Southern Rhode Island Conservation District

April 10, 2020

Ayana Brown
Acting State Conservation Engineer
United States Department of Agriculture
Natural Resources Conservation Service
Rhode Island
60 Quaker Lane, Suite 40
Warwick, RI 02886

RE: Application to Funding Opportunity # USDA-NRCS-RI-WFPO-001/12-1000-0-1-302
The Wood-Pawcatuck Rivers Flood Protection Watershed Plan

Dear Ms. Brown,

The Southern Rhode Island Conservation District (SRICD) is submitting the attached SFS 424 form, project maps and photos, and project narrative to USDA-NRCS-RI in response to the above referenced funding opportunity. SRICD and our partners are requesting funding to initiate the process of developing a watershed plan for the Wood-Pawcatuck Rivers Watershed as part of the Watershed and Flood Prevention Operations program-PL-83-566. SRICD and its co-applicants, The Town of Westerly, and Town of Richmond, RI are committed to acquiring the funds, all regulatory permits, licenses and land required for construction of the project. This project is in the 2nd Congressional District in Rhode Island and we are seeking federal funds to conduct the planning/NEPA phase of the project over an estimated maximum two year period. This project will not incorporate an individual detention structure larger than 12,500 acre-feet or when combined will not be greater than 25,000 acre-feet for the entire watershed.

The Southern Rhode Island Conservation District is serving as the Lead Sponsoring Organization (LSO) and SRICD has secured the support of the towns of Westerly and Richmond, RI as its co-applicants to this application (letters attached). SRICD is actively working to invite all of the Towns within the watershed to participate in all phases of the project. SRICD is committed to completing the project planning phase within the allotted 2 year period. We further commit to completing design and construction of the plan within 5 years of the project start through additional applications and with additional partners and identified local funding allocations where required. Additionally, the Wood-Pawcatuck Watershed Association has been working in cooperation with SRICD to enlist LOSs and will continue to provide invaluable assistance to the project. A previously developed Wood-Pawcatuck Flood Resiliency Management Plan (2017) developed by WPWA is attached.

SRICD is authorized by Rhode Island General Law Title 2, Chapter 4 and is governed by a volunteer Board of Directors. A conservation district is a subdivision of the state conservation committee and is a quasi-public corporation exercising public powers enumerated in RIGL 2-4-12. Powers and duties of the state conservation committee are enumerated in RIGL 2-4-6. The state committee, conservation districts, RI Association of Conservation Districts, RI RC&D, and USDA-NRCS-RI operate under an MOU which allows for a variety of arrangements for applying for federal funds, including the ability for individual districts to act as an authorized the signatory official on the SF-424 application to apply for federal government financial assistance and to commit the organization to the program requirements for projects contained wholly within the district boundaries.

The Southern Rhode Island Conservation District (SRICD) is serving as the lead Local Sponsoring Organization (LSO) for the planning and implementation phases of the proposed project and throughout the life of the project. SRICD has over 60 years of experience managing projects and programs and we currently have the capability to take appropriate actions to manage the project and carry out our responsibilities as the project sponsor during the development and implementation phase of the project and for the life of the project. SRICD has obtained letters of agreement from the Towns of Westerly and Richmond, RI and is seeking the participation of all the towns within the watershed for all phases of the project. The results of the planning and design phases will establish the preferred alternatives and specific projects to be completed in the watershed. As the watershed plan is developed, project partners will refine their letters of agreements and identify the local funding sources or mechanisms and projects schedules specific to each municipality.

The powers and duties of the SRICD are enumerated in RIGL 2-4-12(1-12) and include developing and keeping current a long-range program directed toward the conservation of natural resources for their best uses and in a manner to best meet the needs of the district and the state, taking into consideration such uses as farming, forest, water for agricultural uses, watershed protection, flood prevention and control, protection of fish and wildlife, the prevention or reduction of sedimentation and other pollution in rivers, streams, reservoirs, and the protection of groundwaters. SRICD is authorized to cooperate, enter into agreements, and/or act as agent of federal, state, or other public agencies in connection with the acquisition, construction, operation, or administration of any program or project concerning the conservation of renewable natural resources within its boundaries. RIGL 2-4-12.8 allows SRICD to construct, improve, repair, operate and maintain any structures or other works of improvement that may be necessary or convenient for the performance of any of the operations or activities authorized in this chapter. Finally, RIGL 2-4-12.12 requires SRICD to have the perpetual succession plans necessary to the exercise of its powers. SRICD anticipates working with each municipality within the watershed as planning and design phases are completed to develop the agreements and long-range plans necessary to ensure the project is maintained and operated for 50-100 years.

