MANUSCRIPT REPORT NUMBER 283

HISTORIC STRUCTURES OF THE TRENT-SEVERN WATERWAY

by WILLIAM BEAHEN

(1978)

PARKS CANADA
DEPARTMENT OF INDIAN
AND NORTHERN AFFAIRS

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- xi Abstract
- xii Preface
 - 1 Introduction
 - 3 Otonabee River Sector, Peterborough to Lakefield
 - 7 Balsam-Simcoe Sector, Kirkfield to Gamebridge
 - 10 Kawartha Lakes Sector, Young's Point to Rosedale
 - 16 Upper Trent River Sector, Campbellford to Hastings
- 19 Lower Trent River Sector, Trenton to Haiques Reach
- 22 Severn River Sector, Washago to Port Severn
- 25 Historic Structures Relating to the Development of the Waterway

Illustrations and Descriptions

- 29 l Location map of Trent-Severn Waterway
- 31 2 Lock No. 21, Peterborough lift lock
- 32 3 Lock No. 21, Peterborough lift lock
- 33 4 Lock No. 19, Scott's Mills
- 34 5 Lower entrance wall, Lock No. 19, Scott's Mills
- 35 6 Lock No. 19, Scott's Mills
- 36 7 Lock No. 22, Nassau Mills
- 37 8 Lock No. 23, Otonabee
- 38 9 Lock No. 23, Otonabee

- 39 10 Lower entrance wall, Lock No. 19, Otonabee
- 40 ll Lock No. 24, Douro
- 41 12 Lock No. 24, Douro
- 42 13 Lock No. 25, Sawer Creek
- 43 14 Lock No. 25, Sawer Creek
- 44 15 Lock No. 26, Lakefield
- 45 16 CNR bridge above Lock No. 19, Scott's Mills
- 46 17 Dam at Lock No. 22, Nassau Mills
- 47 18 Dam at Lock No. 23, Nassau Mills
- 48 19 Dam at Lock No. 24, Douro
- 50 20 Dam at Lock No. 25, Sawer Creek
- 51 21 Dam above Lock No. 26, Lakefield
- 52 22 Remains of timber cribwork dam at Lock No. 22, Nassau Mills
- 53 23 Remains of timber cribwork dam at Lock No. 22, Nassau Mills
- 54 24 Abandoned bridgekeeper's house below Lock No. 22, Nassau Mills
- 55 25 Pillars marking staircases to former sites of two dwelling houses once occupied by lock staff at Lock No. 21,

 Peterborough Lift Lock
- 56 26 Pillars and staircase which once led to staff dwelling house, Lock No. 21, Peterborough Lift Lock
- 57 27 Foundation of an operator's dwelling house, Lock No. 21, Peterborough Lift Lock
- 58 28 Watchhouse which formerly stood at Lock No. 20, Ashburnham
- 59 29 Piers above dam near Lock No. 26, Lakefield
- 60 30 Former power plant in Peterborough near Lock No. 21, Peterborough Lift Lock
- 61 31 Power plant on Otonabee River near Auburn Mills
- 62 32 Power plant on Otonabee River near Auburn Mills
- 63 33 Remains of a power plant at Lock No. 22, Nassau Mills

- 64 34 Power plant at Lock No. 26, Lakefield
- 65 35 Power plant in Peterborough near Lock No. 21, Peterborough Lift Lock
- 66 36 Trent University power plant below Lock No. 22, Nassau Mills
- 67 37 Trent University power plant below Lock No. 22, Nassau Mills
- 68 38 Turbine pit at Trent University power plant below Lock No. 22, Nassau Mills
- 69 39 Remains of timber cribwork dam near Lock No. 21, Peterborough Lift Lock
- 70 40 Remains of forebay to mills near Lock No. 21, Peterborough Lift Lock
- 71 41 Auburn woollen mill site near Peterborough
- 72 42 General Time factory below Lock No. 21, Peterborough Lift Lock
- 73 43 Quaker Oats Company of Canada, cereal plant in Peterborough
- 74 44 Former Canada Cement Company plant near Lock No. 26, Lakefield
- 76 45 Former Canada Cement Company plant structure near Lock No. 26, Lakefield
- 77 46 St. John's Anglican Church in Peterborough
- 78 47 Court house in Peterborough
- 79 48 Hutchison House in Peterborough
- 80 49 St. John's Anglican Church in Lakefield
- 81 50 Westove, former home of Catherine Parr Traill in Lakefield
- 82 51 Loyal Orange Lodge below Lock No. 22, Nassau Mills
- 83 52 CPR swing bridge above Lock No. 20, Ashburnham
- 84 53 CNR swing bridge below Lock No. 22, Nassau Mills
- 85 54 Highway swing bridge above Lock No. 21, Peterborough Lift Lock
- 86 55 Lock No. 37, Bolsover

- 87 56 Lock No. 38, Talbot
- 88 57 Lock No. 39, Portage
- 89 58 Lock No. 40, Thorah
- 90 59 Lock No. 40, Thorah
- 91 60 Lock No. 40, Thorah
- 92 61 Lock No. 41, Gamebridge
- 93 62 Lock No. 41, Gamebridge
- 94 63 Lock No. 38, Talbot
- 95 64 Lock No. 37, Bolsover
- 96 65 Lock No. 36, Kirkfield Lift Lock
- 97 66 Lock No. 36, Kirkfield Lift Lock
- 98 67 Lock No. 36, Kirkfield Lift Lock
- 99 68 Lock No. 36, Kirkfield Lift Lock
- 100 69 Dam at Lock No. 37, Bolsover
- 101 70 Dam at Lock No. 38, Talbot
- 102 71 Dam near Lock No. 39, Portage
- 103 72 Former canal staff dwelling house near Lock No. 39, Portage
- 104 73 Former lockmaster's dwelling house at Lock No. 41, Gamebridge
- 105 74 Concrete arch highway bridge above Lock No. 37, Bolsover
- 106 75 Sir William Mackenzie house in Kirkfield
- 107 76 Sir William Mackenzie property in Kirkfield
- 108 77 Gamebridge Inn in Gamebridge
- 109 78 Remains of timber cribwork dam near Lock No. 35, Rosedale
- 110 79 Remains of wooden lock near Lock No. 35, Rosedale
- 111 80 Gate from former lock near Lock No. 35, Rosedale
- 112 81 Lower entrance walls at Lock No. 28, Burleigh Falls
- 113 82 Lower entrance walls at Lock No. 34, Fenelon Falls
- 114 83 Lower entrance wall at Lock No. 30, Lovesick
- 115 84 Lock No. 31, Buckhorn
- 116 85 Lock No. 31, Buckhorn
- 117 86 Lock No. 33, Lindsay
- 118 87 Lock No. 33, Lindsay

- 119 88 Canoe slide and dam at Lock No. 33, Lindsay
- 120 89 Lock No. 33, Lindsay
- 121 90 Remains of timber cribwork dam at Lock No. 28, Burleigh Falls
- 122 91 Dam at Lock No. 30, Lovesick
- 123 92 Remains of timber cribwork dam at Lock No. 30, Lovesick
- 124 93 Dam No. 3 and earlier timber cribwork dam at Lock No. 30, Lovesick
- 125 94 Former lockmaster's dwelling house near Lock No. 35, Rosedale
- 126 95 Lock No. 34, Fenelon Falls
- 128 96 Engine type boiler near Lock No. 35, Rosedale
- 130 97 Former construction office near Lock No. 35, Rosedale
- 131 98 Remains of timber cribwork dam and slide at Lock No. 28, Burleigh Falls
- 132 99 Boyd house near Lock No. 32, Bobcaygeon
- 133 100 Former Boyd company office near Lock No. 32, Bobcaygeon
- 134 101 Dam and remains of power plant at Lock No. 27, Young's Point
- 135 102 Ontario Hydro office near Lock No. 34, Fenelon Falls
- 136 103 Forebay to former Lindsay municipal power plant near Lock No. 34, Fenelon Falls
- 137 104 Former home of P. P. Young at Lock No. 27, Young's Point
- 138 105 The Old Bridge Inn at Lock No. 27, Young's Point
- 139 106 Buckhorn Lodge near Lock No. 31, Buckhorn
- 140 107 Cody Inn near Lock No. 31, Buckhorn
- 141 108 Outbuilding of Cody Inn near Lock No. 31, Buckhorn
- 142 109 Bank of Montreal building near Lock No. 32, Bobcaygeon
- 143 110 Fire hall near Lock No. 32, Bobcaygeon
- 144 lll Bobcaygeon Inn near Lock No. 32, Bobcaygeon
- 145 112 Mill at Lock No. 33, Lindsay
- 146 113 Mill and dam at Lock No. 33, Lindsay
- 147 114 Academy of Music building near Lock No. 33, Lindsay
- 148 115 Maryboro Lodge near Lock No. 34, Fenelon Falls

- 149 116 Former highway bridge near Lock No. 27, Young's Point
- 150 117 Highway bridge at Lock No. 32, Bobcaygeon
- 151 118 Lockmaster's dwelling house at Lock No. 13, Campbellford
- 152 119 Lockmaster's dwelling house at Lock No. 18, Hastings
- 153 120 Former lockmaster's dwelling house at Locks Nos. 16 and 17, Healey Falls
- 154 121 Remains of timber slide near Locks Nos. 11 and 12, Ranney Falls
- 155 122 Remains of timber slide near Locks Nos. 11 and 12, Ranney Falls
- 156 123 Remains of timber slide near Locks Nos. 16 and 17, Healey Falls
- 157 124 Remains of timber slide near Locks Nos. 16 and 17, Healey Falls
- 158 125 Remains of timber slide near Lock No. 14, Crowe Bay
- 159 126 Row of historic structures in Campbellford, above Locks Nos. 11 and 12, Ranney Falls
- 161 127 Trent Valley Woollen Mill in Campbellford, above Locks Nos. 11 and 12, Ranney Falls
- 162 128 Former paper mill above Locks Nos. 11 and 12, Ranney Falls
- 163 129 Former paper mill above Locks Nos. 11 and 12, Ranney Falls
- 164 130 Former grist mill near Lock No. 18, Hastings
- 165 131 Former grist mill near Lock No. 18, Hastings
- 166 132 Grain elevator near Lock No. 18, Hastings
- 167 133 Former foundry near Lock No. 18, Hastings
- 168 134 Remains of industrial structures near Lock No. 18, Hastings
- 169 135 Royal Hotel near Lock No. 18, Hastings
- 170 136 Power plant near Lock No. 13, Campbellford
- 171 137 Power plant near Lock No. 13, Campbellford
- 172 138 Power plant near Locks Nos. 16 and 17, Healey Falls
- 173 139 Power plant near Lock No. 14, Crowe Bay

- 174 140 Power plant near Locks Nos. 11 and 12, Ranney Falls
- 175 141 Auxiliary power facility at plant near Locks Nos. 11 and 12, Ranney Falls
- 176 142 Highway swing bridge at Lock No. 15, Healey Falls
- 177 143 Lockmaster's dwelling house at Lock No. 2, Sydney
- 178 144 Lockmaster's dwelling house at Lock No. 4, Batawa
- 179 145 Lock No. 5, Trent
- 180 146 Lock No. 9, Meyers
- 181 147 Lock control office at Lock No. 7, Glen Ross
- 182 148 Channel near Lock No. 1, Trenton
- 183 149 Remains of iron carriage at Lock No. 6, Frankford
- 184 150 Guard gate at Lock No. 6, Frankford
- 185 151 Ruins of municipal power plant below Lock No. 1, Trenton
- 187 152 Ruins of municipal power plant below Lock No. 1, Trenton
- 188 153 Ruins of Gilmour power plant near Lock No. 1, Trenton
- 189 154 Power house at Lock No. 9, Meyers
- 190 155 Power plant Superintendent's former residence at Lock No. 9, Meyers
- 191 156 Paper mill at Lock No. 3, Glen Miller
- 193 157 Paper mill office at Lock No. 3, Glen Miller
- 194 158 Factory complex above Lock No. 6, Frankford
- 195 159 Power house above Lock No. 6, Frankford
- 196 160 Factory building above Lock No. 6, Frankford
- 197 161 Saw and grist mills near Lock No. 6, Frankford
- 198 162 Mill raceway excavation at Lock No. 7, Glen Ross
- 199 163 Highway swing bridge below Lock No. 1, Trenton
- 201 164 CNR Railway bridge below Lock No. 1, Trenton
- 202 165 CNR Railway swing bridge at Lock No. 7, Glen Ross
- 203 166 Old marine railway at Lock No. 44, Big Chute
- 204 167 Old and new marine railways and power house at Lock No. 44, Big Chute
- 205 168 Core wall "A" near Lock No. 44, Big Chute
- 206 169 Core wall "B" near Lock No. 44, Big Chute
- 207 170 Core wall "C" near Lock No. 44, Big Chute

- 208 171 Steam boiler near Lock No. 44, Big Chute
- 209 172 Regulating sluice dam near Lock No. 44, Big Chute
- 210 173 Lock and dam at Lock No. 45, Port Severn
- 211 174 Lock No. 45, Port Severn
- 212 175 Lockmaster's dwelling house at Lock No. 42, Couchiching
- 213 176 Lockmaster's dwelling house at Lock No. 43, Swift Rapids
- 214 177 Assistant lockmaster's dwelling house at Lock No. 43, Swift Rapids
- 215 178 Former power house superintendent's residence at Ragged Rapids, above Lock No. 43, Swift Rapids
- 216 179 Former school and boat house at Lock No. 43, Swift Rapids
- 217 180 Power house superintendent's residence at Lock No. 43, Swift Rapids
- 218 181 Power house staff residence at Lock No. 43, Swift Rapids
- 219 182 Power plant at Lock No. 43, Swift Rapids
- 220 183 Former site of power plant at Wasdell Falls, near Lock No. 42, Couchiching
- 221 184 Mill structures at Washago near Lock No. 42, Couchiching
- 223 185 Sawmill at Washago near Lock No. 42, Couchiching
- 224 186 Highway bridge at Hamlet Bridge below Lock No. 42, Couchiching
- 225 187 Abutments of previous bridges below Lock No. 42, Couchiching
- 226 Bibliographic Essay

Abstract

In the summer of 1978 an inventory of historic structures in the vicinity of lock stations along the Trent-Severn Waterway was compiled. Field investigations were combined with archival research to provide a visual and written record of extant structures of historic significance. The more important features have been detailed in this report.

