

PROPOSED GRANT APPLICATION

Wood-Pawcatuck Flood Resiliency Management Plan

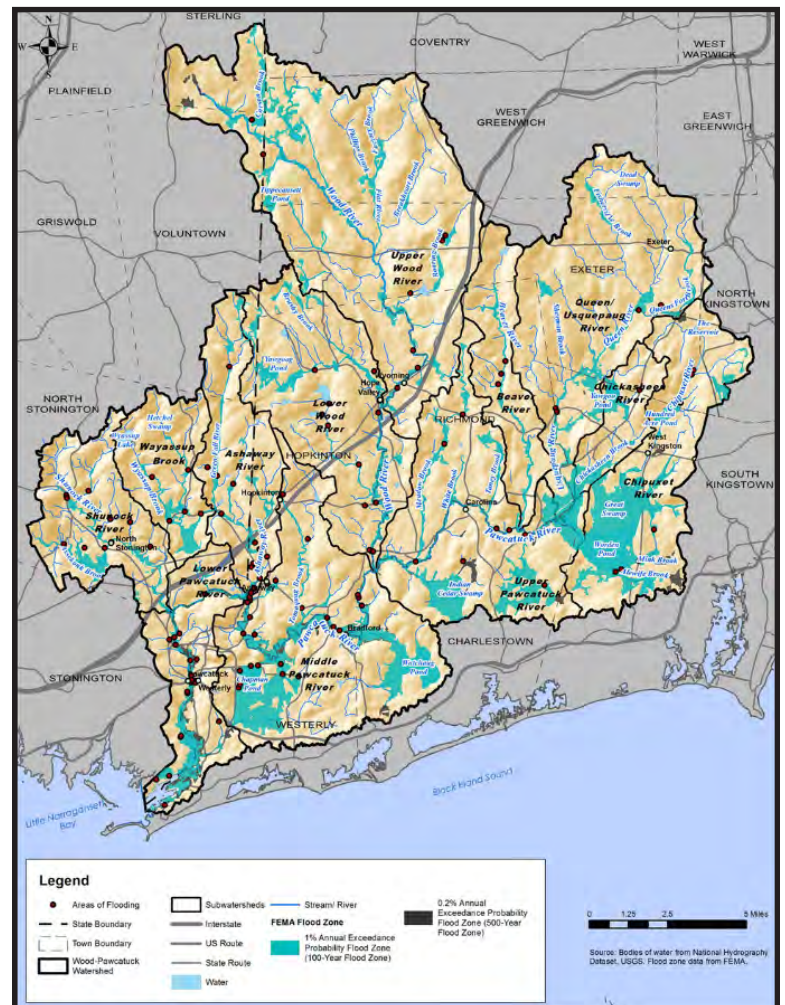
MARCH 2020

The Wood-Pawcatuck watershed has historically been challenged with riverine and drainage-related flooding in developed areas. Watershed communities have suffered extensive flooding and flood-related damages, with the most extreme flooding on record having occurred in the March and April floods of 2010.

Climate change will continue to exacerbate the flooding problems in this watershed. Rainfall in New England is expected to continue to increase due to climate change, which will increase the risk of river-related flooding in the future. Bridges, roads and dams will be more susceptible to flood damage because of more severe storms and heavy rainfall.

