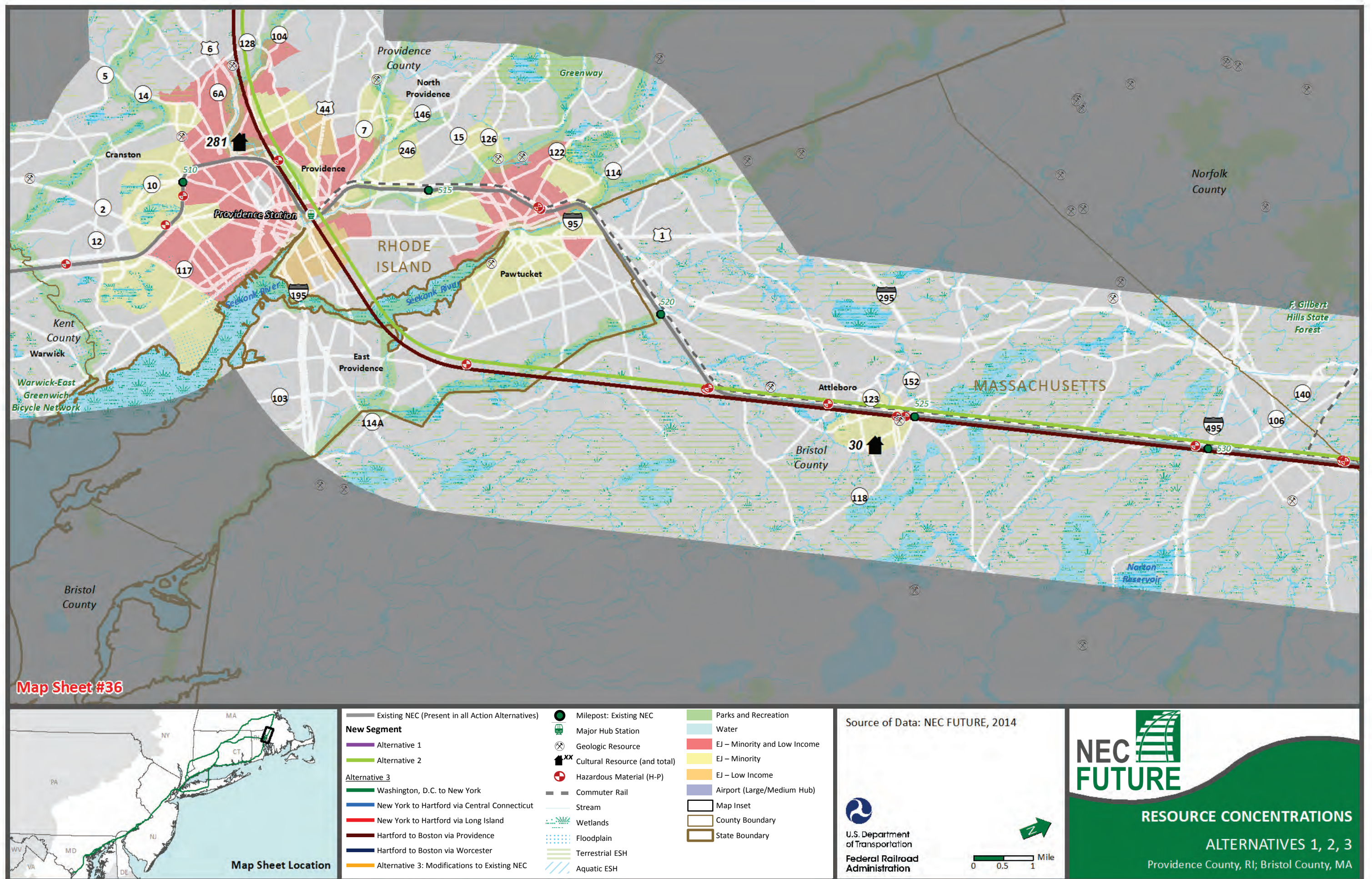


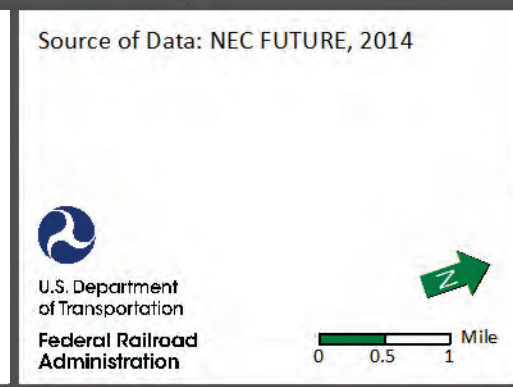
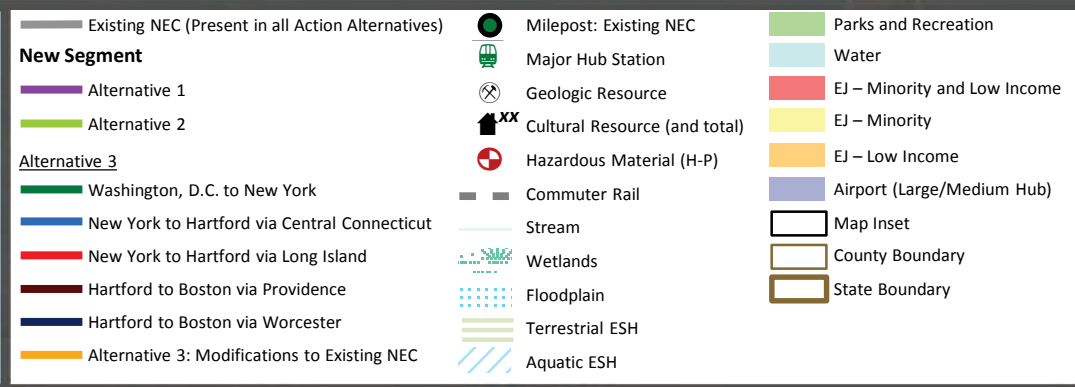
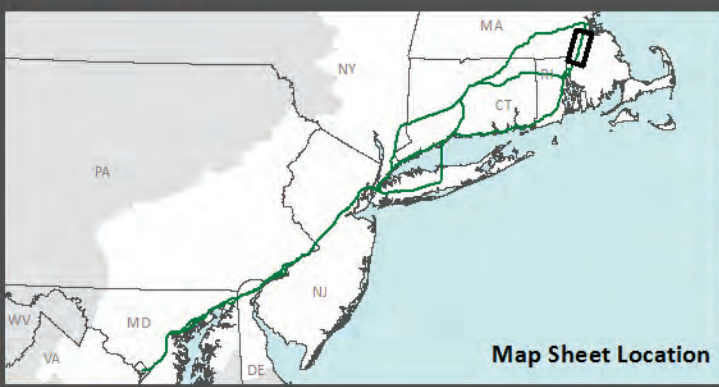
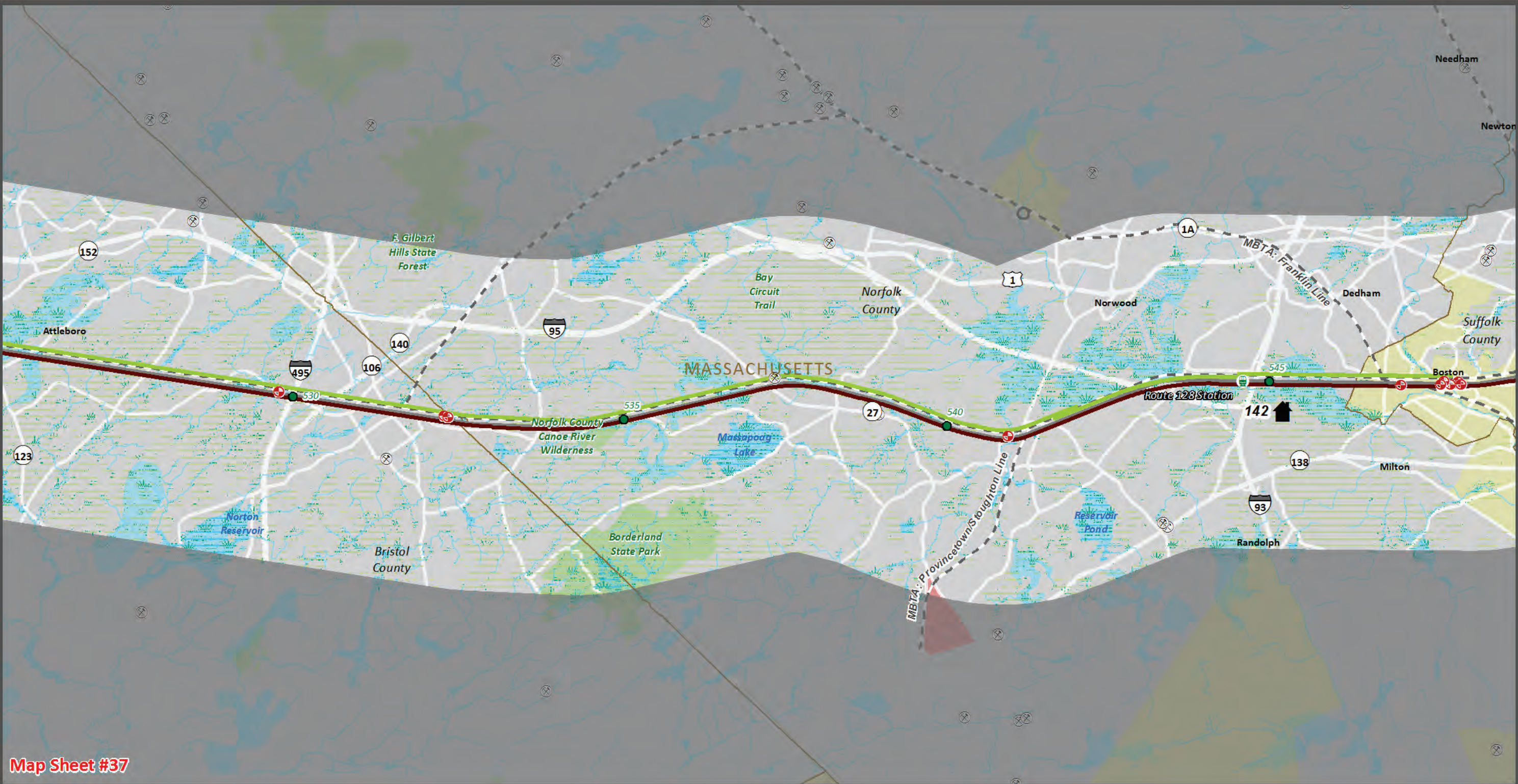
Map Sheet #35

