

# Lower Farmington River/Salmon Brook

## *Wild and Scenic Study*



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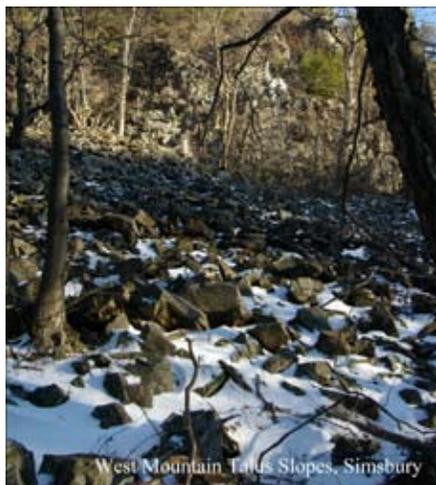
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## *Crunch, Tear, and Scrape: Origins of A Wild and Scenic Landscape*

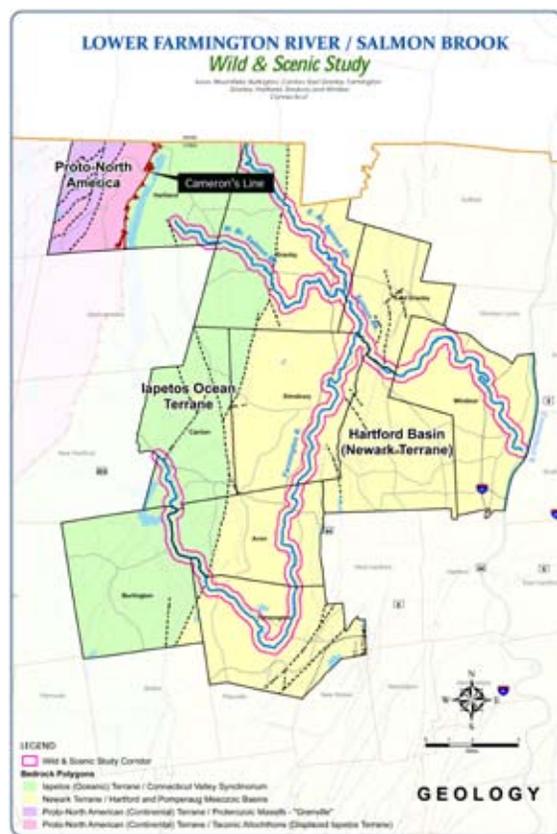
In this, the fifth Wild & Scenic Study Committee newsletter, we are featuring Geology as an Outstanding Resource Value (ORV) of the Study Area. Each of the previous newsletters focused on one of the four other ORVs, Water Quality, Biodiversity, the Cultural Landscape and Recreation. Unlike the other ORVs, which we have studied as river and brook corridor resources, the Geology ORV encompasses the whole area of the ten Study Area towns, Avon, Bloomfield, Burlington, Canton, East Granby, Farmington, Granby, Hartland, Simsbury and Windsor.

The geologic history of the Wild & Scenic Study Area has given it a varied landscape. The westernmost part of the Study Area is upland - hilly terrain with rocky soil. By contrast, Farmington, Avon and Simsbury, East Granby, Bloomfield and Windsor have extensive flat areas with good to excellent farmland soils.



These areas are punctuated by the familiar traprock ridges with their cliffs, and these are not the only rugged areas in our towns. Other examples are the Gorge on Mountain Brook in Enders State Forest in Granby and the well-known Tariffville Gorge on the Farmington, where white water draws international kayakers. In spite of these dramatic highlights, most of our landscape has a gentle and domestic look. This appearance belies its geologic origins, which can be summed up as “crunch, tear and scrape”.

**CRUNCH:** One of the things that makes Geology an Outstanding Resource Value in our Study Area is the fact that within the ten towns, we contain a billion years of geologic history. According to former State Geologist Ralph Lewis, that's a very long time span for such a small area. The very oldest bedrock of our Study Area, at a billion years old, lies in western Hartland and is a piece of Proto-North America. In the far distant past, the Proto-North American continent and the African continent were separated by the ancient Iapetos Sea. Offshore from Proto-North America lay the Shelburne Volcanic Island Arc. About 500 million years ago the two continents began to converge. Eventually they crushed and metamorphosed the volcanic island arc, squeezed out the ancient sea,



and forced sea bottom sediments up over the edge of Proto-North America, leaving a bit of Proto-North American bedrock in northwestern Hartland uncovered. Today, according to Ralph Lewis, “The former eastern margin of North America is represented by the billion year old gneisses and schists to the west of Cameron's line. Remnants of the Iapetos Ocean in the form of metamorphosed deep ocean sediments and a portion of the Shelburne Volcanic Island Arc under-



Barndoor Hills, Granby

lie the area between Cameron's Line and the Hartford Basin."

