Antrim's Causeway

Joan Gorga

Have you ever noticed Antrim's causeway, that is, the raised stretch of Gregg Lake Road reaching from the eastern edge of the public beach to the intersection of Craig and Brimstone Corner Roads? There is water on both sides, sometimes reaching nearly up to the roadway. Otters and beavers are frequently seen, along with sunning turtles, hunting herons and nesting kingbirds. The blueberry bushes along there yield prolific crops and even some tangy cranberries can be found in the fall.

Until recently the causeway function hadn't really entered my consciousness, even though I drive over it every time I head to town. But it reared its head and made its presence known several times this fall, and wouldn't be ignored any longer.

Determined, hard-working beavers crammed the space under the Gregg Lake Road bridge with sticks until both dam and water touched the bottom of the bridge, even when it wasn't raining. When it was raining, which was quite a bit of the time this fall, I just held my breath, fearing being marooned in the outer-lying suburbs of Antrim, which sounded exciting until Linda Tenney reminded me I would be marooned with my husband. Yikes! How far up the bridge the water was at any given time became a major topic of neighborhood conversation, with some worrying about the bridge getting washed out and others that the causeway would give way or get undermined by the building water pressure.

In September, one of the Highway Department trucks landed on its side in the water after the shoulder on the north side of the causeway collapsed. The New Hampshire Department of Environmental Services (NHDES) wasted no time in getting there to ensure that any environmental hazards from the truck spill were contained. Booms were set up and absorbent pads were placed on the water surface to

capture the small amount of crank case oil that was released. Although a few folks mourned the loss of some prime blueberry bushes, there appeared to be little real damage done...to the lake, at least. The load of sand and gravel destined for Brimstone Corner Road was scooped back up. A few weeks later, the Highway guys quickly filled in another sizeable hole that opened up at the edge of the causeway across from the bathhouse at the beach. Earlier in the season, they had filled in a sinkhole that appeared in Craig Road near the bridge.

Why are we beginning to face problems with the causeway that we didn't have historically? Has something changed?

I asked Eric Tenney, the fount of knowledge of the history of Antrim roads, if he knew when the causeway was built. He responded, "They built it when they got damn tired of driving all the way around!" While I suspected that his explanation hit the nail on the head, perhaps it lacked some details...

According to W. R. Cochrane in his History of the Town of Antrim, New



A beaver wastes no time rebuilding the dam under the Gregg Lake Road bridge shortly after it was removed by the Highway Department in October. Photo by Joan Gorga.

In October, the Highway Department received permission from NHDES to remove the beaver dam clogging the underside of the Gregg Lake Road bridge, and the water level on the north side of the causeway dropped by several feet as the water surged into the lake proper and tumbled on down Great Brook. It would have made for an exciting kayak ride to town! Within a few days, however, fresh sticks and branches were sticking out from under the bridge, and it was evident that the beavers were rebuilding.

Hampshire, From Its Earliest Settlement, to June 27, 1877, Samuel Gregg built a saw and grist mill at the mouth of "the pond" in 1793, which did a brisk business until it was taken down some eighty years later. Large quantities of grain were ground at Gregg's Mills, especially at the time when there was a "large population west of the pond." Many old cellar holes from those days can still be found. In 1794, a town road was built which passed "from the old

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meetinghouse past the pound and thence westward over Holt's Hill, and then ... round north and west of the pond, till it intersected with the road south of the pond at the corner near the Capt. John Worthley place." This "westward road" likely passed well to the north of "the pond" to avoid the low, marshy areas and then traveled south approximately along what are now Craig and Brimstone Corner Roads.

By 1835, perhaps the residents to the west got "damn tired of driving all the way around" to Gregg's Mills and, according to Cochrane, a road was laid out "from Clinton to the...Worthley place...through a dense forest," and "a road was laid out from Gregg's Mills to strike the other near the north end of the pond." It seems likely that the latter was the first road to cross the meadow at the site of the current causeway. Given that the remnants of the Gregg's Mills dam are currently under several feet of water at the mouth of the channel, the water level of "the pond" would have been several feet lower at that time, and it is likely that the area traversed by the road was considerably less wet than it is now. A modest bridge may have sufficed to cross what is now being called Hattie Brown Brook as it ran through the meadow. Hattie Brown was the last of a succession of Browns who lived on the old road northwest of the lake.

The "Meadows" area of the lake really was once a meadow, and one purpose of regulating the height of the water when the Gregg's Mills dam was installed was to ensure that the meadows at the north and west ends of the pond could be drained so the hay could be cut. Maps as far back as 1858 show the road crossing the area, but not passing through water. Long-time residents remember when the meadow was regularly mowed.

The meadow road was upgraded periodically. In 1917, Warrant Article 18 was described in the February 28 Antrim Reporter: "To see if the Town will vote to appropriate a sum of money to improve and widen the highway leading from the George Brown corner to the corner at Clinton Village or any part of same, or take any action thereon..."