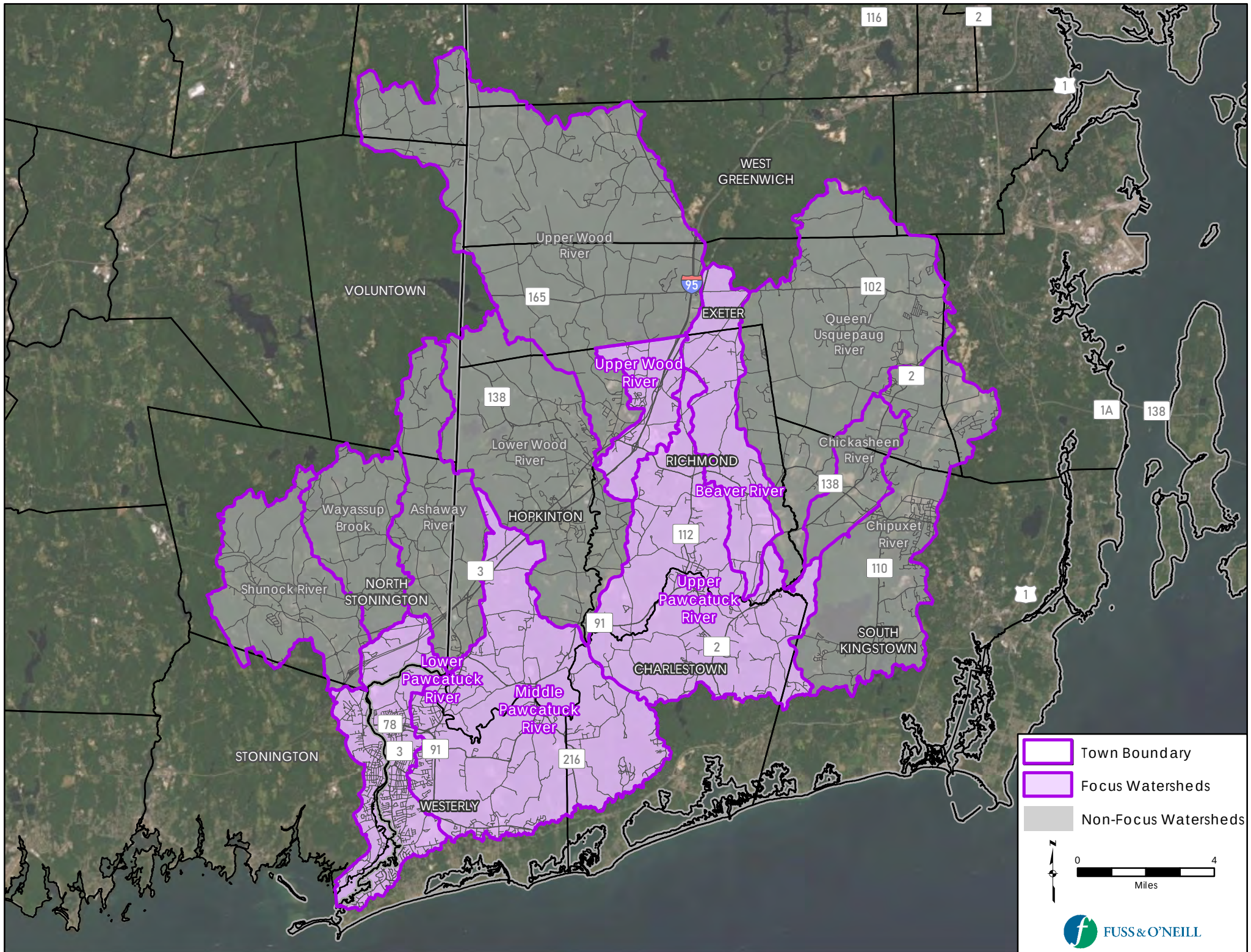
In 2017, the Wood-Pawcatuck Watershed Association (WPWA) led the development of a comprehensive flood resilience plan (<https://wpwa.org/projects/flood-resiliency/>) to reduce riverine flooding for each of the communities in the watershed. This plan identifies recommended improvements that range from reducing obstructions such as opening culverts to nature-based solutions such as flood plain restoration to green stormwater infrastructure.

Funding is now the critical element in actually implementing this plan. In order to try to secure funding for large scale implementation of this project, the Southern Rhode Island Conservation District (SRICD), in partnership with the WPWA, is proposing to apply for a grant from the United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS). The USDA NRCS will be announcing a grant round in Summer 2020 for their Watershed Protection and Flood Prevention Program (PL-566). This grant program is particularly attractive as it will fund 100% (no match) of the costs for many activities associated with flood protection projects. One exception to this are gray infrastructure activities such as culvert replacement.