The photographs and descriptions of heritage structures are preceded in the report by an analysis of their overall significance. Using subjective judgment which emphasized canal related features six geographic divisions of the waterway were ranked according to the significance of their historic structures. In order of importance the sectors are: the Otonabee River, Balsam Lake to Lake Simcoe, the Kawarthas Lakes, the upper Trent River, the lower Trent River, and the Severn River. Moreover, individual structures were singled out for their engineering significance or their importance as representative of particular themes.

Preface

This report was prepared from a larger inventory of historic structures along the Trent-Severn Waterway. The purpose of the inventory was to identify structures of historic interest to support planning and interpretation efforts along the waterway. Judgment of heritage significance was based on engineering and architectural features as well as historic associations.

In preparing this inventory the focus of the work was on structures in the immediate vicinity of lock stations. This approach was taken in recognition of the priority need for information on structures directly related to the story of the waterway as a transportation route. In this way the scope of the research was limited to dimensions appropriate to a study of four months duration. Of course many important structures are not immediately in the areas examined closely and where information on these was available, they were included.

In organizing the larger inventory a geographic progression was followed from Trenton to Port Severn. Thus the reader can envisage the heritage structures which a boater would encounter on a trip through the system. But in analyzing the data collected and presenting the material in this report a different system is employed. Exercising subjective judgement, I have divided the waterway into areas of priority for historical preservation and interpretation in descending order of importance. But of course within each of the six areas identified there are individual

structures and lock station complexes which deserve special attention. This analysis and organization is determined from an historical perspective. In exercising my judgment I put more emphasis on structures directly linked to the waterway, the preservation and interpretation of which Parks Canada is responsible.

This report is made up of a relatively brief analytic section and a much larger segment compromised of items selected from the original inventory. References in the analytic text direct the reader to these items which include photographs and more detailed information on specific structures. The photographs in this report were taken by the author except where otherwise indicated.

The Trent-Severn Waterway is of prehistoric as well as historic significance. Before the arrival of the Europeans this was an important transportation route between Lake Huron and Lake Ontario. On or near its banks once stood the settlements of bands of native people. There are many archaeological remains of this period such as the fish weirs at Atherley Narrows. It was not within the scope of this study to include any information on prehistorical archaeological remains and none are mentioned here.

Introduction

The Trent-Severn Waterway is a through transportation route of 240 miles between Lakes Ontario and Huron. It consists of a series of lakes and rivers connected and made navigable by locks, dams and canal cuts. Begun as a government venture in 1833 this waterway has been developing and serving Canadians in various ways many of which are still reflected in the physical structures which line its route.

The history of the waterway's development as a transportation route is lengthy and its progress has been intermittent. When the first lock at Bobcaygeon was completed as a local improvement in 1835 it was the initial step towards another inland passage for commercial shipping between the Great Lakes. But other financial priorities and conflicting uses of the waters interfered with its advance. Lock construction was sporadic until towards the end of the nineteenth century resulting in improvements which aided only interior transportation. Through most of the nineteenth century lumbering held sway with timber slides and dams strategically placed to aid communications for rafts and booms of logs. Not until the late nineteenth and early twentieth centuries was a concerted effort made to finish the through route. In the meantime its supposed commercial potential had disappeared making way for a new role as a recreational waterway.

The Trent-Severn system's importance is not limited to communications but extends to water power. In the early days it turned water wheels powering mills in the first stage

of industrial development. As the potential of this resource became better understood turbines and generators replaced the water wheels and bydro-electric power plants were built. Now the water power contributes not just to local mills but to the general industrial growth and social well-being of the province.

Otonabee Sector, Peterborough to Lakefield

From the historical viewpoint the Otonabee River section of the waterway must be considered the most important overall area for preservation and interpretation. Here there are significant canal structures such as the Peterborough lift lock and older conventional locks close to original in method of operation and structure. As well there are industrial, institutional and domestic buildings near the waterway which illustrate the historical development of settlement.

Perhaps the most impressive structural feature on the Trent-Severn Waterway is the Peterborough lift lock. construction between 1896 and 1904 was a massive engineering task and it is still one of only several of this type of lock in the world. Though it was extensively rehabilitated in the 1960s it retains most of its original architectural character. The most prominent features are its three towers, graced with cornices; the central tower crowned by the old control cabin (see Fig. 2). Decorative railings and grillwork enhance the essentially mass concrete structure (see Figs. 2 and 5). The engineering achievement is graphically demonstrated each time the lock operates by the vertical movement of the two lock chambers hydraulically powered by piston-like rams. A large iron plate inscribed with the name of a Canadian company could illustrate how Canadian engineering technology contributed uniquely to the lift lock (see Fig. 3).

The conventional locks on the Otonabee River also have

important historical features. Lock No. 19 which was built by 1843 was one of the first locks on the waterway and is the only one of its vintage still in existence. It retains its heritage flavour with original masonry and mechanically operated gates and valves (see Figs. 4, 5 and 6). locks between Nassau Mills and Lakefield can be regarded as the first stage of the modern development of the waterway. This section was completed by 1900. At least two, Nos. 22 and 23, share the distinction claimed by the builder, of being the first locks in Canada to be constructed wholly of concrete. As in the case of Lock No. 19, the gate and valve opening devices at these locks are manually operated and the lock chambers and entrance walls are in close to original condition. While the mechanical valve opening devices on these locks are replacements for the originals, there is an interesting historical footnote. Locks Nos. 22 to 25, and possibly also at Lock No. 26, the winches now in use for valves were salvaged from locks on the Grenville and Carillon canals (see Figs. 7, 8, 9, 10, 11, 12, 13, 14 and 15).

The oldest water control side dam at lock stations in the Otonabee River is that at Lock No. 19 built around the turn of the century (see Fig. 16). The dams at Locks Nos. 22 to 26 are concrete replacements for earlier timber structures and date from the 1920s and 1930s. But several of these dams do have sluices designed to facilitate the passage of logs, an indication of the persistence of that industry into the twentieth century (see Figs. 17, 18, 19, 20 and 21). At Lock No. 22 there are timber cribwork remains of what is probably the first dam at that location (see Figs. 22 and 23).

Very little of historic importance remains of buildings associated directly with the waterway. Of the dwelling houses which were once occupied by canal personnel at lock

stations and swing bridge crossings, only one remains, the bridgekeeper's house at Nassau (see Fig. 24). The foundations and pillars marking steps leading to entrance walks, remain for two other houses (see Figs. 25, 26 and 27). The lock control buildings are all relatively new. There is, however, one earlier watchhouse from Ashburnham lock which is presently stored in the waterway yard at Peterborough (see Fig. 28).

Concerning resource development along the waterway not much remains of the lumbering era. At Lakefield there are piers above the dam which once anchored guide booms for early dam and log slide structures (see Fig. 29).

As many as eight structures are extant which relate to the complex story of hydro-electric development in Ontario. One building still existing may be the original plant which first supplied power to Peterborough in 1884. If so it is one of the earliest generating stations in North America (see Fig. 30). Concerning the transition from private to public ownership of production facilities four generating stations were built by private companies and later taken over by Ontario Hydro (see Figs. 31, 32, 33, 19 and 34). Another at Peterborough has recently passed from corporate to municipal hands (see Fig. 35). Near Nassau Mills there is one generating station and the remains of another earlier plant. Hydro production was in private hands here from 1902 until 1969 when Canadian General Electric donated the plant to Trent University (see Figs. 36, 37 and 38).

Early industrial development is barely represented in this sector. Remnants of a timber cribwork dam at Peterborough demonstrate water control used for industrial purposes (see Fig. 39). An adjacent forebay, although partially grown over and filled in, contained water power to run industry before hydro-electricity (see Fig. 40).

Auburn Mills on the northern outskirts of Peterborough has been an important industrial site since 1863 but the present complex was built in the twentieth century (see Fig. 41).

Two industries which have made major contributions to the twentieth century development of Peterborough have factories situated near the Otonabee River and canal, Quaker Oats Company and General Time of Canada (see Figs. 42 and 43). In Lakefield a now abandoned cement plant built at the turn of the century supplied a good deal of the building material for the waterway (see Figs. 44 and 45).

There are standing a number of institutional and domestic structures close to the waterway which relate to the growth of the community on its banks. Marked by provincial plaques at Peterborough are an early nineteenth century church, a courthouse and jail, and a home (see Figs. 46, 47 and 48). At Lakefield there is a church built by early settlers and the home of a famed Canadian literary pioneer, Catherine Parr Traill; both buildings have provincial plaques (see Figs. 49 and 50). At Nassau Mills an 1852 Loyal Orange Lodge typifies the transfer of social institutions from the old to the new world and the pluralism that marked and sometimes marred Canadian society (see Fig. 51).

Of the bridges across the waterway in this section, three late nineteenth century structures have features of engineering significance. A through truss steel railway bridge at Peterborough is the oldest of this type on the waterway. It is still manually operated and has masonry abutments and an unusual centre section (see Fig. 52). Another bridge of the same type at Nassau Mills is, at 221 feet, the longest of the waterway's manually operated swing spans (see Fig. 53). Also in Peterborough is the oldest high level pony truss steel bridge over the waterway (see Fig. 54).

Balsam - Simcoe Sector, Kirkfield to Gamebridge

The Kirkfield - Gamebridge sector can be rated as second in importance of the sections identified along the Trent-Severn Waterway. Though the immediate lock station areas are not replete with a variety of heritage buildings, several of the lock structures themselves are in very close to their original condition. In fact in this area the locks are closer to their appearance at construction than the structures in any other sector. This enhances their value and indicates the need for preservation and interpretation.

The five locks, Nos. 37 to 41, were built between 1900 and 1907 as part of the initiative to extend through transportation from Balsam Lake to Lake Simcoe. time the condition of the lock chambers and entrance walls has remained almost unchanged with only minor concrete patching or small additions having been made (see Figs. 55, 56, 57, 58, 59, 60 and 61). In addition the mechanisms for opening the gates and valves have heritage significance. In the case of the gate opening devices they appear to be original (see Figs. 57, 58 and 62). The mechanical winches for the valves are replacements for the most part but are older devices which were probably removed from the St. Lawrence River locks when the seaway was built (see Figs. 55, 57, 58, 62 and 63). The upper set of valve lifters of Lock No. 37 are original. This is the only set of screwtype valve lifters remaining on the waterway (see Fig. 64).

The Kirkfield lift lock, like the operation at Peterborough, is of historic significance because it is a

rare form of canal technology. Built by 1907 it was the second lift lock to be opened on the canal and it lacks much of the architectural character of its counterpart in Peterborough. Operational rather than aesthetic considerations seemed to have predominated in the design of the structure. Moreover, a major rehabilitation of the lock in the 1960s extensively altered its original appearance (see Figs. 65, 66, 67 and 68).

Three dams in this sector are also essentially in their original conditions. The concrete in the structures is as poured except for patching and minor additions, and mechanical log lifters are still in use (see Figs. 69, 70 and 71).

The waterway buildings at the lock stations are in all cases recent additions and cannot be declared of heritage importance. Dwellings which formerly housed canal personnel at each site have now all been removed. Two of these remain in the area. One near Lock No. 39, where it formerly stood, was built ca. 1905 and is the only one of its particular architectural style known still to exist. Now it is in private hands but is presently unoccupied (see Fig. 72). The dwelling house formerly at Lock No. 41 stands close to the grounds of that station and is now privately owned (see Fig. 73).

A bridge of historic interest is located in this sector. Though the evidence is contradictory there is an indication that the concrete arch bridge above Lock No. 37, built in 1905, may be of reinforced concrete. If so it would be one of the earliest of its kind in Canada. But even if the concrete is not reinforced it would still be of significance as one of the few mass concrete bridges built in North America (see Fig. 74).

Two buildings not directly associated with the waterway deserve recognition for their heritage value.

Coincidentally both are connected to Sir William Mackenzie, the railway builder. At Kirkfield, not far from the lock station stands the former home of Mackenzie. Over 100 years old it is now operated as a private museum displaying Mackenzie memorabilia and historical artifacts from the locale (see Figs. 75 and 76). In the village of Gamebridge, just off Highway 12 and about one-half mile from the lock station stands a vintage inn. Built in 1863, it was owned for a time by Lady Mackenzie who remodelled the structure in the early twentieth century. It still operates and illustrates the facilities available to earlier travellers in the area (see Fig. 77).

Kawartha Lakes Sector, Young's Point to Rosedale

This segment of the waterway was most extensively developed for transportation in the nineteenth century. The first lock built on the waterway was finished at Bobcaygeon in 1835. Other locks followed in a sporadic fashion until by the 1890s navigation was possible throughout the Kawarthas. Only remnants of the earlier navigational structures are still extant. There are, however, many other heritage structures intact which relate to various aspects of the development along this section of the waterway.

There are a number of interesting remains of early lock structures in this area. On the Gull River near Rosedale lock station there are the remarkably well preserved remains of a wooden lock and side dam built in 1873 and abandoned in 1910 (see Figs. 78 and 79). One of the lock gates from this structure is presently being used as a wharf (see Fig. Both the Burleigh Falls and Fenelon Falls locks, Nos. 28 and 34, were built as double locks in flight in the 1880s and replaced by single locks in the 1960s. In the process of building the new locks in both cases original masonry was rebuilt into the lower entrance walls to retain some of the first locks' heritage character (see Figs. 81 and 82). At Lovesick and Buckhorn locks, Nos. 30 and 31, there have been considerable modifications to the original structures built in the 1880s. But again at both locks there seem to be at least portions of the original masonry still in place (see Figs. 83, 84 and 85). At Bobcaygeon there is evidence that some of the masonry from the original lock chamber is under

the concrete at the east end of the canal cut.

