

= Saw Mill River =

The Saw Mill River is a 23 @. @ 5 @- @ mile ( 37 @. @ 8 km ) tributary of the Hudson River in Westchester County , New York , United States . It flows from an unnamed pond north of Chappaqua to Getty Square in Yonkers , where it empties into the Hudson as that river 's southernmost tributary . It is the only major stream in southern Westchester County to drain into the Hudson instead of Long Island Sound . It drains an area of 26 @. @ 5 square miles ( 69 km<sup>2</sup> ) , most of it heavily developed suburbia . For 16 miles ( 26 km ) , it flows parallel to the Saw Mill River Parkway , a commuter artery , an association that has been said to give the river an " identity crisis . "

The watershed was first settled by the Dutch and was the site of Philipse Manor Hall , seat of Philipsburg Manor . The land was owned by Frederick Philipse I and subsequent generations until the family lost it at the end of the American Revolution . The land along the river was later divided into multiple towns . Industry in Yonkers developed along the Saw Mill , so polluting the river by the end of the 19th century that a local poet called it a " snake @- @ like yellow scrawl of scum " . In the 1920s , the last half @- @ mile ( 800 m ) of the stream was routed into tunnels and culverts under downtown Yonkers , a process partially reversed in the early 21st century when it became the first major New York waterway to be daylighted .

Today , the U.S. Environmental Protection Agency ( EPA ) rates the river 's last 2 @. @ 9 miles ( 4 @. @ 7 km ) as an impaired water body . Plastics are commonly found along the riverbank , and metals from industrial factories are found in the water in high concentrations . Nonetheless , the river is home to species such as the American eel , which swim upstream to mature and swim back into the Hudson and the ocean in order to breed .

= = Course = =

The Saw Mill River rises from a 1 @. @ 75 @- @ acre ( 7 @, @ 100 m<sup>2</sup> ) pond in a wooded area of the town of New Castle roughly 2 miles ( 3 @. @ 2 km ) north of Chappaqua , a half @- @ mile ( 800 m ) west of Quaker Road State Route 120 ( NY 120 ) and just south of Stony Hollow Road , at an elevation of 490 feet ( 150 m ) above sea level . It wends and meanders past a cemetery , between hills , through a residential area of houses on large wooded lots in a generally southward direction . Just north of Marcourt Drive , its first crossing , it is impounded to create another small pond . In this area it is frequently channelized and impounded as part of the landscaping on the area 's large residential land lots . After crossing under Kipp Street , it bends eastward to cross under Quaker Road .

A short channelized portion runs through the front yard of a large house on Quaker southeast of the intersection , after which the river flows back under Quaker and behind the houses on the west side into another impoundment , Chappaqua 's Duck Pond . From its outlet it continues southeast between Quaker on its east and Douglas and Mill River roads on the west to the Saw Mill River Parkway . Just west of the Chappaqua train station , it turns southwest to parallel both the parkway and Metro @- @ North Railroad 's Harlem Line as both cross into the town of Mount Pleasant . At this point the river is at 340 feet ( 100 m ) in elevation , a loss of 150 feet ( 46 m ) from its source . Just south of the town line , it receives Tertia Brook , its first named tributary , from the east .

A mile past the town line , the river and its eponymous parkway pass the village of Pleasantville to the east . There the river crosses under the parkway to flow on its west , then crosses and recrosses at the Pleasantville Road ( State Route 117 ) exit . Both make a long turn to the southeast and then back to the southwest around Graham Hills County Park , where it receives Nanny Hagen Brook from the east , before crossing back to the parkway 's west in the flood plain around the base of the hills as road , river and rail pass the unincorporated hamlets of Thornwood , and Hawthorne , where the Harlem Line turns to the south .

Just east of the Taconic State Parkway , the river again crosses under the Saw Mill Parkway , then the Taconic . Shortly after that exit it crosses under Saw Mill River Road ( State Routes 9A and 100 ) and some ramps to them from the interchange , then under the Saw Mill Parkway . Both turn south

again , then southeast , following the eastern edge of the Pocantico Hills , joined on the west by the North County Trailway bike path , on the right @-@ of @-@ way of the former New York and Putnam Railroad , known as the " Old Put " .

The river crosses under the parkway again to form the eastern edge of a plant nursery on Saw Mill River Road , then recrosses as the river , bike path , parkway and Saw Mill River Road all bend around the northwest corner of Eastview , where the Saw Mill drops below 200 feet ( 61 m ) in elevation , a loss of 100 feet ( 30 m ) since Chappaqua . A turn back to the southwest around Tarrytown Lakes County Park puts the river at the outskirts of Elmsford . There it receives Mine Brook from the east .