Article VI 19 of the Rhode Constitution allows for the general assembly to authorize the acquiring or taking in fee of property by the state, or by any cities or towns. RI General Law Chapter 42-64.12 sets forth permissible uses of eminent domain power. RI General Law (RIGL) 42.64.12-2 (b) delegates the authority to use eminent domain to the agencies of the state, the municipalities and others. RIGL 42-64.12-6(d) defines the permissible uses of eminent domain and includes the purpose "(d) Eliminating an identifiable public harm and/or correcting conditions adversely affecting public health, safety, morals, or welfare, including, but not limited to, the elimination and prevention of blighted and substandard areas, as defined by chapter 45-31, and

correcting conditions of environmental contamination that pose a significant risk to the public health, correcting and repairing facilities, and correcting conditions from damages that result from a declared disaster".

SRICD and our partners look forward working with you and NRCS-RI to complete this project. If you have any questions or need additional information please feel free to contact me at gfuller@sricd.org or (401) 661-5761.

Sincerely,

Gina T. Fuller
District Manager
Southern Rhode Island Conservation District

CC: Town of Westerly, Lisa Pelligrini, Director of Development Services
Town of Richmond, Shaun Lacey, Town Planner
Wood-Pawcatuck Watershed Association, Chris Fox, Executive Director

Attachments: **Project Narrative**
Photos and Maps
Town of Westerly Resolution
Town of Richmond Letter of Cooperation
SF 424 form
Wood-Pawcatuck Flood Resiliency Management Plan

The Wood-Pawcatuck Flood Protection Watershed Plan
Project Narrative

Project Purpose

The purpose of this project is to develop a Watershed Plan that identifies prioritized actions to protect and enhance the flood resiliency of several subwatersheds and municipalities in the Wood-Pawcatuck watershed as well as improve river and stream ecosystems, including water quality and habitat. This watershed is 87% undeveloped or in agriculture and about 75% is non-industrial forest land and yet has major flooding challenges.

This project will build on a previously completed flood resiliency management plan completed for the Wood-Pawcatuck Watershed Association in 2017 by updating it to NRCS standards and developing recommended actions that could be funded by future PL-566 grants. The NRCS plan that is proposed to be funded by PL-566 will build on the previous flood resiliency plan by utilizing the watershed data compiled as part of that earlier plan in order to inform alternatives that will be developed and evaluated as part of an NRCS-approved plan. This approach will maximize the investment made by NRCS in developing a Watershed Plan.

The primary goals and expected outcomes of the watershed management plan include:

- Protect and enhance the resiliency of the watershed communities to future flood damages.
- Maintain and improve the viability of agricultural and forested land.
- Strengthen and restore natural ecosystems, including water quality, species and habitat, while increasing flood resiliency.
- Help the watershed communities (local and state governments and private land owners) prepare for and mitigate the impacts of future severe storms.
- Protect critical community infrastructure and the ability of communities to deliver vital municipal services.
- Protect and enhance fish and wildlife species and habitats.
- Help communities understand watershed and riverine processes so that better land use and infrastructure investments can be made.
- Strengthen local land use policies and regulations to enhance flood resilience.
- Improve the quality of life, recreational opportunities, and economic viability of the watershed communities.
- Facilitate capacity-building and engage the watershed municipalities and other stakeholder groups in the watershed planning process and future plan implementation.
- Promote collaboration across municipal boundaries, bringing the watershed communities and groups together to cooperate around shared issues of concern and objectives without compromising their "home rule" principles.