In order to prepare an application for the 2020 grant round, SRICD is proposing to team with the Towns of Richmond, Stonington and Westerly to apply for a grant to utilize this funding to implement flood protection projects in the following subwatersheds:

- Lower Pawcatuck (Westerly and Stonington)
- Middle Pawcatuck (Westerly)
- Upper Pawcatuck (Richmond)
- Beaver River (Richmond)
- Upper Wood River (Richmond)



 Town Boundary

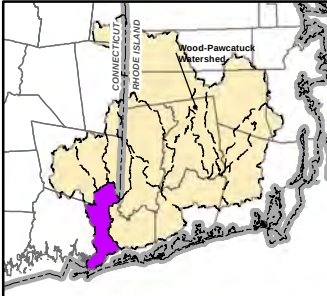
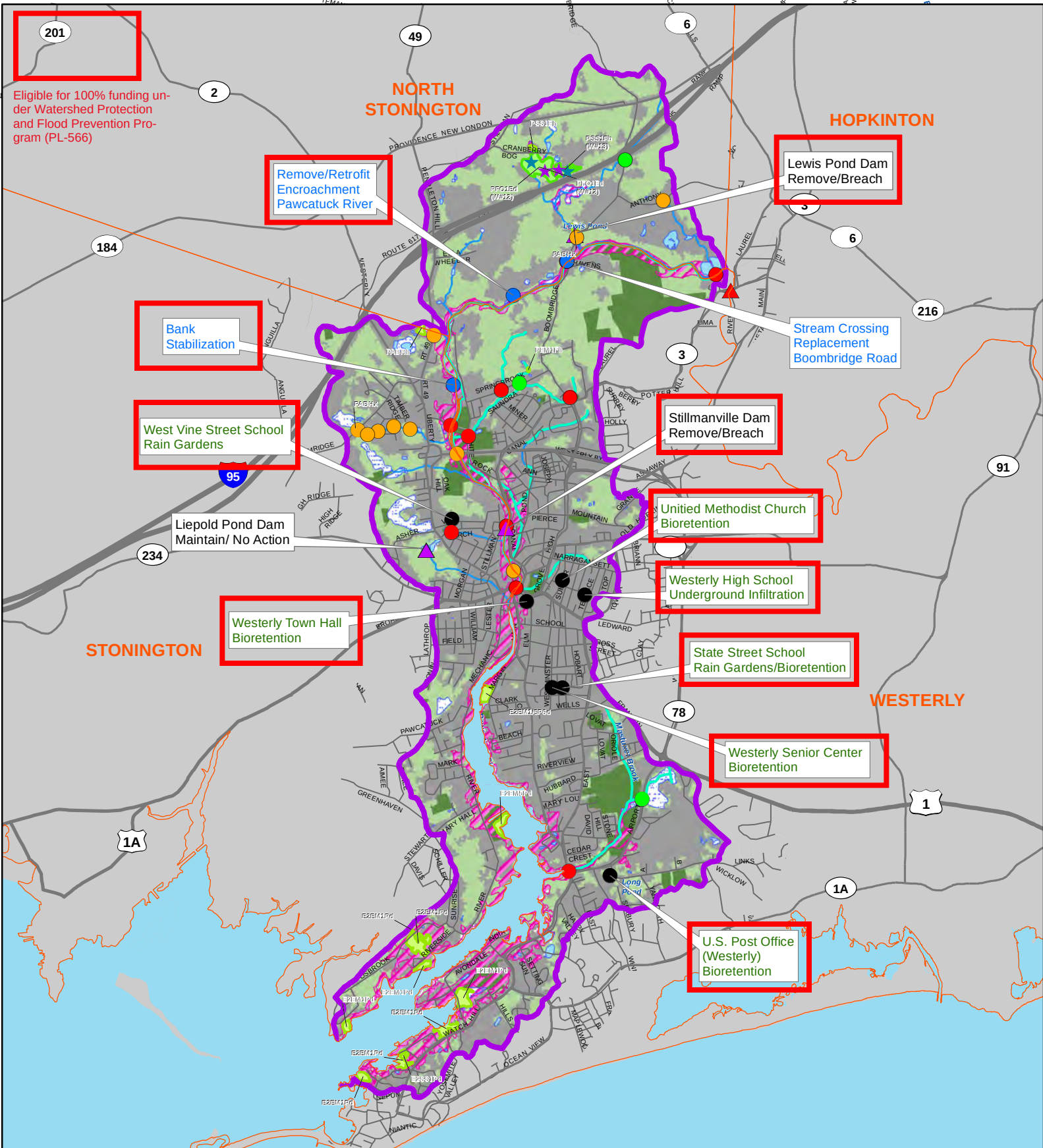
 Focus Watersheds