**TEAR:** About 250 million years ago the continents were shifting again as North America and Africa began to separate. Rifts developed in the earth's crust. The actual tear that ultimately separated the two continents developed into the Atlantic Ocean, but a number of other less significant rifts also formed, including the Hartford Basin. There, some tears in the crust of the earth were deep enough to allow lava to flow out. In some places it flowed out under the earth's surface and cooled underground. This is how the Barndoor Hills in Granby and Onion Mountain in Simsbury and Canton, made of a kind of traprock, diabase, were formed. The softer material above and around the diabase has since eroded, leaving these landscape features we enjoy today. In some other places where rifts developed, the magma flowed across the land's surface, over sedimentary material that had eroded from the mountains formed during the "Crunch" phase. This magma hardened into the basalt, another type of traprock, that makes up Penwood and Talcott Mountains.

**SCRAPE:** "Scrape" sums up the effects of glaciation on our landscape. Most of the glacial deposits in Connecticut result from the Wisconsinian glaciation between 26,000 and 15,000 years ago, although two ages of glacial till indicate that Connecticut has undergone at least

two periods of glaciation. As thick sheets of ice slowly ground their way over the land from the north, they scraped up soil and rock in their paths, carrying the material along in the ice. When the glaciers began to melt, a mixture of accumulated debris was left behind. That unsorted material is called till. Somewhere in your town you will find till. When you dig in it, you find rocks of various sizes, along with sand and gravel. A common feature of our area's uplands, till is one reason that many New England farmers abandoned Connecticut farms to travel to the Midwest where soils are much better.

In what might seem like a contradiction, the glaciers also provided some of our towns excellent soil for farming, a very valuable natural resource. As the glaciers melted, glacial debris blocked the flow of watercourses including the Farmington River. Glacial debris in the Farmington area caused the river's water to back up, forming glacial Lake Farmington on the west side of the Talcott Mountain ridgeline. Silt and sand settled out of the melt water and eventually became the basis of the alluvial soils of the Farmington Valley. On the east side of the ridge, melt water that formed glacial Lake Hitchcock carried sediments which are the basis of the excellent soils of the Central Valley, including prime farmland soils in Bloomfield and Windsor. The international tobacco trade that was a major Connecticut export business for many years was possible because of these alluvial soils.

The geologic resources of the Wild & Scenic Study Area not only include soils that are valuable for growing food and ridges that offer both refuges for wildlife and open space for recreation but also include the sand and gravel aquifers that are the source of much of our area's drinking water. Over the years, geologic resources have been important to our communities in many other ways. Some examples include sand and gravel operations in Farmington, a traprock quarry in East Granby and brownstone quarries in Simsbury which provided building materials for the Belden Building (Town Hall today).

One of the responsibilities of the Wild & Scenic Study Committee is to develop an advisory Management Plan with protection goals, priorities and protection tools to conserve and enhance the ORVs, including Geology. For geology, protection priorities include protecting agricultural soils and local farms, protecting drinking water aquifers, protecting significant and diverse geologic features and planning for a changing, dynamic river. Some of these priorities are already being addressed by town and state regulations, by purchase of conservation easements to protect working farms and by acquisition of open space. For more discussion on what might be done to safeguard important geologic resources, see the advisory Management Plan on the Wild & Scenic Study website at: [www.lowerfarmingtonriver.org](http://www.lowerfarmingtonriver.org).

## We're Going to Congress!

**A**nd we're working hard to make it happen this coming summer!

It is almost three years since the Lower Farmington River/Salmon Brook Wild & Scenic Study Committee began the process of seeking a Partnership Wild & Scenic designation for these two high quality watercourses with very special attributes that make them great assets to the ten towns through which they run. The Committee has determined that there are five Outstanding Resources Values (Geology, Water Quality, Biodiversity, Cultural Landscape and Recreation), any one of which would make the lower Farmington and Salmon Brook eligible for designation.

The Committee has worked hard to inform town governments, local other organizations and the people of the towns about what a Wild & Scenic designation would mean for their communities.

A number of organizations and individuals have already written letters to the Committee supporting the designation, as have some of the ten towns. Gathering endorsements is one project in which Committee members are engaged because without the support of the town governments and the people they represent, the Congress and the Senate of the United States will not vote to designate our watercourses as Partnership Wild & Scenic. Public support makes the lower Farmington and Salmon Brook suitable for designation.

