

Historical Aspects of Lake Roland

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AT ONE TIME LAKE ROLAND WAS KNOWN AS SWANN LAKE IN HONOR OF MAYOR Thomas Swann who began the construction of a water supply dam at the Relay House on the Northern Central Railroad.¹ The name Roland stems from Roland Run, a stream mentioned as long ago as 1694, when Roland or Rowland Thornberry had a tract surveyed called "Selsed."²

In building the artificial lake to serve as Baltimore's main reservoir, the Mayor and City Council had to acquire the land and buildings of two concerns, the Bellona Gunpowder Mill and a textile works called the Eagle Factory.

Baltimore's population depended on a privately-owned water company from 1804 until 1854, when the city bought the entire holdings of the Baltimore Water Company.³ The utility company had begun with dams on Jones Falls, in the vicinity of what became Preston Street, at a time when the town had scarcely grown out as far as Centre Street. As demand for water increased, the company moved farther upstream and purchased a number of existing mills to gain control of the water rights that came with the properties. Some of the mills continued to grind grain for the water company's benefit or they were leased to tenant operators. The Mount Royal Mill dam became a reservoir as did the Rock Mill dam and pool just downstream of Mount Vernon Mills. In April 1853, the private company acquired land near the present Lake Roland from the Bellona Gunpowder Company of Maryland, possibly hoping to beat the city to the next site available for development. The city council had been deliberating the municipalization of the water system for some time.⁴

Louis F. Gorr reported that the city fathers chose to depend on Jones Falls as a water source against the advice of such prominent engineers as Montgomery C. Meigs and Myndert Van Schaick, who were building water systems incorporating stone aqueducts for Washington, D.C., and New York City, respectively. Other local engineers urged the city to bypass Jones Falls and to dam either the Patapsco or Gunpowder Falls. But as things turned out, the city took the easiest solution, purchased the private water company, and went ahead with the Lake Roland plan. The city hired James Slade of Hartford, Connecticut, who made one of the proposals and who believed in the project.⁵

Gorr outlined the history of Baltimore's search for a pure and copious water supply and noted that both the private water company and the city government repeatedly settled for stop-gap measures and short-term solutions until they finally resolved to use the Great Gunpowder Falls as the chief resource. The system built on Lake Roland was a vast improvement over a net-

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FIGURE 1.

Lake Roland Dam, June 30, 1907.

—Barker Collection, Enoch Pratt Free Library

work based on old Jones Falls mill ponds, but was by no means a long-range answer to the problems that plagued a city growing at a phenomenal rate.

Engineer Slade had a detailed plan ready to implement, whereas the proponents of the Gunpowder plan had only a map proposing an “air-line tunnel” that would run from Cromwell Bridge Road to Herring Run. This map was published in the *American* of September 25, 1854. Acting under a council ordinance of July 29 of that year, the city acquired a deed for the assets of the Water Company on October 10. Baltimore was no longer able to consider alternatives.

Actual construction began in 1858, and Gorr describes the project as based on seven components: Lake Roland; Lake Roland Dam; the conduit from Lake Roland to Hampden Reservoir; Hampden Reservoir; the pipe line from Hampden to Mount Royal Reservoir; Mount Royal Reservoir; and the network of distribution mains from each reservoir.⁶

The dam was to have been built of earth and wooden cribs, but the decision was made for an “indestructible” dam, and the fates have now spared that boastful structure for some 120 years. The core of the dam was built of heavy rubble work, ground up from “the rough gigantic stone of the neighboring hillsides.” The outer facing was of roughly cut stone or rock ashlar work. A clear waterway 125 feet wide provided the overflow at the top of the dam. Wing walls on each side rose 6 feet above the crest and the wings were entirely



FIGURE 2.

Valve House of 1861 at Cross Keys on Falls Road,
part of the original Lake Roland system (1978 photo).

enclosed in heavy earth embankments. The height of the dam was 40 feet from base to crest, and 46 feet to the tops of the wing walls. The rear wall of the dam was perpendicular, and the spillway surfaces were slanted. From the rear of the dam to the toe of its base, the stone mass was 60 feet thick. Below the crest of the dam were the gate chambers and waste flume; the chambers were lined with fine masonry of Texas limestone. At overflow conditions, the water surface stood 225 feet above mean tide at Baltimore.⁷

The flow control system was described in 1862 by engineer Charles P. Manning:

The gate chambers consist of two distinct apartments, the floors of which are at the respective heights of 201 and 210 feet above tide—or respectively 24 and 15 feet below the crest of the dam, and the usual surface of the lake. The lower chamber is provided with gates which regulate the discharge of water through the waste flume, and by means of which the lake can be drained to the bottom. The higher chamber is provided with gates by which the flow of water into the conduit is regulated; and another gate for occasional use, when a connection between the waste and conduit chambers may be needed. The gate chambers are enclosed by a substantial stone house, upon the floor of which are placed the screw stands of the several gates. All the masonry of the dam was carefully laid in full beds of fresh hydraulic cement mortar, and where necessary, thoroughly grouted with the same material.⁸

The firm of J. B. & T. F. Connolly built the stone gate house and A. & W. Denmead and Sons "executed the iron work, and fitted up the gates of the several gate chambers, and cast the curved and branch pipes of the pipe line." The Denmead company operated the famous Monumental Iron Works at the corner of Monument Street and Guilford Avenue, where they had been making locomotives and boilers since 1847. The Connolly company advertised in directories of the period as marble cutters, "opposite the jail," on East Madison Street. The gate house was completed in October, 1861, three months after the water began to spill over the crest.⁹