The lock at Lindsay while it is not particularly old has a number of unique features which make it of historical interest. Built by 1910 it was the latest replacement to a succession of waterway facilities at the site since the original lock was finished in 1843. This lock is the only one on the system with an additional set of gates which creates a short lock chamber used when locking through small craft (see Fig. 86). The lock at Lindsay also has adjacent to it a canoe slide which is still used to transfer smaller boats (see Figs. 87 and 88). There is another canoe slide at Lock No. 30 but it is not next to the lock but rather on the far side of the dam. The gates and valves are mechanically operated with devices which may be original. Also the concrete is probably original with little having been done to rehabilitate it (see Figs. 86 and 89).

There are some interesting remains of nineteenth century timber dams in the Kawartha section which have been replaced by concrete structures. At Burleigh Falls, Lock No. 28, anchor spikes and timbers from the 1888 timber dam are visible in the water upstream of the present concrete dam (see Fig. 90). Similarly at Lovesick, Lock No. 30, there are anchor bolts and cribwork structures remaining of 1880s dams upstream from the present main, and two nearby, dams (see Figs. 91, 92 and 93). On the Gull River near Rosedale lock station is a partially ruined cribwork dam built by 1873 adjacent to the wooden lock (see Fig. 78).

Of the dwellings that once housed canal personnel in this section only two have been discovered still extant and both are now in private hands. At Rosedale, Lock No. 35, the former lockmaster's dwelling house dating from 1910 stands approximately 100 yards southwest of the lock station and has been extensively modified (see Fig. 94). At Fenelon Falls, Lock No. 34, the dwelling was erected in 1908 but has

been sold and removed to another location in town (see Fig. 95).

Near the present concrete dam across the Gull River at Rosedale are two historic features reminiscent of an earlier era on the waterway. Most striking is a large engine-type boiler at the south end of the dam. This boiler may have been used by the Randolph Macdonald Construction Company to power equipment used in this section of the canal, 1908 to 1910. Or it may have been mounted on a mobile platform which traversed the deck of the dam feeding steam to hoses used to free iced-over logs in the winter (see Fig. 96). In the same area is a substantial cottage which is believed to have been used by the Randolph Macdonald Company as an office during the same period of construction (see Fig. 97).

Concerning the lumbering in the Kawartha Lakes there are few reminders of that once important industry. At Burleigh Falls there are a number of anchor bolts which secured cribwork for a timber slide and an adjacent water control dam (see Fig. 98). The village of Bobcaygeon was the hub of Mossom Boyd's nineteenth century lumber empire and structural evidence of this enterprise still stand immediately next to the canal cut. His sprawling home with one section dating to the mid-nineteenth century is still occupied by a Boyd family member (see Fig. 99). The former office of Boyd Lumber company, built in 1889, now houses public service offices (see Fig. 100).

There has not been extensive hydro-electric development in the Kawarthas but there are traces of what has been done. At Young's Point several sluices at the west end of the dam built by 1925 funnelled water into the turbines of a power house which once stood here. The power plant was erected in 1901 to supply electricity to the cement plant at Lakefield. Ontario Hydro bought the property in 1936 but shut down the operation in 1945 (see Fig. 101). At Fenelon Falls on the

south side of the river there is a stone building which is connected with both lumbering and hydro-electric development. The present Ontario Hydro office was probably built in 1869 as the home of R. C. Smith, the operator of a sawmill on the river. When Smith sold his property in 1899 for the construction of a power generating station this home was taken over by the plant superintendent. It has become an office only recently (see Fig. 102). Also remaining is a forebay which once led to the power plant which stood here from 1899 to 1959 (see Fig. 103).

A number of the lock stations in the Kawarthas have domestic, industrial or commercial buildings of heritage value in the immediate area. These structures complement the story of the development of the waterway with the history of the people who lived and worked on its banks.

At Young's Point, Lock No. 28, stands a late nineteenth century house which belonged to Capt. P. P. Young, grandson of the founder of this community. It occupies a prominent position beside the lock (see Fig. 104). Also near the lock station stands the Old Bridge Inn. Built in 1887, it was first a general store and is now a hotel operated by the grandson of a former lockmaster at Young's Point (see Fig. 105).

Two commercial establishments are at Buckhorn, Lock No. 31, which relate to the recreational development of the waterway. Two hotels, Buckhorn Lodge and Cody Inn, have operated here since the turn of the century and perhaps longer in the case of the former (see Figs. 106 and 107). Another building at Buckhorn was reputed to have served as a boarding house for canal workers and lumbermen (see Fig. 108).

Besides the building connected to lumbering referred to above there are many other structures of historical interest in the village of Bobcaygeon. A local heritage program has

resulted in all structures over 100 years old being signposted as such. Three structures near the canal of interest are: the stone Bank of Montreal building constructed in 1913 (see Fig. 109), the former town hall now serving as a fire station built in 1874 (see Fig. 110), and the Bobcaygeon Inn probably dating from ca. 1890 (see Fig. 111).

The lock station at Lindsay, Lock No. 33, has a most interesting heritage atmosphere. In addition to the unique lock structures there are several historic buildings. On the south side of the Scugog River beside the lock is a stone mill recently ravaged by fire. Mills have stood in this approximate location since the first built in 1830 by William Purdy, the founder of Lindsay. The present structure has stood here since 1861 (see Figs. 112 and 113). Just across the river on the north side of the lock is a grain elevator which dates from at least 1899 (see Fig. 87). About 100 yards south of the lock station on Lindsay Street stands the Academy of Music building erected in 1892. Since then it has been a cultural centre for the area and is presently used to stage very popular summer theatre (see Fig. 114).

At Fenelon Falls near the west end of the canal cut is Maryboro Lodge, an important heritage building in the town. Built in the 1830s by James Wallis, a founder of the community, this home has been transformed into a museum by the local historical society. It is marked by a provincial plaque commemorating Wallis (see Fig. 115).

Two bridges in the section of the waterway are worthy of note. Crossing the Otonabee River at Young's Point lock station is probably the oldest bridge over the waterway built by 1885. It also is unusual in that its cross members are secured by pins, a method of assembly which disappeared in the 1890s (see Fig. 116). The highway bridge crossing

the canal cut at Bobcaygeon was built in 1922 and is the earliest through steel plate bridge over the waterway (see Fig. 117).

Upper Trent River Sector, Campbellford to Hastings

This sector of the Trent River is of historic interest because of the structures and other physical remains of early commercial and industrial activity. These structures are concentrated in Campbellford and Hastings which may simplify planning and interpretation tasks. But this area is not richly endowed with structures of heritage significance relating to the transportation role of the waterway.

As is the case with the lower Trent River sector this section of the Ontario-Rice Lake Division of the waterway constructed between 1910 and 1918 has been considerably altered in the recent past. Electro-hydraulic controls have been installed on some gates and valves at all the Concrete restoration of lock chambers and entrance walls have also been extensive. At Hastings there is no apparent evidence of the first lock completed in 1844. There may be, however, masonry remains of the original lock chamber under the concrete at the west end of the canal cut. There are three lockmasters' dwelling houses surviving in the sector. Two of them are still used for their original function; one at Campbellford dates to ca. 1921 (see Fig. 118) and the other at Hastings to 1960 (see Fig. 119). third dwelling at Healey Falls was built in 1919 and is now in private hands though it remains on its original location (see Fig. 120).

At three locations on the Upper Trent River there are physical remains of timber slides which assisted the passage

of logs in the nineteenth century. The evidence of the slide which stood at Ranney Falls from 1843 to 1870 is considerable and striking. Rock-filled cribs, and a multitude of anchor bolts line the shore where the slide was, a fine counter-point to the falls immediately adjacent (see Figs. 121 and 122). At Healey Falls on the old river channel, now dry, are a number of anchor bolts and remains of cribs from the timber slide (see Figs. 123 and 124). Also just above the present dam here, are cribwork remains of what may have been the mid-nineteenth century wooden dam. Just below the dam at Lock No. 14 are anchor bolts probably from the Middle Falls timber slide (see Fig. 125). These remains are rare and valuable evidence of the important lumber era.

One of the early towns to develop industrial activity relating to the waterway in this area was Campbellford. Here on the banks of the canal near Bridge Street are a cluster of significant heritage structures. On the southeastern side of the canal are a line of buildings dating probably to the 1870s but perhaps even earlier, including a grist mill, foundry, woollen mill and fire hall (see Fig. 126). On the opposite side of the canal is the former Trent Valley Woollen mill complex of buildings, most dating from 1881 (see Fig. 127). On the southern edge of town near Ranney Falls is the former Northumberland Paper Company sawmill, now a leather factory, which was built ca. 1881 (see Figs. 128 and 129). All of these buildings are fine looking structures, either stone or brick, and together they played a large part in the economic development of the town.

At Hastings too there are several industrial structures of heritage significance. Near the lock station on the north side of the Trent River is one of the most attractive buildings on the waterway. This large stone grist mill was

built in 1871 and converted later to a leather company. The structure is now vacant and should be preserved (see Figs. 130 and 131). On the opposite side of the river stands a grain elevator dating from the period roughly contemporaneous with the grist mill (see Fig. 132). Also near the lock station stand ruins of nineteenth century industrial structures (see Figs. 133 and 134) as well as a hotel apparently dating to 1852 (see Fig. 135).

There are several power plants on this section of the waterway which relate to the story of hydro-electric development. Generating stations near the locks at Campbellford and Healey Falls were first developed by private enterprise and later acquired by Ontario Hydro (see Figs. 136, 137 and 138). Another plant at Crowe Bay, Lock No. 14, was built by the town of Campbellford and remains one of the small number of power producing facilities in the province still municipally run (see Fig. 139). plant at Ranney Falls is an unusual operation. The main structure was built by Ontario Hydro in 1922 but a separate generating unit was erected by private capital several years later. Water power was directed to this unit by a separate penstock leading from the Hydro plant forebay. Ontario Hydro consolidated the operation by buying the private generating unit, but the structural evidence of this unusual co-operation of public and private enterprise remains (see Figs. 140 and 141).

Of the bridges over this sector of the waterway only one can be deemed historically significant. The swing bridge above Lock No. 15 at Healey Falls was built in 1894 by a Trenton firm. It was originally erected at Trent River but was moved to Healey Falls ca. 1912. It is the only pinconnected swing span over the waterway (see Fig. 142).

Lower Trent River Sector, Trenton to Haigues Reach

The Ontario-Rice Lake Division of the Trent-Severn Waterway was built between 1908 and 1918. Although it was one of the later segments of the waterway to be constructed many of the lock and water control structures have been altered considerably from their original form. The ten locks on the lower Trent River were built with manual controls for valves and gates but all have since been altered with the addition of partial electro-hydraulic controls. Moreover the concrete restoration done to the locks and dams of this section has been more extensive than in older sections like the Otonabee River and Kirkfield to Gamebridge.

However, this area has heritage riches in the form of dwelling houses for the operational staff. Four houses still extant were built either during or just after the canal construction phase. Of these one at Lock No. 2 has been mothballed and three others at Locks Nos. 4, 5 and 9 are now being used as offices. All of these dwellings are of the same architectural style (see Figs. 143, 144, 145 and 146). Another lockmaster's house at Lock No. 7 Glen Ross, was built in 1958 but was converted to a lock office in 1968 (see Fig. 147).

There are some other features of canal development worth noting. Near Meyer's Island at Trenton a canal channel can be traced which was excavated but not completed between 1837 and 1841 (see Fig. 148). Similarly at Glen Ross the line of the present canal cut is probably the same as the original excavation completed in 1844 (see Fig. 33). At Frankford

there are two interesting items of canal technology. Abandoned in the bush at the west end of Dam No. 6 are the remains of an iron carriage which at one time traversed the dam bearing a steam boiler used to free frozen logs in the sluices during winter (see Fig. 149). Above Lock No. 6 is a guard gate mechanism built in 1912 which is the last of several of the type which were used to protect the canal from damage due to rapidly fluctuating water levels (see Fig. 150).

Concerning the history of hydro-electric development in Ontario there are several structures on the lower Trent River of heritage significance. At Trenton just below Lock No. 1 are the remains of a stone structure which was once the town power plant. Built ca. 1885 - 1886 this may have been the first municipally operated power utility in the province (see Figs. 151 and 152). Also at Trenton on the east side of Dam No. 1 are the probable remains of the stone forebay of another power plant built by the Gilmour Lumber Company ca. 1885 - 1886 (see Fig. 153). A power plant near Lock No. 9 was built by Ontario Hydro by 1924 and has special significance. It was the first remote controlled station in the Hydro system. This plant also has a long tail race excavated for over one-half mile to conserve the amount of head available (see Fig. 154). At the same station is the former dwelling house provided for the powerhouse superintendent. The home is now privately owned (see Fig. 155).

The lower Trent River has seen considerable industrial activity and there are still several sites of importance. At Glen Miller on the west side of Dam No. 1 there has been a mill turning out wood products since before 1878. In 1881 a paper mill was built here which has operated continuously from that time (see Figs. 156 and 157). Paper mill structures probably dating to the nineteenth century stand

near Frankford although they are no longer operated (see Figs. 158, 159 and 160). Just off the waterway at Stockdale about $1\frac{1}{2}$ miles from Frankford stands an operating sawmill and a former grist mill which probably date to at least 1878 (see Fig. 161). An excavated channel at Glen Ross, Lock No. 7, seems to have been a raceway dug in an 1881 attempt to develop a mill community in this area (see Fig. 162).

