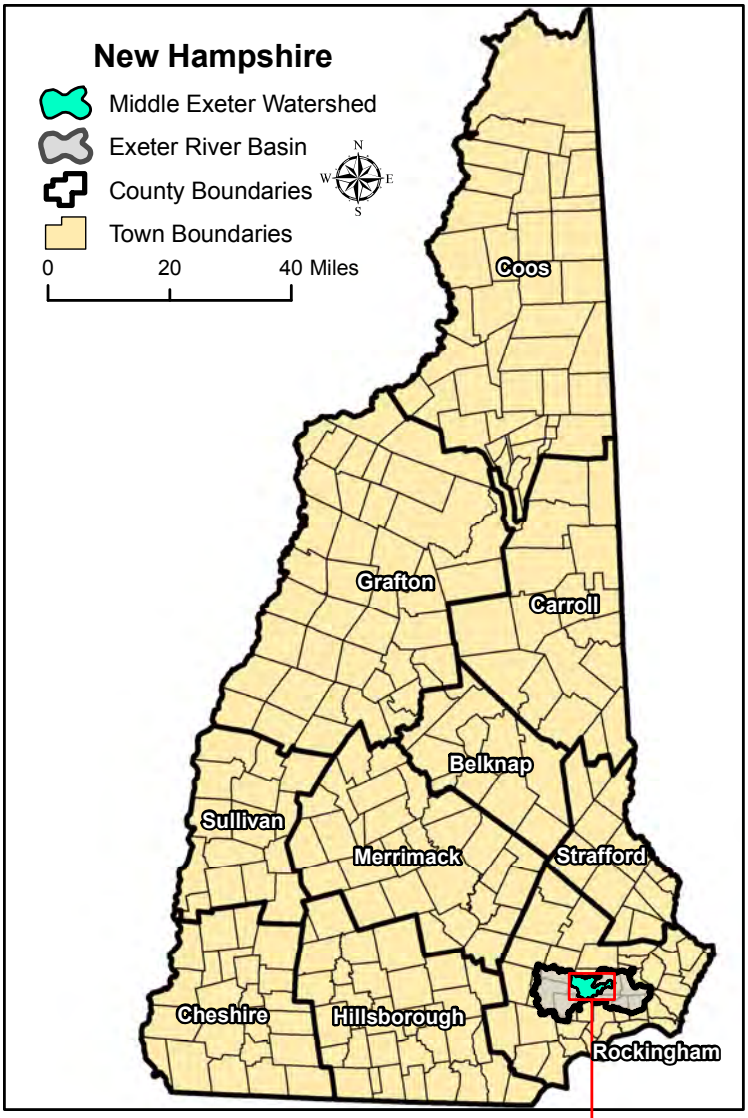
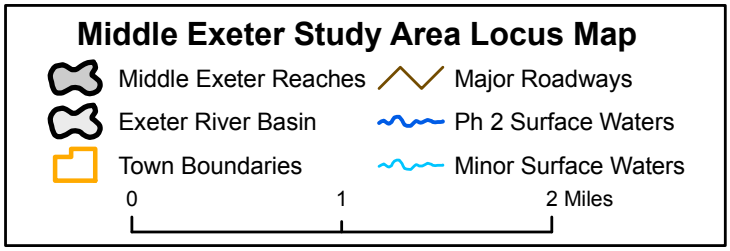
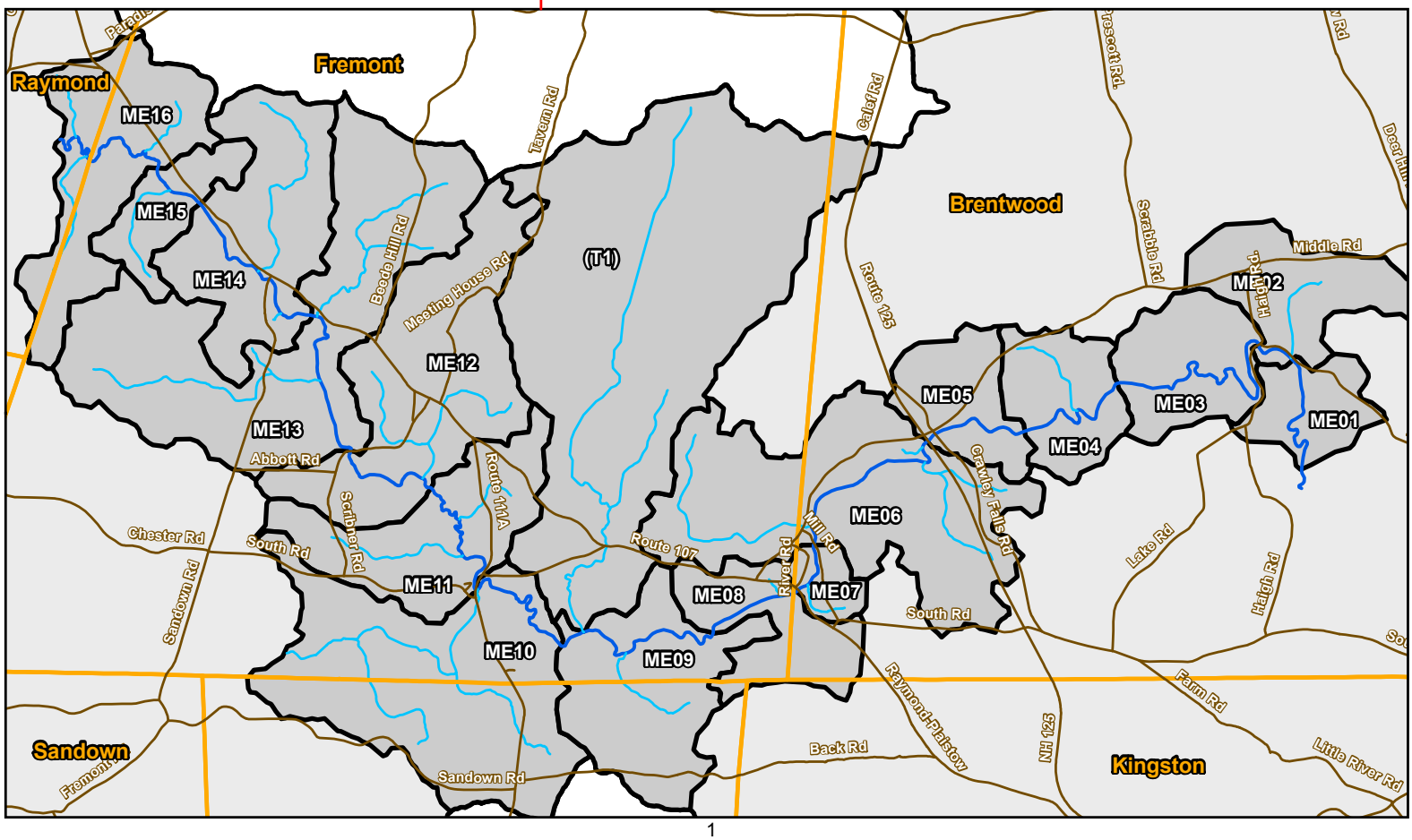
APPENDIX D