Here the bike path ends amidst the dense urban development , but the parkway continues , and the two again draw close as they enter the town of Greenburgh and intersect the Cross Westchester Expressway ( Interstate 287 ) . A new bike path , the South County Trailway , begins here just south of the West Main Street ( State Route 119 ) bridge north of the Rum Brook confluence . Past that the parkway , trailway and the Saw Mill River all turn southwest , where they intersect the New York State Thruway ( Interstate 87 ) at an oblique angle . For the next mile the Thruway remains close to the river , and Saw Mill River Road , now just carrying NY 9A , returns to the corridor just east of the Thruway as well .

The river then runs along the west of V. Everit Macy Park . As part of the park facilities , the Saw Mill River is impounded into Woodlands Lake , the largest impoundment on the Saw Mill River , used as a water supply by the local communities of Ardsley and Dobbs Ferry , whose northern village line is just to the south . The river runs close to the boundary between the two , as the Thruway gradually veers away to the southeast just past the Ashford Avenue bridge .

Continuing south @-@ southwest , the river along with the parkway and trailway enter Hastings @-@ on @-@ Hudson , its greenbelt the only major break in the village 's dense suburban development . It slowly veers toward a more southerly heading , and enters the Nepera Park neighborhood of Yonkers after one mile ( 1 @. @ 6 km ) , just south of Farragut Parkway . Once in the neighborhood , the Saw Mill River flows through a Yonkers sewage treatment plant , the other impoundment of the river . After leaving the plant , 1 @. @ 5 miles ( 2 km ) to the south of where the river entered Yonkers , the parkway and trailway diverge from the river after 16 miles ( 26 km ) , to climb over the watershed divide to Tibbetts Brook . Saw Mill River Road continues to parallel its namesake .

Bending to the southwest again , the Saw Mill flows in a narrow channel through an industrial and commercial area . A mile south of the parkway , it flows through the middle of the former Smith Carpet Mills site , where it finally drops to 100 feet ( 30 m ) in elevation . After crossing Ashburton Avenue , the river bends around to flow briefly to the northwest under Nepperhan Avenue after crossing the Old Croton Aqueduct . It circles around War Memorial Field , giving up its remaining elevation as the Hudson River nears .

The Saw Mill River turns south again past the park . After passing the towers of a large housing project to its west , it is routed into an underground tunnel at Chicken Island , the triangle between Nepperhan and Palisade avenues and School Street . At Van der Donck Park in downtown Yonkers , it resurfaces as it flows past the post office . For its final hundred feet ( 30 m ) , it re @-@ enters a tunnel under the train station and the tracks of the Hudson Line , after which culverts empty it into the Hudson south of Dock Street .

= = Watershed = =

The Saw Mill 's 26 @. @ 5 @-@ square @-@ mile ( 69 km<sup>2</sup> ) watershed is limited by the hilly topography of central Westchester County to a valley that averages 1 @. @ 4 miles ( 2 @. @ 3 km ) wide ; the only wider spots are the Mine Brook and Tarrytown Lakes subwatersheds and the river 's mouth in downtown Yonkers . The highest elevation in the watershed is 710 feet ( 220 m ) , reached in two locations : the summit of Sarles Hill north of Pleasantville , and an unnamed height of land about 1 @, @ 200 feet ( 370 m ) southwest of Buttermilk Hill , west of Hawthorne .

From source to mouth , 10 % of the watershed is in New Castle , 42 % in the town of Mount

Pleasant , 33 % in Greenburgh , and 14 % in Yonkers . 63 % of the watershed consists of dense urban or less dense suburban land development , 34 % forest , and 1 % agricultural . The woodlands buffering the river and the South County Trailway is one of the few significant areas of open space in the county south of I @-@ 287 .

Some 110 @,@ 000 people live in the Saw Mill River 's watershed , in communities varying from small villages to Yonkers , New York 's fourth @-@ largest city . This is 12 % of the county 's total , on 6 % of its area . The watershed 's population density varies from 1 @,@ 000 per square mile around the headwaters at Chappaqua to 10 @,@ 000 around the mouth . It averages to 4 @,@ 151 per square mile , twice that of the county and ten times the density for the state .