 Non-Focus Watersheds

 N

 0 4
Miles

 FUSS & O'NEILL



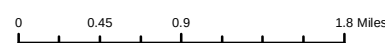
- Legend**
- Green Infrastructure Retrofit Site
 - Priority River Corridor Restoration Site
 - High
 - Intermediate
 - Low
 - Bridge and Culvert Upgrade/Replacement Recommendation Priority
 - High
 - Intermediate
 - Low
 - Wetland Restoration/Enhancement Potential
 - Wetland Conservation Potential
 - Field Verified Wetland Areas
 - Priority Wetlands with High Flood Protection Value
 - Subwatershed Boundary
 - Developed Land
 - Forest/Wetland
 - Protected Open Space
 - Cold Water Areas
 - Streams/Rivers
 - Lakes/Ponds
 - Rivers
 - Lake
 - Wetland
 - 100-yr flood zone
 - Interstate
 - US Route
 - State Route
 - Connector

**LOWER PAWCATUCK RIVER
SUBWATERSHED
Flood Resiliency Management
Recommendations**

f **FUSS & O'NEILL**
317 Iron Horse Way, Suite 204
Providence, RI 02908
401.861.3070 | www.fando.com



Recommendations shown on these maps are preliminary, screening-level recommendations and require more detailed, site-specific evaluation to adequately assess various management alternatives and potential impacts. Detailed feasibility studies are required to support selection of a preferred alternative, as well as future planning, design, permitting and funding requests for specific projects.



Eligible for 100% funding under Watershed Protection and Flood Prevention Program (PL-566)

NORTH STONINGTON

HOPKINTON

RICHMOND

138

Harris Pond Dam Repair

Remove/Replace Encroachment Pawcatuck River

Hopkinton Recreation Department Bioretention

Burdickville Dam Remove/Breach

Remove/Replace Encroachment

U.S. Post Office in Ashaway/Hopkinton Underground Infiltration

Potter Hill Dam Remove/Breach

Bradford School Green Roof/Underground Infiltration

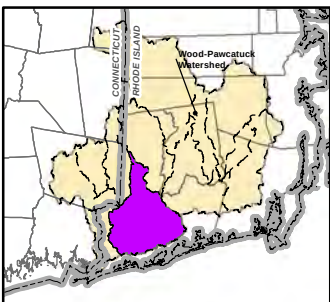
Olaf Farm Pond Dam Repair

CHARLESTOWN

Tower Street School and Community Center Bioretention

Vin Gormely Trailhead Parking Underground Infiltration/Bioretention

WESTERLY



Legend

- Green Infrastructure Retrofit Site
- Priority River Corridor Restoration Site
- ▲ High
- ▲ Intermediate
- ▲ Low
- Bridge and Culvert Upgrade/Replacement Recommendation Priority
 - High
 - Intermediate
 - Low
 - ★ Wetland Restoration/Enhancement Potential
 - ★ Wetland Conservation Potential

- Field Verified Wetland Areas
- Priority Wetlands with High Flood Protection Value
- Subwatershed Boundary
- Developed Land
- Forest/Wetland
- Protected Open Space

- Cold Water Areas
- Streams/Rivers
- Lakes/Ponds
- Rivers
- Lake
- Wetland
- 100-yr flood zone