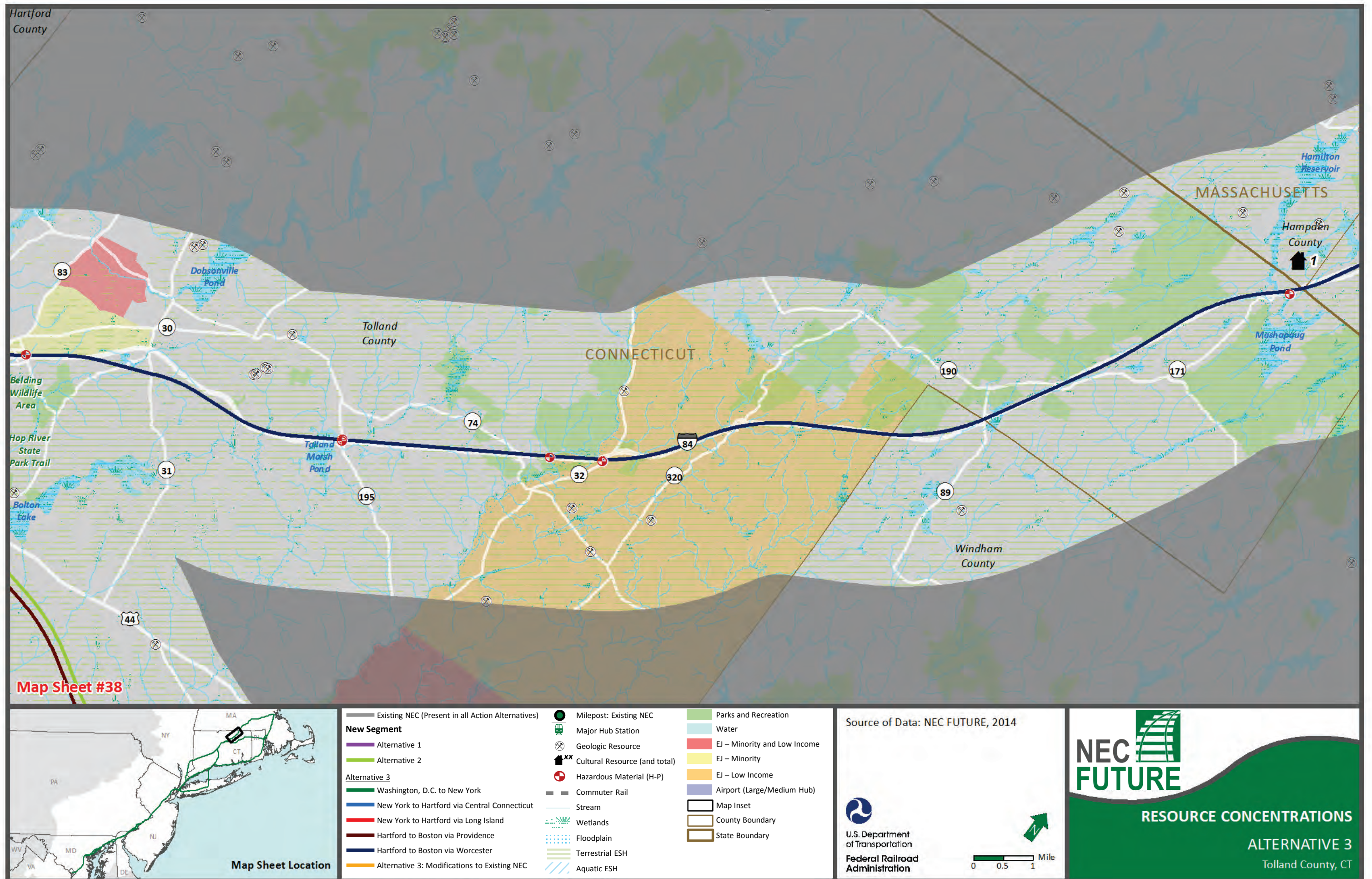


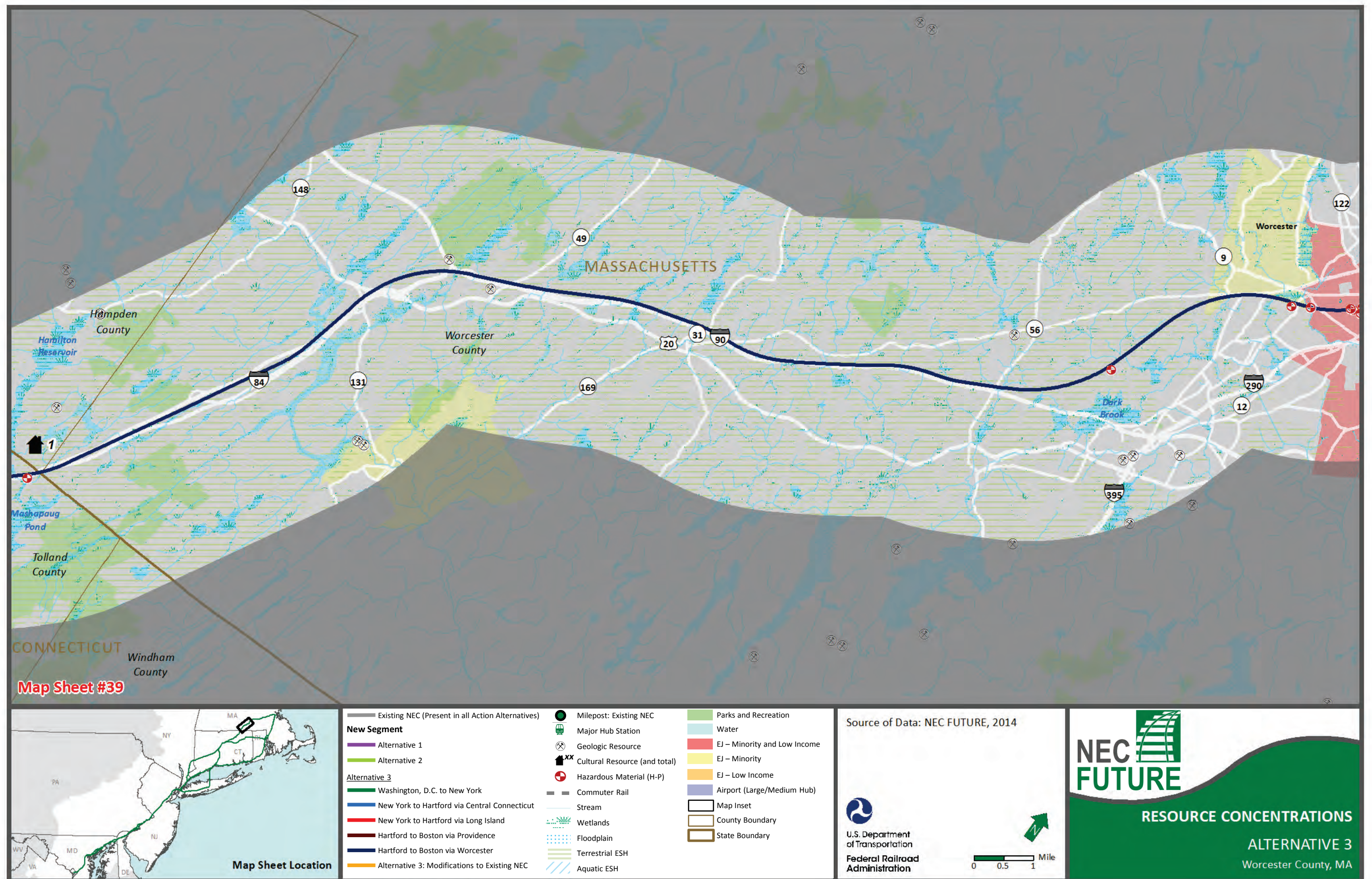
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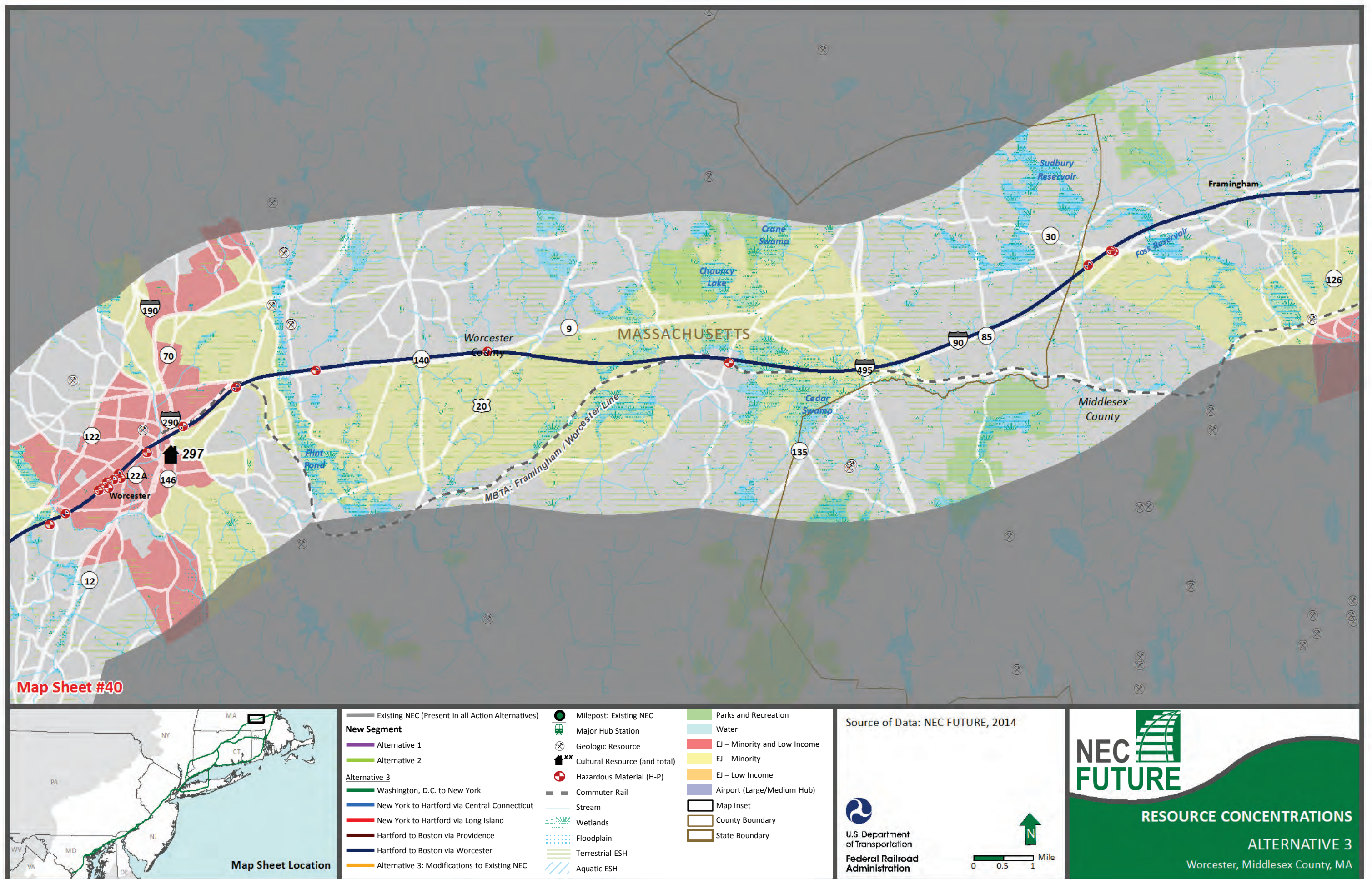












