



### **Wiggin Farm Trail Improvements**

Thanks to a Community Grant from the Lamprey River Advisory Committee, the Newmarket Conservation Commission has replaced a wetland crossing that was in disrepair at the Wiggin Farm Conservation Area. The new boardwalk provides improved public safety and is more ecologically sound.

The new boardwalk is mounted on a set of 18 coated steel helical piers, instead of the typical 4" x 4" pressure treated posts. This provides a smaller footprint impacting the wetland. The old bridge had steep access ramps; now the slope of the entire boardwalk is 2% or less, making it more accessible and safer for all users.



Before: the old bridge



After: the new bridge

*Photos courtesy of the Newmarket Conservation Commission*

The 160-acre Wiggin Farm Conservation Area was conserved in 2003. Slated for a 22-house subdivision, the Town of Newmarket acquired the land in perpetuity for people and nature with the help of several partners, including the LRAC. The New Hampshire Fish and Game Department holds a conservation easement on all but 2 acres of this property.

The 1.5-mile loop is popular with walkers and nature lovers and protects a part of Tuttle Swamp. The new bridge and boardwalk welcome visitors as they leave the parking area and head out onto the trail. The parking area is located off Grant Road. Go take a hike!



## Stream Team Topic #4: Fallen Trees across or in River

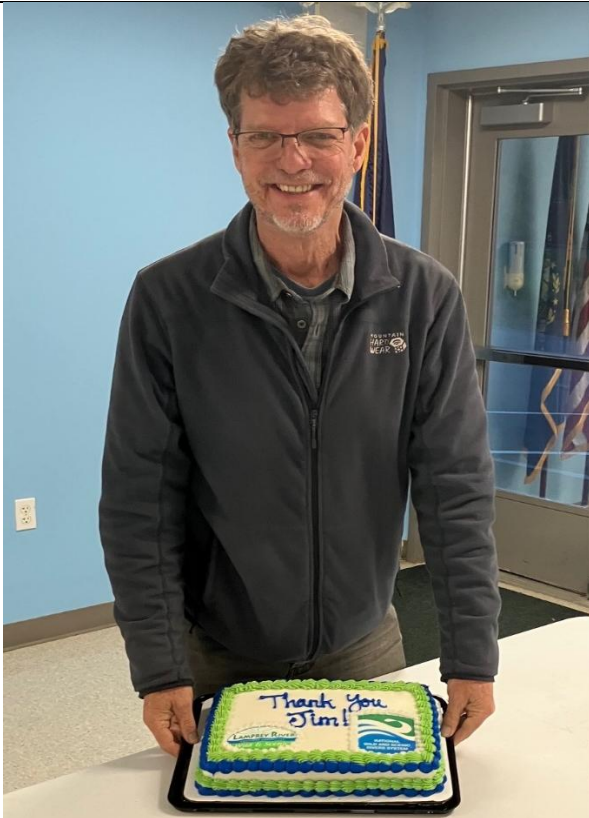


A downed tree upstream of Wadleigh Falls.  
Photo by Ryan Foley

Trees fall naturally due to age, beaver activity, or weather events. They provide habitat for fish and other aquatic animals; however, they can also pose a danger to paddlers. Once a tree is in the river, minor branch trimming can be performed legally, but removing a big trunk as in this photo usually requires a permit from NHDES.

Please send documentation to the local conservation commission so they can keep track of these obstacles.

## LRAC Bids Farewell to Jim MacCartney



Jim MacCartney

Photo by Dick Lord

After many, many years of service on behalf of river protection, LRAC's National Park Service liaison and Wild and Scenic River Manager Jim MacCartney retired on May 31.

Throughout his career as a river manager at NHDES, Trout Unlimited, and the National Park Service, Jim worked with river and environmental groups to protect and enhance the assets and resources that make rivers special. He recommended ecological studies, coordinated efforts to acquire and develop the Public Canoe Access for Lee, guided the LRAC through federal administrative and budget processes, and freely shared his wisdom and experience with getting other rivers designated into the National Wild and Scenic Rivers System.

Thank you, Jim. Best wishes!

## American Toad Research

In April 2024, several American toads (*Anaxyrus americanus*) with severe skin lesions were found along the Lamprey River in the town of Durham. Because amphibians are known to be a sentinel group for infectious diseases, environmental contamination, and even radiation, the emergence of a new pathogen along the Lamprey River carries potential significance for the entire ecological community of the watershed.