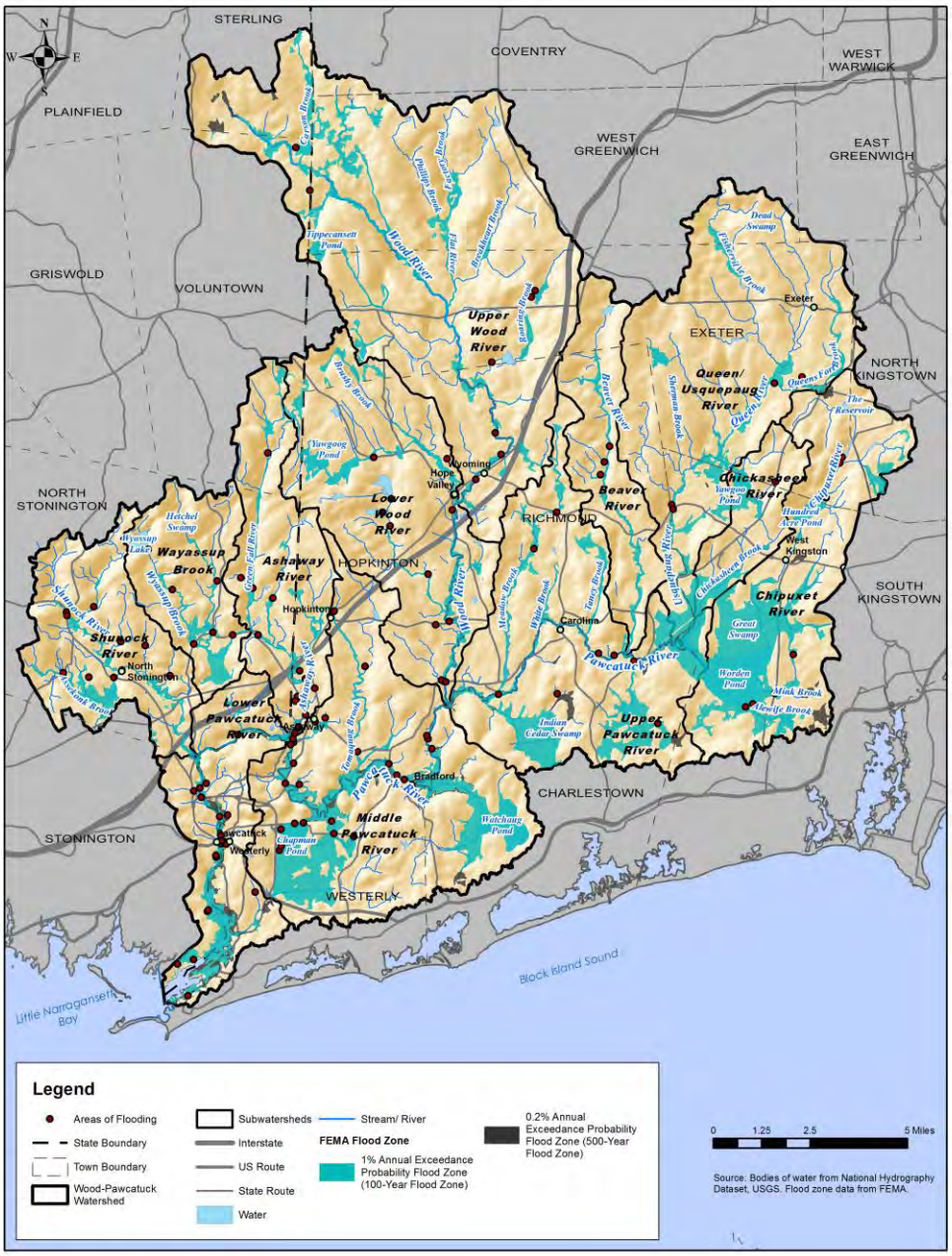
This project will also build on the National Wild and Scenic Rivers designation received under the federal Wild and Scenic Rivers Act. This project is an opportunity to incorporate nature-based approaches to improve flood resiliency that can add to the habitat value of this watershed.

This project is focused on developing an NRCS-approved Watershed Plan for the subwatersheds of this river system that drain through the Towns of Westerly and Richmond, RI who are partnering with the Southern Rhode Island Conservation District to implement this project. These subwatersheds are further described below.

Wood-Pawcatuck Watershed Map

Project Need

Riverine flooding and drainage-related flooding in developed areas are relatively common in the Wood-Pawcatuck watershed. The 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 (**Error! Reference source not found.**). The incredible amount of precipitation (over 16 inches) that fell in February and March 2010, along with saturated soils, high water tables, lack of leaf cover and limited pervious surfaces all contributed to the worst flooding ever documented along the Pawcatuck River and many other areas of Rhode Island (RIEMA, 2011).