Of the bridges over the waterway in this area three have some particular significance. The Dundas Street Bridge at Trenton marks the oldest and most important crossing in the system. The first bridge was built here in 1833 but a ferry had been in service since the late eighteenth century. The present span built in 1916, is the oldest through truss highway swing bridge on the waterway (see Fig. 163). Also at Trenton is the only half pony truss railway bridge ever to cross the waterway; it was built by 1911 (see Fig. 164). Another railway bridge at Glen Ross is the only one of four remaining through truss swing bridges with a central tower (see Fig. 165).

Severn River Sector, Washago to Port Severn

The final canal link in the through transportation route from Lake Ontario to Georgian Bay, the Severn River Division, was finished in 1920. Though several of the canal structures represent this last stage in the waterway's development they already have heritage significance. Other buildings connected with resource development are worth noting.

Of the waterway structures the two marine railway operations at Big Chute are the most historically interesting. A marine railway was built here in 1917 to provide a temporary facility for boat transfers across a land barrier until locks were built. For a number of reasons the locks were never built and the marine railway evolved with public demands to accommodate larger boats. There are now two railway systems at Big Chute: one conforms generally to an operation built in 1923 although the structures have been replaced; the second is a modern sophisticated unit built in 1978. These two marine railways are probably the only operations of this kind in Canada and provide a marked contrast between the old and the new (see Figs. 166 and 167).

The original idea was to replace the marine railway at Big Chute with a canal works. In fact construction of a channel with locks at either end took place between 1919 and 1921 but was never completed because of government austerity. A number of structures still stand in the woods southwest of the lock station, including large dam core

walls, a partially excavated lock pit and the remains of a large construction camp. These man-made structures out of their natural context stand out starkly from their verdant surroundings (see Figs. 168, 169, 170, 171 and 172).

Other waterway structures of historical interest are located at Port Severn, Swift Rapids and Couchiching lock stations. The lock and dam at Port Severn, Lock No. 45 were built in 1915 and remain substantially unchanged since then. The valves and the gates are still mechanically operated (see Figs. 173 and 174). Three dwelling houses for operational staff exist in this sector, two at Swift Rapids, Lock No. 43 and one at Couchiching, Lock No. 42. One at Swift Rapids dates from 1914 and the other two from the late 1920s (see Figs. 175, 176 and 177).

Hydro-electric production facilities on the Severn River have historical significance as well. The first generating station was built at Ragged Rapids by the town of Orillia at the turn of the century. This was the first municipally owned generating station in the province with long distance transmission of power. The stately Georgian home, formerly the residence for the plant superintendent, still stands at the site but is now in private hands (see Fig. 178).

The building of the waterway forced the movement of Orillia's power production facilities to Swift Rapids in 1917. At least one building, a combination school and boathouse, was apparently moved from one site to the other (see Fig. 179). There are a number of other buildings at Swift Rapids, including the power plant superintendent's house, which were built at that time, and are still in use (see Figs. 180 and 181). The powerhouse and dam themselves retain their original character (see Fig. 182).

Two landmarks of the history of Ontario Hydro are on the Severn River. At Big Chute the power plant purchased by

Hydro in 1914 was the first generating station to be owned and operated by the public power commission (see Fig. 167).

A provincial historical plaque at Wasdell Falls indicates the spot where Ontario Hydro opened in 1914 the first station which the commission itself had designed and constructed (<u>see</u> Fig. 183). The power plant was removed from operation in 1955 and demolished recently.

There are a number of interesting mill buildings on the middle branch of the Severn River near Washago. Many of the structures date from the nineteenth century (<u>see</u> Fig. 184), and one sawmill has been in continuous operation from 1852 to the present (see Fig. 185).

Over the Severn River near the east end of Sparrow Lake is a bridge of historical significance. The fixed part of the through truss span at Hamlet Bridge is pin-connected, a form of attaching members which was used before the invention of the field rivets. Though the bridge was erected here in 1922 the fixed span was part of structure erected by 1905 further downstream (see Fig. 186). In fact at the location of the 1905 structure there are concrete abutments still visible as well as probable cribwork supports for a wooden bridge built by 1886 (see Fig. 187).

Historic Structures Relating to the Development of the Waterway

The corridor of the Trent-Severn Waterway is not replete with structures of historic significance. There are, however, a diminishing number of these structures which can be identified as of importance in connection with the development of the waterway. This study has attempted to create an inventory of such structures in the proximity of lock stations, and to assess them within the context of geographic areas of the waterway. It might also be useful to highlight the most significant features based on their own merits.

Of the canal structures the most important are the two lift locks which are engineering accomplishments of world significance. There are also thirteen locks on the system which still retain a high degree of their historical integrity based on form and operation. These are located as follows: six on the Otonabee River, five in the Balsam-Simcoe sector and one each at Lindsay and Port Severn. There also exist considerable remains of a former lock and dam near Rosedale which is unique for being of timber The marine railways and abandoned canal construction. structures at Big Chute are also interesting examples of particular forms of canal development. The number of dwelling houses for operational staff which are still extant has been reduced to ten, eight of which date to the early part of the twentieth century; the other two are more recent.

The structures associated with the passage of lumber along the Trent water system were more temporary and hence no longer exist except in remains. The most important aggregation of anchor bolts and timber cribs which once formed part of a log slide is at Ranney Falls. The office of one of the large lumber companies on the system, that of the Boyd family, still stands in Bobcaygeon beside the canal.

There are a number of industrial structures which represent the waterway's role in the economic development of the corridor in the early years. The greatest concentration of nineteenth century structures is in the town of Campbellford where the Trent Valley Woollen mill complex flanks one side of the canal and a row of heritage industrial structures stands on the other side. Also in Campbellford is the late nineteenth century wood products mill now being used as a leather factory. At Hastings on the Trent River is a beautiful stone former grist mill and leather factory dating to 1871. The walls of a much larger stone mill built in 1861 are all that remain beside the lock at Lindsay after a recent fire. Another group of much smaller mills still stands on the centre branch of the Severn River at Washago.

Connected to the Hydro-electric development on the waterway the most significant structure is the generating station at Big Chute which is the first to be owned and operated by Ontario Hydro. The remains of a hydro-electric station at Trenton may represent the first municipally owned hydro-electric production facility in Ontario. A former power house superintendent's home at Ragged Rapids is the last remaining structure associated with the former generating station there. This was the first municipally owned hydro station in Ontario capable of long distance transmission of power. The home itself has stately Georgian

lines making it of architectural interest. Another superintendent's dwelling of significance is the beautiful stone building at Fenelon Falls, probably dating back to 1869 when it belonged to R. C. Smith, an early mill-owner.

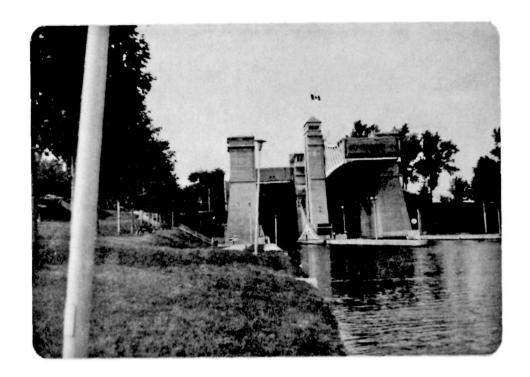
There are several interesting buildings related to the social, cultural and political development of the waterway. Located near the lock stations at Young's Point, Fenelon Falls, Bobcaygeon and Lakefield are the homes of pioneers of the area. All four buildings are well preserved and three of them remain in private hands. The exception is Maryboro Lodge at Fenelon Falls which is an historical Two churches near the waterway, one at Lakefield and another at Peterborough are recognized by historical plaques as landmarks of religious expression by early The Academy of Music at Lindsay near the lock station has been a cultural centre of the area for nearly a century and still houses a popular summer theatre group. At Peterborough there is a fine stone building erected in the early nineteenth century as a courthouse and jail and still serving as a local political and judicial administrative centre.

There are two bridges on the waterway which deserve special mention for their historic technological significance. The wrought iron and steel truss bridge at Young's Point is probably the oldest bridge on the waterway though it crosses the river and not the canal channel. Moreover, it has pins connecting its truss members, an obsolete method employed before the invention of the field rivetter. The railway bridge at Fenelon Falls is the earliest example of a plate girder construction on the waterway.

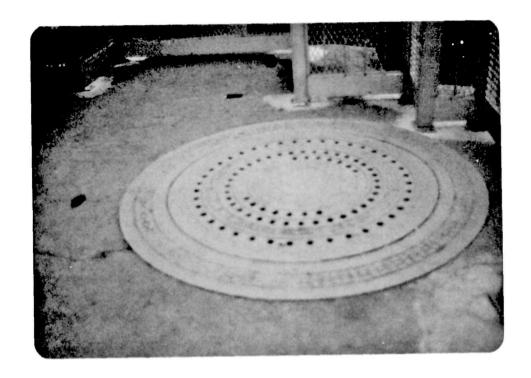
It is hoped that this inventory will help support interpretation and planning efforts for the waterway on an interim basis. More detailed research is required to provide a thorough assessment of the heritage potential of the area.

1 Location map of Trent-Severn Waterway. (CORTS planning teams, Kemptville and Richmond Hill, Ontario.)





- 2 Lock No. 21, Lift Lock, Peterborough, August 1978. View of lift lock from west side of canal, downstream. Built between 1896 and 1904, the lift lock was extensively rehabilitated in 1963-1966. Note the decorative cornices on the three towers. The control cabin was on the central tower until the period of rehabilitation. The new control cabin is now behind the central tower.
 - 1 Trent-Severn Waterway Office, Annual Report of the Superintending Engineer (hereafter referred to as TSWO Annual Report), 1963, p. 22, and 1965, p. 9.
 - 2 Brian David, "A Structural History of the Peterborough Lock Station", Manuscript on file, Parks Canada Ontario Region Office, Cornwall (hereafter referred to as PCORO), 1977, pp. 13-16.



- 3 Lock No. 21, Lift Lock, Peterborough, August 1978.

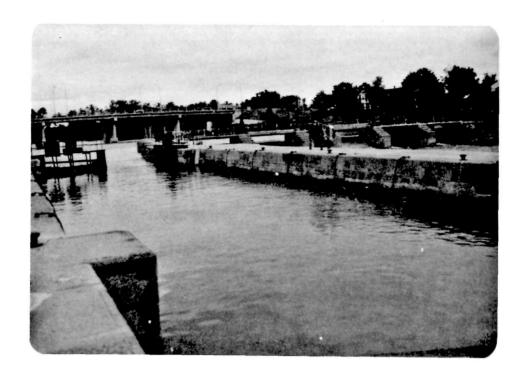
 Metal cover for intake tubes for Taylor Air

 Compressor installed in lift lock in original

 construction. Compressor acted to seal gates

 and keep lock chamber pits clear of water. This

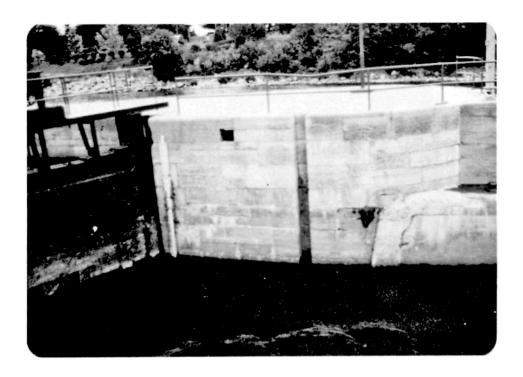
 was a Canadian patented invention.
 - John Hinton, Peterborough Hydraulic Lift Lock, manuscript on file, Peterborough Public Library, 1952, p. 4.



- 4 Lock No. 19, Scott's Mills, August 1978.

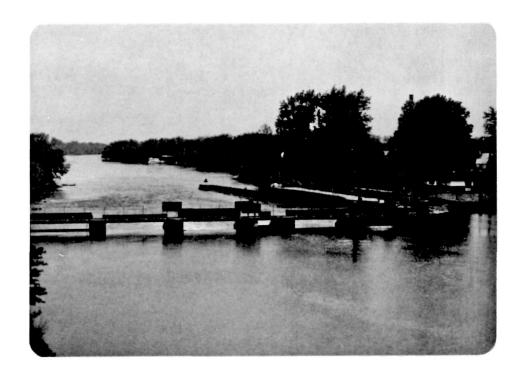
 View of Lock No. 19 from downstream end. First built in 1843 this was one of the four early locks on the Trent-Severn Waterway. It has a strong heritage flavour. Gates are wooden and like the valves, are mechanically operated.

 Most of walls and lock chamber are of original masonry!
 - 1 Brian David, op. cit., pp. 8-10.



- 5 Lock No. 19, Scott's Mills, August 1978.

 View of original masonry on eastern lower entrance wall of Lock No. 19. Concrete on lower end of eastern downstream entrance wall was restored in 1959.
 - 1 TSWO Annual Report, 1959, p. 9.

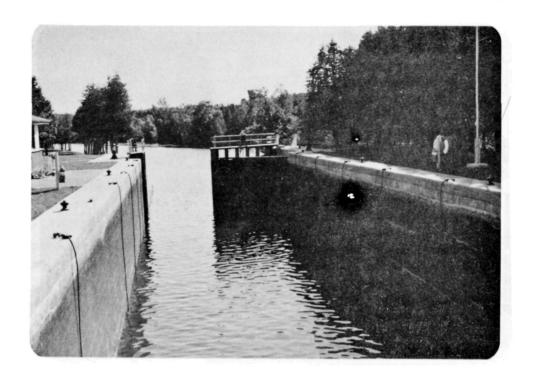


- 6 Lock No. 19, Scott's Mills, October 1978.

 View of Scott's Mills lock station from bridge just upstream. The side-dam at Lock No. 19 was rebuilt around the turn of the century.
 - 1 TSWO Plans Nos., T-11-242.2 to T-11-242.9.