A healthy American toad  
photo by NH Fish and Game

Based on what has been learned about new pathogens and the declining health of amphibians and reptiles across North America and worldwide, a proactive and robust response to any perceived emerging health threat to these species is vital to ensuring the resilience of the watershed as a whole. In that light and with the financial support of the Lamprey River Advisory Committee, UNH researchers David Needle, DVM, and David Steinberg, PhD got to work. They had two main goals:

- Identify and characterize the cause of these previously-unseen lesions in American toads along the Lamprey River.
- Determine the geographic extent of infections in American toads (and other amphibians) within the Lamprey River watershed (and potentially others).

In the lab, the pathogen was identified as *Amphibiothecum penneri*, a unicellular protist, based on histology and DNA sequencing. Although the pathogen had previously been identified elsewhere, the toads captured in 2024 were the first ever seen in New Hampshire.

Field research in the spring and fall of 2024 and the spring of 2025 focused on determining the geographic extent of the disease. While most of the infected toads were found along the Lamprey River in Durham and Lee, two other infected individuals were found in Harrisville, New Hampshire and in Sanford, Maine. The researchers and their field colleagues elsewhere collected many other amphibian species, but only American toads were infected.

While disturbing, infected toads were the exception, not the rule. In two years of field work, most American toads encountered in the Lamprey River watershed towns were in good health and were free of lesions. Many of the infected toads recovered without medical intervention. Now that the pathogen has been identified, herpetologists in the



states of New Hampshire and Maine will continue to monitor for the occurrence of *Amphibiothecum penneri* in amphibians that are encountered in the coming years.

The [American Toad Pathogen Report](http://www.LampreyRiver.org) can be viewed at [www.LampreyRiver.org](http://www.LampreyRiver.org).

## Wadleigh Falls History

The recorded history of Lee began at Wadleigh Falls, with one of the first mills built along the Lamprey River. But people have been living and working at the falls for over 9,000 years. The falls offer resources that are desirable through time. For the past two years, the Lee Historical Society, the LRAC, and Indigenous liaisons have worked together to create two history panels that highlight some of the unique features of the Wadleigh Falls area. The kiosk is now at the Lee Public Canoe Access on Route 152, but due to a mix-up with installation, the kiosk is not currently accessible to all visitors and is challenging to see from the road. We hope to correct this in the near future. We hope you will visit the site and see the panels in person, but here are the two panels if you cannot. Enjoy!

# Indigenous Peoples at the Falls

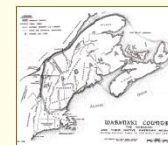
## The Falls as an Important Indigenous Site

### Kwai Nid8bak (Hello, Friends)

Indigenous peoples have been stewards of this land and the Lamprey (Nid8mo) river at the falls for countless generations. 8,000 years before European settlers came to this area, Abenaki people came seasonally to make a large fishing camp at "Washucke in NDakimna," which means "Hilly Place in our Homelands" (Historic Indian Trails of New Hampshire by Chester B. Price (1967). Additional research shows this place might also have been known as Poscooskuake or Passcassooke, the "Great Pine Place." The map at right shows the ancient Pawtucket Trail (ca. 1659) which made an almost straight line from Lee's northern border to its southern border and was part of an extensive regional trade network.

This site comprised an area of about 6 square miles located between the two branches of the Lamprey River. This area would later be called Wadley's Village.

Archaeologists know that the earliest Abenaki people here made dugout canoes and stone tools such as fishing sinkers, hammerstones, scrapers, and pestles. In addition to netting the abundant fish, such as salmon (Mkuumagw) and river herring (Alnamagw) from the river, they also hunted local game and gathered many different plants from the land. These resources were used for food, medicine, and other necessities.



Wabanki Confederacy  
Source: Stacy North, [www.worldandme.com/12803960](http://www.worldandme.com/12803960)



Indigenous Trails, Pawtucket Trail in blue box  
Source: Price, Chester B. 1967 "Historic Indian Trails of New Hampshire" The New Hampshire Archeologist, 18: 1-51

### The Importance of Rivers

Rivers were central to the lives of the earliest people who lived here. Rivers, especially at waterfalls, provided the people with an abundance of fish which could be caught in nets. Travel by water was an easy way to get around and move supplies.



Left: Modern re-enactment of the traditional managed burn technique used for making a dug-out canoe. Right: Traditional net-making technique. Photos used with permission of the Cowasuck Band of the Pennacook-Abenaki People.

### Tools

The earliest people here did not have access to metals, so many tools were made of stone, wood and bone.



