

Bear Mountain Bridge



Tarrytown Lighthouse



Great Hudson River Paddle visiting the Esopus Meadows Lighthouse



The Hudson River at Midtown Manhattan, New York

The Hudson River was one of the original "highways" used by Native Americans and continues to be a corridor of commerce to this day. This 61-mile section of the Water Trail features the Hudson Highlands, the widest part of the Hudson, Haverstraw Bay, and New York City.

Glacial Lake Albany was formed when ice "plugged" the Hudson between Storm King Mountain and Breakneck Ridge (see Map 4) about 16,000 years ago. The lake existed for about 4,000 years. The surface of the lake was roughly 150' (feet) above current sea level. The 150' contour interval shown on this map represents Glacial Lake Albany's shoreline and shows where you would have been able to paddle then. A drysuit would have been essential!



Paddlers at a Hudson River Greenway Water Trail access site.

Storm King - Franny Reese Many say the modern environmental movement began in the Hudson River Valley at the spot where the river cuts a fjord through the Hudson Highlands. Storm King Mountain, a majestic 1,300-foot tall sentinel rising steeply along the western shore, is one of the most iconic scenic elements of the river. But in the early 1960s, this iconic place became a battleground between a powerful utility and a few concerned citizens.

In 1962, Consolidated Edison Company (Con Ed), a large utility, applied to the Federal Power Commission for a permit to build a pumped storage facility on Storm King Mountain. The original proposal featured an 800-foot power house at the base of the mountain directly on the river and a large reservoir near the top



Paddlers just south of Storm King Mountain.

of the mountain. Tunnels were planned to connect the two facilities. Power generation would have occurred by allowing water to flow through the tunnels spinning giant turbines during the day, thereby generating electricity. At night, when demand for electricity is much lower, water would have been pumped back up to the reservoir.

A group of local citizens, led by Scenic Hudson Preservation Conference co-founder Franny Reese and Bob Boyle of the Hudson River Fisherman's Association, got together and sued to stop the permit and the project. At this time there was no recognized standing (having a stake in a government action) for environmental impacts in project reviews. In late 1965, the U.S. Court of Appeals found that the Commission did have to consider these factors. This influenced the framework of the National Environmental Policy Act in 1969, which mandated environmental impact studies for these types of projects, and the advent of the Environmental Protection Agency.

At this point a lengthy battle commenced over the proposed project. Led by Scenic Hudson Preservation Conference and the Hudson River Fishermen's Association, the lengthy court battle over the project was finally resolved in mid-1981. Under terms of a settlement agreement between Con Ed, Scenic Hudson and the Hudson River Fishermen's Association (now Riverkeeper), Con Ed terminated its plans for Storm King and reduced fish kills at some of its Hudson River power plants.

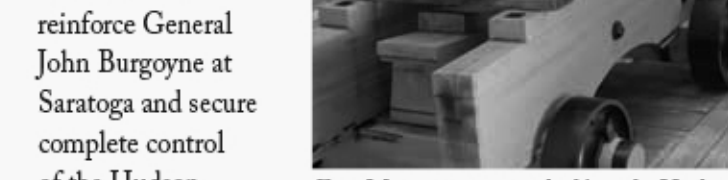
Today, much of Storm King Mountain is protected and is part of a 1,900-acre state park. Many of its 9.7 miles of hiking trails are part of the Hudson River Valley Greenway Water Trail System.

Franny Reese not only was a co-founder of Scenic Hudson, she was its guiding spirit. Franny served as Board Chair from 1966 to 1984, leading that organization's development of legal, educational, land acquisition, and park creation efforts. She remained active in the organization until her passing in 2003. Part of her legacy is Franny Reese State Park located in the Town of Lloyd, Ulster County, which is visible from the river, just south of the Mid-Hudson Bridge.

Great Chain - West Point Forts Clinton and Montgomery Both the British and Americans believed the key to winning the Revolutionary War was control of the Hudson River. The British sought to cut the colonies in two, by controlling the Hudson and defeating New England and the rest of the colonies in separate actions. To maintain control of the Hudson, the Americans installed great chains across the river to prevent the British from proceeding upriver to link with forces traveling south from Montreal.

In 1776, the Americans, under the command of Army Engineer Captain Thomas Machin, stretched the first great chain between Fort Montgomery and Anthony's Nose.