On the north , the Saw Mill watershed is bordered by the watersheds of Gedney Brook and the Kisco River , both of which drain into New Croton Reservoir on the Croton River , one of several large reservoirs in that watershed that are part of New York City 's water supply system . On the northeast , the adjacent watersheds drain into Kensico Reservoir , another that supplies the city . Moving south , the next watersheds are tributaries of the Bronx River , then Yonkers ' Grassy Sprain Reservoir and finally Tibbetts Brook . To its west in the narrow strip between the Saw Mill and the Hudson are the Pocantico River and Sheldon Brook watersheds at the north end of the watershed , and those of unnamed shorter streams at the south .

= = History = =

= = = Pre @-@ colonial = = =

The Saw Mill River , then known as the Nepperhan River , acted as a boundary between the Manhattan Indians and the Weckquaesgeeks , members of the Algonquian family who fished the region 's streams and lakes with rods and nets . The Manhattans occupied present @-@ day New York City north to the river , while the Weckquaesgeeks occupied the land from the river north to the Pocantico River . The Manhattans ' principal village , Nepperamack , was on the site of present @-@ day Yonkers where the Saw Mill River discharges into the Hudson River . The Weckquaesgeeks settled the site of today 's Dobbs Ferry , and on the river 's banks west of White Plains .

= = = Colonial period = = =

In 1639 , the Dutch West India Company acquired from the Manhattans the area that would become Yonkers . Seven years later , Dutch settler Adriaen van der Donck was granted part of this land , including the southern section of the Saw Mill River . His estate was called Colen @-@ Donck , for " Donck 's colony " , and the Nepperhan became known as Colen @-@ Donck 's Kill , after the Dutch word for " stream " . He built a sawmill and a gristmill on his land . After his death , his widow gradually sold the land .

In the 1670s , part of Donck 's land passed to Frederick Philipse , who was rewarded with 90 @,@ 000 acres ( 360 km<sup>2</sup> ) , including the lower river , for declaring his loyalty to the new British rulers of New Netherlands . Philipse named the manor Philipsborough and ran it as a quasi @-@ feudal farm , hiring tenants to work the land . Around 1682 , he built Philipse Manor Hall , a mansion along the Saw Mill River that is today a National Historic Landmark . When Philipse died around 1702 , the manor was divided between his son Adolph and grandson Frederick II . In 1750 , his great @-@ grandson Frederick III inherited the whole property and moved from his New York City townhouse to the manor hall , previously used as the family 's summer home . Frederick sat in the Colonial Assembly , where he was a strong supporter of the British government that had given his family everything it owned , but he was primarily interested in managing the land . He improved the manor hall and worked to attract tenant farmers to the land . The family was known for its relaxed approach to its tenants , and the farm was very profitable .

Commercially navigable only at its mouth , the Saw Mill River itself was useless as a way to bring

crops to market , limiting settlement further upriver . Nevertheless , the roots of present @-@ day communities along the river were established during the colonial era . In 1695 , a land agent named Isaac See settled at the north bound of Philipse Manor , in the flat land between a bend in the river . Other farmers came to the area , and the settlement ultimately became today 's village of Pleasantville .

By 1704 , the area that is today Elmsford was known as Storm 's Bridge , after Abraham Storm , who established a tavern at the junction of the Saw Mill River and Tarrytown roads ( today routes 9A and 119 ) that is the center of that village today . In 1719 , one of the Philipse tenant farmers , William Hammond , built his house on land he leased in what is today Eastview , where his house still stands . Along the river to the north , his brother Staats Hammond built two mills along the river ; the small settlement of Hammond 's Mill became today 's Hawthorne .

Other settlers came to the Saw Mill River 's headwaters from a different direction . Quakers had been immigrating to Long Island since the previous century to escape religious persecution in England ; in the 1700s , " Shapequaw " , north of the present hamlet of Chappaqua , was established . In the middle of the century , the community built its meeting house ; it and other buildings of the era are today part of the Old Chappaqua Historic District , listed on the National Register of Historic Places in 1974 .

= = = = Revolutionary War = = = =

As tensions rose between the colonists and Britain in the early 1770s , Philipse remained loyal to the crown . He was arrested in August 1776 and held in Connecticut until a parole grant at the end of the year allowed him to return home as long as he did nothing to support the British war effort . He broke that promise the next spring : he attempted , perhaps at the behest of his wife , to inform the British that a passing column of Continental Army troops was headed south to attack a British camp at Morrisania , now in the Bronx . Shortly afterwards he fled to British @-@ occupied New York ; he would never return to his home along the Saw Mill .