The Committee, and especially Joyce Kernnedy Raymes, our National Park Service Study Coordinator, are also busy putting together the advisory Management Plan for the lower Farm-

ington and Salmon Brook. The Management Plan, which will accompany a Study Report, will provide guidance for protecting the Outstanding Resources Values which make the two watercourses eligible for designation.

While the documentation of the Outstanding Resource Values is based on science, the process of getting a designation is a political one. Congressman Chris Murphy, whose office has been immensely helpful in dealing with a number of Wild & Scenic related questions, will put together a bill to go before Congress this summer. That means that all our work must be completed by April and turned in to him.

We've relied on help and support from many sources, including the staff and elected officials, leaders of the ten towns involved in the study, local organizations, our representatives to the Connecticut legislature, our legislators at the Federal level (Congressmen Chris Murphy and John Larson, and Senators Lieberman and Dodd), Jamie Fosburgh from the Boston office of the National Park Service, and of course, all those Study Committee members who have come to meetings, attended public events and talked to visitors, written articles, produced posters and videos, provided refreshments, buttonholed friends and talked about the project, put personal plans on hold to work on the Committee, and most likely done many other unrecognized things to help. We offer our heartfelt thanks to all, and look forward to the benefits of having our watercourses become part of the National Park Service's Partnership Wild & Scenic Rivers System.

Sally Rieger, *Chair of the Study Committee*

## Featured Town: Burlington

**T**he first inhabitants of present-day Burlington were members of the Tunxis Indian Tribe. The first English settlers of Connecticut arrived in 1636. In 1640, John Haynes, governor of Connecticut, negotiated on behalf of the settlers a purchase from the Tunxis Indians of a large tract of land west of Hartford. The newly acquired land was renamed Tunxis Plantation and in 1645 was incorporated as the Town of Farmington. The original land area of Farmington included the present-day towns of Avon, Berlin, Bristol, Burlington, Farmington, New Britain, Plainville, Southington and parts of other towns.

Disagreement between two Bristol parishes led to a split and in 1806 the General Assembly allowed the Parish of West Britain to establish itself as the Town of Burlington. Although America

was independent from Great Britain for three decades, tradition held that the new name for West Britain be selected by the General Assembly to honor England's 3rd Earl of Burlington.

While most 19th century Burlington residents engaged in farming, several small industries were established, utilizing the water power of Burlington's numerous brooks and streams. Burlington's small mills and manufactories produced a wide variety of products, such as cider brandy, flintlock muskets, wooden shingles, mantel clocks, satinets, carriages, coffins, needles and charcoal. Burlington's numerous natural resources were harvested, including copper from an ore deposit which straddles the Bristol/Burlington border, granite for building, chestnut for railroad ties and other building materials. In winter

even ice was harvested.

Today the Town of Burlington is a rural combination of forest, watershed land and unique neighborhoods.

Burlington is home to Sessions Woods, a 772-acre wildlife management and learning center that boasts three hiking trails with access to the Tunxis Trail. The Burlington Land Trust dedicates its efforts to preserving the natural resources of the town including over 30 miles of the Blue-Blazed Tunxis Trail. The Farmington River Watershed Association keeps watch over our section of the Farmington River and its banks. The Farmington Valley Greenway's "Rails-to-Trails" multi-use path runs along side the Farmington and connects to Collinsville to the north and Unionville to the east.

by Paul Rochford

## Featured Town: Hartland

Hartland lies in the western highlands of Connecticut, with the distinction of being the highest incorporated town in the state. In geological terms, we have the oldest bedrock of the Lower Farmington River/Salmon Brook Wild & Scenic Study Area. It is in our western section, dates back a billion years, and is part of Proto-North America. In town, elders know of the much younger esker, named the “Windrow”, and the glacial ice erratic, “balance rock” is monumental. The microclimate caused by elevation and atmospheric moisture produces hot, humid summers with sometimes very violent thunderstorms (even tornadoes), and long cold winters with heavy snowfall and severe ice storms, as recently witnessed in late 2008. Although the resident moose population feels at home, today’s Hartland residents seem to know they are “a breed apart” and that for all of Hartland’s beauty and charm, it is not a place for everyone.

Early records indicate the Tunxis (the point where the river bends) Indians used the extensive acreage in our section of Connecticut primarily as a summer preserve. Records show that the first white men to settle here arrived in the 1750s. By 1761 Hartland was incorporated as the State’s 69th town.