The chain's stopping power was amplified by artillery at Forts Montgomery and Clinton flanking the Popolopen Creek on the west shore of the Hudson River. In order to reinforce General John Burgoyne at Saratoga and secure complete control of the Hudson, combined British forces attacked the two forts on October 6, 1777. Following a nearly day-long naval bombardment, some 700 Americans valiantly defended the forts against an assault by 3,000 British troops under the command of General Henry Clinton. Badly outnumbered, the Americans put up a valiant defense. With more than half the defenders killed, wounded or captured, the Americans retreated, leaving the forts in British control.



Fort Montgomery overlooking the Hudson.

The British raided north as far as the state capital in Kingston, which they burned to the ground on October 16, 1777. By this time General Burgoyne had lost the Battle of Saratoga, so General Clinton and his men were recalled to the British stronghold of New York City.

Meanwhile, the Americans focused their efforts further north at a tight S-bend in the Hudson known as World's End. This shape ensured vessels seeking to come up river under sail would have to tack, thereby slowing their speed greatly and leaving them exposed to American artillery batteries on shore. A point of land on the west shore was viewed as an ideal place for a fortification to control shipping access through the area, especially when utilized with the

small island just across this narrow, 1/4-mile wide part of the river. The new fortification was called West Point, and it remains the oldest continuously operating military base in the United States.

On April 30, 1778 Captain Machin succeeded in placing a heavier chain across the Hudson. The chain, forged at nearby Sterling Furnace, was composed of 800 two-foot links, each weighing more than 100 pounds. The 1,500-foot chain was supported on heavy log rafts. Until the conclusion of the war, the garrison at West Point would have to remove the 35 tons of chains and rafts from the river at the beginning of winter and put them back in the spring, but it was worth it. World's End, West Point, Constitution Island, and the

chain made such a formidable defensive position that, in spite of Benedict Arnold's treason in 1780 when he attempted to surrender West Point to the British, their forces never tried to move upriver again to divide the colonies.

Today, visitors to Fort Montgomery can tour the remains of the fort and visit the location of Fort Clinton across the

Popolopen Creek footbridge. Paddlers may land at the Greenway Water Trail site at the foot of the bridge on the north bank. A trail leads to an air conditioned visitor's center. The US Military Academy was formally located at West Point on March 16, 1802. Both West Point and Constitution Island are still military posts and security is strict around both. Boats may not be landed at either without express prior approval. Visit www.westpoint.edu or www.constitutionisland.org for more information.



Paddlers off midtown Manhattan; the southern end of the Water Trail lies just ahead.

Lighthouses of the Hudson River This river that flows two ways, Muh-he-kun-ne-tuk, has been a river of commerce since Native Americans first settled here, but until European settlement, manmade navigational aids were not needed. With the opening of the Erie Canal, the "post lights" that had been used were deemed inadequate, and a series of 13 lighthouses were built. Today seven remain, all open to public visitation.

Hudson-Athens Lighthouse (Map 3) The brick Hudson-Athens Lighthouse was built in 1874 and acts to guide the mariner around Middle Ground Flats.



The Little Red Lighthouse below the George Washington Bridge.

The Hudson-Athens Lighthouse Preservation Society owns and has restored this beautiful aid to navigation. The lighthouse is decorated the way it was when a keeper and his family lived there. The only way to visit the lighthouse is on a scheduled tour during the season. For more information about tours, visit www.hudsonathenslighthouse.org.

Saugerties Lighthouse (Map 3) The Saugerties Lighthouse was constructed of brick in 1869 and has been restored to its former glory by the Saugerties Lighthouse Conservancy. The light was deactivated in 1954, but was re-lit and restored to active duty in 1990. The Conservancy operates the lighthouse as a B&B to raise funds for preservation and maintenance. Reservations are required at least six months ahead. For more information, visit www.saugertieslighthouse.com.

Rondout Lighthouse (Kingston - Map 3) The Rondout Lighthouse is a brick structure built in 1915 near the north entrance of Rondout Creek, and is also an active aid to navigation. The lighthouse is managed by the Hudson River Maritime Museum, which is located just up the creek on the bustling Rondout waterfront. The museum offers regular tours during the boating season. The museum is a Hudson River Greenway Water Trail site. For more information, visit www.hrmn.org.

Esopus Meadows Lighthouse (Map 3) This lighthouse, built in 1871, is locally called the "Maid of the Meadow" due to being surrounded by vegetated

shallows. She is the last of the wooden lighthouses on the Hudson and was restored by the determined efforts of her owners, the Save Esopus Lighthouse Commission. View her from a cruise ship departing from Kingston, or take one of the limited tours now available. For more information, visit www.esopusmeadowslighthouse.org.