Communities along the Saw Mill played minor parts in the Revolutionary War , especially after the Battle of White Plains in October 1776 . The defeated Continentals retreated to the vicinity of Peekskill while the victorious British withdrew to Kingsbridge in what is now the Bronx . Neither side wanted to cede control of the Hudson Valley , which divided New England from the other colonies . This left most of Westchester unoccupied neutral ground . However , Westchester was not demilitarized . Local militias and raiding parties affiliated with both sides fought each other and terrorized the other 's sympathizers and supporters . Many residents of southern Westchester abandoned their farms and drove their herds up the valley to Buttermilk Hill to protect them from Loyalist raids . The Continentals built forts near Hawthorne , where a minor tributary named Flykill Creek drained into the Saw Mill ( roughly at the junction of today 's Saw Mill and Taconic parkways ) , and built Yankee Dam to create a lake wide enough to slow any British progress up the river . At Chappaqua , the pacifist Quakers opened their meetinghouse as a hospital for injured Continental Army soldiers . Storm 's tavern was a gathering place for Continental officers and , later , their French colleagues .

As one of the few routes into hilly central Westchester , the river and its associated roads saw frequent skirmishes . In November 1777 , three young men with Patriot sympathies were walking near the river crossing on the Dobbs Ferry Road ( now Ashford Avenue ) when they came upon a group of horsemen affiliated with Kipp 's Regiment , one of the county 's most @-@ feared Loyalist militias . The young men taunted their rivals , who beat them so severely that two later died . The survivor was awarded a pension , believed to be the first in U.S. history , by the Continental Congress .

Later that month , Emmerich 's Chasseurs , an elite unit of Loyalist militia and Hessian mercenaries , staged a midnight raid on Storm 's Bridge . Hoping to capture Storm and his cousins the Van Tassels , all active in the local Patriot militia , the Chasseurs settled for burning and looting Storm 's house and tavern . Proceeding on to the Van Tassel houses , they trapped Cornelius Van Tassel Jr . , one of the cousins ' teenage sons . As the Chasseurs set fire to the houses , he hid on a roof ,

then jumped off , fended off some putative captors , and fled into the cold waters of the nearby Saw Mill . He got away , but soon died of hypothermia .

The Saw Mill River and its adjacent terrain conferred some tactical advantages to those who knew it . One skirmish began when a Patriot militiaman , Jake Acker , was hunting in a bushy area of the eastern flood plain at Elmsford . Spying a large group of British soldiers and Loyalist supporters on the road to Storm 's tavern , Acker began sniping at them from his concealment . He fatally wounded one , changed his position amid the distraction , reloaded his musket , and killed another . Hearing the shots , other local Patriots came to Acker 's aid , and eventually all but one of the larger force were killed or captured .

Some senior Continental Army officers spent time in the Saw Mill River valley . George Washington is said to have mentioned the " ford over the Nepperhan at the elm tree " , referring to a wide tree no longer extant ; a century later , residents named their hamlet after the remark . He left a meeting at the Hammond House in Eastview moments before Loyalists converged on it ; his host , Col , James Hammond , the commander of the Westchester militia , was captured and imprisoned for the rest of the war . On the British side , Major John André spent his last night before his capture , with documents exposing Benedict Arnold 's betrayal , at the Rookery inn in Hawthorne .

Later in the war , Young 's farmhouse and Four Corners were the site of the largest military engagement near the river . By 1780 , the Continentals were operating much more freely around northern Westchester , although they had to stay on the move to avoid attack . In January , one company of about 250 troops from Massachusetts lingered long enough at Four Corners for local Loyalists to inform the British , who raised a force of about 100 cavalry and 400 to 500 infantry at Fort Washington , today on the northern tip of Manhattan . The force marched to Yonkers and up the Saw Mill overnight , arriving at Four Corners the next morning . The outnumbered Continentals put up stiff resistance , aided by the cold , heavy snow cover and their opponents ' fatigue , but most were ultimately killed or taken prisoner . The British and their Loyalist and Hessian allies celebrated by burning down the Young house ; the Continentals retreated to the north of the Croton River for the rest of the war .