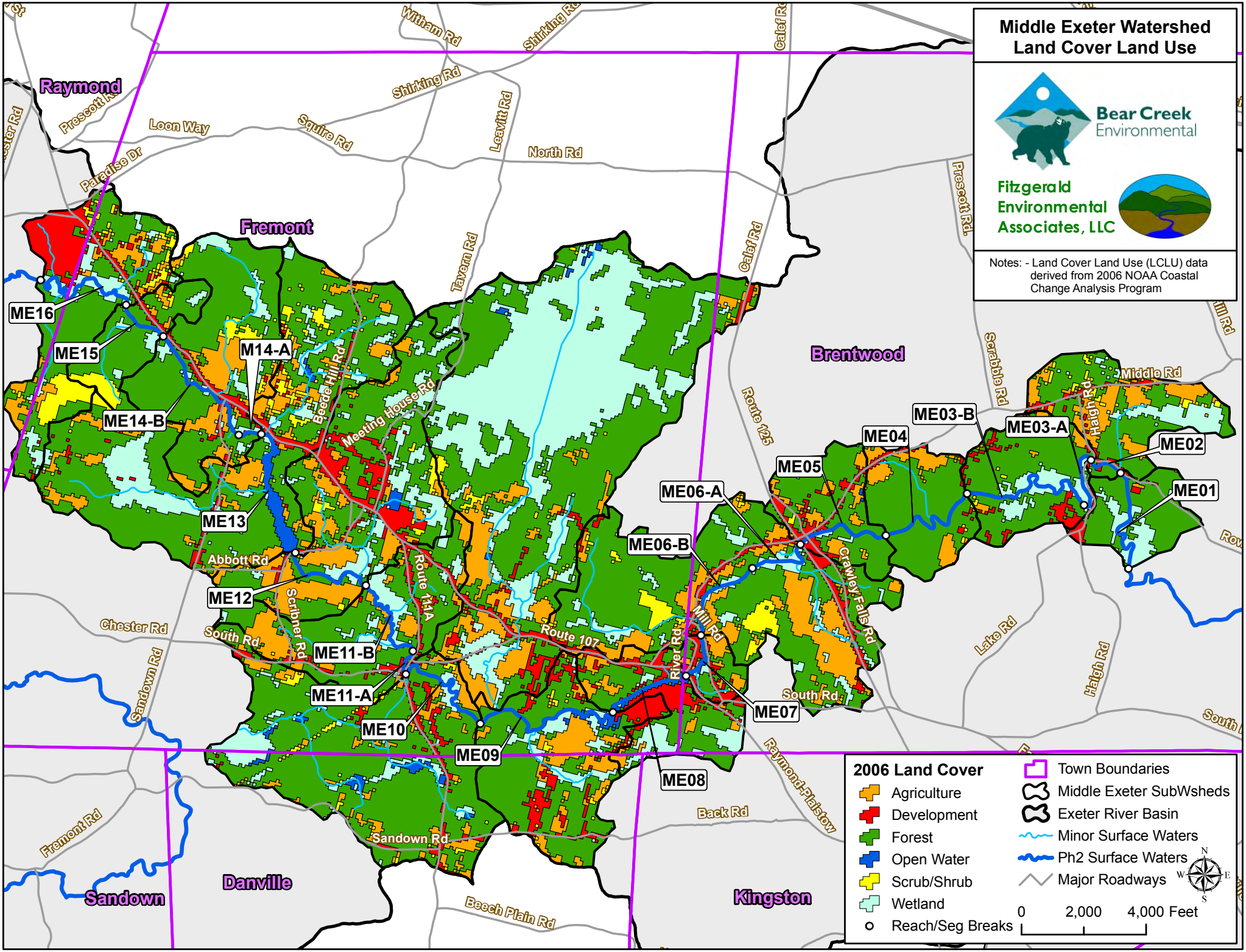
MIDDLE EXETER RIVER
STRESSOR AND DEPARTURE MAPS