- Interstate
- US Route
- State Route
- Connector

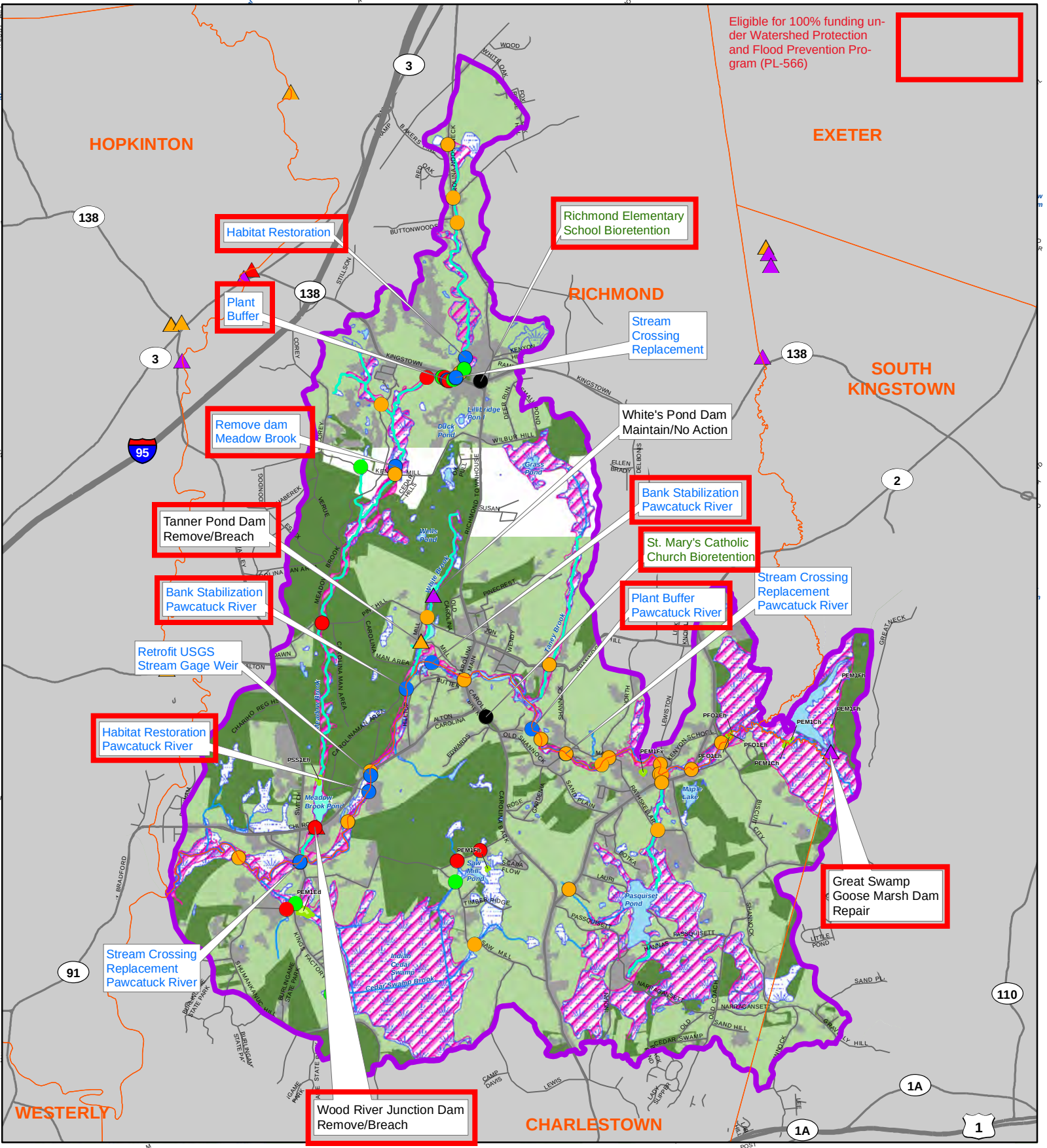
MIDDLE PAWCATUCK RIVER SUBWATERSHED Flood Resiliency Management Recommendations

f **FUSS & O'NEILL**
317 Iron Horse Way, Suite 204
Providence, RI 02908
401.861.3070 | www.fando.com

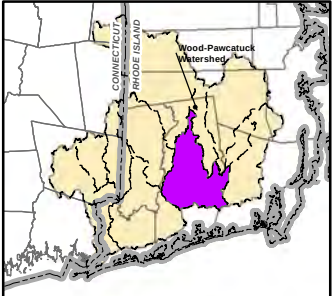


Recommendations shown on these maps are preliminary, screening-level recommendations and require more detailed, site-specific evaluation to adequately assess various management alternatives and potential impacts. Detailed feasibility studies are required to support selection of a preferred alternative, as well as future planning, design, permitting and funding requests for specific projects.