In 1779 , the New York State Legislature passed a bill of attainder confiscating the property of British officials and prominent Loyalists , Philipse included . The land , including land in the Saw Mill River watershed , was then distributed to the tenant farmers . In 1788 , the state divided into three the town of Greenburgh , in which the entire eastern half of the tract had been located . The towns of Yonkers and Mount Pleasant joined Greenburgh , all approximately within their present boundaries . In 1790 , a group of settlers organized the Greenburgh Presbyterian Church , and three years later built a church at Storm 's Bridge . ( Today , it is the National Register @-@ listed Elmsford Reformed Church , the oldest building in the village , the oldest church in continuous use in Westchester County . )

= = = 1800s and 1900s = = =

Most of Yonkers ' economy in the early 19th century was derived from the Saw Mill River . As of 1813 , there was a small wharf slightly upstream from the mouth where the sloops that carried river trade put in . Five small mills existed along the river above the village , all with their own dams , small mill ponds , and nearby tenements for the workers . The stagecoach route up the Post Road stopped at an inn near the bridge ; a few stores existed to supply the workers there and at the mills . Some pastures and orchards existed , but the rocky soil deterred most attempts at farming . ( A historian later wrote that it was said at the time that " the succession of boulders was so continuous that one might have stepped from Getty Square to the present Glenwood without setting his foot upon the ground " . ) Between the rocky soil and Wells ' general refusal to sell or lease most of his land , there were so few settlers in Yonkers that two schoolhouses built during the Revolution fell into severe neglect due to the lack of students .

The manor house and the surrounding land at the river 's mouth that is today downtown passed through several owners until 1813 , when New York merchant Lemuel Wells bought the 320 acres ( 130 ha ) around the manor house . Wells neither subdivided nor developed the property , although

he did extensively landscape the manor house grounds . In 1831 , Wells built a long wharf into the Hudson just above the mouth of the Saw Mill for the steamboat service which had been established between New York and Albany . Otherwise , the property remained largely unchanged until his death in 1842 .

Maps of the property from the time of Wells ' purchase and his death show the Saw Mill 's mouth widening into a small estuary before reaching the Hudson . The south bank of the river at the mouth had a 40 @-@ foot @-@ high ( 12 m ) bluff . The only construction directly affecting the river was the bridge that carried the Albany Post Road , today Riverdale and Warburton avenues , part of U.S. Route 9 and Route 9A , over the river .

Wells had survived the death of his first wife and all four of his brothers ; he also had no children , leaving him without a clear heir . His estate was further complicated by his lack of a will . Accordingly , under New York law at the time , his holdings were divided among his widow , fifteen nephews and one grand nephew . They decided to subdivide and sell the property , and within a few years more buildings had gone up , just in time for the construction of the Hudson River Railroad in 1848 , which laid its track on a causeway right across the river 's mouth . Over the next several decades , as Yonkers ' population grew rapidly , leading it to incorporate as a village and then , in 1872 , a city , the rest of the estuary was filled in and narrowed and the bluffs on its south side graded out of existence .

By the later decades of the 19th century , industry had grown up along the river 's lower portion . So much pollution was dumped into the river from the factories alongside it that a local poet lamented the Saw Mill 's decline in an 1891 quatrain :

'Tis now , at Yonkers 's spreading feet , A flow with odorous sins replete ; Its nitid bosom has become  
A snake @-@ like yellow scrawl of scum .

To let the river replenish itself , most of the dams that had been built were removed in 1893 . Ten years later it had somewhat recovered , and people were again using it for drinking water and swimming .

In the late 19th century , the New York and Putnam Railroad was built along the Saw Mill River from Putnam County to central Yonkers , and thence to Tibbets Creek and the Harlem River . Various parts of the line operated until the 1940s and the 1980s . The main line of the railroad is now devoted to bicycle and pedestrian paths . They are the South County Trailway on the parts south of Route 119 , and the North County Trailway north of 119 .

To slake the thirst of its ever @-@ growing population , which had reached almost 100 @,@ 000 by 1915 , Yonkers tapped the Saw Mill . Water from an impoundment two miles ( 3 @.@ 2 km ) north of downtown was held in two reservoirs and two water towers . It was purified by slow filtration through sand and then chlorinated . By 1919 the city was drawing an average of 10 @.@ 6 million gallons ( 40 @,@ 000 m<sup>3</sup> ) a day from the river through this system .