Several factors contribute to flooding in the watershed. Historical development in the watershed has resulted in filling of wetlands, floodplains, and floodways, which has reduced natural flood storage and placed development in flood-prone areas. Many of the streams in the watershed, as is common in New England, have also been physically modified (i.e., moved, straightened, hardened), which can increase riverine erosion hazards in certain areas. Development of the landscape with roads, parking lots, and buildings – impervious surfaces that prevent rainfall from infiltrating into the ground naturally – has increased the amount of storm runoff. Stormwater drainage infrastructure in developed areas also conveys runoff quickly to rivers and streams. Undersized bridges and culverts have also contributed to flooding and erosion. Dams within the watershed create flood hazards by backing up water during major floods and by releasing very large quantities of flow, sediment, and debris in the event of a sudden failure.

The following table summarizes significant rainfall and flooding events in Washington County over the last ten years, according to information compiled by the National Climatic Data Center (Town of Charlestown Natural Hazard Mitigation Committee, 2016).

Significant rainfall and flooding events in Washington, County, Rhode Island.

Date	Rainfall across Watershed (inches)	Comments
March 14, 2010	3"-6"	Heavy rain caused flooding of small steams, urban and poor drainage areas. Strong winds associated with the storm also downed trees, limbs and wires.
March 29, 2010	5"-10"	The Pawcatuck River set a record of nearly 15 ½ feet and overflowed its banks in Charlestown closing Route 91 and Shannock Road. Numerous roads and basements were flooded. The entire state was impacted by this event and a Presidential Disaster Declaration was made. It is estimated that there were over $26 million in damages.
June 7, 2013	3"-6"	Three to six inches of rain fell across Washington County. In Charlestown, Route 1, Route 112, Old Coach Road, and Klondike Road all were flooded.
March 30, 2014	2"-5"	Anywhere from two to five inches of rain fell across southern New England with the highest amounts falling along the south coast of RI and MA. This resulted in flash flooding across much of this area.
July 15, 2015	Flood/Flash Flood	Showers and thunderstorms developed across the area as a result of an upper level disturbance and a cold front. A couple of these slow moving storms resulted in flooding or flash flooding.
July 28, 2015	Damaging Winds/Heavy Rains	A strong upper level disturbance sparked showers and thunderstorms across much of southern New England. A few of these storms became severe, producing damaging winds. Others produced heavy rain that resulted in flooding.

Agriculture and/or Rural communities in the Watershed

The Wood and Pawcatuck River and their tributaries received a National Wild and Scenic Rivers designation in March of 2019 under the federal Wild and Scenic Rivers Act. Several facts are noted below from this designation.

- 87% of the land is undeveloped or in agriculture and about 75% is non-industrial forest land
- 24 miles of 'wild' river segments – the second most 'wild' miles of any Partnership Wild and Scenic River System in the US
- The longest Wild and Scenic River System in New England with 110 miles
- 75% of all animal species found in RI occur within this watershed
- 70% of globally rare and 63% of RI's rare species and natural community occurrences are found within this watershed
- The darkest sky region between Washington DC and Boston
- Pawcatuck River system has been identified by the Nature Conservancy as one of the best examples of intact riverine habitat in the Lower New England ecoregion

The Wood-Pawcatuck watershed is characterized by its large tracts of deciduous forest and is noted for having the largest, most undisturbed forest lands remaining between Boston and New York City (National Park Service, 2013). The forest landscape is home to many unique habitats and rare species that exist in the watershed. Forest cover ranges from a low of approximately 22% in the Lower Pawcatuck River subwatershed to a high of approximately 70% in the Upper Wood River subwatershed (Wood-Pawcatuck Watershed Association, 2015). An additional 9% of the watershed is categorized as undeveloped upland habitat including shrub/scrub and grassland habitats. Forested wetlands also make up a large percentage of the various wetland types in the watershed.

Estimated land cover by percentage and acreage within the Wood-Pawcatuck watershed.

Land Cover	Percent of Watershed	Watershed Area (Acres)
Water	2.4%	4,690
Urban Open Space	5.4%	10,445
Developed, Low Intensity	4.0%	7,694
Developed, Medium Intensity	2.4%	4,669
Developed, High Intensity	0.3%	587
Barren Land	0.5%	912
Deciduous Forest	47.8%	92,579
Evergreen Forest	6.7%	13,013
Mixed Forest	3.2%	6,214
Shrub/Scrub	0.8%	1,482
Grass/Fields	7.9%	15,323
Cultivated Crops	1.0%	1,981
Wetlands	17.6%	34,122