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TIER 1 DRAFT ENVIRONMENTAL IMPACT STATEMENT
APPENDIX A, MAPPING ATLAS

Part 2 Representative Route Mapping Atlas

Map Legend

Representative Route

Construction Type



Major Hub Station



Tunnel



Connecting Corridor



Trench



State Boundary



At-Grade



Interstate Highway



Embankment



US Highway



Aerial Structure



State/County Highway



Major Bridge



County Boundary

Index of Map Sheets

Alternative	Sheet #	Regional Location
1	1	Washington, D.C., Maryland, Delaware
1	2	Pennsylvania, New Jersey
1	3	New Jersey, New York, Connecticut
1	4	New York, Connecticut, Rhode Island
1	5	Connecticut, Rhode Island, Massachusetts
2	1	Washington, D.C., Maryland, Delaware
2	2	Pennsylvania, New Jersey
2	3	New Jersey, New York, Connecticut
2	4	New York, Connecticut, Rhode Island
2	5	Connecticut, Rhode Island, Massachusetts
3	1	Washington, D.C., Maryland, Delaware
3	2	Pennsylvania, New Jersey
3	3	New Jersey, New York, Connecticut
3	4	New York, Connecticut, Rhode Island
3	5	Connecticut, Rhode Island, Massachusetts

General Notes

This Mapping Atlas depicts the Representative Route, by construction type, for each Action Alternative presented in the NEC FUTURE Tier 1 DEIS. The Representative Route is inclusive of the existing NEC.

The “Alternative” column in the *Index of Map Sheets* indicates the Action Alternative that is represented in that particular map sheet. The map sheet index presented below is applicable to all three Action Alternatives.

Map Sheet Index



Existing NEC Ownership

- **Amtrak:** Washington Union Station to New Rochelle, NY
- **Metro-North Railroad:** New Rochelle, NY to New York/Connecticut state border
- **Connecticut DOT:** New York/Connecticut state border to Mill River, east of New Haven Station
- **Amtrak:** Mill River to Rhode Island/Massachusetts state border
- **Massachusetts:** Rhode Island/Massachusetts state border to Boston South Station

Ownership of the existing NEC is depicted in the Map Sheet Index Below.

Date	Version Number	Revision
September 15, 2015	1.0	Initial Version to ENV
September 21, 2015	1.1	Response to RAS
September 22, 2015	1.2	Response to FRA/ JV Legal Review (1)
September 28, 2015	1.3	Existing NEC ownership
September 30, 2015	1.4	Appendix Name
	Final Draft version	

Source of Representative Route Data: NEC FUTURE, 2014.



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of Transportation
**Federal Railroad
Administration**



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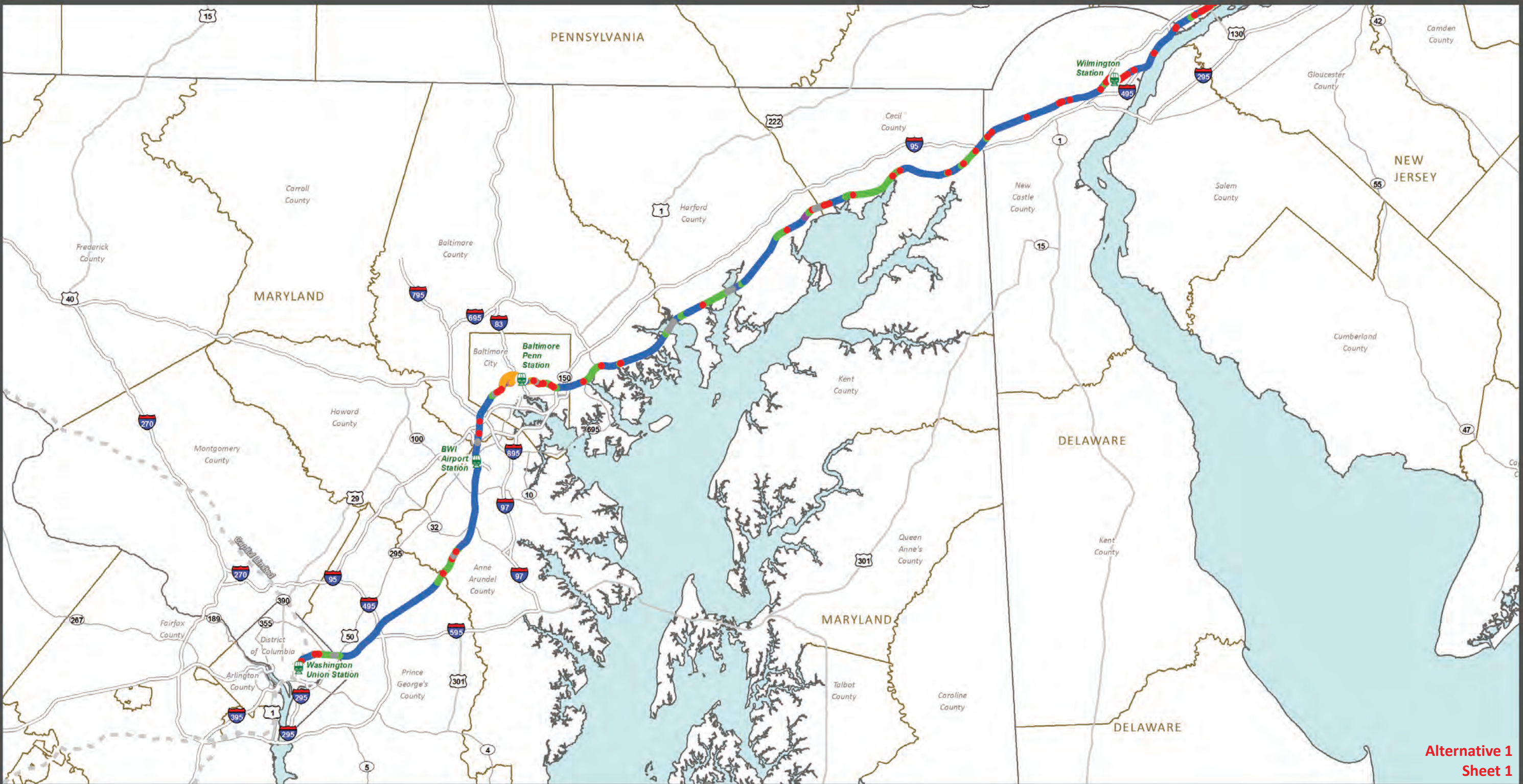
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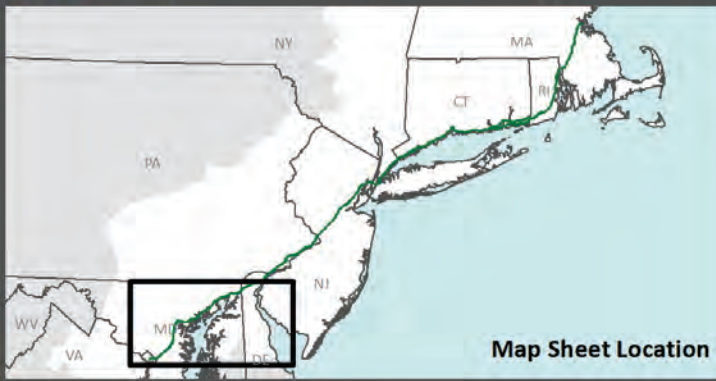
U.S. Department
of Transportation
**Federal Railroad
Administration**