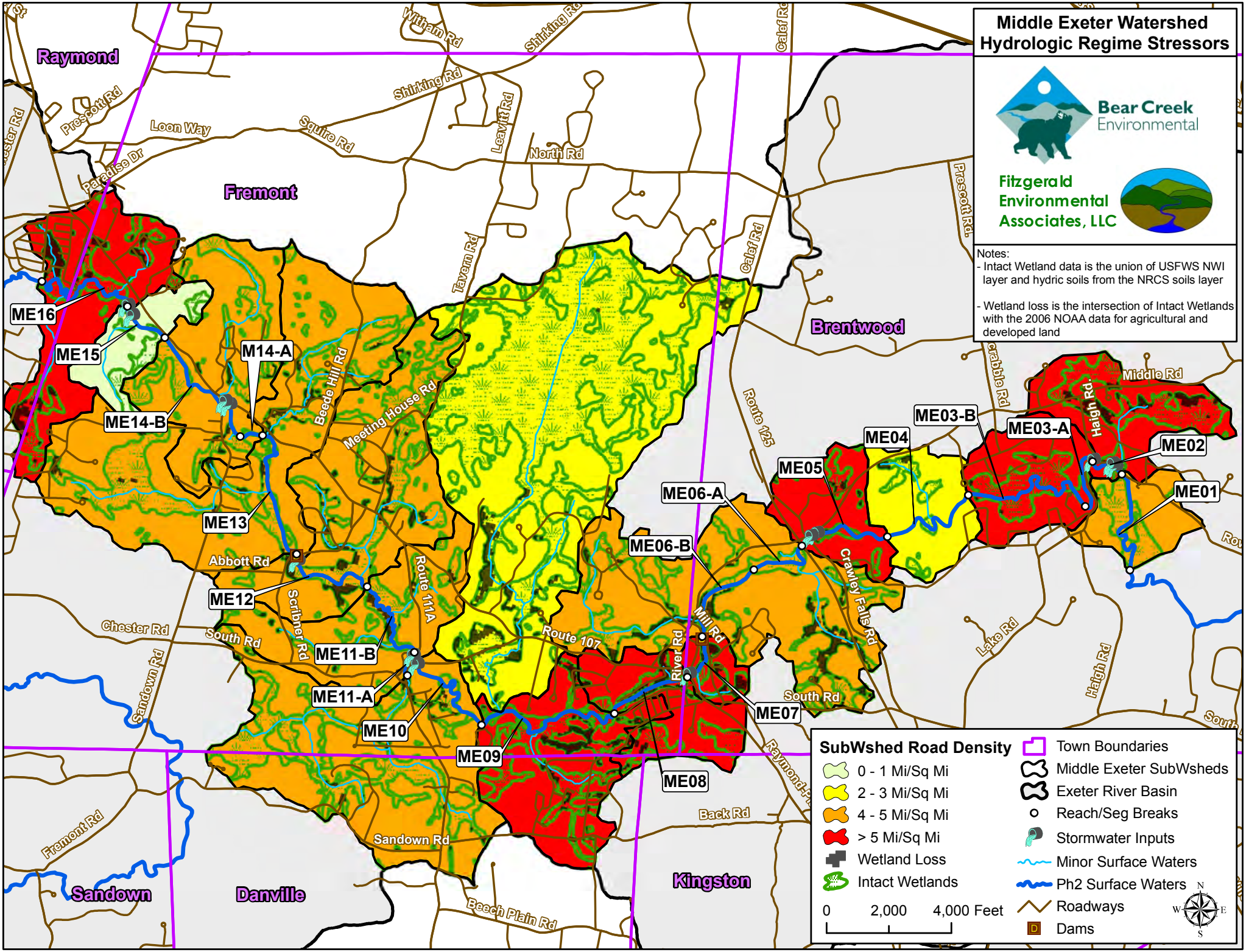


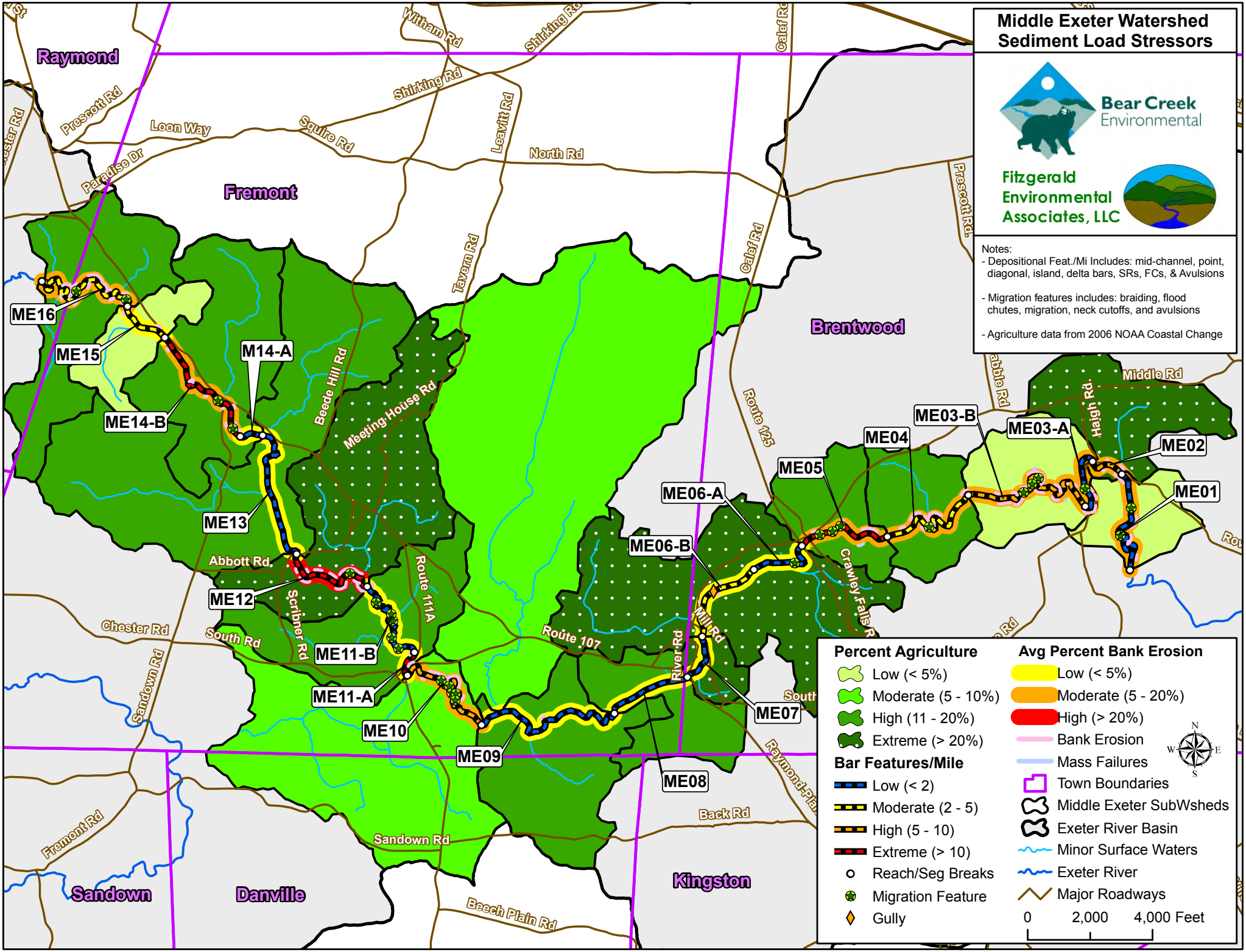
Middle Exeter River Stressor and Departure Maps