0 0.5 1 2 Miles



Eligible for 100% funding under Watershed Protection and Flood Prevention Program (PL-566)



- Legend**
- Green Infrastructure Retrofit Site
 - Priority River Corridor Restoration Site
 - High
 - Intermediate
 - Low
 - Field Verified Wetland Areas
 - Priority Wetlands with High Flood Protection Value
 - Subwatershed Boundary
 - Developed Land
 - Forest/Wetland
 - Protected Open Space
 - Bridge and Culvert Upgrade/Replacement Recommendation Priority
 - High
 - Intermediate
 - Low
 - Wetland Restoration/Enhancement Potential
 - Wetland Conservation Potential
 - Cold Water Areas
 - Streams/Rivers
 - Lakes/Ponds
 - Rivers
 - Lake
 - Wetland
 - 100-yr flood zone
 - Interstate
 - US Route
 - State Route
 - Connector

UPPER PAWCATUCK RIVER SUBWATERSHED Flood Resiliency Management Recommendations

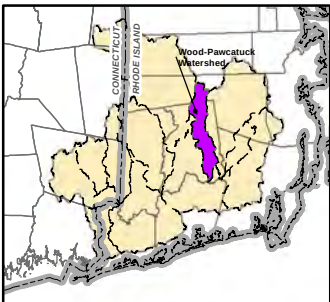
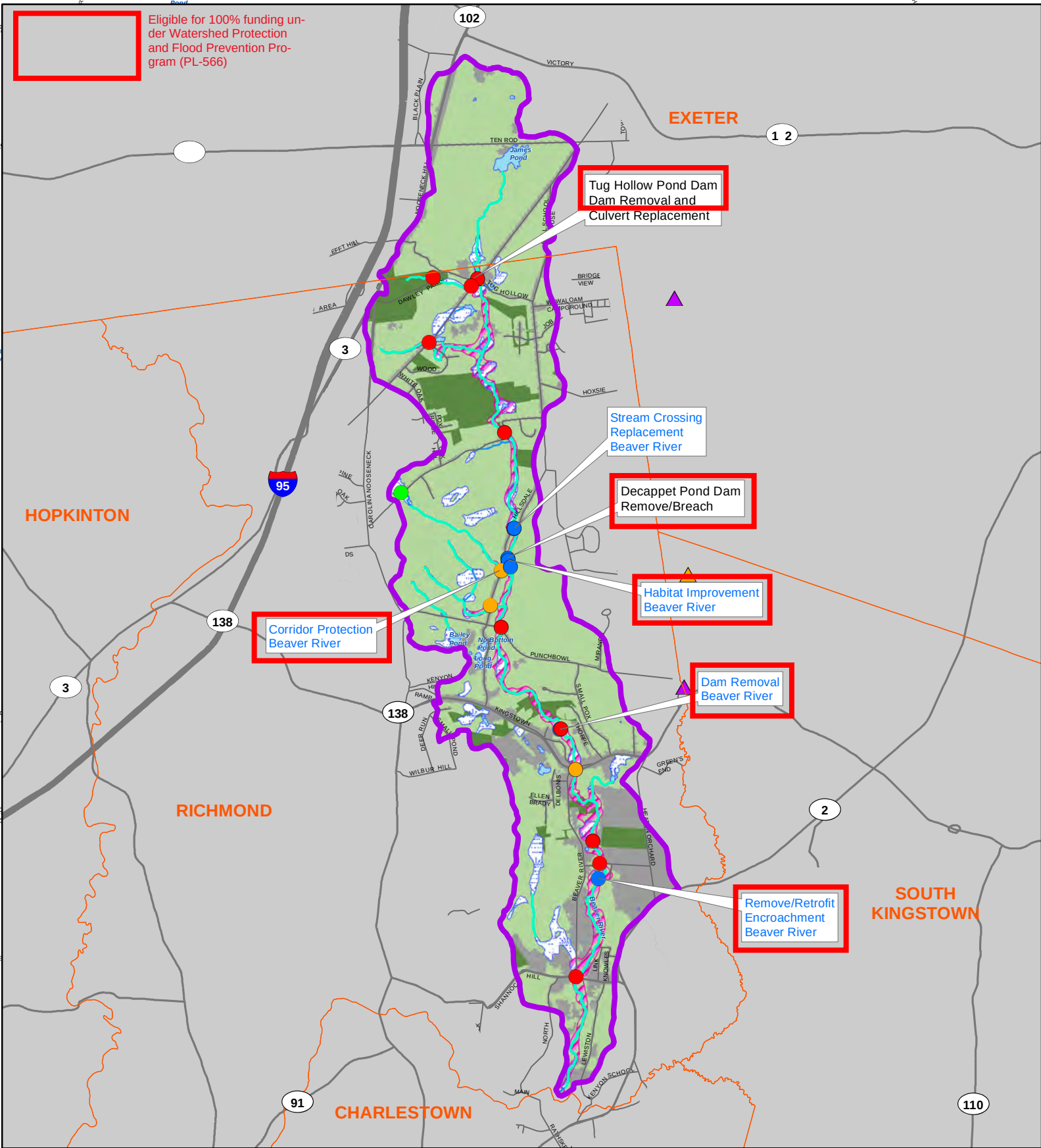
f **FUSS & O'NEILL**
317 Iron Horse Way, Suite 204
Providence, RI 02908
401.861.3070 | www.fando.com