In developing the system, some 50 acres of land were excavated and "grubbed" (i.e., cleared of stumps) to enlarge the natural capacity of the ravine and headwaters to 500 million gallons with a surface area variously measured at 70 and 116 acres. The difficulties of building turned out to be greater than anticipated in the 1853 proposal:

Slade had said in 1853 that with only slight excavation, the lake could be well suited as a storage reservoir. The surrounding land, he wrote, had little value for cultivation, so natural run-off would supply the lake with a never ending supply of fresh water. There is nothing to suggest that Slade considered the problem of siltation and soil erosions, factors which later condemned the lake.¹⁰

As might be expected, the project, with its vastly improved dam and excavated lake bottom, cost more than anticipated, but the city got a better product for its investment.

Colonel J. Thomas Scharf told essentially the same story—which he probably lifted from a water department history of 1863—but he also named a number of local personalities involved in the project:

Baltimore City . . . in 1857 . . . purchased the water rights to the head of the lake . . . with the land required for the lake, dam, and conduit, for \$289,000 . . . survey made during the summer and autumn of 1857 by Mr. Wampler, under the general direction of Mr. Slade.

. . . construction began in 1858 under the supervision of Charles P. Manning, by the erection of a dam across Jones' Falls, at a narrow place near the Northern Central Railroad Station, eight miles from the city, and the excavation of a natural basin above it. The dam and lake were both so far completed as to be available for use in 1860, and entirely completed in 1861, and the conduit extending from the gate chamber of the dam to Hampden reservoir was finished by the 1st of January, 1860, twenty months from the time of its commencement. The contractors of the lake were Messrs. Crowley, Hoblitzell & Co.; of the dam, Messrs. Hoblitzell, Crowley & Co. . . The cost of the lake was \$112,752.55; of the dam, \$152,190.65.

. . . The process of delivering and laying the pipes was performed by mechanics and laborers employed by the day . . . Part of the western sector of the city was supplied from the new source as early as the 22d of February, 1861.¹¹

The system was supplying the whole city with water by 1862, but hardly two years later, it was generally recognized that the supply was not only insuf-

ficient but also contaminated. Gorr's study noted that erosion was already at work:

The slopes around Lake Roland drained into it. Siltation was a problem acknowledged but not contended with. Water officials felt that waste materials and silt could settle to the bottom of the lake. Remaining solids could settle in the reservoirs, each of which was fitted with an endless belt of copper mesh at the effluents. The mesh, however, was only an eighth of an inch, hardly adequate to capture small particles. Throughout the 1860's typhoid outbreaks occurred with some regularity, and many citizens who could afford to do so dug their own private wells. . . .¹²

By 1865, the City was planning to tap the Gunpowder, but a few more stop-gap measures related to Lake Roland were yet to come, including a new Rogers Reservoir at Druid Hill Park, the new earth-fill dam that forms Druid Lake, and a temporary pumping system at Meredith's Ford.

Meredith's Ford was the old crossing place of Dulaney Valley Turnpike, some 4,400 feet downstream of the three-span Matthews Bridge that was removed in April 1978. An 1873 lithograph by A. Hoen and Company shows the stone building put up as the "Gunpowder Temporary Supply" at the old ford, and water supply reports of the time indicate that it was a new building rather than an adaptation of Fitzhugh's Distillery or any of the mills that had operated at that location. Scharf's 1881 county history describes this forerunner of the Loch Raven system:

[In 1872]. . . two Worthington pumps were erected at Meredith's Ford on the Gunpowder, for the purpose of replenishing Lake Roland in time of need. Each of these pumps has a capacity of 5,000,000 gallons, and forces the water from the Gunpowder through a thirty-six inch pipe for three and a half miles, discharging it into a basin on Roland Run, two miles from the lake. This temporary supply has been in use since July, 1874, and has rendered service of the most important character.¹³

The Mayor and City Council acquired rights to lay a pipe not exceeding 36 inches through the lands of John G. Cockey, Dr. John G. Morris, and the Rev. William M. Heilig at Lutherville in 1873. The route traveled below Spring Avenue part of the way. Hopkins' 1877 atlas contains an inset map of Lutherville which shows the "City Basin" just west of the Northern Central tracks along the center line of Spring Avenue, if extended. This "plan for the temporary supply by which Lake Roland is fed from the Gunpowder River" was credited to Henry Tyson at the time of his death in 1877.¹⁴

However, the idea for an over-the-ridge water supply may actually belong to James Slade rather than to Tyson, because Slade had made the following statement in a letter to Mayor Swann on June 8, 1857:

By examining the plan made by Captain Chiffelle, Mr. Sickles, or by myself, it will be seen that hereafter, whenever the Gunpowder is required, it will be the shortest route to bring it in by following up Peterson's run with a conduit and tunnel to strike the most easterly branch of Jones Falls. The whole distance

across there for the *conduit & tunnel* would be about one half as great as the tunnel proposed by Mr. Sickles, and no doubt would be the cheapest and best route for bringing the Gunpowder to the City¹⁵

