



DELTA

Delta was founded by Abel Stevens, who settled near here in 1794 with his family and several others. In 1796, he was granted the land on which Delta sits today. He built a wooden sawmill below a small set of rapids in the stream that connected Upper Beverley Lake with Lower Beverley Lake, later adding a wooden gristmill. Delta was the first inland community in this region.

In 1808, Stevens sold a portion of this land, including his mills, to William Jones. Jones and his business partner, Ira Schofield, built the Old Stone Mill in 1810-11, on solid bedrock about 50m (160ft) north of Stevens' mills. The site of Stevens' original mills is now buried under Delta's streets.

With the Old Stone Mill, Delta, then known as Stone Mills, became the business centre for the region. All roads led to Delta – farmers would come in from all over, delivering their grain and purchasing items from local merchants. In 1816 there were 10 buildings in "downtown" Delta, by 1828 there were about 30. Population peaked in the late 1800s at about 500 people. Today the quiet village is home to about 300 people.

OLD STONE MILL

The Old Stone Mill was built in 1810-11 by William Jones and Ira Schofield. It is the only stone gristmill* in Canada designated as a National Historic Site and the only surviving pre-1812 stone mill in Ontario. The Old Stone Mill is a fine example of early Canadian architecture, and a tangible reminder of the pioneer development of eastern Ontario.

It is an automatic mill, based on the 1790 design of American inventor Oliver Evans. His design allowed the mill to be operated by a single person. The interior of the mill exhibits many features of this design.

The mill represents two time periods. The main 3 ½ storey tall building was built in 1810, with a wooden sawmill located on the west side. In c.1860, the turbine shed was built onto the west side of the mill where the sawmill had been located. A new sawmill was built adjacent to the turbine shed (removed in the 1960s). The 1810 mill was powered by a waterwheel inside the building, replaced in c.1860 by two turbines under the turbine shed.

The mill served the community for 150 years. Milling ceased in the 1940s and the mill then served as a feed store until it finally closed its doors in 1960. Ownership and care of the Old Stone Mill was handed to the Delta Mill Society by its last owner, Hastings Steele, in 1963.

* Grist ("grinding" in Old English) refers to small batches of grain that farmers would bring in to be ground and returned to them as flour minus a 1/12 share for the miller (known as custom milling). The Old Stone Mill was designed as a merchant mill where the miller would purchase the grain from the farmer and sell all the flour. But, in its early years, the mill would have done a mix of custom (grist) and merchant milling. Today any small flour mill is generally known as a gristmill.

OLD STONE MILL

National Historic Site



INFORMATION BROCHURE

*The Old Stone Mill is
owned and operated by
The Delta Mill Society*



*A self-funded, non-profit
volunteer organization*

www.deltamill.org

Location and Flour Milling

Built long before the use of electricity, a mill had to be placed where there was a set of rapids or a waterfall. A waterwheel was used to harness that waterpower. The height of the drop and the amount of flow determined how much rotational power the wheel could produce. At Delta, the head of water raised by the dam (the drop) was about 2.1m (7ft).

Delta is located on the eastern boundary of the Frontenac Axis, the eroded remnants of a very old mountain range. The rough topography creates rapids and waterfalls in some areas, good locations for mills. Soil development however is poor so it's not good farmland. But, directly to the east of Delta are flat lying younger sedimentary rocks with good soil development, ideal for growing wheat. It was perfect for a gristmill – waterpower adjacent to good farmland.

As part of the automatic mill design, the waterwheel was located inside the mill to avoid problems with ice build-up in the winter. The wooden waterwheel was replaced c.1860 by two cast iron turbines placed in the raceway (water channel) under the floor of the turbine shed addition. They powered machinery until milling stopped in the 1940s.

Two sets of millstones were originally used to grind the wheat in this mill. The best millstones were made of hard French burrstone. The millstone on display outside the mill is a granite stone, used to grind softer material such as corn, to produce animal feed. Millstones were replaced by steel roller mills in the late 1890s. In 2010, on the 200th anniversary of the mill, the Delta Mill Society restored an operating set of French burrstones to the mill, allowing us to grind locally grown heritage wheat, just as the millers did in the 1800s.

The Automatic Milling Process

- 1) Wheat grain was delivered by the farmer and **weighed** by the miller.
- 2) The grain was sent by a **grain elevator** (tin buckets on an endless loop belt) to a grain cleaner on the top floor.
- 3) The **grain cleaner** used rotating screens to remove dirt and chaff.
- 4) The cleaned grain dropped by chutes into **storage bins**.
- 5) Grain from the bins was fed into the **millstones** which ground the grain into flour.
- 6) The flour, hot from the millstones, was sent by a **flour elevator** to the top floor.
- 7) The flour was cooled and separated using a device called a **Hopper Boy** (a slowly rotating rake).
- 8) Dry cool flour dropped by a chute to the **bolter** on the 2nd floor, which used a rotating screen-covered cylinder to sort the flour into degrees of fineness. Fine (white) flour was separated from coarser middlings and bran, which, in 1810, were considered only suitable as animal feed.
- 9) The sorted flour dropped by chutes back to the 1st floor where it was **barrelled or bagged** – ready for sale.

Today we still use part of this process, cold grinding grain using our set of vintage French burrstones. Freshly ground flour is sent by a flour elevator and chutes to either the bolter for sorting, or, simply back to the first floor for bagging as whole wheat flour.

Seen Outside

The mill is built on bedrock to the north side of the original, now buried, rapids (the mill is oriented north-south, the entrance doors face due east). The water channel leading to the north side of the mill is man-made, excavated in 1810 using pry-bars and black powder blasting. A unique feature is that the mill acted as its own dam (unlike most mills). The upstream dam seen today was built by the government in 1962. Prior to that dam, the water level in the pond in front of the mill was to the top of the arches.

The open archway closest to the road is the entrance to a raceway (water channel) leading to the waterwheel. The archway opening in the turbine shed leads to the turbines. You can see the bywash (bypass channel) adjacent to the west side of the mill. The concrete was added in the 1960s.

The mill is made of local materials; the stones are Potsdam sandstone, with some crystalline limestone as the corner stones of the 2nd and 3rd storeys. The inside was built using white pine and rot resistant white oak for areas that were subject to water.

The Delta Mill Society

The mill is owned and operated by a non-profit, self-funded, volunteer organization. In 1963, when we acquired the mill, it was in very rough shape. The beautiful mill that you see today is due to restoration work. The Society has invested well over 2 million dollars in mill restoration, including a major restoration program done in 1999-2003.

More Information

Our website, www.deltamill.org, contains all sorts of information about the mill, including a full history of the mill and information about when we are open. Donations are always welcome.

The Delta Mill Society, P.O. Box 172, Delta, ON, K0E 1G0. Email: info@deltamill.org