Despite this , the pollution of the river continued unabated , reversing its earlier recovery . In a 1920 report on the condition of public water supplies around the state , New York 's Health Department said " sanitary conditions upon the Saw Mill watershed are very unsatisfactory " , despite the considerable rules and regulations it had promulgated to protect the river in Yonkers . The city 's own public works department had noted dozens of violations for the previous year , most of them continued from the years before that . " A great many privies and cesspools are located on the edge of the Saw Mill and its tributaries and there is also drainage from poultry yards , barnyards and house drains , " the department noted

Rather than enforce the violated regulations more strictly and clean up the river , the city chose to cover it up entirely . Between 1917 and 1922 , the last 2 @,@ 000 feet ( 610 m ) of river , including a small gorge , was buried in a flume under the Getty Square neighborhood , an effort to halt the river 's frequent floods and quarantine its unsanitary water , and open up some space for further development . That same decade , the county parks commission proposed to build the Saw Mill River Parkway along the river , just as the 1922 Bronx River Parkway follows the Bronx River , and to add a sewer line along the river to prevent contamination of Yonkers ' water supply . Construction began in 1929 and continued throughout the Great Depression . By 1940 , the parkway had reached the river 's headwaters at Chappaqua , where World War II temporarily halted construction . In 1954

, it was complete . The parkway 's construction , along with that of the New York State Thruway later in the decade , required some adjustment of the river 's course in some areas .

Westchester 's postwar development led to more stormwater runoff , which often flooded and closed the parkway . By 1958 , engineers were urging that the river be cleaned up to reduce flooding . Still , illegal dumping and overflows continued . For example , storm runoff gave the Yonkers section the river 's highest concentrations of heavy metals , PCBs , and other chemicals , according to a study of the river in 1983 , the year the city stopped using the Saw Mill as its primary water source . A decade later , the sediment in the Saw Mill had the highest concentration of metals in the United States Geological Survey 's entire water @-@ quality assessment program .

= = = 2000s = = =

A new kind of pollution entered the lower Saw Mill in 2003 when a Yonkers sugar refinery spilled hydrochloric acid into the river . Westchester District Attorney Jeanine Pirro brought criminal environmental charges against American Sugar Refining , the plant owner , which was forced to pay a \$ 20 @,@ 000 fine ; make a \$ 100 @,@ 000 donation to Riverkeeper , a regional environmental organization that focuses on the Hudson and its tributaries ; and give one ton ( 800 kg ) of sugar to Westchester Food @-@ PATCH , a local nonprofit that supplies food to other nonprofits . Riverkeeper passed the money it received along to the Saw Mill River Coalition for local projects in Yonkers .

In 2008 , Groundwork Hudson Valley , the coordinator of the Saw Mill River Coalition , received a three @-@ year , \$ 889 @,@ 183 U.S. Environmental Protection Agency Targeted Watershed Grant . One of 15 recipients from a nationwide pool of more than 100 applicants , the group cleans up garbage , removes invasive species , and plants native trees along the river . The group also marks storm drains that drain to the river . On September 25 ? 26 , 2009 , the Saw Mill River Coalition organized a BioBlitz to catalog species of plant life , animal life , insects , fungi , and bacteria in the river and its watershed . The Coalition is also looking to restore the wetlands along the river in order to reduce flooding .

Raising of the Saw Mill Parkway continues ; in 2013 , a 900 @-@ foot ( 270 m ) stretch in Pleasantville was raised by three inches to reduce flooding from the river .

= = = = Daylighting = = = =

The City of Yonkers is currently working on a \$ 48 million daylighting project that will remove the flume that the river flows through under Yonkers and bring the river to the surface . The project will uncover the river for six blocks in Downtown Yonkers . The newly surfaced river will be part of an urban park in Getty Square , Downtown Yonkers .

The first phase of the project removed a parking lot that covered a two @-@ block section of the river in the Getty Square neighborhood of downtown Yonkers . Ground was broken on December 15 , 2010 , and the work was completed in December 2011 . Work on the second phase , which aims to expose the river in the Mill Street Courtyard , began on March 19 , 2014 . The project has stimulated real estate investment in the area .

= = Recreation = =

The river affords some of the few remaining open spaces in Westchester County . Near Ardsley and Dobbs Ferry , the river passes through V. E. Macy Park , popular for picnicking and fishing in Woodlands Lake . Butternut Ridge Park contains Tarrytown Lakes and a hiking trail .

Two bicycle trails run along parts of the river : the North County Trailway and the South County Trailway , which run from Van Cortlandt Park in the Bronx to Putnam County .

The Saw Mill was also known as the closest trout fishing river to New York City . In the early 2000s , it was stocked with a few hundred trout each year . The lower river specifically is a good trout river .

= = Hydrology = =

The USGS maintains a stream gauge on the Saw Mill just above the river's mouth in Yonkers . Mean discharge since 1944 has been 32 cubic feet ( 0 @. @ 91 m<sup>3</sup> ) per second , with extremes of 1 @. @ 840 cubic feet ( 52 m<sup>3</sup> ) during the April 2007 nor'easter and 0 @. @ 11 cubic feet ( 3 @. @ 100 cm<sup>3</sup> ) . Average annual precipitation in the watershed is 46 @. @ 2 inches ( 1 @. @ 170 mm ) .