The temporary system was designed for use in emergencies because it would be costly to burn coal to run the compound engines and duplex pumps. The report for 1878 showed that the system had been used but once that year and sent 49.3 million gallons to Lutherville. A cupola and ventilators were installed at the pumping station because, in the words of the water engineer, "the boiler room has heretofore been too hot for human sufferance"—the county papers had counted eight boilers in all. In 1879, some 187 million gallons was pumped to Lake Roland, and in 1880 the system probably saved the city from a disastrous shortage; the 175-horse power pumps ran from June 19 to November 16, delivering more than twice the volume of Lake Roland; the equipment even exceeded the per diem flow rate contracted for by the Worthington Pump Company. The intake at Meredith's Ford worked from a make-shift dam; pure water for the boilers was collected in Peterson's Run. No mention of emergency pumping appeared in the 1882 report, and by 1884, the works were closed and manned by a single watchman. In 1888, some of the underground pipe, a total of 507 sections covering a mile and 800 feet, was dug up for reuse. The engine house was still shown in Bromley's 1915 atlas.¹⁶

Shortness of water may have been a partial blessing. In an article entitled "Flood and Storm," the *Baltimore American* of October 6, 1877, reported that during the summer the water had been several feet below the dam, and that if the Lake had been full, a flood equal to that of 1868 would have swept the downtown:

Even as it was, the lake was filled to overflowing at 6 o'clock in the evening, when fortunately, the rain stopped and the wind changed to the northwest. When it began raining on Thursday morning, the water in the lake was twenty inches below the breast of the dam. At four o'clock the water was more than three feet deep A quantity of debris lining the shore was washed into the lake. The city property in that location sustained no damage.

A few months after the flood, the *Sun* reported:

R. K. Martin, chief engineer, and James Curran, water engineer, made a formal inspection of the line of water conduit from Lake Roland to Hampden Reservoir, which at present furnishes the entire supply of the city. The conduit is built of brick, 6 feet 4 inches in diameter, and about four miles long. It was found to be in as perfect condition as when completed 17 years ago.¹⁷

Some other aspects of the lake's history were mentioned in the same paper in 1877:

Baltimore County Items—A brook trout 14 inches long and weighing 14½ ounces was caught last Thursday in Lake Roland. The *Union* says Lake Roland is a receptacle of filth flowing from a slaughter-house and some sinks in Towsontown and adds that "this accounts for the fact that Towsontowners never drink any water when they go to the city."¹⁸

The annual water department reports catalog many periods of days and weeks when the water was clouded or turbid from rain-borne particles. A scum was reported on the surface in 1874; the material defied analysis and later vanished without replication.

Silt accumulation was a topic for concern in reports as early as 1873 when the water engineer noted:

The dam and property, generally, is in good condition, excepting that all important consideration, cleaning out the lake to its original capacity.¹⁹

In 1874, a decision was made to start:

The Water Board's directions to commence operations in cleaning the Lake out as soon as circumstances will permit, will be carried out.²⁰

By 1877, some progress had been made and the first of many soggy statistics was recorded: over two seasons, a contractor had removed 90,725¼ cubic yards by dredge. During low water periods, some 5,051 cubic yards had been collected by "horse and cart."²¹

A major contract was let to dredge sediment and 87,576 cubic yards was removed in 1879 to bring the total contracted quantity to 279,814 cubic yards. The following year, another 20,210 cubic yards was removed, slightly exceeding the contracted quantity of 300,000 cubic yards. The same year, 8,716 cubic yards was removed from a year-old sand trap on Towsontown Branch. In 1884, some 14,130 cart loads of sediment were hauled out followed by 3,638 cart loads in 1885. In 1900, another 416,000 cubic yards was collected. In 1902, the quantity of 4,500 cubic yards was excavated between the rail crossing and the sand trap. By 1912, when the lake was nearing obsolescence, the water was too muddy to use on 27 days and was below the dam for 169 days. No water at all was used from September 7 until November 28 "during the prevalence of typhoid fever in Towson."²²

A great number of physical improvements took place during the useful life of the reservoir. A gate house and gate-house-keeper's cottage were completed in October of 1861. The entire area was surrounded by a wood paneled fence that same year. The banks were rip-rapped in 1862 and again in 1879 and 1902. The water engineer in his annual report covering 1862 noted that at Swann Lake:

A road has been made around the hill near the Relay House, which enables the visitors to procure a view of the lake from that eminence. I have planted a great number of trees on the banks and also around the carriage drives.²³

The enbankments near the gate house were sodded and a boat house erected. The bridge downstream of the spillway was an ornate, cast-iron through-truss manufactured by the Bollman company of Canton. A scow "for lake purposes" was constructed in 1878. Two years later the iron bridge was repainted. Two hay barracks were put up in 1885. The grounds included a number of arable fields and the crops were sufficient to feed the work horses there and at other water supply stations.²⁴



FIGURE 3.

Fountain and Watchman's House upstream of the dam, May 29, 1904.

—Barker Collection, Enoch Pratt Free Library

One proposed innovation of 1876 was announced in a city paper:

A permanent telegraph line to the Lake Roland Water Works to enable the city water engineer to regulate the supply at a moment's notice is in contemplation.²⁵

As to the name of the Lake, it was both Lake Roland and Jones Falls Lake in the planning stages and only later renamed for Mayor Swann; the *Baltimore County Advocate* of May 3, 1862, reported that the gate at Lake Roland had been rechiseled to read "Swan Lake"—and the account spelled it with one "N." This was about two decades before the Russian ballet of the same name appeared. The 1871 annual water report called it Lake Roland and six years later the Hopkins atlas of Baltimore County showed "Roland Lake." J. T. Scharf explained "Swann Lake" but had forgotten that the reservoir started out as Lake Roland. However, the wording, "Lake Roland 1861" was never removed from the marble valve house.²⁶

The city's combined Loch Raven-Lake Roland water system was impressive enough to rate a picture story in *Harper's Weekly* in 1881 and also in a *Baltimore American* Sunday edition of 1892. The Druid Lake earth dam was indeed an engineering landmark of its time. Both of these articles included line drawings of Lake Roland dam.²⁷



FIGURE 4.