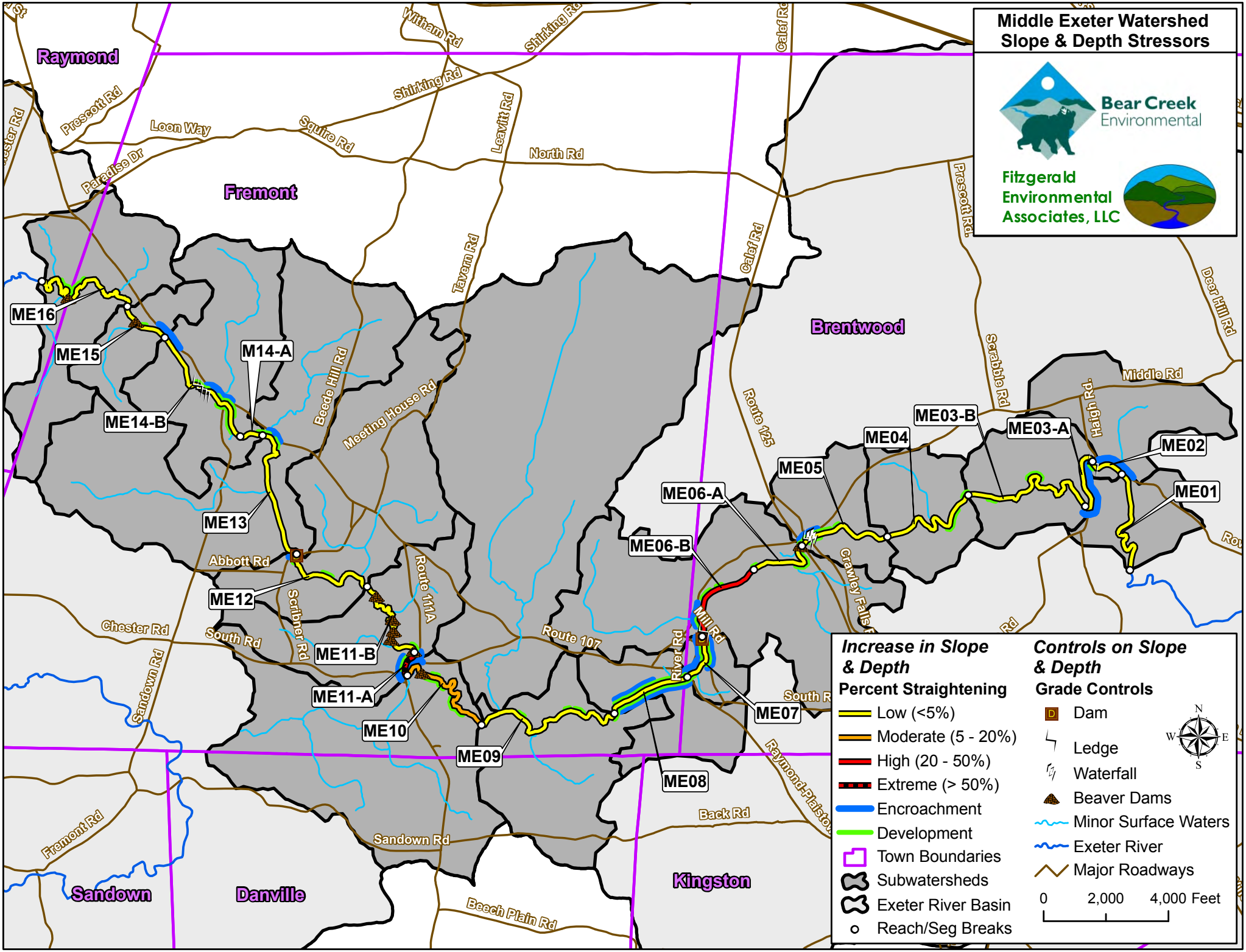


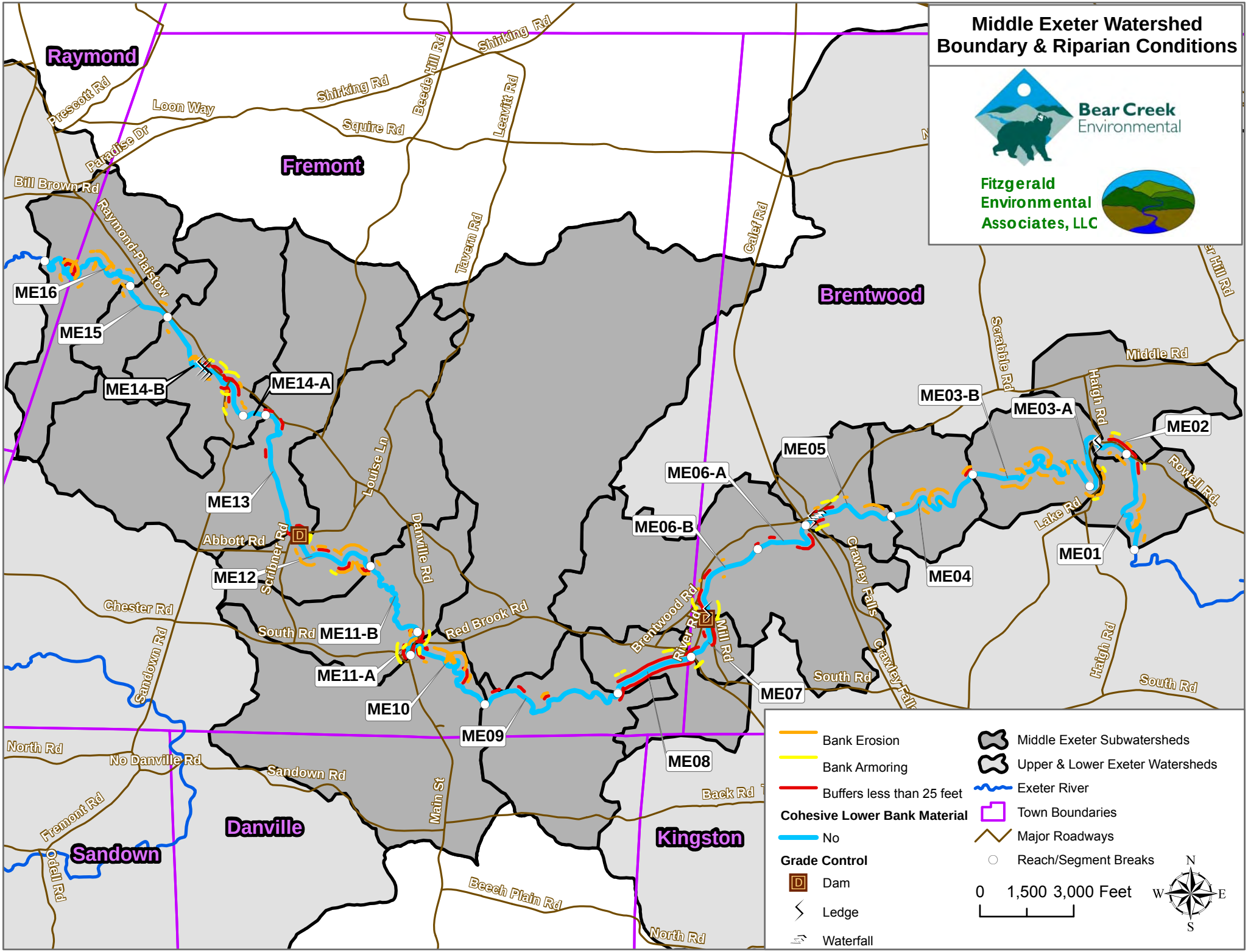


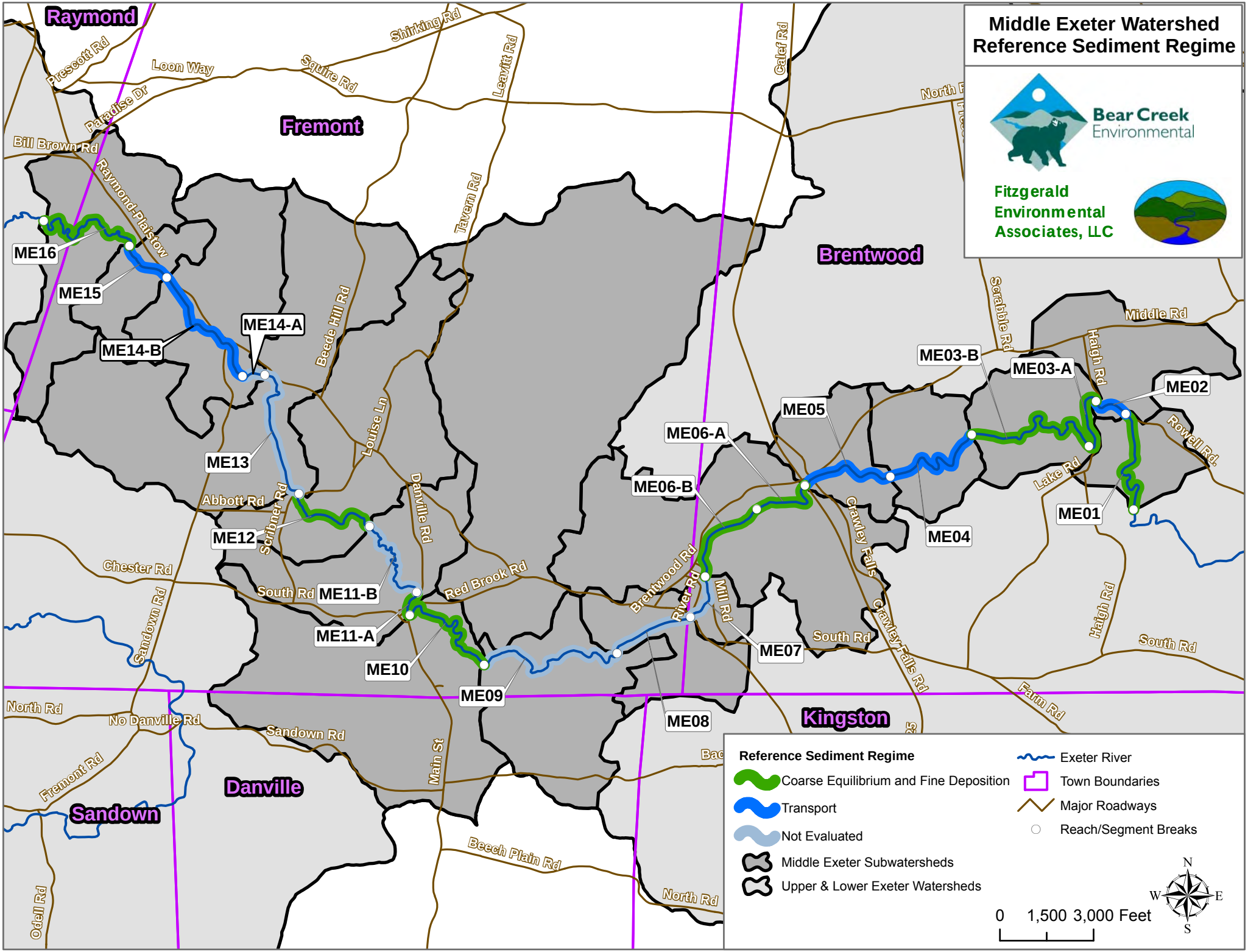

Middle Exeter Watershed
Land Cover Land Use
Bear Creek Environmental
Fitzgerald Environmental Associates, LLC
Notes: - Land Cover Land Use (LCLU) data derived from 2006 NOAA Coastal Change Analysis Program
Raymond
Fremont
Brentwood
Danville
Sandown
Kingston
ME16
ME15
M14-A
ME14-B
ME13
ME12
ME11-B
ME11-A
ME10
ME09
ME08
ME07
ME06-B
ME06-A
ME05
ME04
ME03-B
ME03-A
ME02
ME01
Prescott Rd
Loon Way
Squire Rd
Shirking Rd
Leavitt Rd
North Rd
Paradise Dr
Tavern Rd
Beede Hill Rd
Meeting House Rd
Route 125
Scribble Rd
Middle Rd
Highland Rd
Abbott Rd
Route 111A
Scribner Rd
South Rd
Chester Rd
Sandown Rd
Route 107
River Rd
Mill Rd
Crawley Falls Rd
Lake Rd
Haigh Rd
Fremont Rd
Back Rd
Raymond-Plaistow
Beech Plain Rd
2006 Land Cover
Agriculture
Development
Forest
Open Water
Scrub/Shrub
Wetland
Reach/Seg Breaks
Town Boundaries
Middle Exeter SubWsheds
Exeter River Basin
Minor Surface Waters
Ph2 Surface Waters
Major Roadways
0
2,000
4,000 Feet