Even though Gregg's Mills were taken down in 1876, the dam rights (or "privilege") had been purchased around



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1847 by the Antrim Water-Power Company to control water release to power the many downstream mills along Great Brook. I've been unable to establish for sure when the dam was first built in its current location, some 1000 feet east of Samuel Gregg's dam. The map in Cochrane's History, which was published in 1880, clearly shows the dam in its original location, as does a map published in 1892. An article in the August 8, 1908, Antrim Reporter says:

A New Dam at Gregg's

It is probable that soon there will be erected at the outlet of Gregg Pond, near the ice house, a new and substantial dam to supplement the one which has been there for about 35 years. The first intimation of such need was last week when a leak was discovered and of such a nature as to cause some alarm. An engineer was summoned and on investigation it was seen that something must be done at once.

Above the dam on the east shore of the pond is now being built a coffer-dam to hold back the water while the work on [the] new dam is in progress. This is a large sheet of water held back by the dam, and the interested ones—those who have factories on the stream—consider it good policy to take this extra precaution, especially as at times the pond gets very high and the danger is thereby increased.

Those residing on the banks of the stream have nothing to fear as every precaution is being taken and the management can be trusted to do everything as it should be and protect the interests of every one who is the least bit concerned.

This was probably the first dam built at the current location. Ben Pratt thinks the engineer who built it was my grandfather, G. H. Caughey, of Waltham, Massachusetts, who moved to Antrim with his young family several years later and founded Caughey & Pratt along with Ben's father, Henry.

As electricity was brought in to power the mills downstream, control of the water flow in Great Brook became less important. At the same time, vacationers began to find Gregg's Pond (renamed Gregg Lake in 1910, at the request of Paul Thayer, the developer of White Birch Point, even though many people, of course, still call it "The Pond"). In general, the lake began to be kept higher for the "summah folk," but not without some controversy. Drenching spring rains in 1936, which led to flooding that blocked all roads out of Antrim for days and were the deciding factor in the decision to cut passenger train service through Antrim, were followed by a severe drought, and Gregg Lake dropped to the lowest level ever seen.

In a letter to the editor entitled "Gregg Lake Doomed as Summer Resort is Opinion of a Former Summer Visitor," published in the November 26, 1936, Antrim Reporter, Mrs. Emma A. Phelan of Boston said that Gregg Lake, "one of the most charming I had ever seen, had been turned into a quagmire to run a mill." She continued on to say that it should be saved from "mercenary destruction" and she would not be coming back. A response published in the December 3 Reporter, which came from Rachel Caughey, my grandmother, who was never known to mince words, was entitled "Water From Gregg Lake Gives Work to Majority of the People of Antrim." She said, "Presumably, Mrs. Phelan does not know that without the mills there would be no Gregg Lake: that they built the dam that holds back the water; and maintain it... No one would be more grateful than the mill owners if Mrs. Phelan and her friends could show them how to maintain a sufficient supply of rain to run the mills, and still keep the lake at its utmost beauty, which 'the natives' also appreciate."

In the late 1960s the new town beach, complete with picnic area and parking lot and many loads of imported sand, was built at the north end of the lake in the relatively shallow "Meadows" area. This provided extra incentive to keep the lake level high to enhance the swimming area. The dam was rebuilt in 1982, with the flexibility to adjust the lake level by placing up to three flash boards above the main section of the dam. The lake was originally kept quite high in summer, with all three flash boards in place, but only two of the boards are now routinely used, which raise the water about 16 inches above the dam level.

The flash boards are removed to draw the water down for the winter, usually around mid-October, but the lake water now reaches under the Gregg Lake Road bridge year-round and laps at the causeway on both sides. Given the fluctuations in dams and water levels, it is hard to say exactly how much higher the water is than "historic" levels, which might be said to be before Samuel Gregg built the first dam—perhaps on the order of five to ten feet. By any consideration, the lake level in both summer and winter has crept up substantially over the past 225 years.

Non-human residents have also had a dramatic effect on water levels in the area north and west of "The Pond." Beavers were abundant when the first settlers arrived in America. and would almost certainly have built impoundments in the swampy areas upstream of Gregg Lake. ("Impoundment" is



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Paula Carcedo, an exchange student at ConVal from Santander, Spain, who is having an adventure staying with David and Sharon Ward in a seasonal cottage on "The Pond" this fall while the Wards' Peterborough home is undergoing renovation, caught this ambitious beaver at work along Gregg Lake Road one night. We predict another power outage in our future.

the official term, possibly due to the fact that the word order in the term "beaver dam" is easily and often switched.) But the beavers were heavily trapped in the 1600s and 1700s, and were completely gone in New Hampshire by the late 1800s. They wouldn't have been a factor as the road was built across the meadows and gradually widened and raised and improved over the course of 150 years. Beavers were reintroduced in New Hampshire beginning in 1926, and had fully repopulated the state by about 1955. Ben Pratt says he first saw a beaver a few years after that.

