

The Story of the Chocorua Dam and Park

Chocorua Village is defined by the pond and waterfall at its center, visible to everyone who drives by on Route 16. Beneath the glassy surface is the historic wooden Dam, which creates a peaceful pond in the otherwise fast-flowing Chocorua River as it tumbles southward to join Tamworth's Swift River and the Bearcamp River before flowing into Lake Ossipee.

This is one of the last A-frame timber dams in New Hampshire. Hidden behind the falling waters are a set of wooden "bents" that hold back the water in the pond. One of the unusual aspects of the structure are the vibrations that can be heard at certain water levels. Sometimes compared to the sound of an idling diesel engine, the sound is actually caused by the vibration of the water falling over the dam, often resulting in a visible standing-wave pattern.

Early History (1889-1946)

The Dam was constructed in approximately 1889 by Charles P. Bowditch, a Boston investor and anthropologist, who spent summers with his family at Lake Chocorua. He purchased the site in 1888, removing the earlier millworks to eliminate the associated pollution and improve the scenic character of the village. The Bowditch family owned the property for 58 years, operating the dam strictly for aesthetic and recreational purposes. Although a penstock was installed for possible hydroelectric generation, it has never been equipped with a turbine or generator.



Prior to 1889, a series of older dams were located near this site, providing water power for various mills. One of the earliest dams was built around 1785 by the Tamworth Iron Works, which used bog ore dredged from Lake Ossipee to produce iron for the manufacture of chains, augers, and nails.

The Flanagan Years

From 1946 to 2015 the Dam was owned and maintained by Raymond and Edna Flanagan, who repaired the spillway in 1978 and 1989. After Edna's death in 2010 the family attempted to sell the property, but prospective home buyers were not willing to accept responsibility for the Dam, which was located on the same property. The Flanagans also asked the Town and State to take over the Dam, but neither had the resources nor interest to maintain and operate the structure, which was in need of significant repairs. The Dam had become a liability, and there was growing concern that the Dam might be removed in order to eliminate the ongoing costs and risks.



Preserving the Dam

In 2014, a number of Tamworth residents with an appreciation for the Dam's scenic, historic, and engineering qualities formed a "Dam Committee" to explore options for repairing and preserving the Dam. Since a number of the struts that support the lip of the dam had already fallen away, it was clear that the structure needed urgent care. The group undertook negotiations to acquire the dam but faced the challenge of having to acquire the Flanagan residence along with the Dam.

Meanwhile, the former Ice Cream Shop (on Route 16 just downstream of the Dam) had ceased operation and was on the market. The Daigles, who had operated a number of businesses at the site since the 1970's, were enthused about the prospect of selling the property so that it could become the nucleus for a Park that might ultimately span the river and include the Dam itself.

This led to the purchase of the Daigle property by local resident Peter Smart and the formation of Chocorua Park LLC, a private entity that would own and maintain the park for the purpose of public enjoyment and recreation.



In July of 2014 the Daigle's building was razed, with salvageable materials donated to Habitat for Humanity and other local causes. Removal of the building immediately opened up views of the river that were previously hidden from public view, and new landscaping provided a new green space along the busy highway. Old foundation stones were used for benches and "stonehenges", and a picnic table was installed. A gazebo was donated by neighbors and moved to the site on a snow-mobile trailer. A ramp was built, allowing easy access down to the river and providing a close-up view of the Dam. Although full access to the Dam was not yet possible, the Park quickly became a popular spot for residents and visitors alike to enjoy the river.

In 2015 the entire Flanagan property, including the Dam and the islands in the river, was purchased by Chocorua Park LLC. Although it was originally hoped to purchase the Dam *without* the house, this proved impractical, necessitating the purchase of the entire property. Community volunteers spent several days clearing brush and thorns from the property. A second picnic table was placed on the island and the foot bridges were repaired and reinforced. The chainlink fence that separated the properties was removed, restoring public access to the dam and the pond. The Dam quickly became a popular fishing spot, as it had been decades ago.



Repairing the Dam

To preserve the structural integrity of the Dam, the Park owner and others on the Dam Committee developed a plan to replace the missing upright timbers (struts) that support the lip of the dam. On June 10, 2015, the penstock was opened half way, lowering the water level in the pond approximately six inches, which allowed inspection and measurement of the wooden structure that is normally hidden behind the waterfall. With this information, and the assistance of a professional engineer, detailed repair plans were formulated. Since the NH Dam Bureau agreed that the work could proceed as a “repair”, the considerable time and cost associated with any “reconstruction” work was avoided. And because the water level in the pond would only be lowered about four feet, and there would be no digging or machinery in the river, no further permits were necessary, allowing the design and planning to proceed rapidly so the work could be performed while the river was at its lowest in mid-summer.



Actual repairs occurred during the week of July 28th, 2015, with the replacement of all sixteen of the primary struts that support the lip of the dam. Local lumber mills produced the new 8x8 inch struts from locally-harvested Eastern Hemlock. The actual timber work was conducted by experienced timber framers, cutting a tenon at the base of each new strut that fit into the existing slots (mortises) in the existing sills. With the assistance of Dam Committee members and other volunteers, the timbers were raised into place and held between two hemlock “repair plates”, which in turn were fastened to the existing structure using substantial 3/4 inch bolts. Five of the secondary struts were also replaced, and a new “wear plate” was installed along the lip, helping to reinforce and straighten the edge of the dam and produce a more uniform waterfall. While the pond was lowered, a number of holes were plugged in the upstream face of the dam, eliminating most of the water that previously leaked through the stonework. This intensive effort was completed in just seven days, allowing the pond to be quickly refilled for the continued enjoyment of residents and visitors alike.



Current Condition

Although the 2015 repairs were originally seen as a temporary measure, the overall condition of the structure turned out to be very good, so a near-term replacement of the dam is no longer seen as a necessity. However, there are still a number of other repairs to be performed, including replacement of the 4x4 wooden gate and repair of the trash rack and penstock valve. A survey of hydroelectric potential is also underway, but preliminary results suggest that the payback period would be over 20 years, making a full-scale installation unfeasible. However, a demonstration or educational installation is still being considered.