This side-notched stone fishing plummet was found in this area. These would be tied to the bottom of the net to increase the fish-trapping area of the net when deployed in the river's current. Actual length 3".

This stone pestle was used to grind acorns into mush for cooking. Actual length 25". This stone probably was sourced in the Ossipee area. Lee Historical Society

### Food

In addition to meat, Indigenous people gathered berries, root vegetables, nuts, and mushrooms. Food was often preserved in containers made of white birch bark which kept the food free of bacteria and other microbes.



snapping turtle (Algedaid)  
According to archaeological studies, this site is unusual in that snapping turtles and rattlesnakes seem to have been a common source of food.

As noted by David M. Carroll, used by permission.



salmon (Alnamagw or Zokagupenis)  
This fish once was so numerous that it was rumored that people could walk across rivers on their backs in the spring time. Dams and other environmental factors have reduced their numbers, but these would have been an abundant and easy source of food prior to colonization.

Victor Young, NH Fish and Game Department

### Medicinal Plants

Dr. Edgerly of the Wadley Village mill era was not the first to make use of local plants to use as medicines. Knowledge of the medicinal properties of local plants was around thousands of years ago and continues to be practiced and honed to this day.



sweet fern (Masou)  
This fresh-smelling herb (not an actual fern) can be used to treat headache, fever, vomiting, rheumatism, and toothaches. BC Grimley



slippery elm (Dunagholigan)  
This versatile plant can help with digestive issues, inflammation, skin wounds, and sore throats. Stock imagery

### Timeline



### Terminology

kwai	welcome, hello
kwai Nid8bak	welcome (hello) friends
Penagholigan	slippery elm, Ulmus fulva, also slippery elm tree bark
Algedaid	snapping turtle
Strikewa, Masizikwa	rattlesnake

We gratefully acknowledge assistance and consultation from the Cowasuck Band of the Pennacook-Abenaki People and Lee resident and Indigenous storyteller Anne Jernison in creating this panel.

# The Mills at Wadleigh Falls

## The Power of the Lamprey River

Lumber, food, textiles, and herbals were all milled here.

When the Europeans arrived, this location was coveted for its potential as a mill site, and as such, became the first permanently settled area within the bounds of the current Town of Lee in 1657. Walter Barefoot and Robert Wadleigh built a sawmill "with floome & water whele." The agreed cost of the mill was 80 pounds and construction began in 1664. By Wadleigh's own accounts, it took 4 years to get the mill in operation due to land disputes and other obstacles. This mill eventually became the sole property of Robert Wadleigh. This led to a period of 257 years of commercial activity powered by water at the falls.

As the trees were cleared and cut into boards, the fields began to produce food crops. New mill owners arrived and built their homes and mills next to the river. Wadley's Falls Village continued to grow.

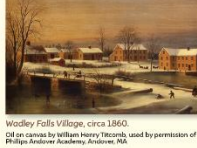
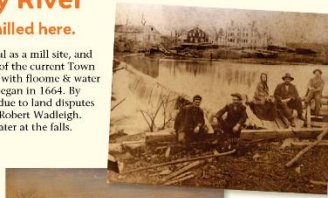
- On the south side of the falls: Glidden's grist mill and tannery with bark mill and Towle's wooden pail and swift factory.
- On the north side: Folsom's gristmill and fulling mill; Wilson's tannery and tan yard, gristmill and woolen/fuling mill; Dr. Edgerly's gristmill, herbal drug mill, and cider mill; and the Norton Leatherboard Factory.

At the turn of the 19th century, Wadley's Falls Village was the largest settlement in Lee. The mills employed some 40 individuals and additional services included blacksmith shops, stores, a post office, and an inn. A four-horse stagecoach connecting Newmarket and Northwood came through the village daily. In 1874, the mill owners were able to transport their products further away with the introduction of the railroad (currently Route 125). The last surviving mill, the Norton Leatherboard Factory, burned in 1921 and ended the mill era in Lee.

Today, the former Folsom, Wilson, and Glidden houses are occupied by new residents. While the people and character of this area change over time, the Lamprey River continues to flow as it has for millennia, connecting the past, present, and future.

### The Glidden-Towle-Edgerly House

This house is located at the southeast corner of Wadleigh Falls Road and Campground Road. The two-story Georgian-style Glidden Homestead (c.1749) became Wadley's Falls Post Office from 1838 to 1902. Gardener Towle had a prominent, three-story Federal-style addition (c.1820) added to the Glidden house, including a ballroom on the third floor. Dr. Edgerly bought the property in 1867 and converted the house to an inn for travelers on the stagecoach route from Newmarket to Northwood. In 2010, after the house was nearly destroyed by an arsonist, it was placed on the NH State Register of Historic Places.