The colonial settlers carved many farms and homesteads out of the rough terrain and virgin forests. Many stone walls were built and today endow cultural, natural, and aesthetic beauty. The streams on the East and West Mountains were sources of water for oxen and power for mills and the “Hollow” was fertile bottom land. Saw mills, grist mills, tanneries, blacksmiths and shops were operating. One of the first calico factories in America, Ward’s Mill, opened in 1836 on the West Branch of the Farmington River north of Hitchcocksville and did a thriving business.

Although farming moved west to greener rock-free pastures and the flooding of the valley for the Barkhamsted Reservoir removed all traces of the village of Hartland Hollow our townspeople continue to be united, hard-working, caring people and actively involved with our community and voluntarily offer their time and talents.

Today, Hartland is one of the state’s most rural communities and still enjoys much of the same rural character it had more than

half a century ago, yet we are not immune from today’s pressures of development. Open space lands make up over 75% of Hartland, owned primarily by the Metropolitan District Commission (MDC) and the Connecticut Department of Environmental Protection (DEP). In 1981, after leasing the Gaylord House for 50 years to the town, the MDC transferred it to the Hartland Historical Society, and after many years of work, in 1989, it was dedicated as a meeting place and museum. In a 2006 town-wide survey, access to natural resources was a high priority and a land trust was supported by the majority of respondents. With the help of a grant from the Farmington River Coordinating Committee (FRCC) the Hartland Land Trust was formed with a mission to conserve and manage significant lands.

Within our 22,300 acres of land, Hartland possesses a significant network of streams, rivers and waterways. Our water quality is outstanding and supplied to over 400,000 Hartford county residents. We are fortunate to be a dual Wild & Scenic corridor town, participating in both the 1994 National Wild & Scenic “Partnership River” designation and the current Lower Farmington River/ Salmon Brook Wild & Scenic Study. The headwaters of the West Branch of the Salmon Brook originate in East Hartland and flow into the Lower Farmington River. Hartland’s extensive forest system provides exceptional protection for the waterways and both Upper and Lower Wild & Scenic are supported in our Plan of Conservation and Development.

Our legendary forefathers eloquently write of Hartland as “this little strip of earth we affectionately call, This Land of Ours, and we foresee we will continue to be one of the most beautiful small towns not only in the State of Connecticut, but in the USA”.

By Sue Murray

*Sources:*

*Hartland Natural Resource Inventory*  
*Hartland Plan of Conservation and Development*  
*History of Hartland, Stanley A. Ransom*  
*The Gaines Notes, Hartland Historical Society*  
*The Paul Crunden Journal, Hartland Historical Society*



## Meet the Committee Members

### Sue Murray ~ Hartland

Born and raised in NY, Sue spent a memorable year abroad in a high school work/study program. She received her BA degree in Environmental Biology from the University of Colorado, and married a college classmate, Don, and relocated to his hometown of Hartland.



Sue is an all season's person, treasuring her organic vegetable and winter hardy cactus gardens, and thriving on athletic activities.

She has been a Materials Manager for over twenty-five years, at Sorenson Lighted Controls, Inc, headquartered in Hartford, a leading indicator light

manufacturer with integrated LED technology.

Sue's strong environmental commitment has driven her to pilot successful green programs at her workplace and locally by her work on Hartland's Natural Resource Inventory and Plan of Conservation and Development, as well as her participation on the Hartland Land Trust Board and the Lower Farmington River/ Salmon Brook Wild & Scenic Study Committee.

### Kathy Dunn ~ East Hartland

Kathy Dunn is a resident of East Hartland and a former board member of the Hartland Land Trust. She serves as the Associate Director of the Middle School at the Kingswood-Oxford School in West Hartford, CT where she also teaches French.

Kathy is a canoer, alpine and nordic skier, and a hiker and camper so conservation efforts are of great interest to her. She works with students daily to cultivate their love of the outdoors and to develop their ability to organize and to make a difference in the world around them.



### Paul Rochford ~ Burlington



Paul Rochford is one of two Burlington representatives on the Wild & Scenic Study Committee. He is also president of the Burlington Land Trust and a member of Burlington's Conservation Commission. Paul moved to Connecticut in 1985 from Queens, New York. He credits his conserva-

tion "bona fides" to experiencing the contrast of close quarter living in New York to the Farmington Valley's seemingly abundant forest and trails. "I was immediately taken with the Blue Trail system", says Rochford. "A friend from work took me out on the Tunxis Trail and I instinctively saw the value in preserving this resource."

Paul has lived in Burlington since 1996 with his wife and three children.