- This lock and the lock at Otonabee were claimed by their builders to be the first locks in Canada to be built wholly of concrete, having been poured in 1896. The lock also has mechanically operated gates and valves. In 1962 the valve operating winches were replaced with winches salvaged from the Grenville and Carillon canals. The lock office was built in 1961 originally as a dwelling. A dwelling house stood just south of the present lock office from ca. 1900 until 1961 when it was removed.
 - Department of Railways and Canals (hereafter referred to as DRC) Annual Report, 1897, p. 140.
 - 2 TSWO Annual Report, 1962, p. 9.
 - 3 TSWO File No. 4102-1, Alyea to Hamblin, 19 March 1976.
 - 4 Tim Crough, lockmaster, Lock No. 22, TSWO Annual Report, 1961, p. 22.



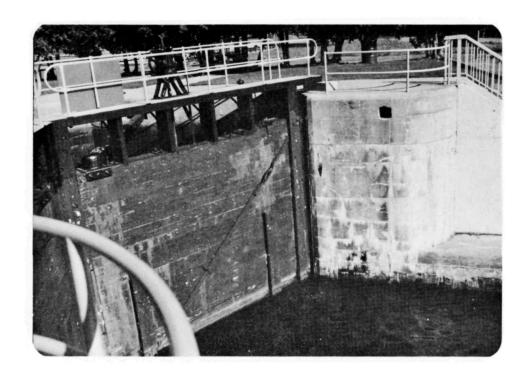
According to its builders this lock shares with Lock No. 22 the distinction of being the first lock in Canada to be built wholly of concrete, having been constructed in 1896. Much of the concrete seems to be original, but some patching to the lock was done in 1969. The lock also has mechanically operated gates and valves. In 1962 the valve operating winches were replaced with winches salvaged from the Grenville and Carillon canals.

- 1 TSWO Annual Report, 1969, p. 9.
- 2 DRC Annual Report, 1897, p. 140.
- 3 TSWO Annual Report, 1962, p. 9.



9 Lock No. 23, Otonabee, August 1978.
 (See Fig. 8 for information on lock, gates and valves).
 The lock office was built in 1965.

1 TSWO File No. 4101-2, Alyea to Hamblin, 19 March, 1976.



10 Lock No. 23, Otonabee, August 1978.

(See Fig. 8 for information on lock and gates)

Concrete of entrance walls appears to be original.

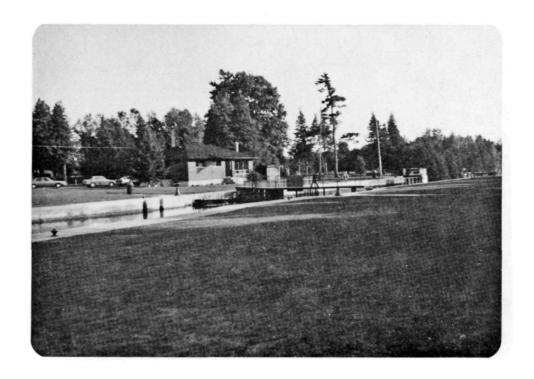
Lock was built in 1896 and probably with Lock No. 22

is first in Canada to be built of concrete.



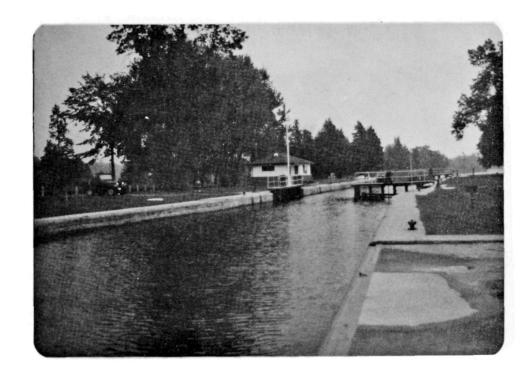
- 11 Lock No. 24, Douro, August 1978.

 Lock constructed ca. 1900 in the PeterboroughLakefield canal construction phase. Concrete
 surfaces of the locks chamber walls were restored
 in 1971-1972.
 - 1 TSWO Annual Report, 1971, p. 9.



- 12 Lock No. 24, Douro, August 1978.

 Gates and valves of this lock are mechanically operated. In 1962 the valve operating winches were replaced with winches salvaged from the Grenville and Carillon canals. Lock office was constructed in 1961² as a dwelling to replace original dwelling built ca. 1900.
 - 1 TSWO Annual Report, 1962, p. 9.
 - 2 TSWO File No. 4102-1, Alyea to Hamblin, 19 March 1976.
 - 3 TSWO Annual Report, 1961, p. 22.



- Lock No. 25, Sawer Creek, August 1978.

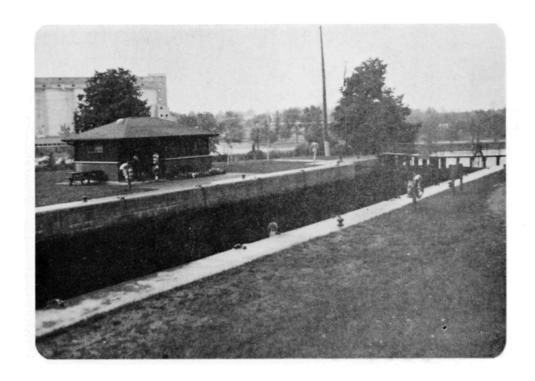
 Lock was constructed ca. 1900 during the Peterborough-Lakefield phase of canal development, and the concrete surfaces appear to be original. Gates and valves are manually operated. In 1961 the valve operating winches were replaced with winches salvaged from the Grenville and Carillon canals. The lock office was constructed in 1965.
 - 1 TSWO Annual Report, 1961, p. 9.
 - 2 TSWO File No. 4102-1, Alyea to Hamblin, 19 March 1976.



- Lock No. 25, Sawer Creek, August 1978.

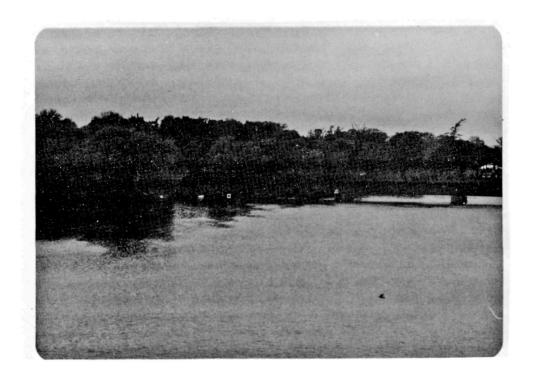
 (See Fig. 13 for lock structures)

 In background is frame storage building listed as built in 1910. It may be, however, that this structure was built after 1922.
 - 1 TSWO File No. 4102-1, Alyea to Hamblin, 19 March 1976.
 - 2 TSWO Plan No. T-3-193.1.



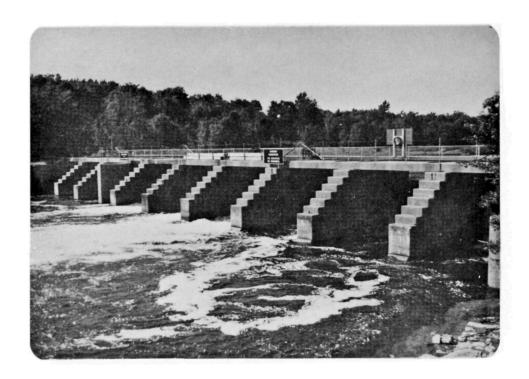
- Lock No. 26, Lakefield, August 1978.

 Lock No. 26 built ca. 1900 during PeterboroughLakefield phase of canal construction appears
 little changed. Gates and valves are still
 manually operated. The lock office was erected
 in 1965. Much of the concrete surface seems
 original but some of it was restored in 1974.
 - 1 TSWO File No. 4102-1, Alyea to Hamblin, 19 March 1976.
 - 2 TSWO Annual Report, 1974, p. 8.



- 16 Above Lock No. 19, Scott's Mills, August 1978.

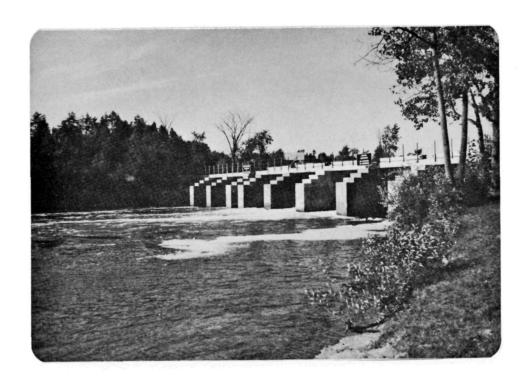
 C.N.R. bridge above Lock No. 19 built in 1925
 is an equal arm deck plate steel girder, identical
 to the bridge at Hastings; these two were the last
 of this type built on the waterway. The bridge is
 126 feet long and is electrically operated from a
 bridge cabin on the west side of the river channel.
 - 1 W. George Richardson, "Bridges Over the Trent-Severn Waterway, 1826-1978", Manuscript on File, PCORO, 1978.



17 Lock No. 22, Nassau Mills, August 1978.

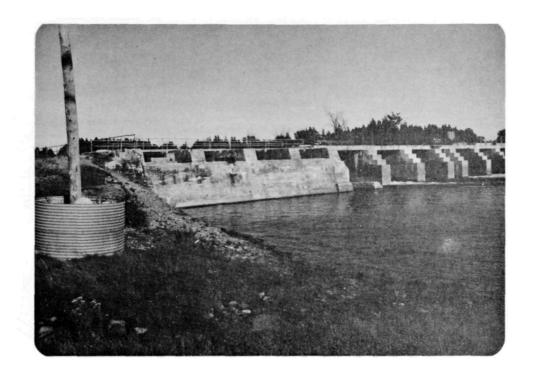
Concrete dam at lock station. Original dam built ca. 1900 during Peterborough-Lakefield phase of canal construction was rock-filled timber cribwork structure. This was replaced by a concrete dam in 1933-1934.

1 TSWO Plan No. T22-423.4.



- Lock No. 23, Nassau Mills, August 1978.

 Concrete dam at lock station. Original dam built ca. 1896 during Peterborough-Lakefield phase of canal construction was a rock-filled cribwork structure. This was replaced by a concrete dam completed in 1926. The stoplog storage shed at the east end of the dam was erected also in 1926.
 - 1 TSWO Plan No. T-22-423.4.
 - 2 DRC Annual Report, 1928, p. 104.
 - 3 TSWO Annual Report, 1926, pp. 1-3.

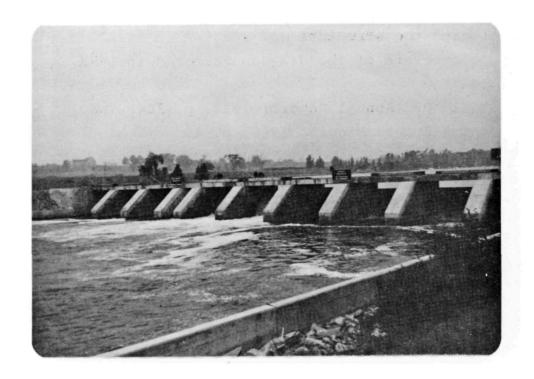


Concrete dam at lock station was constructed in 1927-1928, replacing a rock-filled timber cribwork structure built in 1896 during Peterborough-Lakefield phase of canal construction. On left of photo are the remains of the raceway to the Canada Cement Company generating station which formerly stood on the west bank of the river. The remainder of the raceway is now an integral part of the dam. Remains of the powerhouse foundation are buried just below the surface of the ground beside the raceway.

The powerhouse was built by the Lakefield Portland Cement Co. ca. 1904, and was taken over by the Canada Cement Co. in 1909 when they purchased the former company. It was in turn purchased by Ontario Hydro in 1936. The power house operation was shut down ca. 1944

and the structure was removed in 1961. The concrete of the dam was restored in 1972.

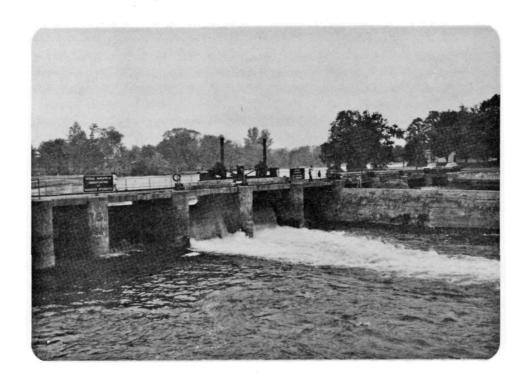
- 1 DRC Annual Report, 1928, p. 104; TSWO Annual Report, 1928, p. 4.
- 2 TSWO Plan No. T-22-423.4.
- 3 TSWO Annual Report, 1927, p. 5.
- 4 Ontario Hydro, Annual Report, 1936-1937, p. 132.
- 5 Ibid, 1943-1944, p. 16.
- 6 TSWO Annual Report, 1961, p. 22.
- 7 Ibid. 1972, p. 9.



- 20 Lock No. 25, Sawer Creek, August 1978.

 New concrete dam was started in 1928 and completed in 1932. It replaced a rock-filled timber cribwork structure built in 1899 during Peterborough-Lakefield phase of canal construction. Note that towards the west bank is an eight foot wide log sluice as in the other dams at locks 22, 23, and 24.

 The deck and piers of the dam were restored in 1971-1972.
 - DRC Annual Reports, 1928, p. 107, and
 1932, p. 89; TSWO Annual Report, 1927, p. 9.
 - 2 TSWO Annual Report, 1971, p. 9.



- 21 Above Lock No. 26, Lakefield, August 1978.

 Concrete dam across Otonabee River above lock
 station was built to replace an 1896 rock-filled
 timber cribwork structure between 1920 and 1922.

 Note the narrow log sluice.
 - 1 TSWO Photo Album, Photo No. 36.6.
 - 2 DRC Annual Report, 1921, p. 87; TSWO Plan No. T11-291.12; TSWO Annual Report, 1925, p. 2.