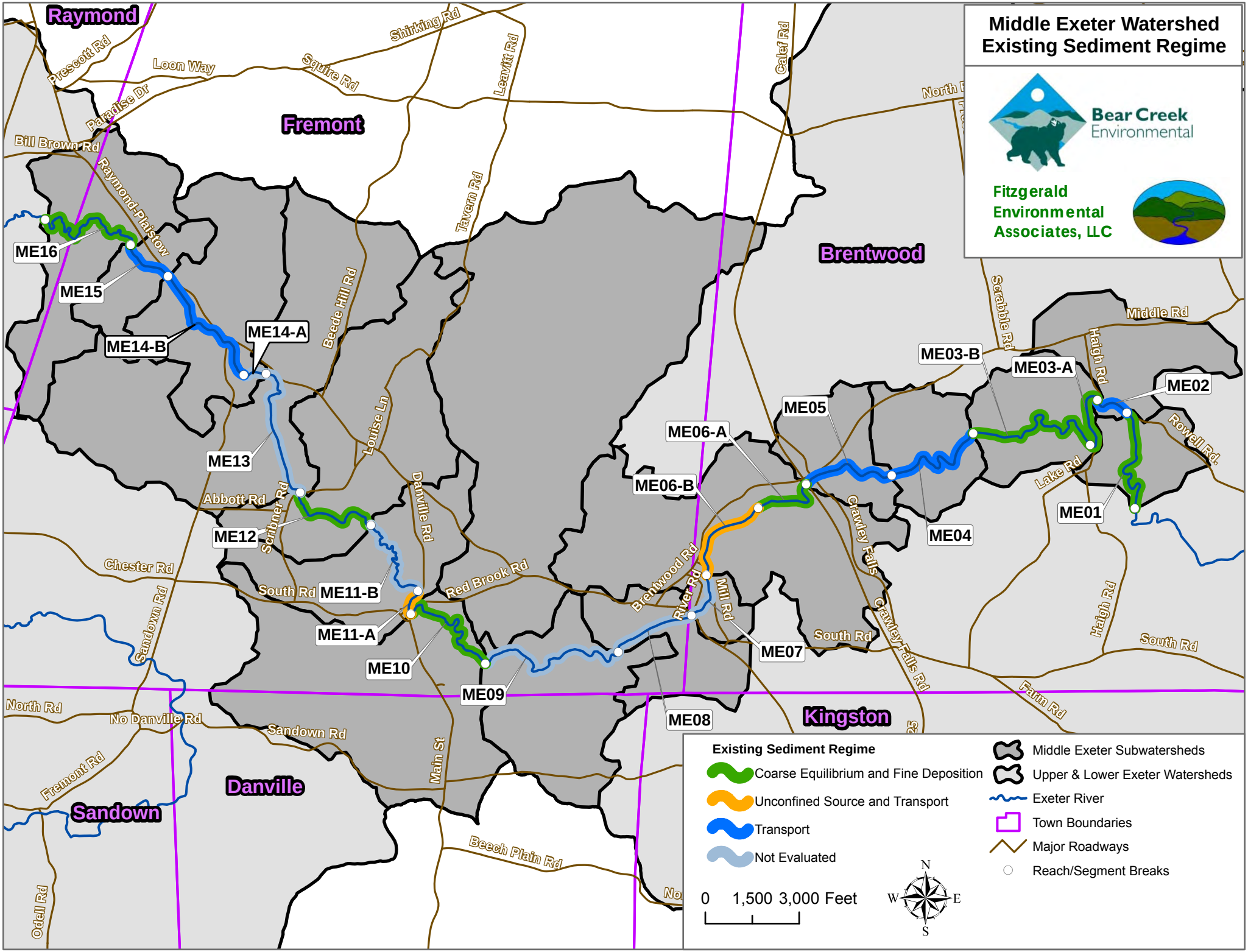

Middle Exeter Watershed
Hydrologic Regime Stressors
Bear Creek Environmental
Fitzgerald Environmental Associates, LLC
Notes:
- Intact Wetland data is the union of USFWS NWI layer and hydric soils from the NRCS soils layer
- Wetland loss is the intersection of Intact Wetlands with the 2006 NOAA data for agricultural and developed land
Raymond
Fremont
Brentwood
Sandown
Danville
Kingston
ME16
ME15
ME14-A
ME14-B
ME13
ME12
ME11-B
ME11-A
ME10
ME09
ME08
ME07
ME06-A
ME06-B
ME05
ME04
ME03-B
ME03-A
ME02
ME01
Prescott Rd
Loon Way
Paradise Dr
Squire Rd
Shirking Rd
Leavitt Rd
North Rd
Tavern Rd
Beede Hill Rd
Meeting House Rd
Route 125
Middle Rd
Haigh Rd
Abbott Rd
Scribner Rd
Route 111A
Chester Rd
South Rd
Sandown Rd
Route 107
River Rd
Mill Rd
Crawley Falls Rd
Lake Rd
Back Rd
Fremont Rd
Beech Plain Rd
SubWshed Road Density
0 - 1 Mi/Sq Mi
2 - 3 Mi/Sq Mi
4 - 5 Mi/Sq Mi
> 5 Mi/Sq Mi
Wetland Loss
Intact Wetlands
Town Boundaries
Middle Exeter SubWsheds
Exeter River Basin
Reach/Seg Breaks
Stormwater Inputs
Minor Surface Waters
Ph2 Surface Waters
Roadways
Dams
0
2,000
4,000 Feet
N
W
E
S