Bollman-built through-truss bridge over Jones Falls
downstream of spillway, June 30, 1904.

—Barker Collection, Enoch Pratt Free Library

A new and larger dam was completed at Loch Raven in 1914 and service at Lake Roland was terminated on November 19, 1915, but the lake was called back into use on December 2 when a leak was discovered in the 84-inch Lock Joint Pipe Line at Harford Avenue. That was the last time that Lake Roland functioned. In 1916, some parcels of lakeside land were sold to the L'Hirondelle Club. The County Division of the water department was abolished and the water engineer recommended holding on to the lake as an emergency back-up service. In 1918, there was a suggestion to employ the water for some kind of mill or industry, but the lake of 1858 was left in the care of a groundskeeper. Eventually it came under management of the City Department of Recreation and Parks. The old installation was too small to provide much help and its elevation was too low to feed the new Montebello filtration plant by gravity flow.²⁸

In 1937, there was a proposal to develop the watershed property as a park, Leakin Park, to be named for a former mayor, but that name was instead applied to another park in west Baltimore. The name Robert E. Lee Park was announced in 1944 when the city received an \$80,000 bequest from Mrs. Elizabeth Garrett White to memorialize the Confederate general.²⁹

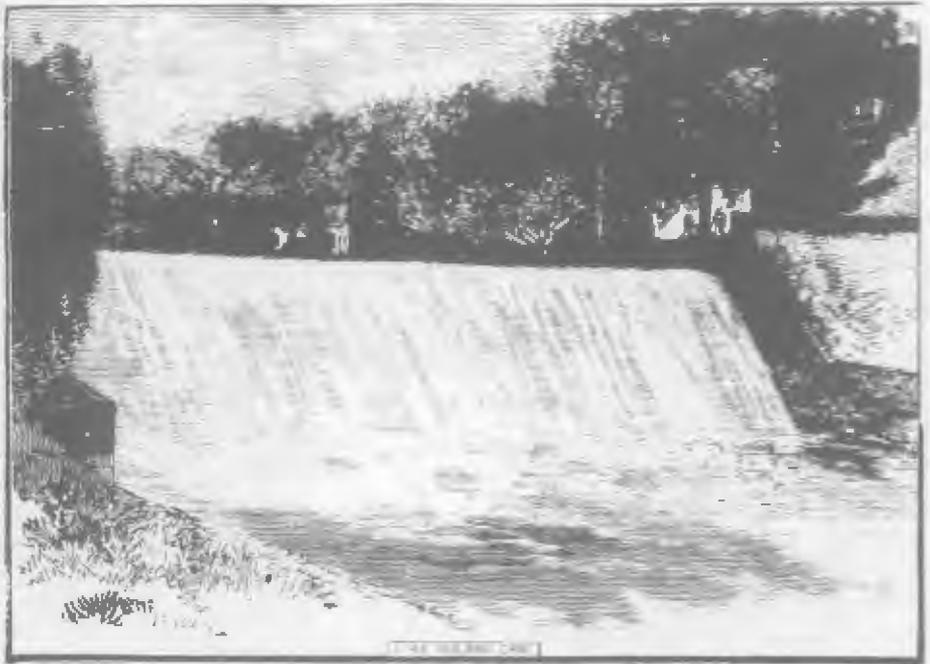


FIGURE 5.

Lake Roland Dam from an 1881 woodcut in *Harper's Weekly*.

—*Enoch Pratt Free Library*

During the second World War, the iron Bollman bridge below the dam was sold for scrap. In 1946, the reservoir had shrunk to 60 percent of its original volume, and in 1952, it was proposed to cut a notch in the dam to permanently lower the water level by one foot in hopes of draining the shallow flats where mosquitoes bred. The 25-foot excavation made in 1858 had been reduced to a 15-foot depth. An aerial photo of the period showed mud flats building up and a peninsula developing where Towson Run discharged.³⁰ Between 1953 and 1955, an interceptor sewer line was laid along the lake bed. This sewer served Timonium and Lutherville and approximately 60,000 cubic yards of silt was removed from a channel dredged for its installation; the spoil was added to "Area B" where dredged matter from excavations of the 1890s had been deposited. These mounds of silt are now clothed in vegetation.³¹

A new study performed by Whitman, Requardt and Associates in 1974 reported that since the laying of the sewer line, considerable siltation had occurred as a result of building the Baltimore Beltway (I-695) and the Jones Falls Expressway. Both of these projects of the late '50s and early '60s occurred before either the state or the county had silt control ordinances, and later construction of the interchange between I-83 and I-695 produced further erosion and more silt for Lake Roland in spite of such laws. Some of the silt resulted from the mushroom growth of Towson State University and its neigh-



FIGURE 6.
Lake Roland Dam and 1861 Valve House in 1978.

boring hospitals; the remainder came from the residential subdivisions in Green Spring Valley.