The Saw Mill River's water quality varies , reflecting its history and surroundings . Its headwaters in the town of New Castle are considered " relatively healthy " . There the river is less disturbed , and its ecosystem supports a diversity of organisms . In Yonkers , where it flows through a concrete @-@ lined channel , there is less life in the water and it is considered to be environmentally impaired . A 1983 United States Geological Survey ( USGS ) study found that concentrations of heavy metals in the water increased further downstream , a phenomenon observed with many other pollutants in the river and correlated with the urbanization around and above its mouth . DDT was detected in the streambed sediments throughout the river . In its final 6 miles ( 9 @. @ 7 km ) , more than 50 micrograms of PCBs were found per kilogram of water . In the 1990s , the USGS found that of the 35 Hudson tributaries it tested , the Saw Mill had the worst levels of cadmium , copper , mercury , nickel and zinc in the sediments near its mouth , and among the worst nationwide ( however , only the river's manganese levels were found to exceed federal standards ) . It is believed to add more pollution to the Hudson than any other single tributary .

Unusually for a river , the Saw Mill's waters have consistently had a slightly alkaline pH , suggesting it has not been as affected by acid rain as other Hudson tributaries . In 1951 , a state Department of Health survey reported pH between 7 @. @ 25 and 9 @. @ 1 . Four decades later , another study found pH readings rising steadily from 7 @. @ 59 in Chappaqua to 8 @. @ 24 in Yonkers . Similarly , a 2007 Manhattan College study done for the New York State Water Resources Institute found a median low of 7 @. @ 36 in Chappaqua and a median high of 7 @. @ 81 near Torre Road in Yonkers , with a drop to 7 @. @ 67 at the tunnel , for a total median for the river of 7 @. @ 59 . The lowest recorded pH in the year @-@ long study was 7 @. @ 1 at Chappaqua with the highest reading , 8 @. @ 17 , at Torre Road . All results were between 6 @. @ 5 and 8 @. @ 5 , the range required by state regulations .

The 1983 USGS study also classified the water quality of the entire river . The first 14 @. @ 5 miles ( 23 @. @ 3 km ) from the river's source in Chappaqua was classified as suitable for any purpose besides drinking . The next 6 @. @ 0 miles ( 9 @. @ 7 km ) was classified as being safe to drink . The last 3 @. @ 0 miles ( 4 @. @ 8 km ) of the river from the sewage treatment plant to the Hudson was determined to be unsafe to drink , bathe in or fish in . The water was only safe for agricultural and industrial use .

In regulations adopted in 1985 and amended in 2008 , New York's Department of Environmental Conservation ( DEC ) divides the river into four water @-@ quality regions similar to those in the 1983 USGS study . The first 1 @. @ 100 feet ( 340 m ) from the Saw Mill's mouth is affected by the Hudson's tides and thus is often salty like the river at that point . It is considered Saline Class B surface water , to be kept suitable for primary and secondary contact recreation such as swimming , boating and fishing , and capable of supporting " fish , shellfish and wildlife propagation and survival . " The next section extends to the tailwater at the Yonkers sewage plant impoundment , and is Class C fresh water , with the same purposes , to the extent that " other factors " do not limit them . From there to the Woodlands Lake inlet is the third section , designated as Class A fresh water , to be kept clean enough for drinking . The remainder to the source is the fourth section , designated Class B , or fresh water kept to the same standards as the salt water above the river's mouth . Tributaries , named and unnamed , and subtributaries are generally held to the same standards as the section into which they drain .

A 1991 study by Irene Gruenfeld , a Williams College undergraduate , measured various pollutants at eight points along the river , from just below the duck pond in Chappaqua to inside the tunnel in Yonkers . The levels increased as the river flowed along , suggesting that most pollutants , especially dissolved salts , came from urban runoff instead of any single point source . The



exception was PCBs , which rose drastically south of Elmsford ( a finding that concurred with an earlier study ) and then doubled in Yonkers . The study noted that this suggested a point source , perhaps a known burial site for used capacitors in the Elmsford area , yet Gruenfeld argued that cleaning up this and other possible point sources would not eliminate PCBs in the river . While the PCBs in the river were found somewhat biodegraded , chlordane levels are high enough that DEC recommends eating no more than a half @-@ pound ( 230 g ) of fish or eel from the Saw Mill per month .