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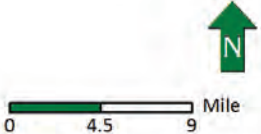


Alternative 1
Sheet 1



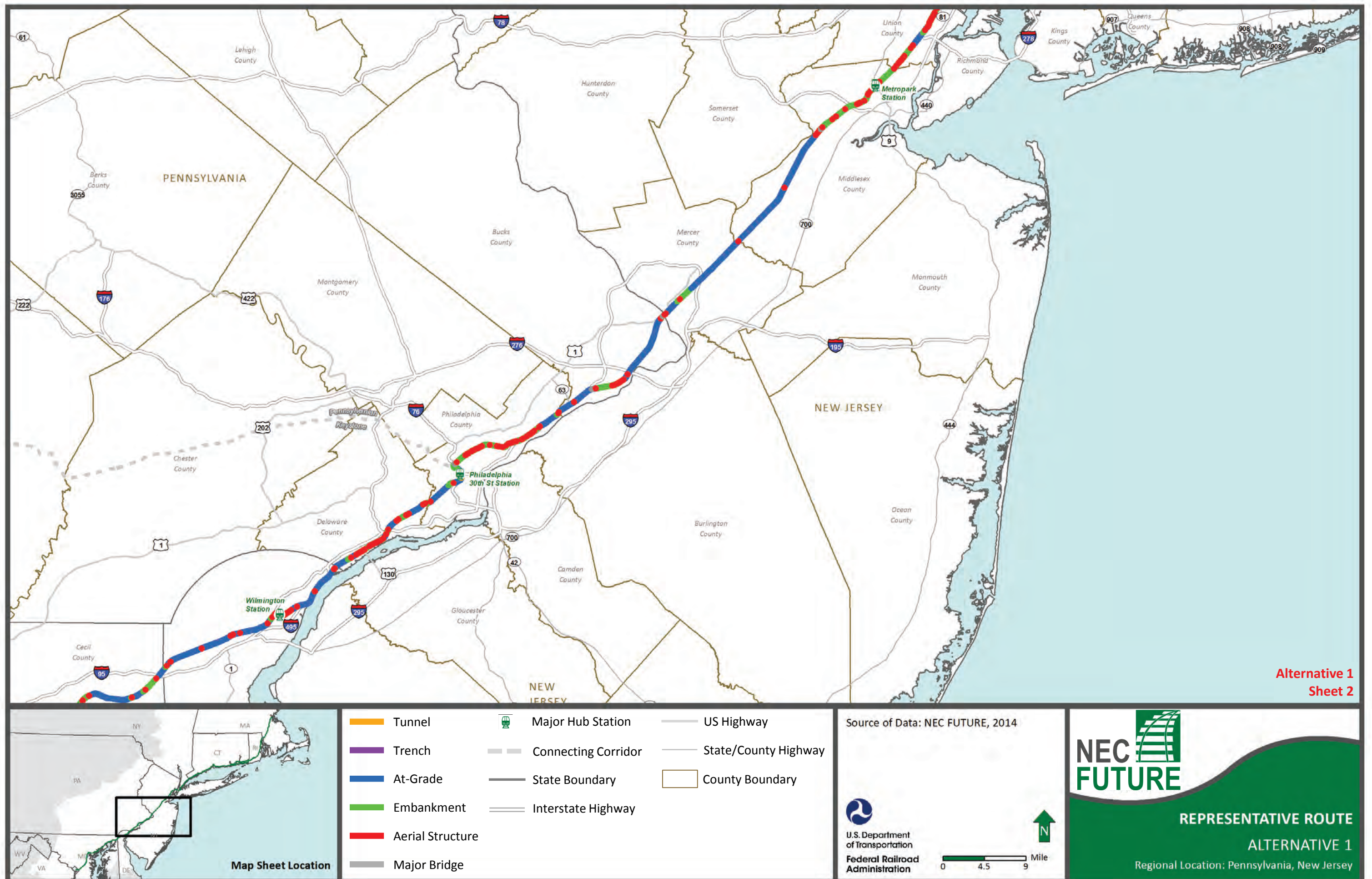
- | | | |
|------------------|---------------------|----------------------|
| Tunnel | Major Hub Station | US Highway |
| Trench | Connecting Corridor | State/County Highway |
| At-Grade | State Boundary | County Boundary |
| Embankment | Interstate Highway | |
| Aerial Structure | | |
| Major Bridge | | |

Source of Data: NEC FUTURE, 2014



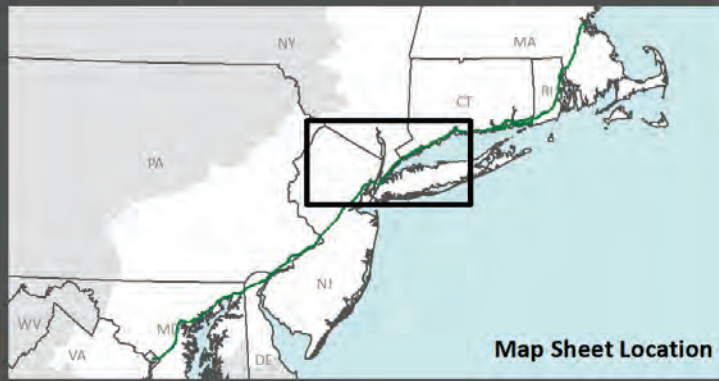
REPRESENTATIVE ROUTE
ALTERNATIVE 1

Regional Location: Washington, D.C., Maryland, Delaware





Alternative 1
Sheet 3



Map Sheet Location

Tunnel	Major Hub Station	US Highway
Trench	Connecting Corridor	State/County Highway
At-Grade	State Boundary	County Boundary
Embankment	Interstate Highway	
Aerial Structure		
Major Bridge		

Source of Data: NEC FUTURE, 2014

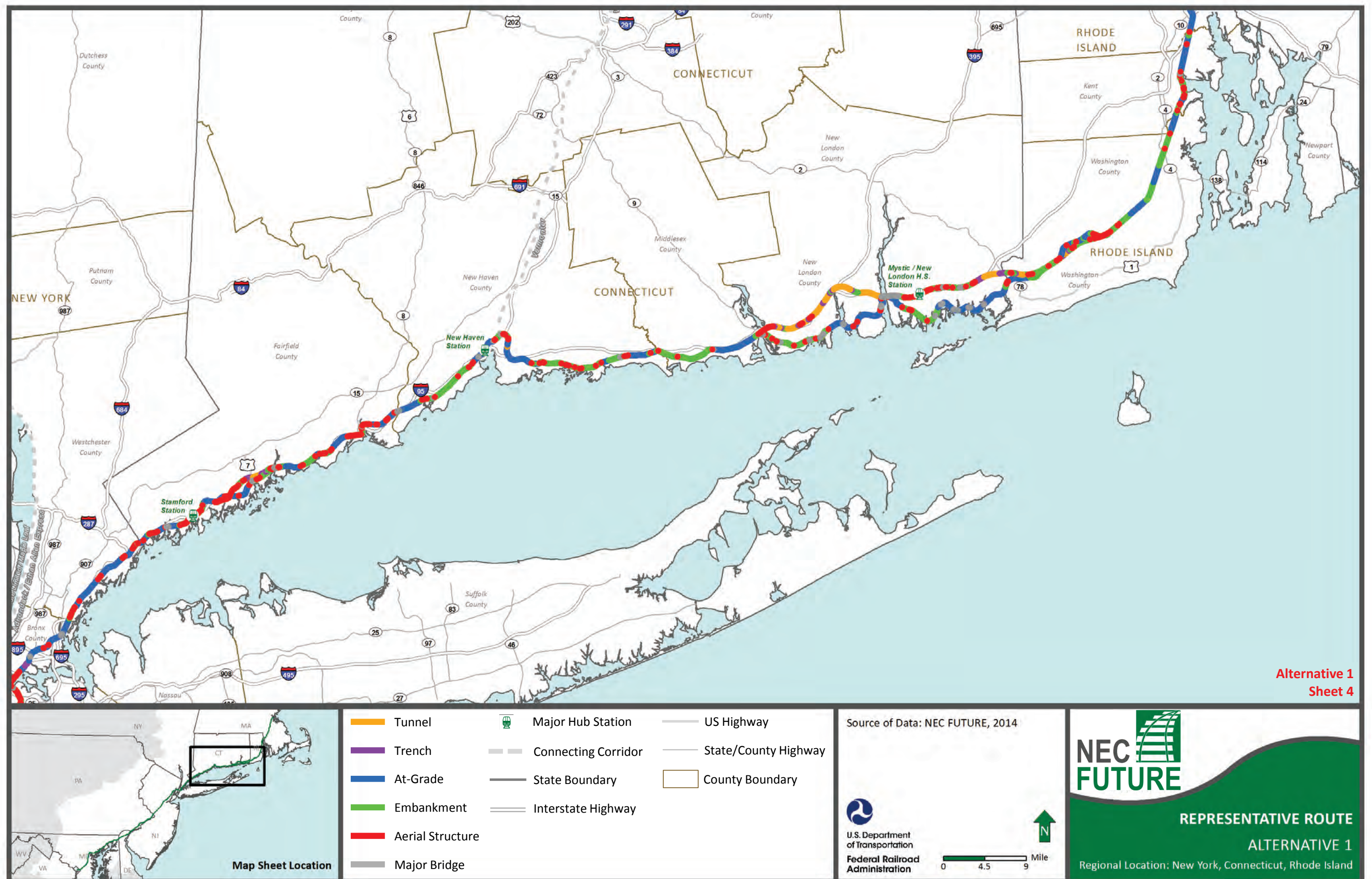
U.S. Department of Transportation
Federal Railroad Administration