Wadley Falls Dam, circa 1890. Members of the Edgerly family pose at the dam following a flood. Note the mill debris on the ground. Floods and fire posed significant threats to residents and businesses all along the river.

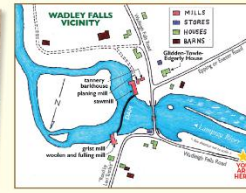


Glidden-Towle-Edgerly House, 1967. Gardener Towle (1793-1880) Although Gardener Towle was a mill owner, he was known as a colonel, farmer, trader, postmaster, sheriff, and N.H. state representative.



Portrait of David Glidden on his 16th birthday, Dec. 23, 1837. He was a nephew of the Glidden family that originally owned the house. Artist: Joseph H. Davis.

### Featured Sites Circa 1850



### Lamprey River Watershed



### Mill Descriptions

- Sawmill cut trees into lumber and included a woodworking shop.
- Planing mill turned rough-cut timber into flat lumber with square edges.
- Gristmill ground grains and corn into flour.
- Tannery, including barkhouse, cured and dyed leather to be used for harnesses, saddles, and shoes.
- Leatherboard factory made leather and fiber boards for heels and insoles for shoes.
- Woolen mill included a carding machine (which lined up the wool fibers to make them easier to spin) and a fulling machine (to tighten and clean woven cloth).
- Swift mill made devices that held yarn for knitting and crocheting.



The waterfall today from below the breached dam. 6th Lead.

### Edgerly Herbals

This bottle of essential oil, "Essence of Peppermint, From I. Edgerly, Wadley's Falls" was found in the wall of the Edgerly house during renovation work in the 1980s. It was used as one of the ingredients in a mixture to treat cholera and as a topical rub for sore muscles. Dr. Isaiah Edgerly owned a botanical drug mill from the 1870s through the early 1900s. His herbal products at first were sold locally and later were shipped by stagecoach and then rail to reach broader markets. Long before the Edgerly family began to make herbal medicines, Indigenous people were proficient in the uses of local plants. Dr. Edgerly probably made use of this Indigenous knowledge.



## Management Moving Forward

The 2013 *Lamprey Rivers Management Plan* has served its purposes and the LRAC well, but times are changing. After several years of hard work, the 2025 *Lamprey River Management Plan* is almost ready for release. The plan includes many updates and a custom on-line mapper. Printed copies will be provided to planning boards, conservation commissions, and public libraries in each of the 14 Lamprey River watershed towns in October. The on-line version will be available at [www.LampreyRiver.org](http://www.LampreyRiver.org) and will include links to pertinent reports, partners, and the mapper.

## Fun facts from the 2025 Lamprey River Management Plan

- From 1990 to 2020, the overall population of the Lamprey River watershed towns grew from 74,022 to 102,360, a 38% increase. Since 1960 (when the population was about 29,000), the number of people has more than tripled (353% increase).
- Epping is the only town that is 100% in the Lamprey River watershed. It constitutes 12.24% of the watershed. Nottingham is almost entirely in the watershed (missing just a small sliver in the northeast of town), but it is number one in percentage of watershed area, 22.42%.
- You can see if your residence is in a FEMA 100-year or 500-year flood zone using the on-line mapper.



## Doe Farm Forest Management Plan

Doe Farm in Durham is a popular and beautiful conservation area with significant frontage on the Lamprey River. This 85.4-acre forest is managed by the Town of Durham for timber and recreation. Management is guided by a forest stewardship plan that was last updated in 2015. As natural conditions, stewardship practices, and understanding of ecology and climate science change, the plan needs to be updated to reflect those changes. With this in mind, the Town of Durham Trustees of the Trust Fund applied for a LRAC Community Grant in 2024 to produce an update to the plan. The LRAC was happy to offer financial assistance to this effort.

The Trustees identified several main goals of the plan;

- Maintain a healthy forest ecosystem through sustainable forest management, focusing on forest health, biodiversity, and wildlife.
- Manage public use of the property to protect the health of the forest ecosystem.
- Mitigate impacts of climate change on the forest and sequester and store carbon via natural climate solutions.



*Doe Farm's entrance from the parking area.  
Photo courtesy of Moreno Forestry Associates.*

As of September 2025, the plan update has been written and is in the final stages of being formally accepted by the town. We look forward to keeping Doe Farm an ecologically rich and peaceful walking area well into the future.