In Rhode Island alone, the Wood-Pawcatuck River Watershed includes substantial areas of prime and Statewide Important farmland soils. There are more than 300 farms in the watershed that are registered with

the State of Rhode Island Farm Forest and Open Space program. From the State of Rhode Island GIS database, the acreages of these areas in the watershed are as follows:

- Not Prime Farmland: 112,389
- Prime Farmland: 21,303
- Statewide Important: 23,988

Watershed Size and Segments

The Wood-Pawcatuck River is approximately 303 square miles in size and extends through Southwestern Rhode Island as well as part of Southeastern Connecticut. This project is focused on developing a Watershed Plan for several of this river's subwatersheds that are located in the Towns of Richmond and Westerly, Rhode Island. These subwatersheds are described in the following table and make up a total of 160 square miles of the total watershed.

Subwatersheds in the Wood-Pawcatuck watershed.

Subwatershed Name	Area (mi^2)	Length of Mapped Streams (Miles)
Upper Wood River	61.0	82.71
Upper and Middle Pawcatuck	71.0	100.58
Lower Pawcatuck River	15.8	27.06
Beaver River	12.4	18.53
Total	**160**	**229**

Watershed characteristics and affected environment

The Wood and Pawcatuck Rivers are situated in southwestern Rhode Island and southeastern Connecticut. The area of land that drains to the Wood and Pawcatuck Rivers – commonly referred to as the "Wood-Pawcatuck watershed" – encompasses just over 300 square miles, or one quarter the size of Rhode Island. 87% of the land in this watershed is undeveloped or in agriculture and about 75% is non-industrial forest land. More than 83,000 people live in the Wood-Pawcatuck watershed. There are two main population centers within the watershed – one in Westerly, Rhode Island and Pawcatuck, Connecticut along the estuary portion of the Pawcatuck River, and another in South Kingstown, Rhode Island on the eastern side of the watershed. The rest of the watershed consists of a predominantly rural wooded landscape amongst a series of towns that developed as mill villages along the Pawcatuck River and its tributaries. The watershed is also home to Narragansett Indian tribal land in Charlestown, Rhode Island.

This project is focused on improving the flood resiliency of several of the subwatersheds for the Wood and Pawcatuck Rivers that are located in the Towns of Westerly and Richmond which are partners for this project. These subwatersheds are described below.

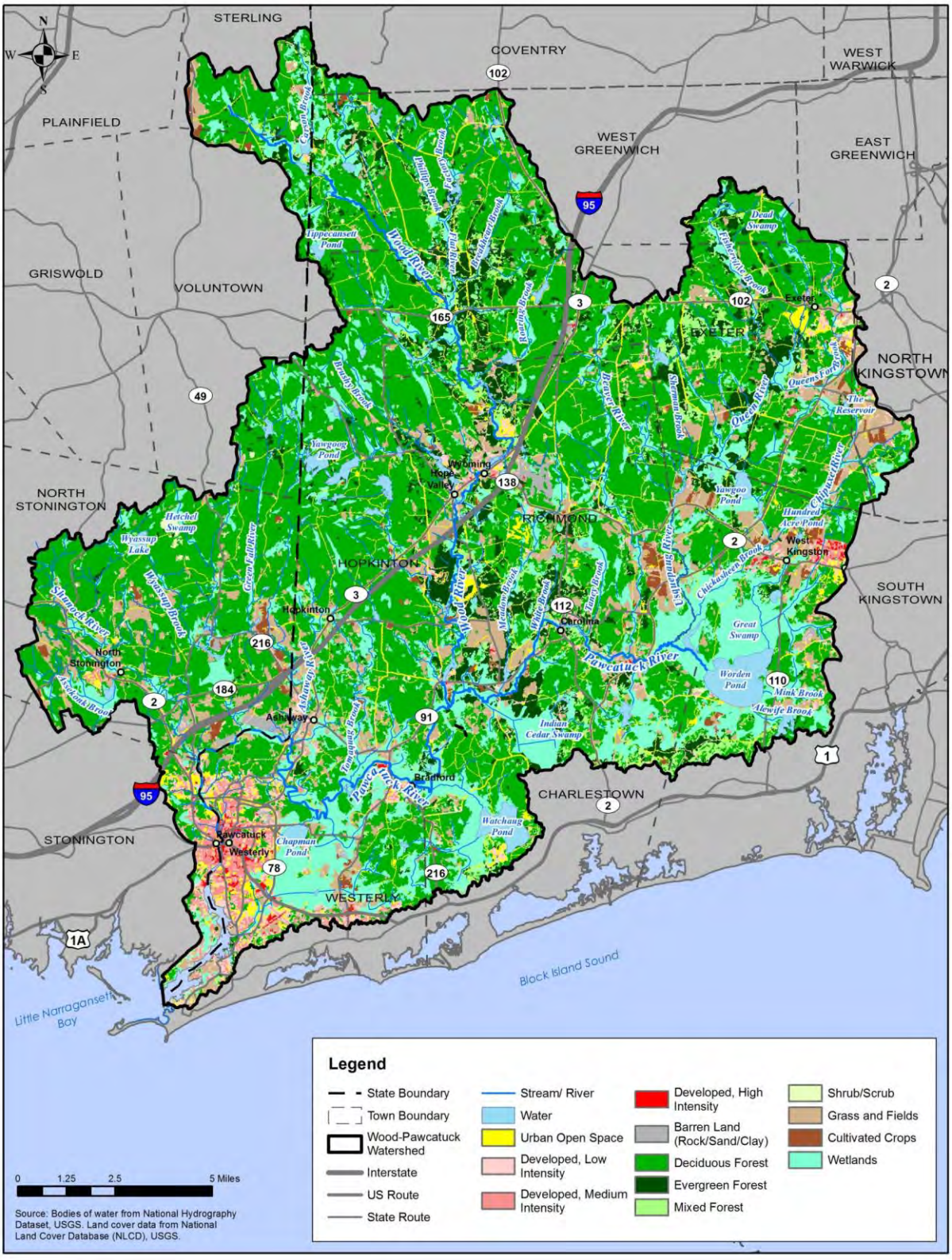
- **Upper Pawcatuck River:** The Upper Pawcatuck River forms the border between Charlestown and Richmond between Worden Pond and its confluence with the Wood River. Major tributaries to this segment include the Usquepaug River, Beaver River, Taney Brook, White Brook, and Meadow Brook. The Upper Pawcatuck flows through Great Swamp as it leaves Worden Pond and continues flowing west through the villages of Kenyon, Shannock, Carolina, and Alton.