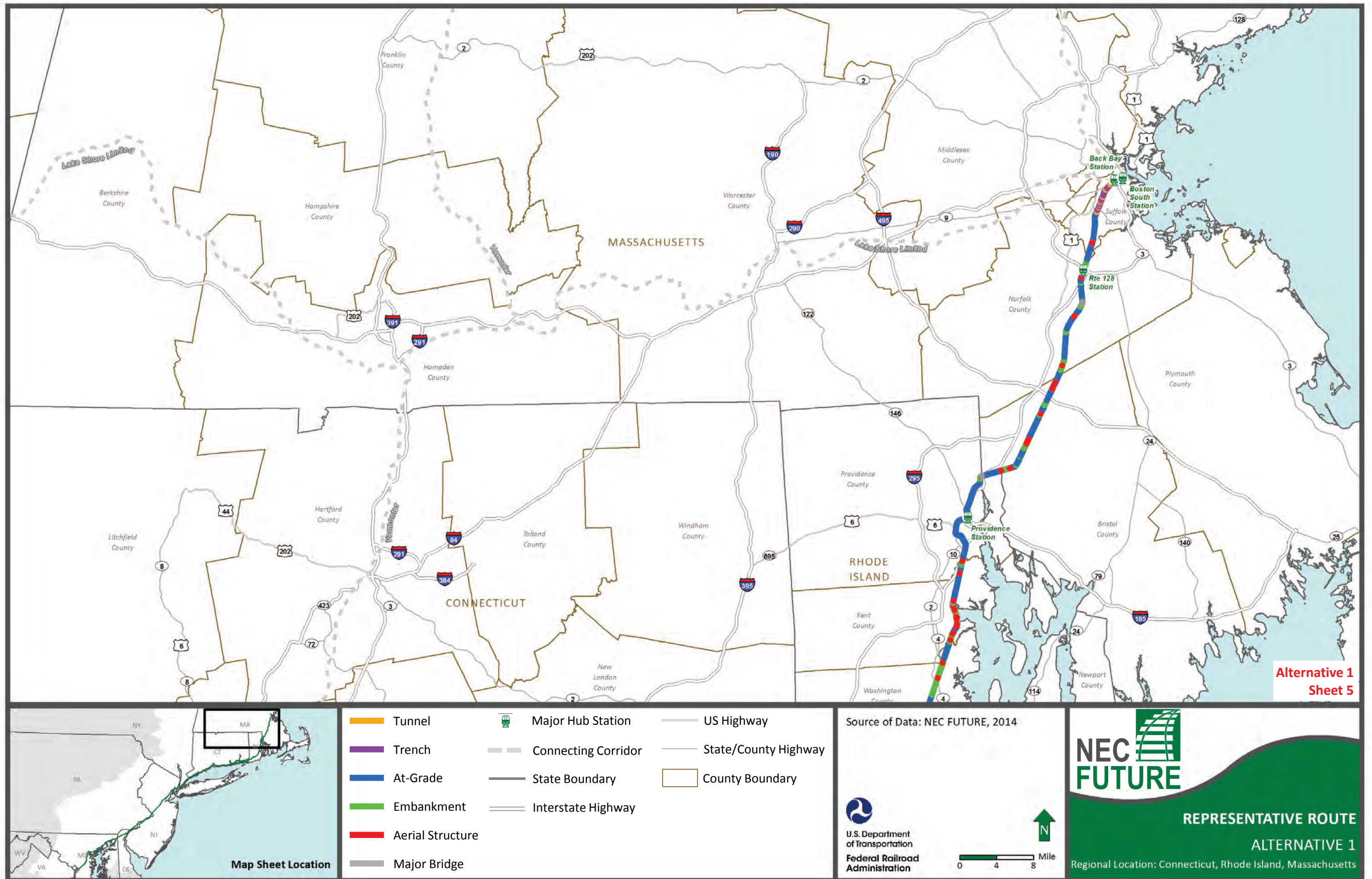
0 4.5 9 Mile

**NEC
FUTURE**

REPRESENTATIVE ROUTE
ALTERNATIVE 1

Regional Location: New Jersey, New York, Connecticut





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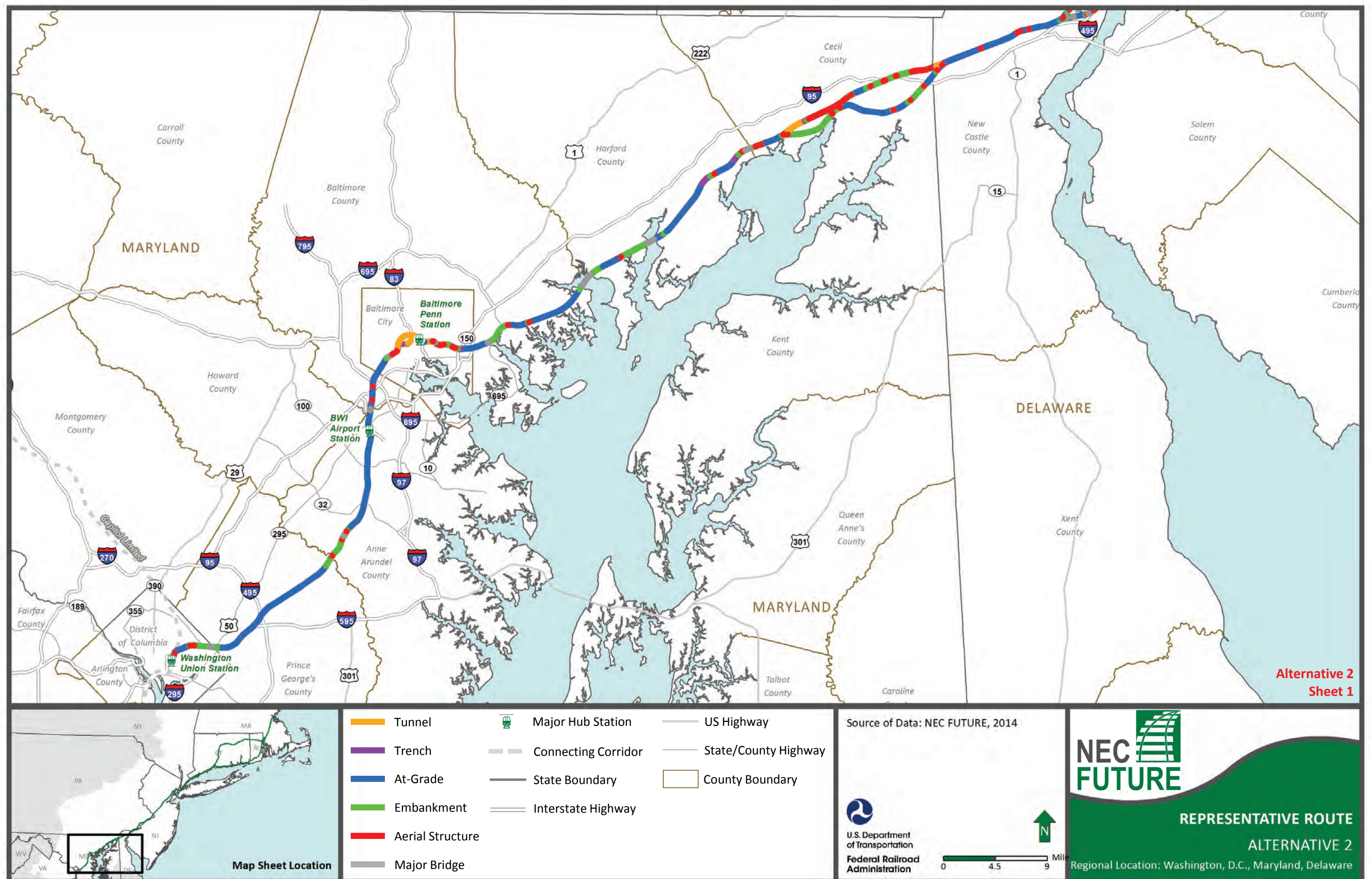
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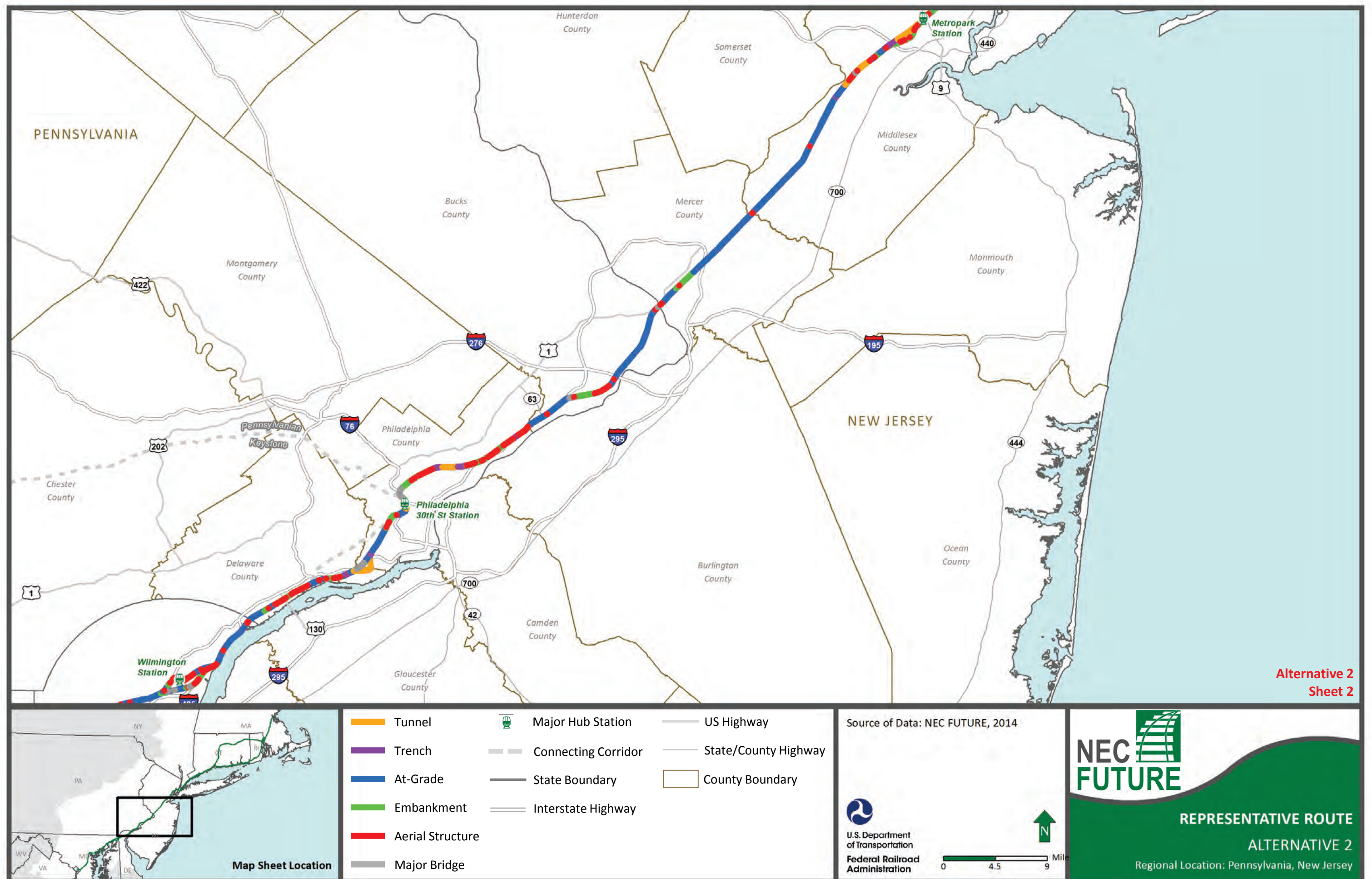