Troublesome as they may seem at times, beaver dams do serve a purpose. They trap sediment that would otherwise fill downstream lakes and ponds and slow water flow that might otherwise cause downstream flooding. They allow water to slowly seep back into the ground and refill aquifers. They build up areas of rich soil and provide habitat for wildlife. The areas generously endowed with beaver ponds to the north and west of Gregg Lake are considered to be some of the highest quality wildlife habitat in the state of New Hampshire.

Our causeway is challenged on both sides in ways that weren't imagined when that first road was laid out across the

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meadow. Back then the lake water level was considerably lower most of the time, the public beach wasn't located in the Meadows, and beavers hadn't repopulated the area.

The high lake level set by having two flash boards above the new dam makes the area around the public beach more pleasant for swimming. It also stresses the causeway on the south side and creates a large area of shallow water where aquatic plants thrive and provide cover for small fish, amphibians and insects, but the aquatic plants also decompose and release nutrients into the water that encourage algae growth. Shallow water warms up faster than deeper water, which also facilitates algae growth.

The beaver dam under the Gregg Lake Road bridge raises the water level on the north side of the causeway to unprecedented levels. As indicated by the sinkhole that opened up earlier this year, the stretch of road near the Craig Road bridge likely faces similar challenges from the beaver dam under that bridge.

Is there something we can do to alleviate the problems for the long term?

Beavers are notoriously determined. If their dams are removed, they just rebuild them. If the beavers themselves are removed, others move in. One ingenious solution that seems to work in spots where a beaver dam really could cause serious problems, such as under the Gregg Lake Road bridge and possibly also the Craig Road bridge, is a flow device called a beaver box, or trademarked as a "Beaver Deceiver." The idea is to run pipes through the beaver dam of concern with cages that exclude beavers from each end. The beaver dams stay in place, the water can be kept at the desired level and the beavers can still live in their chosen pond. The Harris Center has installed several such devices, and highly recommends them. Other towns have used them as well to cut back on road, culvert and bridge repairs. Should we consider installing beaver boxes under both the Gregg Lake Road and the Craig Road bridges to maintain a lower water level?

Do we also need to consider keeping the lake water level lower in summer or winter or both? Would we face less erosion along the causeway if the water level was consistently lower? Was it better for the quality of the water when the lake water level was drawn father down in the winter, so the aquatic plants did not survive as well in the shallows? Is there a lower level that will keep the public beach the attractive summer town gathering spot that it is today? Or do we accept the fact that our lake is maturing with its increased shallows, and keep it as clean as possible under the current conditions?

We're still looking for the answers to these questions.

Antrim Grange

Renee Mercier-Gerritsen, Grange Master

Antrim Grange is happy to announce that we have received some significant donations from individuals and local businesses lately.

In the last Limrik, Jane McLean had asked people to donate and said that she would match up to \$5000 if donations reached that before December 31st. She has acknowledged that we have exceeded that amount and her donation will be made in the future. After a meeting with Richard Verney of Monadnock Paper Mills, he has generously donated \$12,500 to the NH Grange Foundation in the name of the Antrim Grange Hall Restoration Fund. It came in the form of two donations in the amount of \$6500 each from Monadnock Paper Mills and the Gilbert Verney Foundation. He has also pledged the same amounts for next fall, making it a total donation of \$25,000. This will help us replace our leaking roof and continue on our foundation work. Thank you to Jane and Richard for helping us get rolling again.

We are humbled and grateful for the people and businesses of our community that have graciously given us the opportunity to restore that beautiful building on the hill in old Antrim Center.

We held a 50/50 raffle in October. Thank you to everyone who purchased tickets to support our cause! The winner was Justin Wright of Antrim. We are hoping to hold another 50/50 raffle in the spring.

Antrim Grange members have been busy. Many of us attended the annual NH State Grange Conference held in Keene. Sharon Stickney won a blue ribbon for her beautiful jacket that she sewed. It has now been sent on to National Grange to be displayed in November in Stowe, Vermont. Beth Merrill received 1st place in card making. No surprise there because they were perfect! They also are headed to Stowe, Vermont.

We are currently getting our annual submission for Festival of Trees ready. We are looking forward to the gnome theme this year.

Antrim Grange is hosting the community supper on December 20th at the First Presbyterian Church. Please join us for a Christmas in July meal!

If you are curious about Antrim Grange, the Restoration project, membership, or anything else you may want to know, please contact me via email at renee mercier@yahoo.com or feel free to call me at 603-547-5144. Also, 'like' Antrim Grange on Facebook. We are currently working on getting our website up and running again so we will be posting upcoming public events there, too.

Antrim Grange is currently meeting at the Town Hall on first and third Wednesdays at 7 p.m. Anyone is welcome to attend anytime. We always have an open door policy. Hope everyone has a blessed and safe holiday season with a prosperous and healthy new year.