### Sarah Hincks ~ Burlington

Sarah has been on the Board of Directors of the Farmington River Watershed Association since 1997 and is the FRWA representative to the Study Committee. A resident of Burlington, Sarah was Executive Director of the Quinnipiac River Watershed Association from 1991 to 1996. Sarah received her Masters in 2006 from Antioch New England's Environmental Advocacy and Organizing Program. She spends a lot of time hiking and biking and is a watershed watchdog, as well as chairing the fund raising committee for FRWA.



### Tom Small ~ Burlington

Tom Small is a long time Burlington resident. He is an avid hiker and fly fisherman. Tom serves on the board of the Burlington Land Trust.

# FRWA

749 Hopmeadow Street  
Simsbury, CT 06070



The Study Committee would like to thank the following organizations that have written endorsement letters in support of the Wild & Scenic designation. If you or an organization you belong to would like to provide a letter of support please contact Sally Rieger at [dfrandsr@aol.com](mailto:dfrandsr@aol.com) or Joyce Kennedy Raymes at [joycekennedyr845@yahoo.com](mailto:joycekennedyr845@yahoo.com).

*Avon Land Trust*  
*Canton Historical Society*  
*Community Farm of Simsbury*  
*Granby Land Trust*  
*Holcomb Farm Learning Center*  
*McLean Game Refuge*  
*Roaring Brook Nature Center*  
*Salmon Brook Watershed Association*  
*Simsbury Land Trust*  
*Tariffville Village Association*  
*Wintonbury Land Trust*  
*Keep the Woods*



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Lower Farmington River/Salmon Brook  
*Wild and Scenic Study*

## About the Study Committee

*The Study Committee's membership includes locally appointed representatives from each town in the study area, and representatives from The Stanley Works, CT Department of Environmental Protection (CT DEP), National Park Service, the Farmington River Watershed Association (FRWA), the Tariffville Village Association (TVA), Connecticut Forest and Park Association (CFPA), Pequabuck River Watershed Association (PRWA), and the Salmon Brook Watershed Association (SBWA).*

### **Avon:**

Diane Field\*-Riparian Landowner  
Harry Spring\*-Former Inland Wetlands  
Commissioner  
Rob House-Conservationist

### **Bloomfield:**

Paula Jones\*-Conservationist  
Kevin Gough\*-Conservationist

### **Burlington:**

Paul Rochford\*-Burlington Land Trust  
Thomas Small\*-Burlington Land Trust

### **Canton:**

Cynthia Griggs-Conservationist  
David Leff\*-Author, Former Deputy Commissioner  
of DEP

### **East Granby:**

Ian Clark\*-East Granby Land Trust  
Mike Krammen\*-Engineer

### **Farmington:**

Walter Sargent\*-Executive Director, Farmington  
Land Trust  
Larry Schlegel\*-Angler  
Josef Treggor-Ecologist/Educator, MERA

### **Granby:**

Carolyn Flint\*-Conservation Commission  
Eric Lukingbeal\*-Land-use attorney, Wetlands  
Commission member

### **Hartland:**

Sue Murray\*-Hartland Plan of C&D Committee,  
Hartland Land Trust  
Kathy Dunn\*-Hartland Land Trust

### **Simsbury:**

Sally Rieger\*-Simsbury Land Trust, FRWA  
Volunteer

Margery Winters\*-Simsbury Inland Wetlands &  
Conservation Commission  
Suzanne Battos-Conservationist

### **Windsor:**

Frank Davis\*-Chair, Conservation Commission,  
Riparian Landowner  
Betsy Conger-Loomis Chafee School Science Dept.  
Terry Langevin-Friends of Northwest Park Board  
Member  
Melissa Vanek-Environmental/Science Educator  
**The Stanley Works:**  
Kurt Link\*-Lean, Productivity & Facilities Mgr.,  
TSW

### **FRWA:**

Sarah Hinks\*-FRWA Board, Volunteer  
Eileen Fielding\*-FRWA Executive Director  
Aimee Petras-FRWA Staff

### **CFPA:**

Eric Hammerling\*-Executive Director

### **TVA:**

Wanda Colman-Member, Photographer

### **SBWA:**

David Tolli\*-SBWA Board

### **PRWA:**

Mary Moulton-PRWA President

### **CT DEP:**

Susan Peterson\*  
Maryann Nusom Haverstock\*

### **National Park Service:**

Jamie Fosburgh-Rivers Program Manager  
Joyce Kennedy Raymes-Study Coordinator

\* Officially Appointed