22 Lock No. 22, Nassau Mills, August 1978.

Possible remains of timber cribwork dam built
ca. 1900 during Peterborough-Lakefield phase of
canal construction. Timber visible in water on
east side of river above present concrete dam
at Lock No. 22.

1 TSWO Plan No. T-22-423.4.



23 Lock No. 22, Nassau Mills, August 1978.

Possible remains of timber cribwork dam built
ca. 1900 during Peterborough-Lakefield phase of
canal construction. Timber visible on bank on
west side of river above present concrete dam at
Lock No. 22.

1 TSWO Plan No. T-22-423.4.

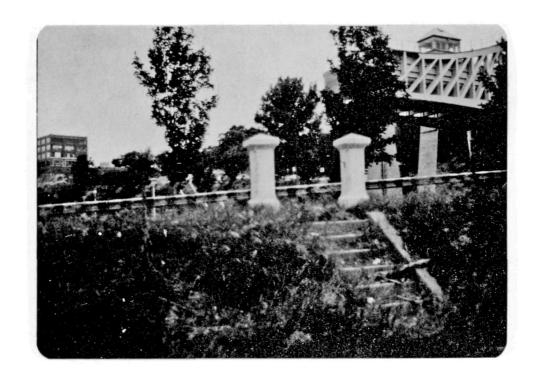


- 24 Below Lock No. 22, Nassau Mills, August 1978.

 Abandoned dwelling house formerly occupied by the Bridgekeeper and Damkeeper at Nassau below the lock station. House was used at least in 1930.
 - 1 TSWO File on Staff Dwelling Houses, ca. 1930, File No. F.14-1.



- 25 Lock No. 21, Lift Lock, Peterborough, August 1978. Two sets of pillars, one in foreground and one in background, mark the entrances to pathways to foundations of two houses formerly occupied by operating staff of lift lock. Ruins are on McConkey property on east side of lift lock and road. Houses dated from ca. 1910.
 - 1 PCORO, Historical Research Section, File on TSW Dwelling Houses; PCORO, C-4945-T90, Beahen to Witham, 11 July 1977.



26 Lock No. 21, Lift Lock, Peterborough, August 1978. Pillars and staircase leading to dwelling house pathway south-east of lift lock. House was removed in early 1960's and only foundations remain.

1 PCORO Dwelling House File.



- Lock No. 21, Lift Lock, Peterborough, August 1978. Foundation of lift lock operator's dwelling house, south-east of lift lock. House was erected ca. 1910 and removed in the early 1960's. There is reputed to be another foundation north of those of the former dwelling houses which was to form the base for a lock office. Apparently this structure was begun in the early years of the lift lock's operation but was never finished.
 - 1 PCORO Dwelling House File.
 - 2 Max Kunh, lockmaster, Lock No. 21.

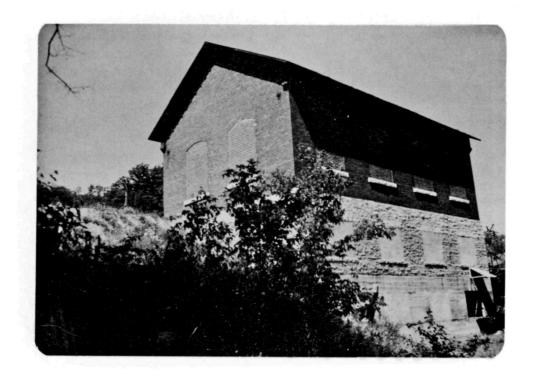


- 28 Lock No. 20, Ashburnham, October 1978.
 Watchhouse formerly at Lock No. 20, now in storage in TSWO maintenance yard. This frame building is similar to the type designed for personnel at locks and bridges in 1932. It was probably removed to storage in 1973.
 - 1 TSWO Plan No. T-3-153.5.
 - 2 Jan Stammis, Engineer, TSWO.

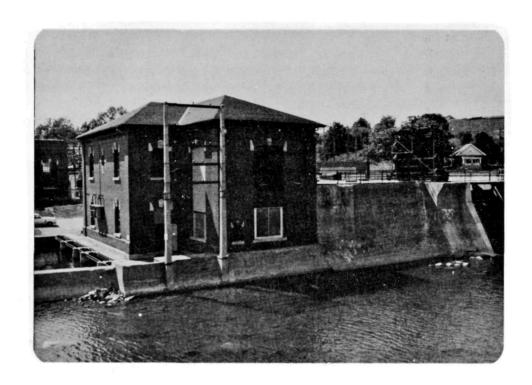


- 29 Above Lock No. 26, Lakefield, August 1978.

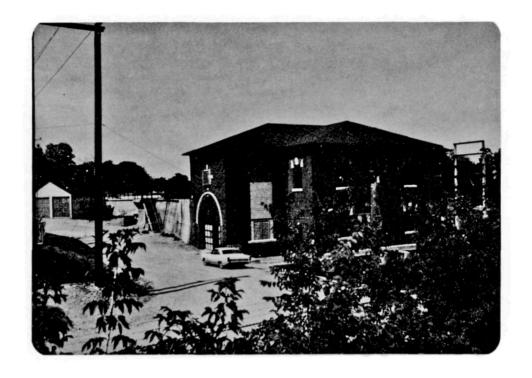
 Piers above dam on Otonabee River were originally built to anchor guide booms for early dam and log slide structures. When dam was replaced in 1920-1922, these rock-filled cribwork structures were capped with concrete.
 - 1 TSWO Plan No. T-11-291.4; Bob Johnson, canalman, Lock No. 25.



- Opposite Lock 21, at Peterborough, on Otonabee River just above Hunter St., west bank. Former power plant and tailrace, August 1978. This plant is now probably used for storage by Quaker Oats Company. The structure is probably the one indicated on a 1913 plan as the "Old Cereal Power House". If so, it may be the original power plant in Peterborough which first supplied bydro-electricity to the city in 1884. The original generating station was a converted pulp mill, and was one of the first hydro plants in North America.
 - 1 TSWO Plan No. T-22-409.19.
 - 2 Electrical News, April 1892, p. 49.
 - 3 Peterborough Examiner, 20 January 1962, p.5.

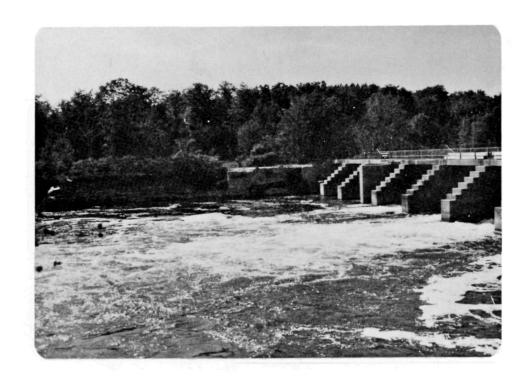


- 31 Above Lock No. 21, north of Peterborough, August 1978. Power plant just south of Auburn Mills on Otonabee River. The original Auburn Mills hydro-electric plant began to produce electricity in 1897. This plant went into operation in 1911 and was the property of the Electric Power Co. It was purchased by Ontario Hydro in 1916.
 - 1 Electrical News, March 1897, p. 55.
 - 2 Ontario Hydro Annual Report, 1937-1938, p. 448; Engineering News, July 1910.



32 Above Lock No. 21, north of Peterborough,
August 1978.

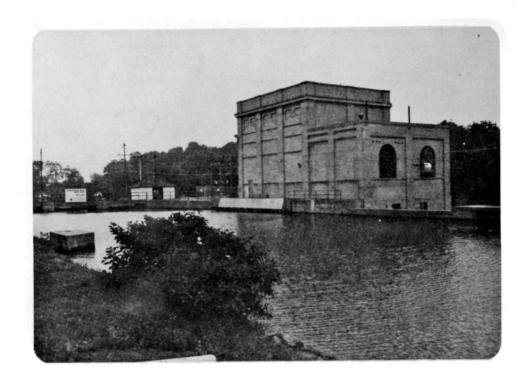
Power plant just south of Auburn Mills (see
Fig. 31 for details).



- Remains of power plant at west end of dam.

 Power plant existed here probably from 1902
 to 1961 when it was torn down by Ontario Hydro.

 The plant was built by Otonabee Power Co. of
 Peterborough and put into operation on
 September 23, 1902.
 - 1 TSWO Annual Report, 1961, p. 22.
 - 2 Tim Crough, lockmaster, Lock No. 22.
 - 3 Engineering News, November 1902.



- 34 Above Lock No. 26, Lakefield, August 1978.

 Power plant was built by the Canada Cement Co.

 between 1926 and 1928. It was purchased by

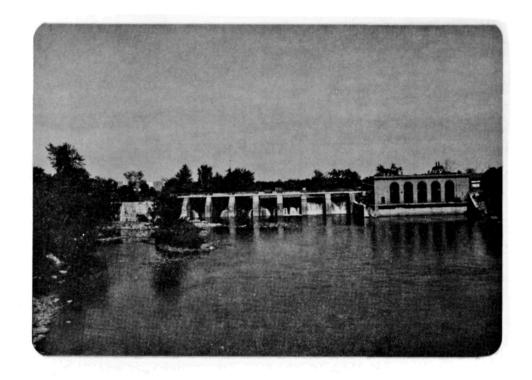
 Ontario Hydro in 1936 and still operates.
 - 1 TSWO Annual Report, 1927, p. 10.
 - 2 Ontario Hydro, Annual Report, 1936-1937, p. 132.



35 Opposite Lock No. 21 at Peterborough, on west bank of Otonabee River, just above Hunter St., August 1978.

The Peterborough Hydraulic Power Company (Geog. A. Cox, Pres.) started construction of this plant in 1903 to sell power to Peterborough Light and Power Co. It was probably finished the same year. The plant and dam were purchased from Quaker Oats in 1971.

- 1 Engineering News, August 1903.
- 2 Peterborough Examiner, 26 November 1971.

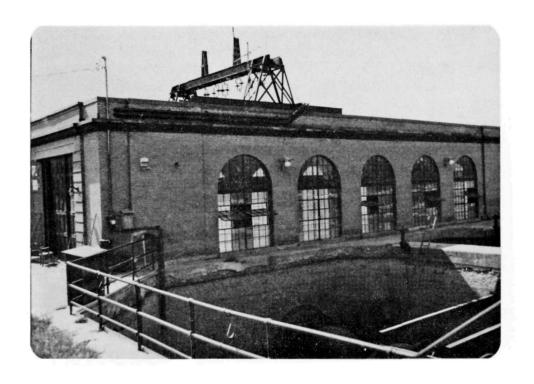


- Below Lock No. 22, Nassau Mills, August 1978.

 Power plant on Otonabee River at Trent University.

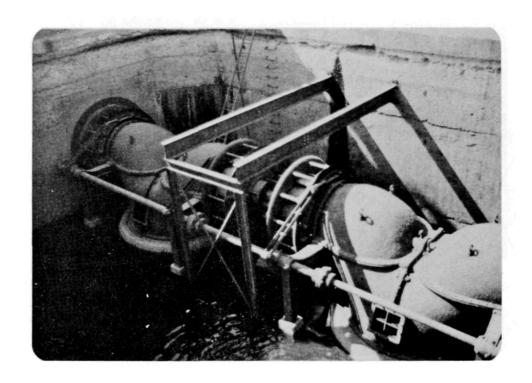
 The plant and dam were built in 1921-1922. Note on the left (west) side the ruined foundations of a previous power plant. On right (east) side of dam note log slide. The previous power plant on the west side of the dam belonging to Canadian General Electric was built in 1901-1902. Previous to this a sawmill was on this site. In 1969

 Canadian General Electric donated the power generating station to Trent University.
 - 1 TSWO Photo Album, Photo Nos. 222.0 to 222.113; cornerstone reads "1921".
 - 2 TSWO Plan No. T-22-417.8; TSWO Annual Report, 1920, pp. 35-36.
 - 3 TSWO Plan No. T-22-417.12.
 - 4 Peterborough Examiner, 7 March 1969, p. 1.



37 Below Lock No. 22, Nassau Mills, August 1978.

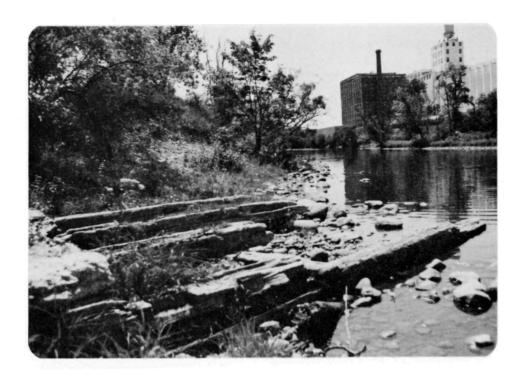
Power plant on Otonabee River at Trent University,
rear view (see Fig. 36).



38 Below Lock No. 22, Nassau Mills, August 1978.

Power plant on Otonabee River at Trent

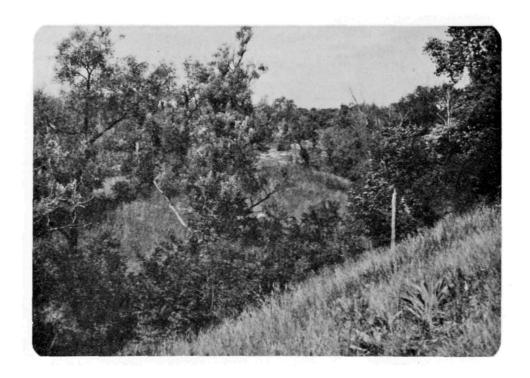
University. - dewatered turbine pit (see Fig. 36).



39 Opposite Lock 21 at Peterborough, on east bank of Otonabee River just above Hunter St., August 1978.

Remains of timber cribwork dam known as 'Rogers' Dam'. Originally constructed before 1875 this dam was apparently rebuilt in 1911.