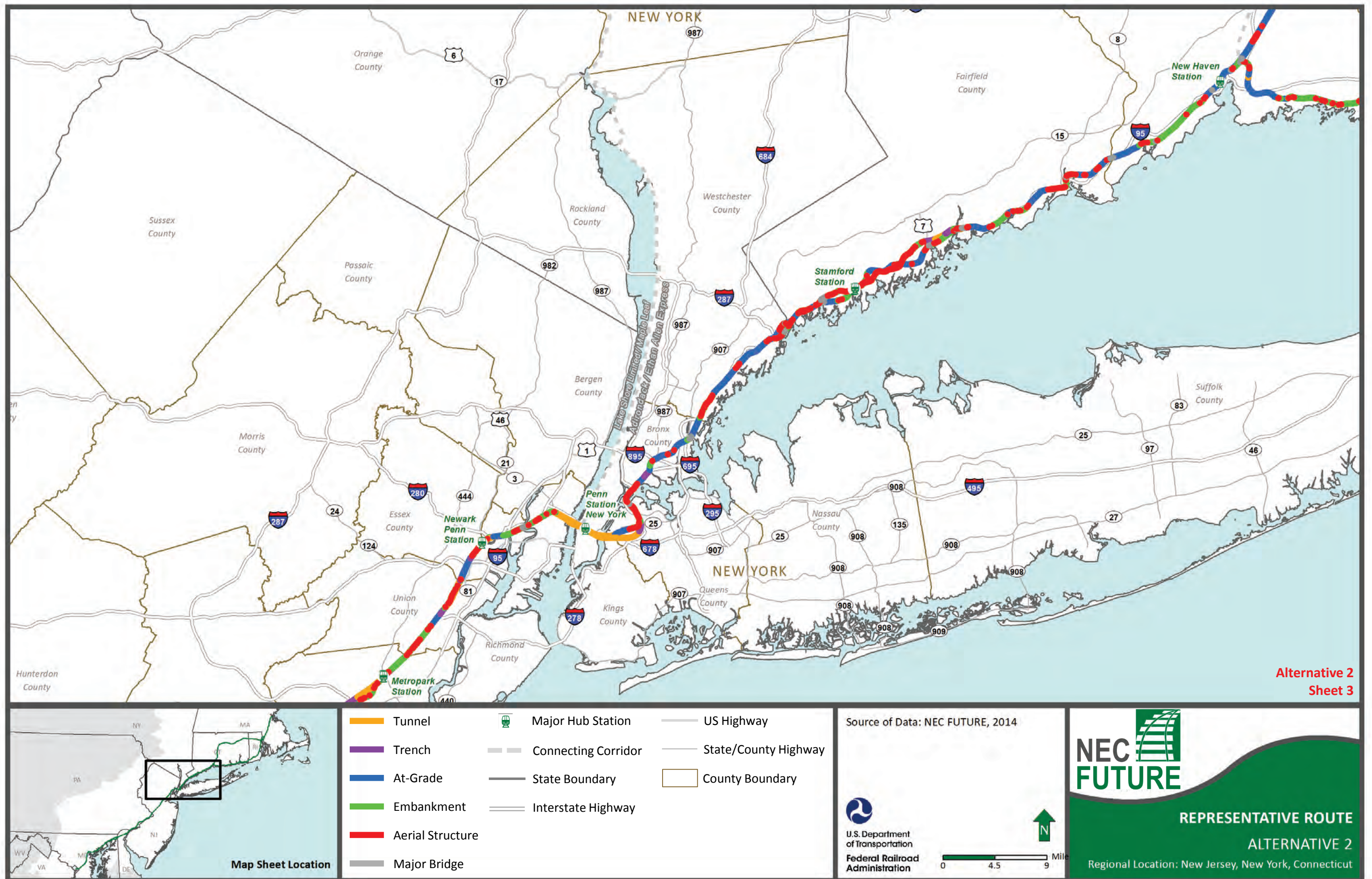
U.S. Department
of Transportation
Federal Railroad
Administration