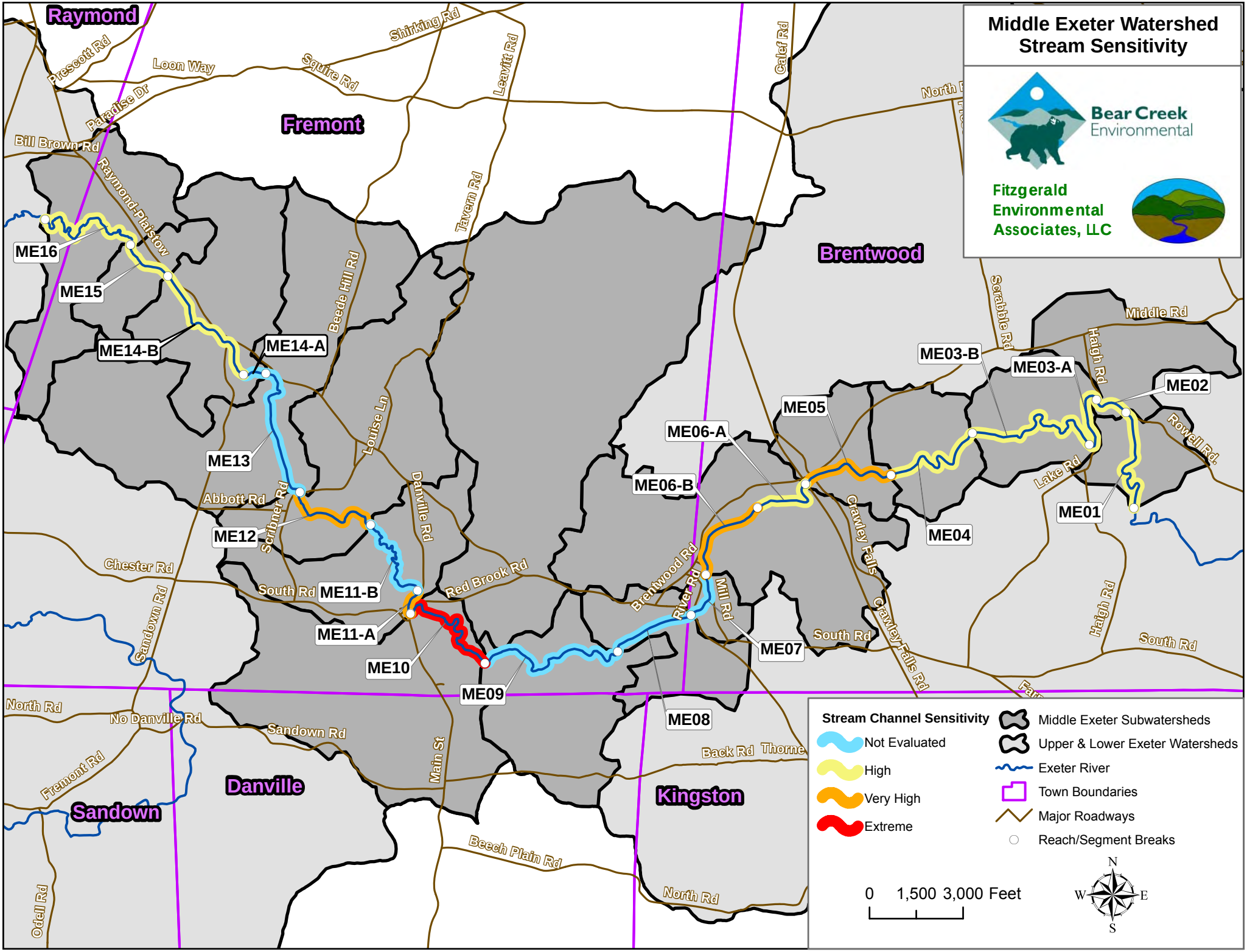

Middle Exeter Watershed
Sediment Load Stressors
Bear Creek Environmental
Fitzgerald Environmental Associates, LLC
Notes:
- Depositional Feat./Mi Includes: mid-channel, point, diagonal, island, delta bars, SRs, FCs, & Avulsions
- Migration features includes: braiding, flood chutes, migration, neck cutoffs, and avulsions
- Agriculture data from 2006 NOAA Coastal Change
Raymond
Fremont
Brentwood
Kingston
Sandown
Danville
ME16
ME15
M14-A
ME14-B
ME13
ME12
ME11-B
ME11-A
ME10
ME09
ME08
ME07
ME06-A
ME06-B
ME05
ME04
ME03-B
ME03-A
ME02
ME01
Prescott Rd
Loon Way
Paradise Dr
Squire Rd
Shirking Rd
Witham Rd
Leavitt Rd
North Rd
Tavern Rd
Cedar Rd
Beede Hill Rd
Meeting House Rd
Route 125
Middle Rd
Haigh Rd.
Abbott Rd.
Scribner Rd
Route 111A
Chester Rd
South Rd
Sandown Rd
Route 107
River Rd
Mill Rd
Crawley Falls Rd
Back Rd
Fremont Rd
Beech Plain Rd
Percent Agriculture
Low (< 5%)
Moderate (5 - 10%)
High (11 - 20%)
Extreme (> 20%)
Bar Features/Mile
Low (< 2)
Moderate (2 - 5)
High (5 - 10)
Extreme (> 10)
Reach/Seg Breaks
Migration Feature
Gully
Avg Percent Bank Erosion
Low (< 5%)
Moderate (5 - 20%)
High (> 20%)
Bank Erosion
Mass Failures
Town Boundaries
Middle Exeter SubWsheds
Exeter River Basin
Minor Surface Waters
Exeter River
Major Roadways
0
2,000
4,000 Feet