- **Middle Pawcatuck River:** The Middle Pawcatuck River segment begins at the confluence with the Wood River and flows south-southwest through primarily forested and wetland areas, crossing the Amtrak rail line several times, through the village of Bradford along the Hopkinton-Westerly town border, and ending at the confluence of the Ashaway River. Tomaquaug Brook is the major tributary to this segment of the Pawcatuck River.

- **Lower Pawcatuck River:** The Lower Pawcatuck River is defined as the portion of the river downstream of the Ashaway River, as the Pawcatuck forms the border between Rhode Island and Connecticut. The river flows southwest from Potter Hill in semi-circle towards downtown Westerly, Rhode Island and Pawcatuck, Connecticut. As the River travels downstream of Route 78, the watershed becomes more urbanized and developed. The estuarine portion of the river begins at the Route 1 crossing and extends south to Little Narragansett Bay. The Shunock River and several smaller tributaries that drain more urbanized portions of Westerly and Stonington flow into this lower segment of the Pawcatuck River.

- **Beaver River:** The Beaver River watershed is an approximately 12.4 square mile area of land situated east of the Queen-Usquepaug River watershed. The river begins at James Pond in Exeter. From there, it flows roughly due south for approximately 11 miles through Exeter and Richmond to its mouth at the Pawcatuck River near the village of Shannock. There are several dams along the Beaver River, and the river crosses major roads including New London Turnpike and Route 138. The northern and middle portions of the watershed are primarily forested, while the lower watershed contains a larger percentage of agricultural land use including some turf farms.

- **Wood River:** The headwaters of the Wood River begin in a swamp near Porter Pond in Sterling, Connecticut. From there, it flows southeast to Hazard Pond, where the river crosses into Rhode Island. From the state line, it flows southeast over Stepstone Falls, then south through Beach Pond State Park where it receives the Flat River. (The Upper Wood River is also known locally as the Falls River.) After receiving the Flat River, the Wood continues south through the Arcadia Management Area and into the towns of Richmond and Hopkinton, where it flows through the villages of Wyoming and Hope Valley. The river continues south through Hopkinton where it converges with the Pawcatuck River at the village of Alton. The Wood River serves as the border between Richmond and Hopkinton. Almost 90% of the Wood River watershed is undeveloped, with much of this land protected as part of the Arcadia Management Area. The Wood River and its tributaries are notable for their high biodiversity, pristine water quality, cold water fisheries, and significant recreational value.


