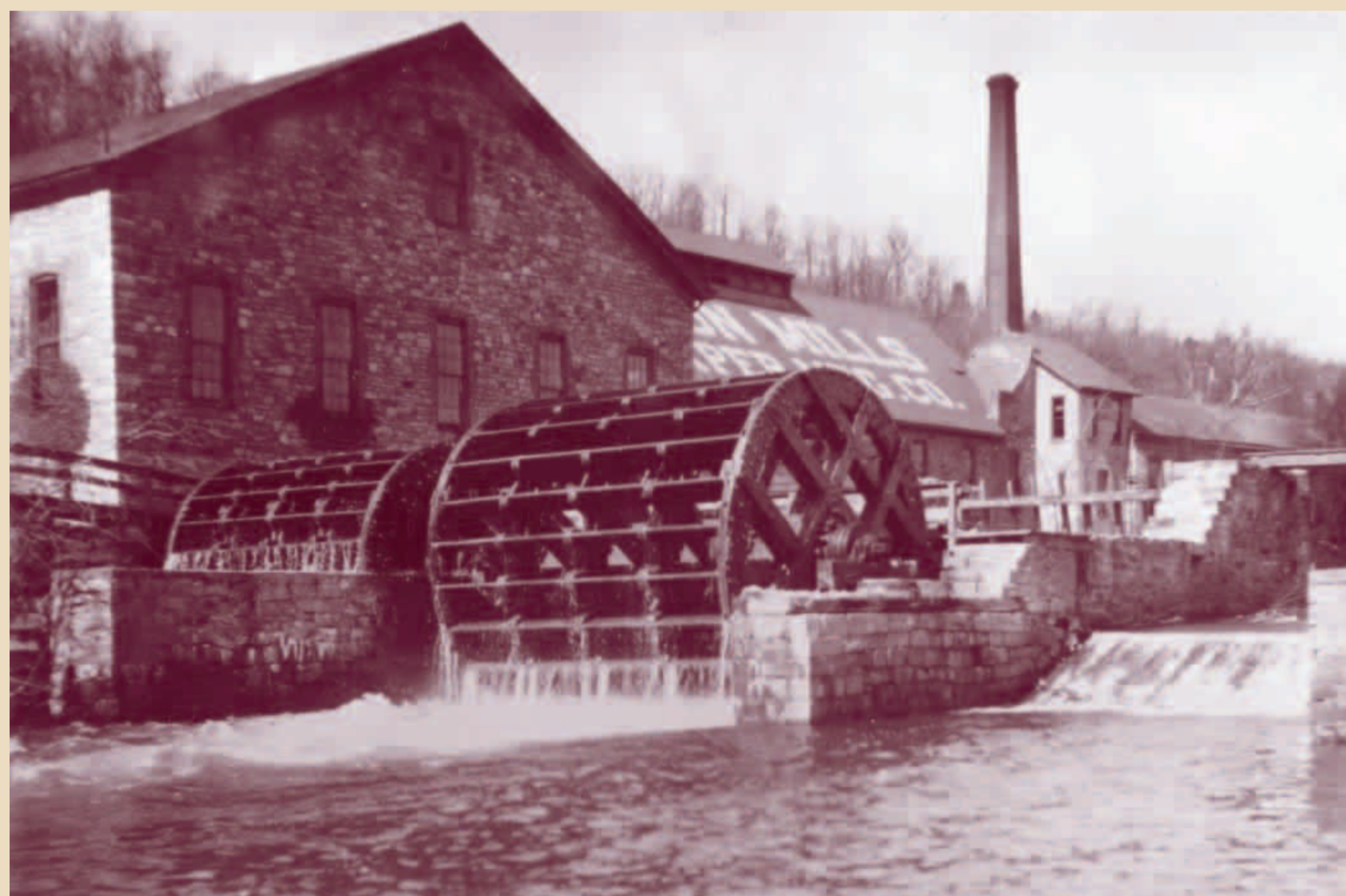


Water Needed

When the Delaware Canal was built, its water sources were the Lehigh River and local waterways. In Easton, water from the Lehigh River entered through the guard lock, where a dam raised the water level high enough to feed the Delaware Canal. Even before the canal opened for business in 1832, its engineers realized that the water supplied by the Lehigh River and local streams to the north was not sufficient to water the entire length of canal from New Hope south to Bristol.



The wing dam at Wells Falls raised the river level so that water could be diverted into the canal.



Powerful water wheels once drew river water through a sluice and into the canal.

WHERE THERE'S A WHEEL, THERE'S A WAY

To divert more water into the canal, Louis Coryell—a prominent New Hope engineer and entrepreneur—designed a two-part system composed of a wing dam to raise the level of the Delaware River and a large water wheel to draw river water through a sluice and into the canal. The wheels, located in Union Mills, just south of New Hope, were completed by 1832 and could convey 3,500 cubic feet of water per minute into the canal. In 1847, a new outlet channel was built, which helped to increase the southward flow and provided convenient access to the cable ferry. These improvements supplemented the supply of Lehigh River water and made the whole length of canal navigable. The water wheel system operated through the active life of the canal, but was destroyed in the severe floods of March 1936.



The outlet channel provided access to the cable ferry and more water for the canal.

Although the dam was reconstructed in 1967, floods and deterioration have once again limited its capacity to sufficiently raise the river level and divert water into the canal. Without an adequate water augmentation system, the southern end of the Delaware Canal, from New Hope to Bristol, still lacks an adequate flow of water—just as it was in the beginning.