Middle Exeter Watershed
Slope & Depth Stressors
Bear Creek Environmental
Fitzgerald Environmental Associates, LLC
Raymond
Fremont
Brentwood
Kingston
Sandown
Danville
ME16
ME15
M14-A
ME14-B
ME13
ME12
ME11-B
ME11-A
ME10
ME09
ME08
ME07
ME06-B
ME06-A
ME05
ME04
ME03-B
ME03-A
ME02
ME01
Prescott Rd
Loon Way
Paradise Dr
Squire Rd
Shirking Rd
Leavitt Rd
North Rd
Tavern Rd
Beede Hill Rd
Meeting House Rd
Abbott Rd
Scribner Rd
Chester Rd
South Rd
Sandown Rd
Fremont Rd
Route 111A
Route 107
Route 125
River Rd
Mill Rd
Crawley Falls Rd
Scrabble Rd
Middle Rd
Haigh Rd
Dear Hill Rd
Back Rd
Beech Plain Rd
Raymond-Plaistow
Increase in Slope & Depth
Percent Straightening
Low (<5%)
Moderate (5 - 20%)
High (20 - 50%)
Extreme (> 50%)
Encroachment
Development
Town Boundaries
Subwatersheds
Exeter River Basin
Reach/Seg Breaks
Controls on Slope & Depth
Grade Controls
Dam
Ledge
Waterfall
Beaver Dams
Minor Surface Waters
Exeter River
Major Roadways
N
W
E
S
0
2,000
4,000 Feet


Middle Exeter Watershed
Boundary & Riparian Conditions
Bear Creek Environmental
Fitzgerald Environmental Associates, LLC
Raymond
Fremont
Brentwood
Danville
Sandown
Kingston
ME16
ME15
ME14-B
ME14-A
ME13
ME12
ME11-B
ME11-A
ME10
ME09
ME08
ME07
ME06-A
ME06-B
ME05
ME04
ME03-B
ME03-A
ME02
ME01
Bank Erosion
Bank Armoring
Buffers less than 25 feet
Cohesive Lower Bank Material
No
Grade Control
Dam
Ledge
Waterfall
Middle Exeter Subwatersheds
Upper & Lower Exeter Watersheds
Exeter River
Town Boundaries
Major Roadways
Reach/Segment Breaks
0 1,500 3,000 Feet
N
S
E
W


Middle Exeter Watershed
Reference Sediment Regime
Bear Creek Environmental
Fitzgerald Environmental Associates, LLC
Raymond
Fremont
Brentwood
Kingston
Danville
Sandown
ME16
ME15
ME14-A
ME14-B
ME13
ME12
ME11-B
ME11-A
ME10
ME09
ME08
ME07
ME06-A
ME06-B
ME05
ME04
ME03-B
ME03-A
ME02
ME01
Prescott Rd
Loon Way
Shirking Rd
Squire Rd
Leavitt Rd
Calef Rd
Paradise Dr
Bill Brown Rd
Raymond-Plaistow
Tavern Rd
Beede Hill Rd
Louise Ln
Scribner Rd
Abbott Rd
Danville Rd
Red Brook Rd
South Rd
Chester Rd
Sandown Rd
Brentwood Rd
River Rd
Mill Rd
Crawley Falls
Crawley Falls Rd
Scrabble Rd
Middle Rd
Haigh Rd
Lake Rd
Rowell Rd
Farm Rd
North Rd
No Danville Rd
Fremont Rd
Main St
Beech Plain Rd
Odell Rd
Reference Sediment Regime
Coarse Equilibrium and Fine Deposition
Transport
Not Evaluated
Middle Exeter Subwatersheds
Upper & Lower Exeter Watersheds
Exeter River
Town Boundaries
Major Roadways
Reach/Segment Breaks
N
W
E
S
0 1,500 3,000 Feet


Middle Exeter Watershed
Existing Sediment Regime
Bear Creek Environmental
Fitzgerald Environmental Associates, LLC
Raymond
Fremont
Brentwood
Kingston
Danville
Sandown
ME16
ME15
ME14-B
ME14-A
ME13
ME12
ME11-B
ME11-A
ME10
ME09
ME08
ME07
ME06-A
ME06-B
ME05
ME04
ME03-B
ME03-A
ME02
ME01
Bill Brown Rd
Raymond-Plaistow
Beede Hill Rd
Tavern Rd
Louise Ln
Danville Rd
Abbott Rd
Scribner Rd
Chester Rd
Sandown Rd
South Rd
Red Brook Rd
Brentwood Rd
River Rd
Mill Rd
Crawley Falls
Crawley Falls Rd
Scrabble Rd
Middle Rd
Haigh Rd
Lake Rd
Rowell Rd
Farm Rd
North Rd
No Danville Rd
Fremont Rd
Main St
Beech Plain Rd
Odell Rd
Existing Sediment Regime
Coarse Equilibrium and Fine Deposition
Unconfined Source and Transport
Transport
Not Evaluated
Middle Exeter Subwatersheds
Upper & Lower Exeter Watersheds
Exeter River
Town Boundaries
Major Roadways
Reach/Segment Breaks
0 1,500 3,000 Feet
N
W
E
S


Middle Exeter Watershed
Stream Sensitivity
Bear Creek
Environmental
Fitzgerald
Environmental
Associates, LLC
Raymond
Fremont
Brentwood
Danville
Sandown
Kingston
ME16
ME15
ME14-B
ME14-A
ME13
ME12
ME11-B
ME11-A
ME10
ME09
ME08
ME07
ME06-A
ME06-B
ME05
ME04
ME03-B
ME03-A
ME02
ME01
Bill Brown Rd
Raymond-Plaistow
Paradise Dr
Prescott Rd
Loon Way
Squire Rd
Shirking Rd
Leavitt Rd
Tavern Rd
Beede Hill Rd
Galef Rd
Louise Ln
Abbott Rd
Scribner Rd
Danville Rd
Red Brook Rd
South Rd
Chester Rd
Sandown Rd
Brentwood Rd
River Rd
Mill Rd
Crawley Falls
Crawley Falls Rd
Scrabble Rd
Middle Rd
Haigh Rd
Lake Rd
Rowell Rd
North Rd
No Danville Rd
Fremont Rd
Main St
Back Rd
Thorne
Beech Plain Rd
Odell Rd
Stream Channel Sensitivity
Not Evaluated
High
Very High
Extreme
Middle Exeter Subwatersheds
Upper & Lower Exeter Watersheds
Exeter River
Town Boundaries
Major Roadways
Reach/Segment Breaks
0 1,500 3,000 Feet
N
W
E
S