Siltation would have been a serious problem even without residential and highway development. The Whitman Requardt report estimated the annual rate from 1897 to 1953 to be 16,000 cubic yards and from 1953 to 1973 to be 21,000 cubic yards. The capacity of the lake was estimated at 180 million gallons in 1974. Whereas the lake was 60 percent water in 1946, it was 60 percent silt by 1974. This measured about 1,300,000 cubic yards. Whitman Requardt blamed agriculture as much as construction, stating:

Paradoxically, urban development has not radically changed the rate of siltation. Tilling land for agriculture creates almost as much erosion as urban development. However, the nature of the deposits have changed. Agricultural and natural eroded materials tend to be very fine, whereas sediments from developing areas are coarser. The coarser particles settle more quickly and clog the upper reaches of the lake.³²

THE DISPLACED INDUSTRIES AT LAKE ROLAND

Bellona Gunpowder Mill

One of the sites that the city bought for the Lake Roland project was the Bellona Gunpowder Mill, which had been operating on the west bank of the

falls for about 56 years. It was not listed in the 1798 tax list, but the plant was fully operational by at least 1801, when the first of several explosions was reported in the Baltimore papers.³³ The Bellona works, named for the goddess of war, was founded by a group of city investors, including various Leverings and James Beatty.

The location was the confluence of the north, west, and south branches of Jones Falls. A race and a mill house 30x40 feet were mentioned in the account of Bellona's first explosion when 300 pounds of unfinished powder went up. In 1803, the investors acquired title to a number of other tracts, including the Young gristmill.³⁴ The 1804 Baltimore County assessment book charged Nathan Levering with the powder mill, then valued at 600 pounds sterling. By 1810, Maryland was producing one-fifth of the powder used in the nation and was giving serious competition to the du Pont family.³⁵

Bellona Avenue was once called Powder Mill Road, and James Beatty's daughter, Bellona, was supposedly so named because she had been born on the day of the Battle of Waterloo—how the Beatty's knew of that far away conflict in Belgium is difficult to say. The powder company received a corporate charter in 1814—no manufacturing concerns had received state charters until 1808. In 1817, an explosion rocked downtown Baltimore and took five lives; and three more lives were lost on August 29, 1820.³⁶

The 1820 census of manufacturers listed Bellona with \$35,000 capital, 23 hands, and consumption of 192,000 pounds of saltpetre, 21,000 pounds of sulphur, and 28,000 pounds of charcoal in raw materials; output was \$36,000 in 8000 quarter-casks selling at \$4.50. The works consisted of one mill of 36 stampers, another with six pulverizing sheds; granary; drying house; and packing shed.

Bellona enjoyed an advantage that would now be considered illegal, if we are to believe the complaint made on the same 1820 Manufacturers' Census report by the president of the rival Aetna Powder Works, who claimed that the Navy's purchasing agent was a part owner of Bellona and made no purchases at Aetna.³⁷

On Wednesday, November 23, 1846, "James Beatty's powder mill, six miles out on Falls Road" blew up, "completely destroying that building and killing five men." An estimated two tons of powder had destroyed the graining mill and two other structures, each seventy yards apart.

The residence of the superintendent, a building situated about 100 yards from the mill, is completely shattered, the wall being cracked and the window and door frames driven in. The dwelling of Capt. Purviance, was also considerably injured, and some of the glass broken in the dwelling of Samuel Barnes, Esq., situated a mile and a half from the mill.³⁸

The sound was heard in downtown Baltimore. Casualties were James Bush, Francis Woodworth, William Branden, "a German named Kanoof, and Nelson Wingate, a colored man."

An explosion in the graining mill, a building that had been lately put up at a cost of \$100,000, killed John Lyons and William Eaton in 1848. The works

were then producing 50 kegs of grained powder per day.³⁹ Sidney's map of 1850 showed the main works, plus another "Part of Bellona Works" that stood in the valley of Towson Run west of present Charles Street—actually the former Bowen gristmill acquired by the company in 1833. In 1853, some of the original property was sold to the Baltimore Water Company for possible reservoir use.

A *Sun* reporter was shown through the works in 1855 by plant manager William C. Virgin. The company was growing willow trees on the 60-acre tract to produce wood for charcoal, and saltpetre was brought from the East Indies. The powder was ground under cast-iron rolling wheels. The "war in the East," presumably the Crimean campaign, had driven up the cost of raw materials.⁴⁰

After giving up the Jones Falls location, production continued at the smaller mill on Towson Run, alias Powder Mill Run, until 1868, when Charles Beatty sold the grounds to Franklin F. Pope. A ruined dam abutment and a mill race can be found there in 1979. The 1877 atlas still showed the original site as "Bellona Gunpowder Co. of Md., George B. Cole, Prest." The company had also acquired the former Aetna plant on Gwynns Falls, renamed it "Battleworks" and operated it until 1882.