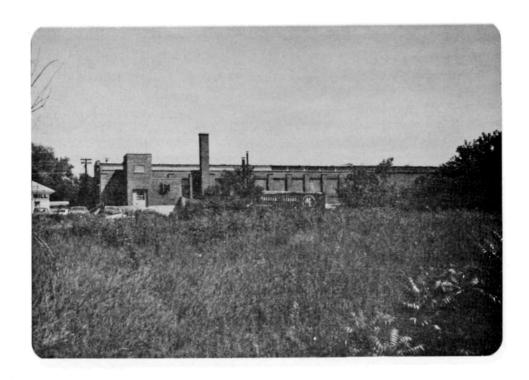
- Historical Atlas of the County of Peterborough
 (Peterborough: Peterborough Historical Atlas
 Foundation Inc., 1975), p. 27.
- 2 TSWO Plan No. T-22-409.19.



40 Opposite Lock No. 21 at Peterborough on east bank of Otonabee River just above Hunter St., August 1978.

Depression in ground running parallel to Otonabee River conforms to position of a 19th century forebay. The forebay ran from north of Hunter St. to serve mills south of that route. It shows on a plan as early as 1846 and was apparently abandoned and partially filled in sometime in the twentieth century.

Historical Atlas of the County of Peterborough,
p. 8.

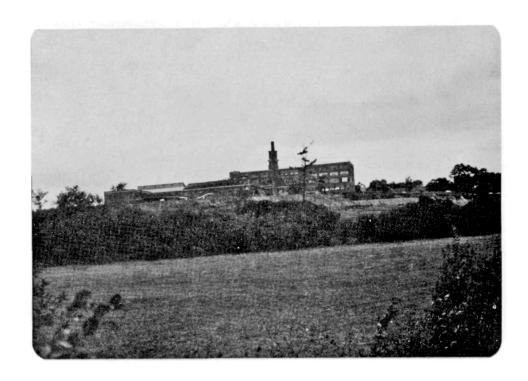


Above Lock No. 21, north of Peterborough,
August 1978.

Site of Auburn Mill on Otonabee River north
of Peterborough. Auburn Mill was an important
woolen mill in the area built in 1862-1863.

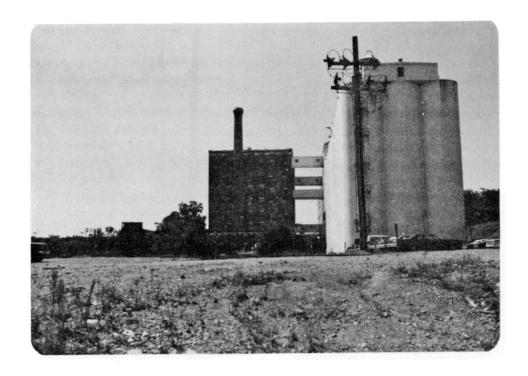
Presently a modern structure, Whitaker Woolen
Factory, occupies this site.

1 Historical Atlas of Peterborough, p. 35.



- 42 Below Lock No. 21, Lift Lock, August 1978.

 On a hill on the west side of the canal below the lift lock stands the factory of Westclox Division of General Time of Canada Ltd. The structure was erected in 1922.
 - 1 Samuel Whitehouse, "Today's Industry" in Peterborough: Land of Shining Waters (Toronto: University of Toronto Press, 1966), p. 196.

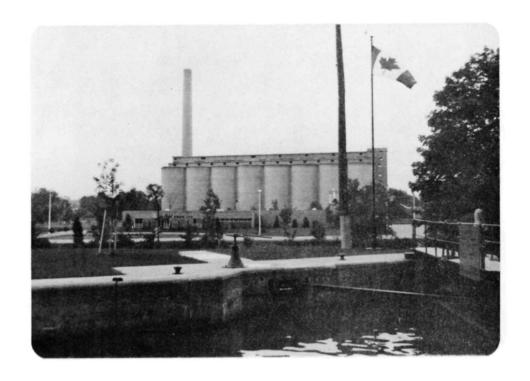


Opposite Lock No. 21, at Peterborough, on west bank of Otonabee River just above Hunter St., August 1978.

Quaker Oats Company of Canada cereal plant.

Originally built on this site in 1900 the plant was destroyed by fire in 1917 and immediately replaced by this structure.

1 Samuel Whitehouse, op. cit., p. 196.



- Lakefield Portland Cement Company opened in 1900. In the building of the Trent canal, particularly the Peterborough-Lakefield and Ontario-Rice Lake sections this plant played a large part by supplying much of the concrete. The company was merged with Canada Cement Co. in 1909. At present the plant is no longer in use and some buildings have been demolished by the municipality of Lakefield, a part-owner. The other part of the plant belongs to a Mr. Bak. A time capsule is buried in the cornerstone. The structure shown in the photograph is a newer cement plant completed in 1927.
 - 1 Through the Years in Douro, ed. by J. Alex Edminson. (Peterborough: A. D. Newson Co., 1968), pp. 332-333.

- 2 DRC Annual Report, 1903, p. 169.
- 3 Ed McKenna, <u>The Point Anne Ruins</u>, Historical Planning and Research Branch, Ministry of Culture and Recreation, Toronto, 1978.
- 4 Earl Cuddie, Town Clerk, Lakefield.
- 5 TSWO Annual Report, 1927, p. 10.



Opposite Lock No. 26, Lakefield, August 1978.

Cement plant structure on east bank of river built in 1907 may have been related to hydro-electric power production for the plant.

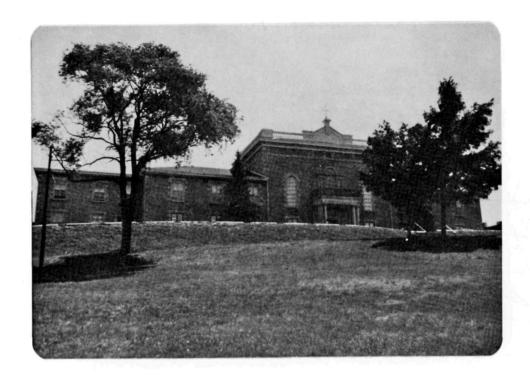
(See Fig. 44 for information on plant).



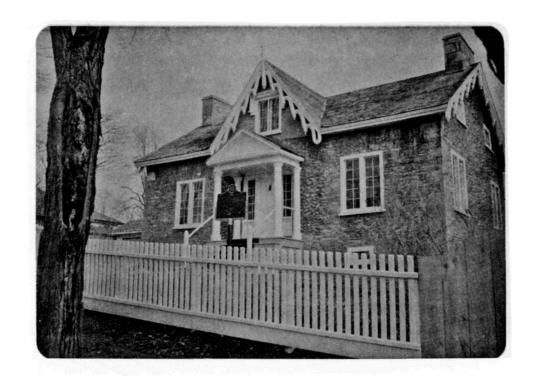
46 Near Lock No. 21, Peterborough Lift Lock, October 1978.

St. John's Anglican Church on Hunter St. just west of bridge over the Otonabee River. This structure built in 1834-1836 is the oldest church in Peterborough County. Its construction is commemorated by a provincial historic plaque!

Ontario, Ministry of Culture and Recreation,
Ontario Historic Sites, Museums, Galleries
and Plaques (Toronto: Ontario Government,
1978), p. 179.



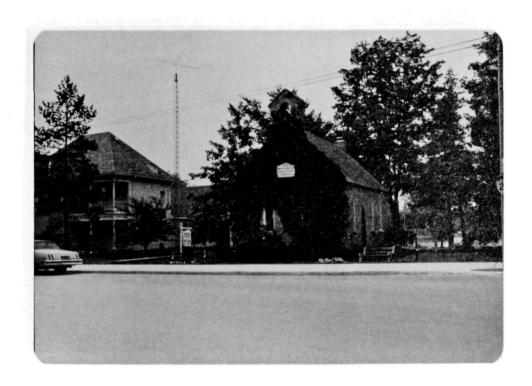
- 47 Water St. Peterborough, Courthouse and jail built 1838-1842 with stone from town's Jackson Park. Provincial plaque honours this structure. Building is located about one mile west of lift lock on Water St.
 - Historic Sites of Ontario, Encyclopedia of Ontario, compiled by Nick and Helma Mika, Vol. 1 (Belleville: Mika Publishing Company, 1974, p. 229.



48 Brock St. Peterborough, Hutchison House, April 1978.

This home was built by the citizens of Peterborough in 1837 for Dr. John Hutchison. It is now a museum displaying artifacts from a doctor's home of the 1840's.

1 Ontario, Ministry of Culture and Recreation, op. cit., p. 176.



- Above Lock No. 26, Lakefield, August 1978.

 St. John's Anglican Church on Church St.,
 Lakefield, about one-half mile from mooring
 space on east bank of river above Lakefield
 lock station. Church was built in 1853-1854
 and Kivas Tully may have been the architect.
 Samuel Strickland raised money for the
 structure and is buried in its graveyard.
 The church was restored in the 1960's and
 is commemorated by a provincial plaque.
 - 1 Christ Church, pamphlet: available at Tourist Bureau, Lakefield; Historical Atlas of Peterborough, op. cit., p. 85.



- Just above lock No. 26, Lakefield, August 1978.

 Just above lock on west side of river is

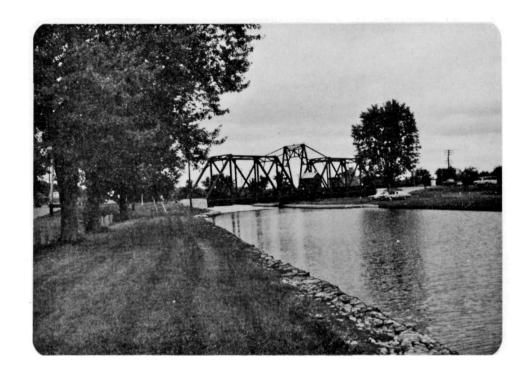
 "Westove", the former home of authoress
 Catherine Parr Traill. Purchased by her
 daughters in 1862 after her husband's death,

 Mrs. Traill lived here until her death in
 1899. A member of the famous Strickland
 family Mrs. Traill's best known book is

 "Backwoods of Canada". The house is located
 on Smith St. about 50 yards west of north
 end of canal at Lakefield. The site is
 commemorated by a provincial plaque.
 - 1 Encyclopedia of Ontario: Historic Sites, op. cit., p. 144.

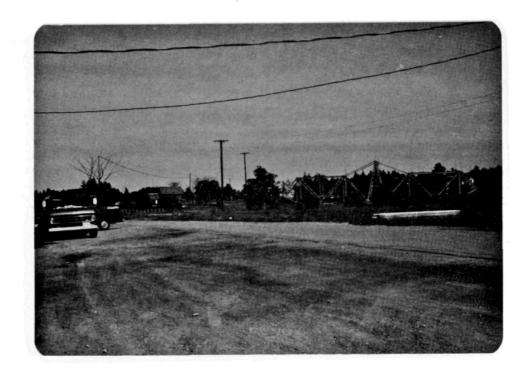


51 Below Lock No. 22, Nassau Mills, August 1978.
Abandoned building just east of canal at Trent
University. Inscription identifies it as
Loyal Orange Lodge No. 457, 1852.

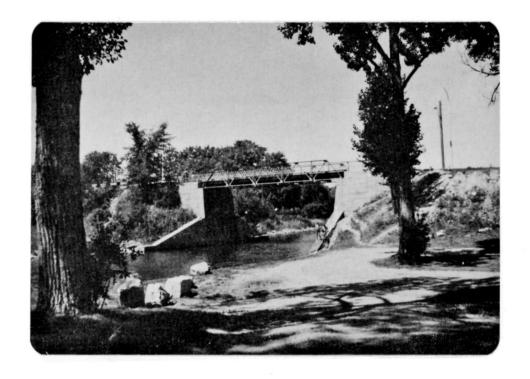


- Above Lock No. 20, Ashburnham, August 1978.

 Manually operated equal arm through truss steel bridge with masonry abutments. Built in 1898, this CPR bridge is the oldest of four of this type over the waterway. The shape of the centre section is unusual.
 - W. G. Richardson, op. cit., Appendix,
 Bridge No. 25.



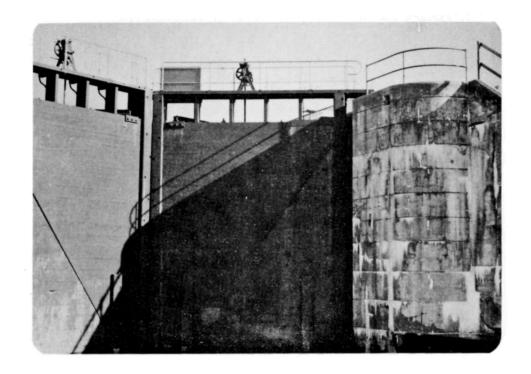
- Below Lock No. 22, Nassau Mills, August 1978.
 Built in 1897, this railway bridge across the canal at Trent University is one of the four remaining railway through truss bridges in its original condition. The bridge, at 221 feet, is the longest manually operated swing span on the waterway.
 - W. G. Richardson, op. cit., Appendix, Bridge No. 28.



54 Above Lock No. 21, Lift Lock, Peterborough, August 1978.

Located at Watts St. (Norwood Road) this bridge is the oldest high level pony truss steel bridge (fixed or swing) over the waterway. It was built in 1897 and is one of two remaining pony truss swing bridges over the waterway!

W. G. Richardson, op. cit., Appendix, Bridge No. 26.



Lock No. 37, Bolsover, October 1978.

Lower entrance to Lock No. 37. Lock was constructed by Brown and Aylmer Construction Company under contract beginning in 1900 and finishing by 1907. The concrete is almost entirely original except for the north lip of the chamber and patching. The gate opening devices are probably original as well as the valve lifting devices on the upper gates. The valve lifting devices on the lower gates are probably replacements which may have come from the old St. Lawrence River canals when the new Seaway opened.