N
W
E
S
STERLING
COVENTRY
WEST WARWICK
PLAINFIELD
WEST GREENWICH
EAST GREENWICH
GRISWOLD
VOLUNTOWN
EXETER
NORTH KINGSTOWN
NORTH STONINGTON
RICHMOND
HOPKINTON
SOUTH KINGSTOWN
CHARLESTOWN
STONINGTON
WESTERLY
Hopkinton
North Stonington
Ashaway
Bradford
Pawcatuck
Westerly
Carolina
Hope Valley
Wyoming
West Kingston
Exeter
Tippecansett Pond
Wood River
Yawgoog Pond
Wyassup Lake
Pawcatuck River
Great Swamp
Worden Pond
Watchaug Pond
Chapman Pond
Indian Cedar Swamp
Block Island Sound
Little Narragansett Bay
0 1.25 2.5 5 Miles
Source: Bodies of water from National Hydrography Dataset, USGS. Land cover data from National Land Cover Database (NLCD), USGS.
Legend
State Boundary
Town Boundary
Wood-Pawcatuck Watershed
Interstate
US Route
State Route
Stream/ River
Water
Urban Open Space
Developed, Low Intensity
Developed, Medium Intensity
Developed, High Intensity
Barren Land (Rock/Sand/Clay)
Deciduous Forest
Evergreen Forest
Mixed Forest
Shrub/Scrub
Grass and Fields
Cultivated Crops
Wetlands

Topography. Geology and Soils

Glaciers formed the topography of the watershed roughly 16,000-17,000 years ago leaving behind a landscape of low rolling hills with associated valleys that trend north to south with a slight east to west component. The highest point in the watershed is just over 629 feet on Bald Hill in West Greenwich, Rhode Island, while the low point is in the estuary portion of the watershed where the Pawcatuck River meets Little Narragansett Bay (Bent, et al., 2011).

The surficial geology of the Wood-Pawcatuck watershed is characterized by deposits of glacial till overlaying areas of crystalline bedrock (Bent, et al., 2011; Breault, et al., 2009). The glacial deposits vary in thickness throughout the watershed but average 20-25 feet with thicker deposits ranging from 0-200 feet thick. Post glacial deposits of floodplain alluvium, organic peat, and muck are also present (Bent, et al., 2011; Breault, et al., 2009).

The most distinct geologic feature within the watershed is the Charlestown moraine, which makes up the southern boundary of the watershed. The Charlestown moraine is a glacial deposit that represents the long-term recessional position of the retreating glacier (Schafer, 1965). The moraine varies in thickness with a maximum of approximately 300 feet (Masterson, Sorenson, Stone, Moran, & Hougham, 2007). As the glacier retreated the moraine effectively dammed the formerly southerly draining rivers in the area and directed the flow to the southwest (Masterson, Sorenson, Stone, Moran, & Hougham, 2007).

The glacial deposits in the watershed have contributed to a legacy of fairly well draining soils throughout the watershed. Hydrologic Soil Group classifications assigned by the Natural Resources Conservation Service (NRCS) are a good indicator of the runoff and infiltration potential of soil types in a watershed. Group A soils generally have low runoff potential and high infiltration rates, while Group D soils have high runoff potential and very slow infiltration rates (Natural Resources Conservation Service, 2009).

Group A and B soils make up approximately 65% of the watershed with B soils being the predominant Hydrologic Soil Group (Error! Reference source not found. and Error! Reference source not found.). The majority of the well-draining A soils appear to run north to south along the length of the Upper Wood River through the Towns of West Greenwich, Exeter and Hopkinton, Rhode Island. Generally, the poorest draining soils coincide with wetland complexes located in the southern portion of the watershed and glacial till/bedrock areas in the northwestern areas of the watershed.

Community Characteristics and Potential Benefits to the population

This project is focused on developing a watershed plan to improve the flood resiliency of the Wood-Pawcatuck river system in the Towns of Richmond and Westerly, RI. This project will develop a recommended action plan that will make public infrastructure more resilient to future flooding events. In addition to better protecting the infrastructure that these communities rely on to function as a community this project will also serve to make private property and investments more resilient. Better protecting infrastructure will serve these Towns by allowing economic activity, travel and emergency access during and after flood events in these mostly rural communities.