Recommendations shown on these maps are preliminary, screening-level recommendations and require more detailed, site-specific evaluation to adequately assess various management alternatives and potential impacts. Detailed feasibility studies are required to support selection of a preferred alternative, as well as future planning, design, permitting and funding requests for specific projects.



Eligible for 100% funding under Watershed Protection and Flood Prevention Program (PL-566)



Legend

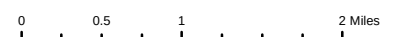
- | | | | | |
|---|--|--|--|---|
| <ul style="list-style-type: none">Green Infrastructure Retrofit SitePriority River Corridor Restoration SiteHighIntermediateLow | Bridge and Culvert Upgrade/Replacement Recommendation Priority <ul style="list-style-type: none">HighIntermediateLowWetland Restoration/Enhancement PotentialWetland Conservation Potential | <ul style="list-style-type: none">Field Verified Wetland AreasPriority Wetlands with High Flood Protection ValueSubwatershed BoundaryDeveloped LandForest/WetlandProtected Open Space | Cold Water Areas <ul style="list-style-type: none">Streams/RiversLakes/PondsRiversLakeWetland100-yr flood zone | <ul style="list-style-type: none">InterstateUS RouteState RouteConnector |
|---|--|--|--|---|

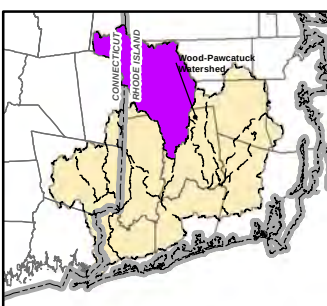
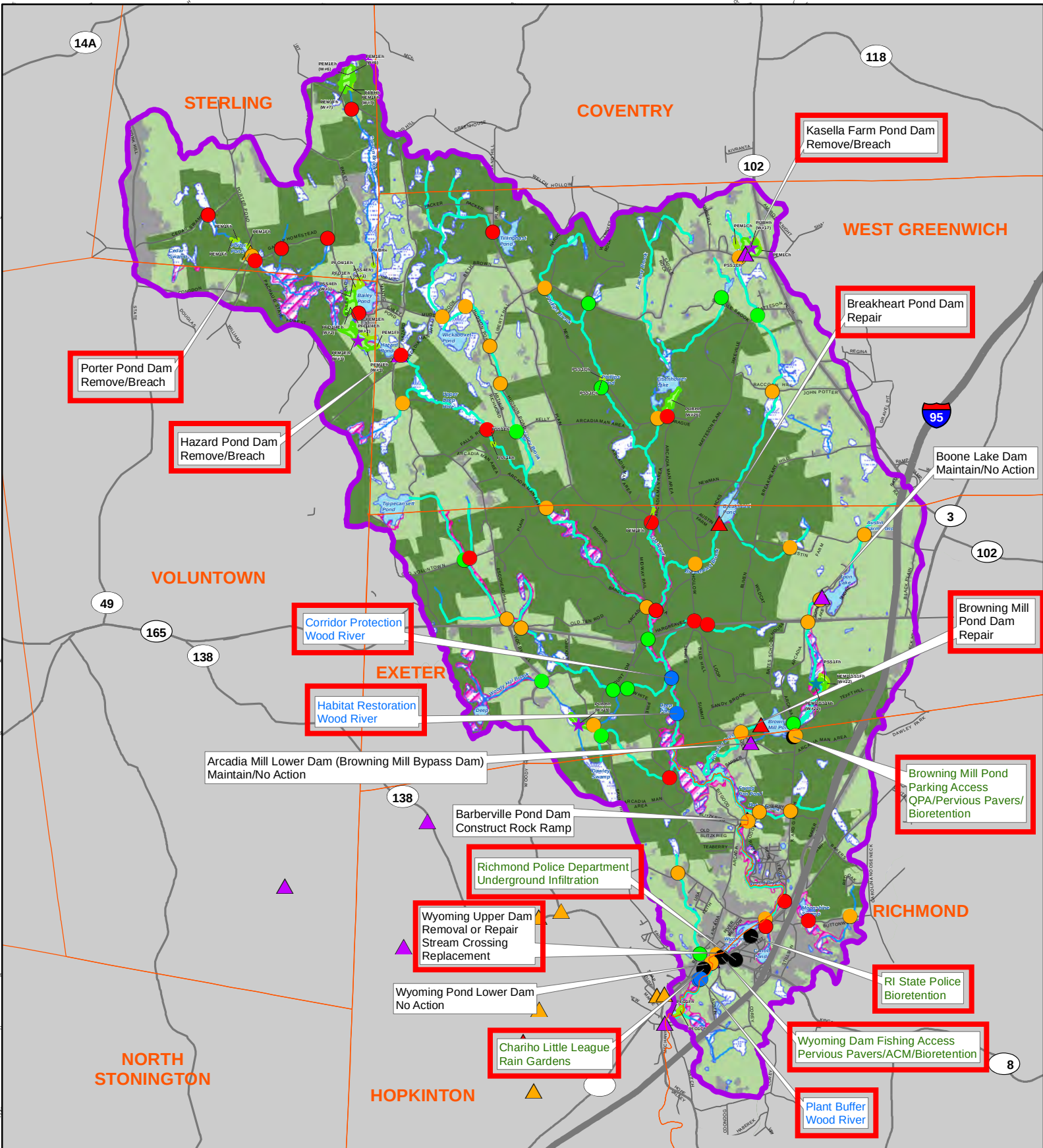
BEAVER RIVER SUBWATERSHED Flood Resiliency Management Recommendations

f **FUSS & O'NEILL**
317 Iron Horse Way, Suite 204
Providence, RI 02908
401.861.3070 | www.fando.com