What has not been demonstrated historically is the reason why Maryland gunpowder producers, who were in the early 19th Century manufacturing one-fifth of the national output, steadily lost ground to the du Pont company on the Brandywine River in Delaware. Although E. I. du Pont had an excellent background in the chemistry of the times and was able to duplicate the precise production techniques of the French national powder works at Essone, he still considered Bellona and its president James Beatty as serious rivals. Du Pont noted Bellona's explosion of early October 1817, in a letter to William Cornell and remarked that the disaster "put out of the market one of our largest competitors." But Beatty got back into production, and du Pont wrote to John A. Forsyth & Company on November 26, 1827, boasting that he had sold a considerable quantity of product in Baltimore, "where our powder obtained a decided preference at the very door of Beatty's Factory." Only three years later, Bellona was still a force to be reckoned with, and du Pont wrote to the firm of Bradford and Cooch on April 2, 1831, "Nevertheless we should not like to give up the Baltimore market on account of the competition of Mr. Beaty [sic]."⁴¹

Eagle Mill

The other property that the City purchased to carry out its reservoir plan was the Eagle Mill, where there was already a small pond in existence at the time of the 1857 purchase. This pond was due east of the Relay House as shown in the Towson Plat Books. The Eagle Mill itself was powered by that pond and lay somewhere downstream, the next industry below the powder works. Eagle Mill was in its turn the successor of a grist mill built about 1814 by Jesse Tyson. After Tyson's death, the works had been changed to cotton manufacturing. Eagle Mill was sold in 1829 by the Merchants Bank to Robert S. Hollins and the deed mentioned a mill race or "canal." Hollins became insolvent and the mill was again offered for sale. It was mentioned as "Peden's Fac-

tory” in a description of a major flood in June, 1837, and its location was given as a half mile upstream of Washington Factory on Jones Falls. Three years later, the Union Bank sued David Peden, and the property was advertised for another auction. The public sale notice described the mill as located on Jones Falls, 80 yards from the Baltimore and Susquehanna Railroad; the building was 64x47½ feet and was three stories tall; it had a basement and two floors in the attic. A 16-foot fall of water powered 1,300 cotton spindles. The basement also contained a gristmill equipped with two pair of 6-foot burr stones and a bolting machine. And the property included a village of 14 “family dwellings.”⁴²

Working from the data available—that Peden’s or Eagle Mill/Eagle Factory was a half mile upstream of Washington Factory (now the Leonard Jedd nut and bolt plant at Mount Washington)—Eagle Factory would have to have been somewhere along Falls Road, directly on the east bank of Jones Falls. The exact location is uncertain, although accumulated clues point to the area downstream of the site chosen for Lake Roland dam. No known map shows Eagle Factory. It is possible that Lakeside Drive is in some part the filled-in mill race of the Eagle Mill. Two plats made in 1857 prove that this mill was downstream of the city’s projected dam; one of the plats shows the “race formerly used by the Eagle Works.” An 1853 railroad survey shows a village called Millville between Washington Factory and Rockland.⁴³

The Eagle Mill Property, 32 acres “adjoining the village of Washingtonville,” was advertised by the Water Board as surplus property in 1863. The advertisement does not specifically state that an intact mill came with the tract. In 1864, the Mayor and City Council sold a 32½ acre parcel to Dr. William H. Keener, an incorporator of the Bare Hills Mining Company, and the deed shows that the land was west of Falls Road, beginning 67 feet south of the 6-Mile Stone and bounded on the west by the railroad line. The city allowed Dr. Keener only the surplus water from the reservoir operation. This parcel is the most likely site for the Eagle Mill building itself. The deeds make no mention of Eagle Mill Pond, which had probably ceased to exist.⁴⁴

RAILS AND ACCOMMODATIONS AT LAKE ROLAND

The Baltimore and Susquehanna Railroad reached the future lake district in 1831, with its first public trip via horse car to the Relay House on July 4. The first generation of bridges included one near Beatty’s Powder Works that was 70 feet long, built of Susquehanna white pine, and designed by Colonel Stephen A. Long. The Relay House was the junction for the Green Spring Valley Branch and was preparing to receive the traveling public in the summer of 1831:

At the junction of this road, a public house is about to be established, under the charge of Mr. Thomas, at present of “the Globe Inn” of this city. The building is partly up, and refreshments are already provided for the visitors.⁴⁵

The Baltimore and Susquehanna eventually became the Northern Central. While its corporate history is interesting, it is not entirely related to Lake Roland. However, a short distance up the line from the Relay House, the company suffered one of the worst American train wrecks of the period when on July 4, 1854, the 23rd anniversary of passenger service, some 35 persons were killed on their way to Rider's Grove.⁴⁶

As early as 1857, a railroad was planned to run from the Relay House to the county seat following the valley of Towson Run. The roadbed was finally graded in the early 1870s, but no rails were laid because of financial problems. However, a stretch of roadbed and its dry-wall supporting masonry survives in a ravine south of Rolandvue Avenue. The investors owned little more than the roadbed, four thousand cross ties, some drawing instruments, and office furniture when the company assets were sold at public auction.⁴⁷

The first bridges were eventually replaced by spans of iron as demonstrated by the events following secession of the southern states that precipitated the Civil War. In April, 1861, on the evening following the riot between the Baltimore mob and the Sixth Massachusetts Regiment, the Mayor of Baltimore and Governor Hicks gave orders to cut Baltimore off from the Unionist States, and an extra issue of the *Baltimore County American* announced:

Civil War is in our midst! . . . On the N.C.R.R. the bridges over Western Run and Beaver Dams, near Cockeysville, and several bridges near the city, including the iron bridge at the Relay House, have been destroyed, to prevent the transportation of government troops from the North.⁴⁸

The party which carried out this operation at Relay House was described in another paper as cheering and shouting as they marched from burning the bridge at Melvale Station. About sunup of April 20, they reached the lake. The group "entered heartily into the work," unscrewed the steel girders, turned the bridge on its side, and threw it into the water.⁴⁹

The Union troops had to rebuild all the bridges, and at various times during the war, the Relay House and surroundings were occupied by components of the 1st, 12th, 87th, and 104th Pennsylvania Infantries.