A 2004 @-@ 05 EPA study of the river rated the water quality 6 out of 100 . The study also discovered that dissolved oxygen levels in the water were low because there were few organisms , poor sediment , and little plant life in the river . Although storm water from residential neighborhoods added dissolved oxygen , it also brought ammonia from fertilizer . The Army Corps of Engineers found that the channeling prevented aquatic life from sustaining itself ; few fish naturally spawn in the river because of the cement casing and flume at its mouth .

Two years later , a joint study by Manhattan College and the New York State Water Resources Institute found high levels of human fecal bacteria in the water , likely due to municipal wastewater . All 12 sites exceeded the state maximum of a monthly median of 200 organisms per 100 milliliters ( ml ) over five months . Levels were , as with most of the river 's other pollutants , generally the highest near the mouth . However , the uppermost sampling site in the study , at the Chappaqua Metro @-@ North station recorded the greatest single reading of any site , 1 @-@  $2 \times 10^5$  organisms per 100 ml , as well as the second @-@ highest ; the researchers speculated that this was due to sewer overflow in the area at the times of those readings . Most of the high coliform readings came after rainfall except at the two sites furthest downstream ; the study theorized that some older buildings in this area of Yonkers may still discharge sewage directly to the river . Since most of the Saw Mill River flows under the shade of a forest canopy , the bacteria may be less likely to be inactivated by sunlight than in other streams .

The riverbanks in Yonkers are often lined with tires , shopping carts , plastic bottles , and other trash . In 2008 , DEC found trash and pollution from the river 's mouth to the end of the tunnel . " Urban refuse ( tires , bottles , cans , etc . ) lines much of the lower river , " it reported . " Oil / gasoline slicks are regularly observed along this segment . "

The stretches further upriver were slightly better . Between the end of the tunnel and Woodlands Lake , the river was still found to be impaired for recreation , drinking and aquatic life , but less strewn with litter , and as a whole the habitat was merely stressed . Above that point , the Saw Mill 's waters were merely stressed for aquatic life and recreation , with only fish consumption considered to be impaired . DEC did not know the sources of pollutants in this stretch and called for further research . "

= = Geology = =

The Saw Mill 's basin is part of the Manhattan Hills in the New England Uplands physiographic region . It is primarily underlain by metamorphic rock such as gneiss , schist and marble . They can be seen in some bedrock outcrops in and around the river .

Soils in the river and its basin reflect past glaciation in the area . Glacial till covers much of the river bottom in its headwaters . Further downstream there is stratified drift and alluvium in the sediments .

= = Flora and fauna = =

The American eel lives in the Saw Mill River and its tributaries . Commonly born in the Atlantic Ocean , the eels maneuver through the river 's tunnel under Yonkers before reaching the more natural parts of the river farther upstream . The eels also scale a 20 @-@ foot ( 6 @-@ 1 m ) dam before reaching Woodlands Lake . Growing up to 5 feet ( 1 @-@ 5 m ) in length upstream , the eels return to the ocean via the Hudson River to spawn . The planned installation of trash @-@ catching nets along the daylighted portion of the river would prevent the eels from leaving the river to

reproduce .

More fish have been discovered in the newly daylighted section of the river . Baby blacknose dace and tessellated darter have been spotted in the river in addition to trout . In addition , wood frogs , eastern painted turtles , and redbreast sunfish live in the river too . All of these species have been hurt by the industrialization of the river .

About 10 to 20 white @-@ tailed deer per square mile ( 26 to 52 deer per square kilometer ) live along the river and the parkway , more than the ecosystem can carry . They eat low @-@ lying plants , shrubs , and tree saplings , reducing the food supply for smaller animals . The deer also collide with cars ? in Hastings , about 1 @.@ 6 times per month .

Beavers can also be found along the river , building small dams along the river . Night herons , ducks , and other birds are also present along the river .

Numerous invasive plants live along the Saw Mill River . Porcelain berry is a vine with white berries that wraps around native trees and strangles them . Oriental bittersweet is also present along the river , and it is slowly displacing the native American bittersweet . Oriental bitterweet can also form hybrids with the native bittersweet and making identification harder . Japanese honeysuckle and Japanese knotweed are two other invasive vines native to Asia . In addition , purple loosestrife , a perennial herb with magenta flower stalks , is also present along the river .

Native trees on the river include the pin oak and staghorn sumac . These trees were found along Woodlands Lake , but can be found throughout the entire Hudson Valley . Other native plants include evening primrose , an invasive species in Europe , and wild lettuce .