Recommendations shown on these maps are preliminary, screening-level recommendations and require more detailed, site-specific evaluation to adequately assess various management alternatives and potential impacts. Detailed feasibility studies are required to support selection of a preferred alternative, as well as future planning, design, permitting and funding requests for specific projects.





- Legend**
- Green Infrastructure Retrofit Site
 - Priority River Corridor Restoration Site
 - High
 - Intermediate
 - Low
 - Bridge and Culvert Upgrade/Replacement Recommendation Priority
 - High
 - Intermediate
 - Low
 - Wetland Restoration/Enhancement Potential
 - Wetland Conservation Potential
 - Field Verified Wetland Areas
 - Priority Wetlands with High Flood Protection Value
 - Subwatershed Boundary
 - Developed Land
 - Forest/Wetland
 - Protected Open Space
 - Cold Water Areas
 - Streams/Rivers
 - Lakes/Ponds
 - Rivers
 - Lake
 - Wetland
 - 100-yr flood zone
 - Interstate
 - US Route
 - State Route
 - Connector

UPPER WOOD RIVER SUBWATERSHED Flood Resiliency Management Recommendations

f **FUSS & O'NEILL**
317 Iron Horse Way, Suite 204
Providence, RI 02908
401.861.3070 | www.fando.com



Recommendations shown on these maps are preliminary, screening-level recommendations and require more detailed, site-specific evaluation to adequately assess various management alternatives and potential impacts. Detailed feasibility studies are required to support selection of a preferred alternative, as well as future planning, design, permitting and funding requests for specific projects.