Later in the war, when General Jubal A. Early's forces were ranging over Maryland, the *Sun* of July 11, 1864, reported that on the previous day, some of Colonel Harry Gilmor's Confederate raiders had advanced from Union Bridge "and during the day reached Relay House of the Northern Central Railroad." After the Confederates burned the rebuilt bridges at Cockeysville, rail service was provided only as far as Relay House.

The Northern Central in 1864 made an agreement with Charles A. Buchanan, owner of the Relay House hotel, to allow him to leave his structures in a state of encroachment on railroad property. The deed granted unto Buchanan the right

until further notice to continue in its present position the Portico recently erected by him in connection with the hotel owned by him at the Relay House

in Baltimore County aforesaid on the line of the Railway of said party of the first part and also the garden fence or enclosure of the garden connected with and pertaining to said Hotel, as the same has been recently extended by him, said Portico and fence being an encroachment upon the right of way. . . .⁵⁰

This building was destroyed in 1869:

. . . the Relay House, on the Northern Central Railroad, 9 miles from Baltimore, took fire on the evening of the 23d and was entirely consumed, together with all its contents. It was occupied by Roebuck Russell, who kept a tavern in it. The fire was supposed to [have been] accidental. The property belonged to Chas. A. Buchanan, Esq. Mr. Russell lost about \$1,500 upon the furniture upon which there is no insurance.⁵¹

The 1876 report of the Northern Central Railway Company recorded that "A new station house was provided at Green Spring Junction by the purchase and remodeling of a hotel property in a convenient location. This stop was called Green Spring Junction in the 1877 atlas by G. M. Hopkins, but it came to be called Hollins Station for Robert S. Hollins, who was secretary of the railway corporation in 1877 and apparently the same Hollins who had owned Eagle Mill. This second relay house/Hollins Station was a two-story frame building in Italianate design. A photo made in the 1880s as well as a line drawing published in the Baltimore *American* shows this flat-roofed, bracketed, Victorian station in the triangle between the diverging rail lines."⁵²

The 1918 tax ledgers of Baltimore County usually give dimensions of buildings, but at Hollins Station, the book for District 9 listed only a lot of 0.353 acre, frame station and house (\$1904), "water tank at Hollins" (\$272), and "Signal Tower at Hollins" (\$400). There was also a 0.338-acre lot at Sorrento without any structures listed.⁵³

The junction was the site of a post office that had a variety of names, and postal records show the following sequence of offices:

Buchanan post office was established on December 20, 1854, and department records show that it replaced Washingtonville in 1845. Charles A. Buchanan, owner of the relay house and much other lakeside property, was postmaster of Buckingham from April 8, 1840, to February 3, 1842. In 1862 the county paper reported:

Buchanan P.O. discontinued; was at the junction of Northern Central and Western Maryland Railroads, on the shores of Lake Roland.⁵⁴

Apparently the Buchanan post office deprived the populous center of Mount Washington of a post office, for that office was established or reestablished in December of 1854.

A post office called Lake Roland was established April 16, 1872, and by some clerical error in postal records, it was discontinued before it began: the terminal year was given as 1871. Lake Roland office was revived in February of 1876 and operated for twenty years until its discontinuance on January 17, 1896.⁵⁵

Station and post offices were busy places thronged with commuters at one time, but business dropped off and, in 1926, the station was closed. The building burned in February 1933 and the *Evening Sun* blamed the conflagration on tramps who had been camping inside. Hollins had been the scene of a tragedy in 1895, when Thomas H. Matthews, a retired miller and president of an insurance company, stepped into the path of a locomotive while crossing the tracks.⁵⁶

Both the 1898 and 1915 issues of G. W. Bromley's county atlas show a subdivision called Sorrento on the west side of the lake, south of the west-going branch of Jones Falls. There was also a frame structure, the Sorrento depot. The proposed street pattern was never completed and the entire tract is now part of the park property. The 1915 atlas also showed rail stations called Brightside and Lake on the east bank.

Recreational uses of the reservoir area have not always been appreciated. A local paper of 1886 mentioned an atrocity of the times:

Baseball is being played every Sunday near Hollins Station, N.C.R.R., to the great annoyance of those who live nearby and who like a quiet Sabbath.⁵⁷

Lake Roland almost became the site of a streetcar museum. A collection of old "light rail vehicles" had been donated to the Maryland Historical Society in 1954 and was long stored in a sanitation garage. In August, 1962, this collection was moved to outdoor storage on tracks at the lake, but before a museum could be built, barbaric children smashed the car windows and attempted arson on the benches. Considerable protest arose from local property owners about these derelict trams, and in 1967 the cars were rescued by the founders of the Falls Road trolley car museum.⁵⁸

PHYSICAL SURVIVALS AT LAKE ROLAND

Various newspaper items over the years suggest that remains of the Bellona Powder Mill survive on the shore, whereas other accounts suggest that there are submerged buildings. Maps of the period provide conflicting indications. Judging from the proposed over-flow lines in a plat of 1857, the largest Bellona structure would have been left above water and two small buildings shown directly along the mill race would most likely have been flooded. However, the 1852 plan by Thomas P. Chiffelle, City Surveyor, shows the Bellona buildings at such a distance from the two railway branches that all the structures along the race in the valley north of the former Green Spring Valley Branch and south of Jones Falls would have been inundated. James Slade's 1853 map of the entire region seems to show extensive buildings doomed to be flooded. Hugh Warden's lime kiln, shown on an 1857 plat, should also lie under water in the west arm of the lake.⁵⁹