Stony Point Lighthouse (Map 4) This is the oldest lighthouse on the Hudson, built in 1826. She is part of the grounds at Stony Point Battlefield State Historic Site and was fully restored in 1995. The views from the lantern room at the top are spectacular. Tours are available on weekends from June through October. Sitting high over the river's edge on Stony Point, the light is no longer in active service. For more information, visit www.nysparks.com/historic-sites/8/details.aspx

Tarrytown Lighthouse (Map 4) This inactive lighthouse is now a museum maintained by the Westchester County Department of Parks, Recreation and Conservation. This lighthouse was built in 1882-83 and deactivated in 1961 due to the construction of the Tappan Zee Bridge. The lighthouse can be seen from Kingsland Point Park, and paddlers can navigate under its footbridge. For more information, visit www.visitsleepyhollow.com/visits2014/historic-sites/sleepy-hollow-lighthouse/.

The Little Red Lighthouse (Jeffrey's Hook - Map 4) The Little Red Lighthouse first guided mariners up the Hudson River in 1921 after being moved from Sandy Hook, and was deactivated in 1947. This is the southernmost lighthouse on the Hudson River. It was immortalized in the children's book The Little Red Lighthouse and the Great Gray Bridge. For information about tours, call 212-304-2365 (inside NYC) or 866-NYC-HAWK (outside NYC).

Water Quality Following European settlement, the Hudson River was used for industrial waste discharge and untreated sewage disposal. At the height of these practices, recreational use of the river nearly disappeared. In the late 1960s, citizen environmental groups—coupled with changes in environmental regulatory policies and enforcement policies—spearheaded a river cleanup. A cleaner river has led to renewed interest in recreation. Today, the Hudson River estuary is among the healthiest on the eastern seaboard, and sustained efforts by many groups continue to keep the river clean. To help, report pollution by contacting the NYS Department of Environmental Conservation at 1-800-847-7332 or www.dec.ny.gov/regulations/393.html. To learn more about protecting our river and for volunteer opportunities, contact the Hudson River Estuary Program (http://on.ny.gov/1w0KKIG), Harbor Estuary Program (www.harborestuary.org), or the Hudson River Foundation (www.hudsonriver.org).

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An osprey watches for danger after catching a fish.

Brickmaking

Brickmaking once dominated the economy and landscape of the Hudson River Valley, providing the necessary building materials for the construction of much of New York City. Enormous clay deposits in the Hudson Valley made it economically feasible to set up brickmaking kilns on the Hudson. The river offered an ideal means to transport the finished bricks to market. For a time, this combination of factors made the Hudson River Valley the largest brickmaking center in the world. More than 100 brickmaking facilities existed in the late-nineteenth through the mid-twentieth centuries in areas ranging from Albany to Westchester County. Concentrations in Ulster County, Haverstraw, and on Denning's Point were especially notable. While the largest market for Hudson Valley bricks was New York City, Hudson Valley bricks are found all over the world. As you paddle the river, you will notice many areas where you can see old brick pieces.



A brick sidewalk in Beacon. The lettered brick is from the Denning's Point Brick Works (1881-1939).

Hudson River Valley Greenway National Heritage Area

The Hudson River Valley Greenway was created by New York State to continue and advance the state's commitment to the preservation, enhancement and development of the world-renowned scenic, natural, historic, cultural and recreational resources of the Hudson River Valley while continuing to emphasize economic development activities and remaining consistent with the tradition of municipal home rule. The Greenway's programs include regional planning, a land and water trail system, and the Hudson River Valley National Heritage Area. On the web: www.hudsonsgreenway.ny.gov.

The Hudson River Valley National Heritage Area was designated by Congress in 1996 and is one of forty-nine federally-recognized National Heritage Areas throughout the United States. Through a partnership with the National Park Service, the Hudson River Valley National Heritage Area collaborates with public agencies, non-profit groups and private sector partners to interpret, preserve and celebrate the nationally-significant cultural and natural resources of the Hudson River Valley. In this way, the Heritage Area works to inspire public stewardship for these resources and related economic development activities for the benefit of the nation. The Heritage Area has established a network of designated Heritage Sites, classified by theme and amenities. On the web: www.hudsonrivervalley.com.



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