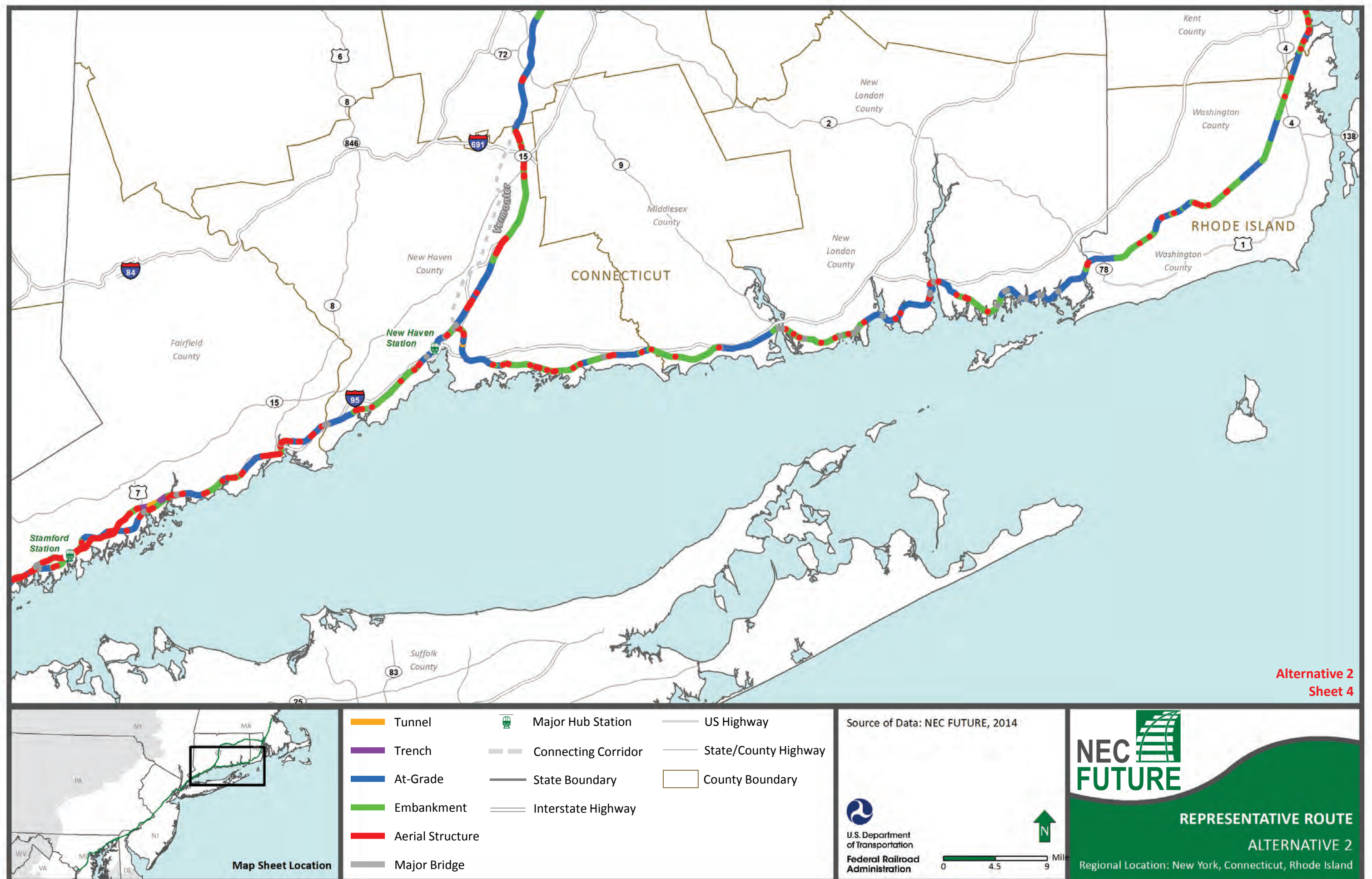


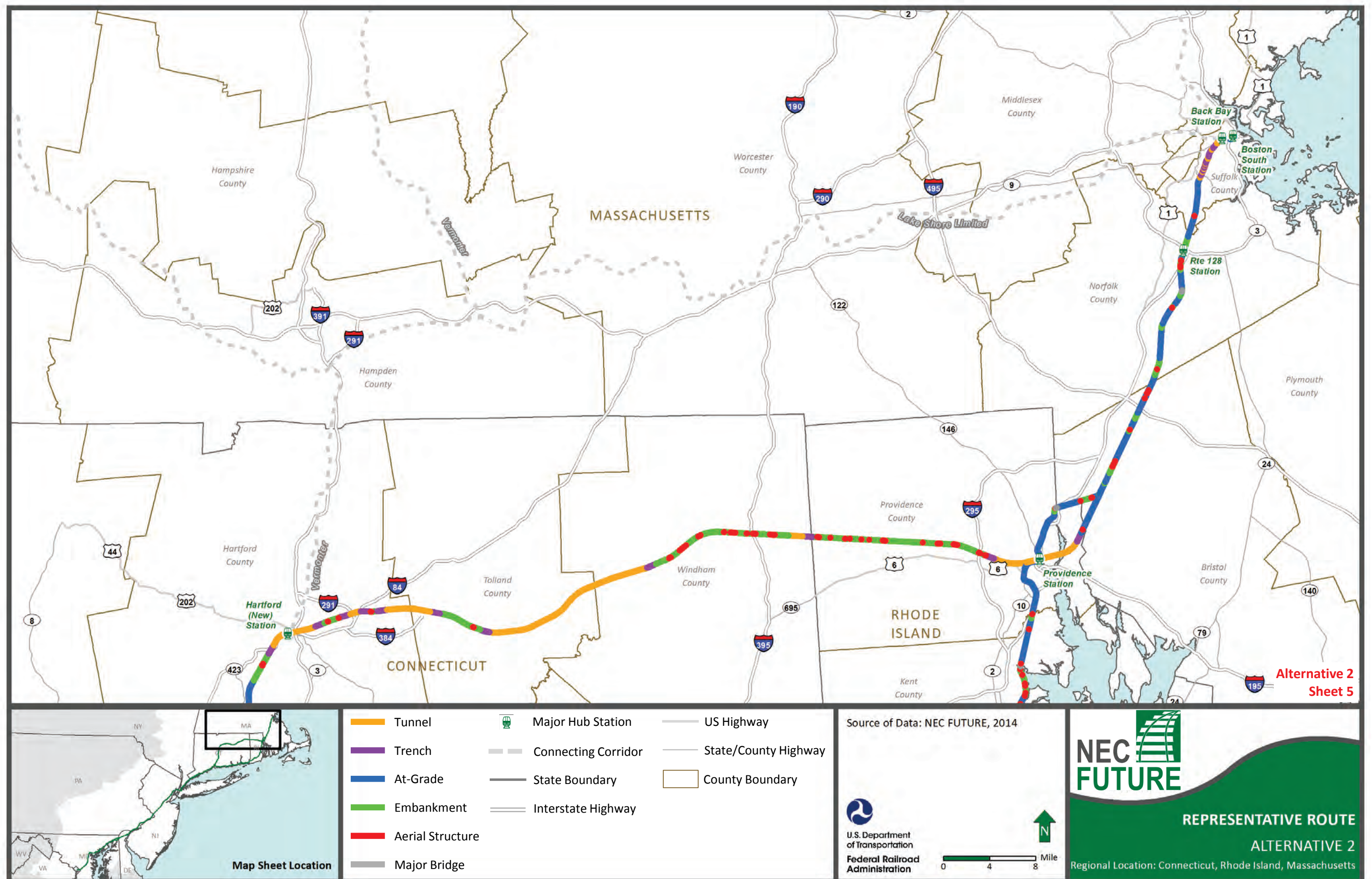
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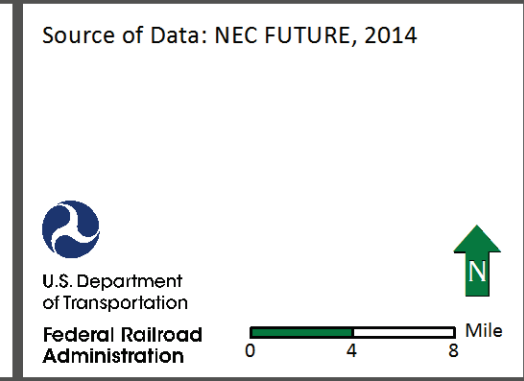
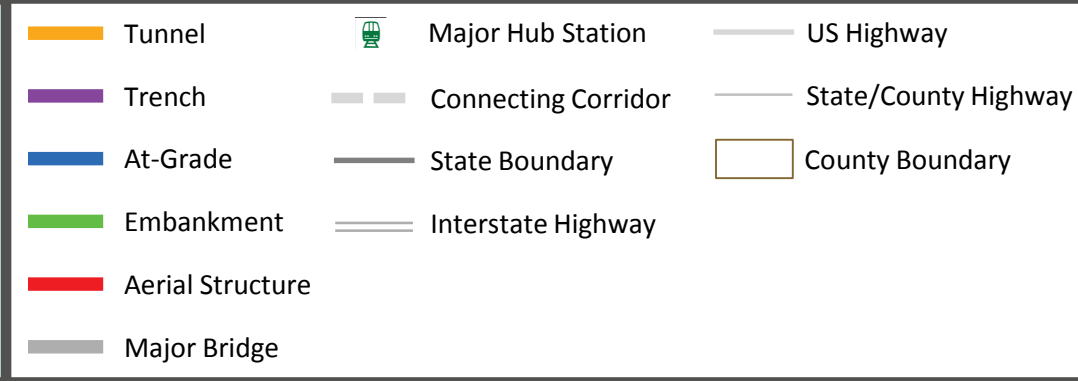
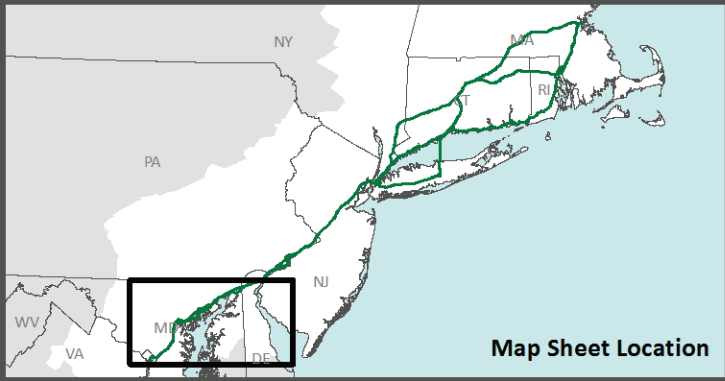
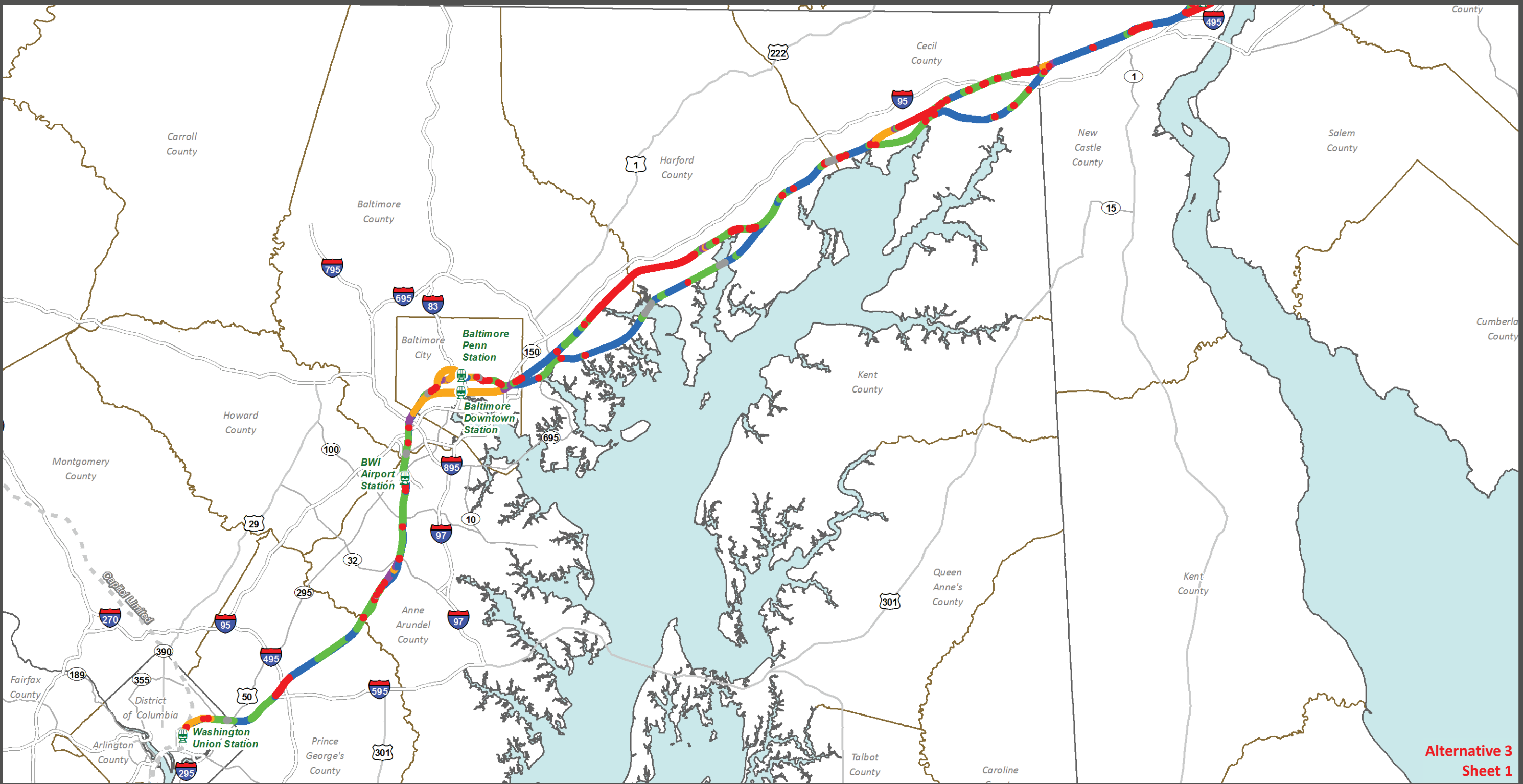
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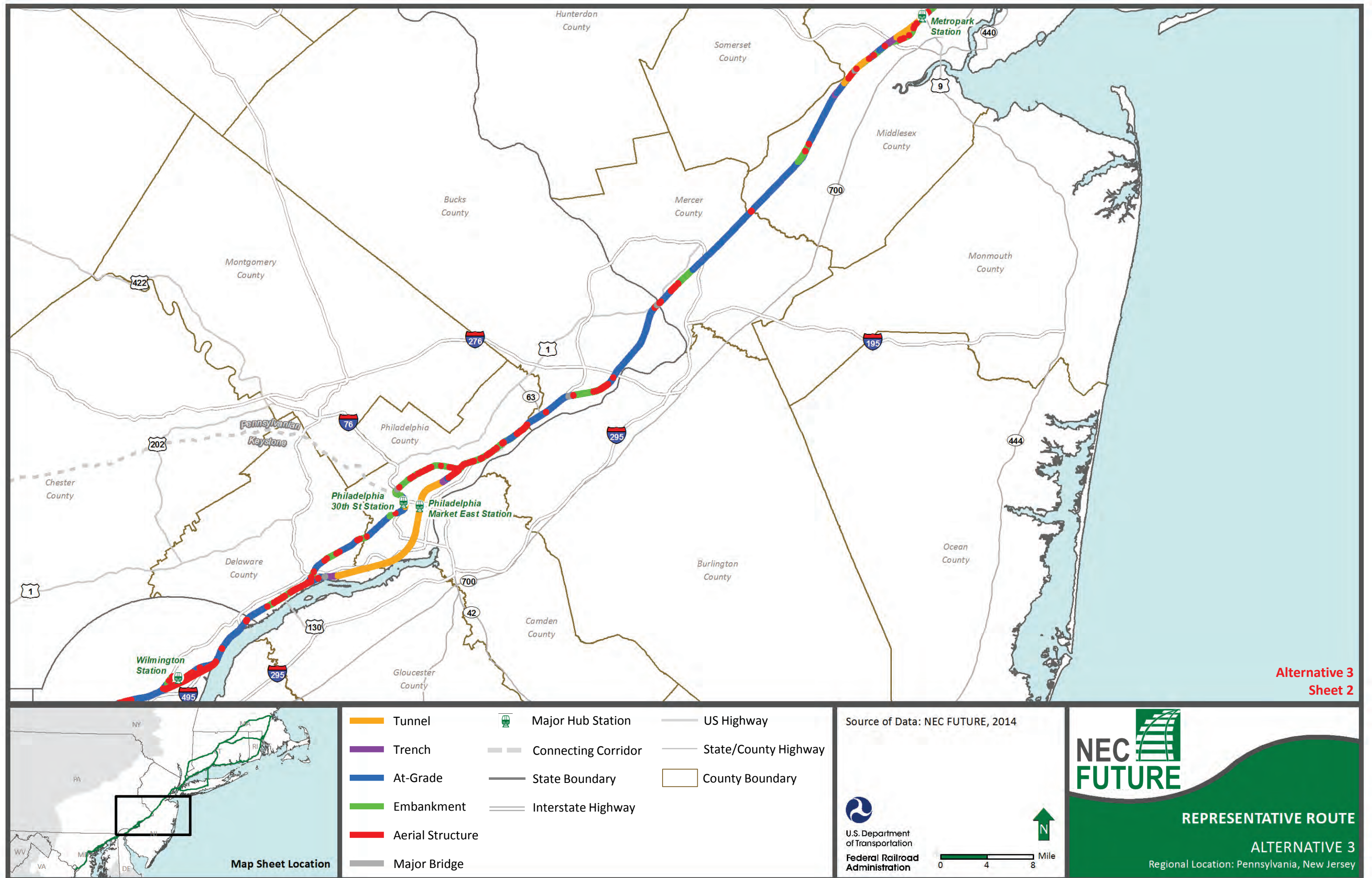