The *Baltimore County Advocate* in 1864 reported that the Bellona Powder works magazine had been turned into a home and noted that the "works [were] demolished to make way for Swan Lake. . . ." The next year, the *Maryland Journal* reported:

FIRE.—The old stone magazine at the terminus of Charles street extended on the property of Joseph Reynolds, Esq., took fire on Friday morning last, and was entirely consumed. It was occupied by an Irish family; nearly all the furniture was destroyed. The building was formerly used as a magazine for the storing of powder by the Messrs. Beatty, whose mills were situated near the Relay House, and the site of which is now covered by the waters of Lake Swann.⁶⁰

The 1877 Hopkins atlas showed some land in the hands of the company west of the lake, and the 1876 Tax Ledger of District 9 listed Bellona with:

Tract of Land on Green Spring Branch of NCRR and the Falls Road	
154 Acres @ \$70	\$8400
Improvements	
1 Frame Dwelling and out House	400
1 Double Frame Dwelling	200 (Burned)
1 Old Powder House	100. ⁶

C. C. Hall's history of Baltimore attempted to equate Bellona with a powder mill proposed by the Council of Safety in 1776. That mill was supposedly built by Samuel Purviance, but no deed or known official records reveal its location. The Hall history noted the ruin of a magazine that could at that time (1911) be detected on the west bank of the lake (possibly the "old powder house" of the 1876 tax records).⁶²

Edward Fontaine, a Ruxton resident, wrote a letter printed in Carroll Dulaney's column in the Baltimore *News-Post*, suggesting that there were un-submerged remains in the 1930s:

... the powder factory that still shows its foundations on the south bank of Lake Roland. There are two stone foundations barely showing above the honeysuckle, about 60 feet from the now-disused Valley Railroad. . . . The Rehbenn family lived on the knoll just back of this isolated spot, and there is a very ancient graveyard there, but all buildings have gone.⁶³

In 1976, John Winterbottom and William Hollifield of the Baltimore County Historical Society went to the west bank of the lake to look for a cemetery that had been reported to exist by various sources. Mrs. Arthur U. Hooper, who had an International Style house built on adjoining property at the end of Hollins Lane, showed them where to look; they found a fragment of a tombstone and discovered other burials that were marked by un-inscribed fieldstones. They also saw some foundations, and Mrs. Hooper told them that at low water, there are foundations that can be seen in the reservoir itself.

The sort of objects to be found at a powder mill would have been wooden water wheels (six or seven counted here in 1855), shafts, axles, squirrel-cage gears of wooden spokes, and wooden stamping devices, and cast-iron rollers for grinding powder in cast-iron pans. A powder works would have several widely spaced preparation buildings and some unmechanized storage sheds. Presumably, the iron items could have been used at the other sites or sold for scrap.

The casual visitor of the present cannot help but notice a few of the industrial archaeology items. In 1977, there was a considerable quantity of iron rail still in place on the Valley Branch west of the former Hollins Station; pieces of braided signal wire still connect the individual lengths of rail. There also survive the bases of two signal towers with mounting bolts still intact. Two railroad culverts built of limestone are found just west of Hollins. Also west of Hollins and within sight of the main line bridge is a pair of bridge abutments, apparently rendered obsolete by a parallel track built on an earth fill; one of these abutments, possibly dating from the Baltimore and Susquehanna valley route of 1832, has toppled over and fallen intact as a single slab; the other abutment still stands. Many of the railroad ties survive even where the rails have been removed.

Two cast-concrete whistle posts survive, one near Hollins, the other near the West Branch of Jones Falls crossing. The westernmost post is marked "1" and "7." A large plate-girder bridge over the west branch of the falls is intact. Standing on granite piers or abutments, it provides a foot path over the surviving ties.

The new access-road bridge in the park downstream of the dam is built on the piers of the original Bollman truss that was scrapped during the 1941-1945 war effort.

The remains so often mentioned by neighbors of the park may well deserve some serious excavation. But then there is the report of the Chinese Labor Camp recently "discovered" somewhere along the west arm of the lake.

These "Chinese" supposedly built the railroad line, but in view of the fact that rails first reached Relay House in 1831 and that the major upgrading of the Valley Branch took place in 1859, the dates are very early times at which to expect any quantity of Chinese immigrants. Peter A. Jay sneered at the notion in a *Sun* commentary of 1977 entitled "The Ornithologists and the Ooze," a column inspired by the controversy over dredging or not dredging the lake:

The anti-dredgers, in their search for ammunition for their argument, even tried a little pop archaeology: "Stone foundations said to be the remains of a campsite for Chinese laborers who helped construct the Northern Central R.R. would be engulfed" by spoil from the dredging, they declared ominously in a position paper.⁶⁴

The shadowy proof for the Chinese connection was supposed to lie in the Peale Museum, but the assistant curator of that storehouse of fact and curiosia assured the author that the evidence was purely mythical and not to be found on the premises.⁶⁵

At any rate, the City of Baltimore in early 1978 decided that excavation of the ooze was too expensive to undertake, and Lake Roland may eventually become a pond and then a meadow, and at last, walking on the water will present no difficulty in places where the hiker would have gone to the newly "grubbed" bottom in 1861. Who knows? Some future Mayor with a bent for bread and circuses could stage a performance of the one-N *Swan Lake* on the solidified silt of the two-N Swann Lake, an appropriate combination of sentiment and sediment.

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