The following table summarizes minority and population in poverty based on current U.S. Census Bureau statistics.

Municipality	Total Population	Minority Population (%)	Persons in Poverty (%)
Richmond, RI	7,702	6.1	3.8
Westerly, RI	17,936	10.5	9.8

Historical development in the project area was centered around the many mills which operated during the industrial revolution and resulted in the establishment of many mill villages on the banks of the river or within flood plains. Today many of these villages and even some of the mills now support low income housing resulting in socially disadvantaged or minority communities in living in flood prone areas. Socially disadvantaged or minority communities were significantly impacted in the flood of 2010 in areas such as the Bradford and White Rock mill villages in Westerly.

Included in the project area is US Census Tract 44009050801 which is identified as a Food Desert by USDA and as an Opportunity Zone which is designed to provide tax incentives to investors who fund businesses in underserved communities. State St and Springbrook Elementary schools serve the project area and the percentage of students receiving Free and Reduced Lunches at each is 35.9% and 50.2% respectively. Family vegetable gardens, grape vines, and fruit trees are common in these areas. The Town does not have a social services agency and relies on private groups to offer those services.

Technical Assistance Request

The applicants are requesting funds for planning to develop a PL-83-566 approved Watershed Plan which builds on the previous flood resiliency management plan completed for the watershed. The approved Watershed Plan would identify and develop alternatives in order to provide a set of best actions that could then be implemented by the applicants. After a successful plan is approved, the applicants will then complete design and implementation of the recommended actions with additional NRCS funding.

The applicant is seeking federal funds to conduct the planning/NEPA phase of the project over an estimated maximum two year period.

Public Meetings /and Evidence of Flooding

Evidence of flooding over the last 10 years has been provided in earlier section of this application.

During the completion of the 2017 Flood Resiliency Plan completed by the Wood-Pawcatuck Watershed Association, a number of public engagement events were held throughout the watershed to engage the public and build consensus on the need for future actions to improve flood resilience in the watershed.

The following public outreach activities occurred during the watershed planning process.

Project Steering Committee Meetings

A series of meetings were held with the Project Steering Committee and other invited stakeholders to discuss issues of concern in the watershed and to identify watershed planning goals and objectives. Steering committee meetings were held at WPWA headquarters in Hope Valley, Rhode Island on the following dates:

- March 26, 2015
- May 21, 2015
- November 19, 2015
- April 14, 2016

Watershed Survey

A survey was conducted to obtain early feedback from the Project Steering Committee and other stakeholders regarding the top concerns and issues in the Wood-Pawcatuck watershed and the desired outcomes of the watershed planning process. The survey was completed on-line using Survey Monkey and by filling out paper forms in some cases. The survey results are provided in **Appendix C** of this plan.

Although survey responses varied, the **most common issues and concerns** regarding the Wood-Pawcatuck watershed were:

1. River-related flooding
2. Drainage-related flooding
3. Clean water/water quality
4. Stormwater management
5. Groundwater/drinking water
6. Dams – safety/fish passage

The **most common desired outcomes** of the Wood-Pawcatuck watershed flood resiliency planning process were:

1. Flood protection/mitigation
2. Protection of groundwater drinking supplies
3. Increased use of sustainable land use practices for future development
4. Improved fish passage/dam removal
5. Provisions for infrastructure inspection/repair
6. Prioritized list of specific actions

Community Meetings

Community meetings were held in October 2016 and June 2017 for municipal staff and the public. The October 2016 meetings were held on October 13, 2016 at the Richmond Volunteer Fire Station in Richmond, Rhode Island and on October 20, 2016 at the Westerly Library in Westerly, Rhode Island. The objective of these meetings was to present a summary of the study findings and preliminary recommendations and to obtain feedback from the watershed communities to help shape the watershed management plan. Two additional community meetings were held on June 23, 2017 at the Westerly Library and the Richmond Community/Senior Citizen Center in Wyoming, Rhode Island. The purpose of the June 2017 meetings was to obtain feedback and comments on the draft watershed management plan.

Flooding in the Wood-Pawcatuck Watershed March 30-2010

Alton Dam,

Beaver River at Decoppett Estate , Richmond RI

Pawcatuck River Braford, RI (Westerly) "Bradford Fish Ladder"

Pawcatuck River, Braford, RI (Westerly)

Dow Field, Hopkinton, RI