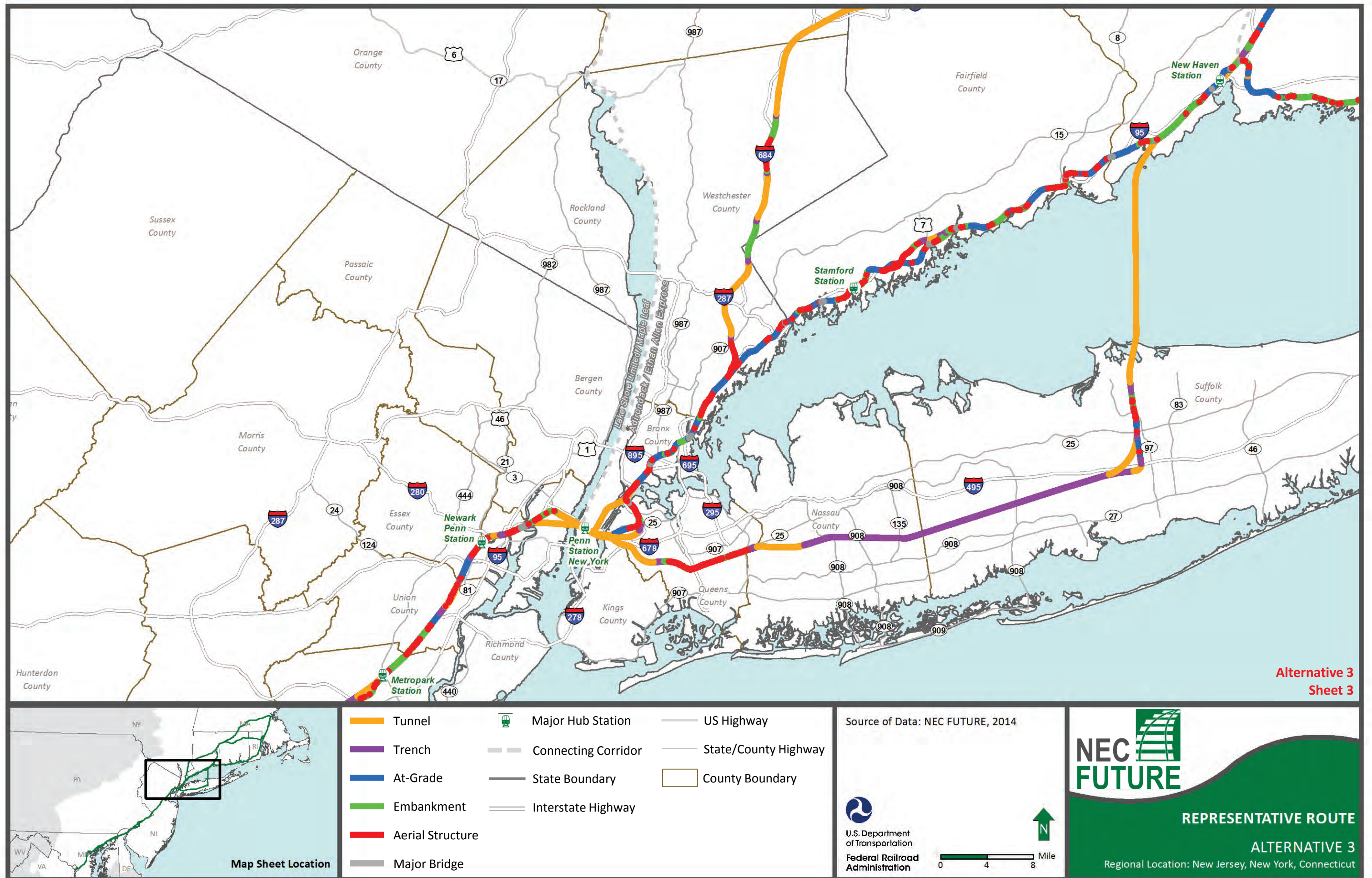
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Alternative 3
Sheet 4