- 1 DRC Annual Reports, 1901, p. 37, and 1907, p. 164.
- 2 TSWO Plan No. T-35-121.3.
- 3 Harry Morgan, lockmaster, Lock No. 41, Jack Hughes, former Northern Area Manager, Kirkfield.



- 56 Lock No. 38, Talbot, October 1978.

 View of lock office from the south-east side of lock station. This building was erected in 1965.
 - 1 TSWO Annual Report, 1965, p. 10.

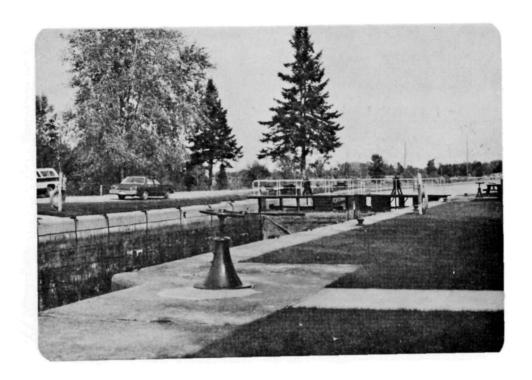


Lock No. 39, Portage, October 1978.

Lock was constructed by Brown and Aylmer

Construction Company under contract beginning in 1900 and finishing by 1907. The concrete is almost entirely original but some restoration to the lock chamber and upper entrance walls was done in 1969. The gate opening devices are probably original. The winches for the gate valves are probably replacements and may have come from the Cornwall canal. The lock office was built in 1961.

- 1 DRC Annual Reports, 1901, p. 37, and 1907, p. 164.
- 2 TSWO Annual Report, 1969, p. 11.
- 3 TSWO Plan No. T-35-121.3.
- 4 Harry Morgan, lockmaster, Lock No. 41.
- 5 TSWO Annual Report, 1961, p. 23.

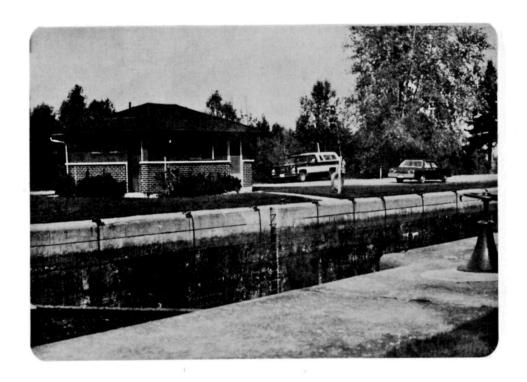


- Lock No. 40, Thorah, October 1978.

 Lock was constructed by Brown and Aylmer

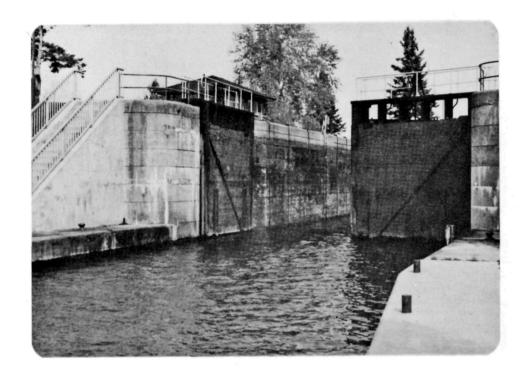
 Construction Company under contract beginning
 in 1900 and finishing by 1907. The concrete
 is almost entirely original. The gate
 opening devices are probably original.

 The winches for the gate valves are probably
 replacements and may have come from the old
 St. Lawrence River canals when the new
 Seaway opened.
 - 1 DRC Annual Reports, 1901, p. 37, and 1907, p. 164.
 - 2 TSWO Plan No. T-35-121.3.
 - 3 Harry Morgan, lockmaster, Lock No. 41; Jack Hughes, former Northern Area Manager, Kirkfield.



- 59 Lock No. 40, Thorah, October 1978.

 View of lock office from south-west side of the lock station. This office was constructed in 1961.
 - 1 TSWO Annual Report, 1961, p. 23.



- Lock No. 40, Thorah, October 1978.

 Lock was constructed between 1900 and 1907

 by Brown and Aylmer Construction Company.

 Most of concrete is still original. Concrete

 staircase visible to the left of the photograph
 is a recent addition.
 - DRC Annual Reports, 1901, p. 37, and 1907, p. 164.



- Lock No. 41, Gamebridge, October 1978.

 Lock chamber was constructed by Brown and Aylmer Construction Company under contract beginning in 1900 and finishing by 1907.

 The concrete is almost entirely original.

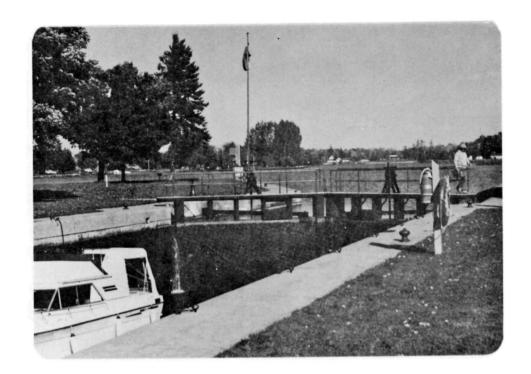
 The gate opening devices are probably original. The winches for the gate valves are probably replacements and may have come from the Cornwall canal.
 - DRC Annual Reports, 1901, p. 37, and 1907, p. 164.
 - 2 TSWO Plan No. T-35-121.3.
 - 3 Harry Morgan, lockmaster, Lock No. 41.



- 62 Lock No. 41, Gamebridge, October 1978.

 Lock office at Lock No. 41 built ca. 1969 1

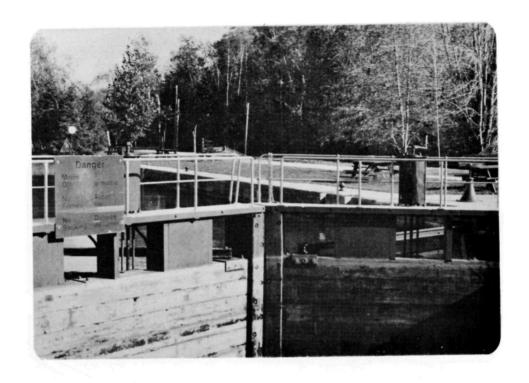
 replacing an earlier structure built in 1963.
 - 1 Harry Morgan, lockmaster, Lock No. 41.
 - 2 TSWO Plan No. T-3-158.



- Lock No. 38, Talbot, October 1978.

 Lock was constructed by Brown and Aylmer

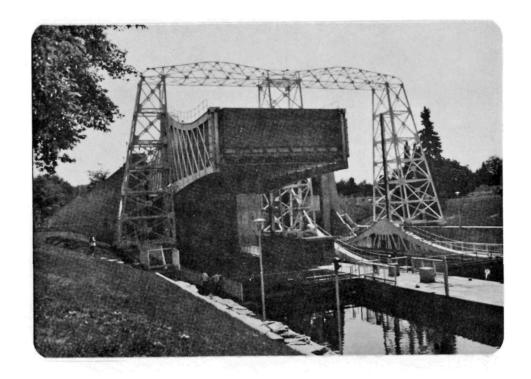
 Construction Company under contract beginning in 1900 and finishing by 1907. The concrete is almost entirely original. The gate opening devices are probably original. The winches for the gate valves are probably replacements and may have come from the old St. Lawrence River canals after the new Seaway opened.
 - 1 DRC Annual Reports, 1901, p. 37, and 1907, p. 164.
 - 2 TSWO Plan No. T-35-121.3.
 - 3 Harry Morgan, lockmaster, Lock No. 41; Jack Hughes, former Northern Area Manager, Kirkfield.



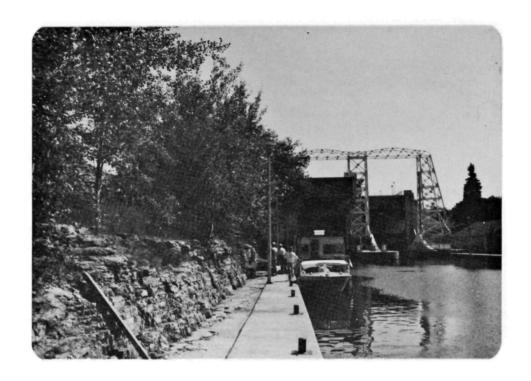
- October 1978.

 View of upper gates from downstream side.

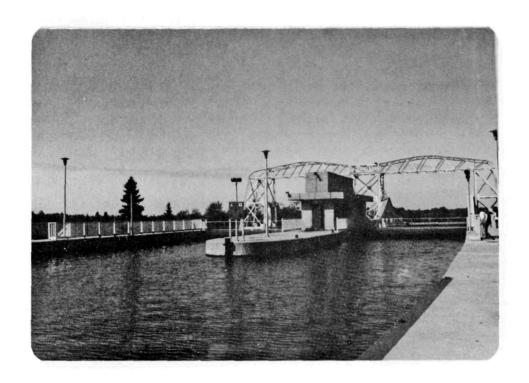
 The lock was constructed by Brown and Aylmer Construction Company under contract between 1900 and 1907. The winches for the gate valves are probably original and are apparently the earliest of such devices on the waterway.
 - 1 DRC Annual Reports, 1901, p. 37, and 1907, p. 164.
 - 2 TSWO Plan No. T-35-121.5.



- View of lock from downstream side. The superstructure of the lift lock was constructed by the Dominion Bridge Company under terms of a 1905 contract. The excavation work was done by Larkin and Langster under a 1900 contract. The lift lock was opened in 1907. The mechanics, controls and structure of the lock were extensively rehabilitated between 1964 and 1969.
 - 1 TSWO Annual Report, 1905, p. 1.
 - 2 Ibid. 1907, p. 1.
 - 3 Ibid. 1967, p. 12; and 1969, p. 12.



66 Lock No. 36, Kirkfield Lift Lock, August 1978. View of lock from downstream side (See Fig. 65 for details).



67 Lock No. 36, Kirkfield Lift Lock, August 1978. View of lock from upstream side (See Fig. 65 for details).

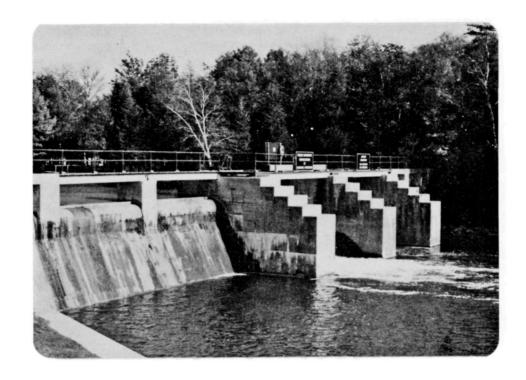


68 Lock No. 36, Kirkfield Lift Lock, August 1978. View of tunnel passing under superstructure of the lift lock.



- 69 Lock No. 37, Bolsover, October 1978.

 Water control dam at lock station was constructed by Brown and Aylmer Construction Company between 1900 and 1907. The concrete is almost entirely original.
 - 1 DRC Annual Reports, 1901, p. 37, and 1907, p. 164.



- 70 Lock No. 38, Talbot, October 1978.

 Water control dam at Lock No. 38 was
 constructed by Brown and Aylmer Construction
 Company by 1907. Most of dam is original
 concrete except for new deck and some
 patching.
 - DRC Annual Reports, 1901, p. 37, and 1907, p. 164.



- 71 Near Lock 39, Portage, October 1978.

 Water control dam on Portage Road two miles east of Lock No. 39. Built by Brown and Aylmer Construction Company by 1907 this dam controls the water level of the canal where it joins the Talbot River.
 - 1 DRC Annual Report, 1907, p. 164.
 - 2 TSWO Plan No. T-22-441.3.



- 72 Near Lock No. 39, Portage, October 1978.
 Former dwelling house from Lock No. 39 now located about one and one-half miles north of the lock station on Portage Road. The house was originally erected at Lock No. 39 ca. 1905 and was sold and removed ca. 1961. It is apparently the only dwelling house of this particular architectural style still extant.
 - 1 PCORO, Dwelling House file, various
 documents.
 - 2 TSWO Annual Report, 1961, p. 23.



- 73 Lock No. 41, Gamebridge, October 1978.

 Former lockmaster's dwelling house at Lock

 No. 41. This building was originally constructed

 ca. 1906 and stood just behind present control

 building. It was sold in the early 1960's and

 moved down the road to the north of the lock

 site about thirty yards.
 - 1 PCORO, Dwelling House File, various documents.



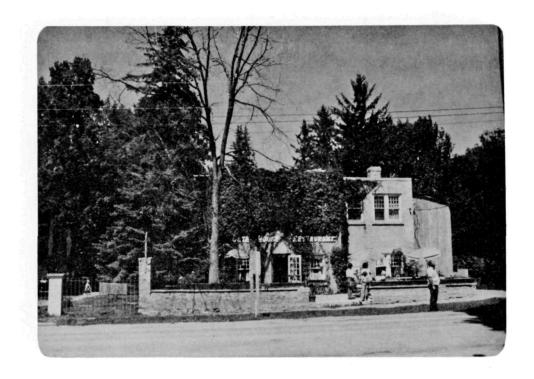
- 74 Above Lock No. 37, Bolsover, October 1978.

 View of concrete arch bridge crossing Canal
 Lake about three miles above Lock No. 37

 from downstream side. This bridge built in
 1905 may be of reinforced concrete and if so
 would be one of the earliest of its kind in
 Canada. If the concrete is not reinforced
 it would still be of significance as one of
 the few mass concrete bridges built in North
 America.
 - W. G. Richardson, op. cit. Appendix, Bridge No. 42.



- Lock No. 36, Kirkfield Lift Lock, August 1978. About one-half mile south of the lift lock in the village of Kirkfield is the historic home of Sir William Mackenzie. This 40-room house was built for Sir William Mackenzie the entrepreneur and railway magnate in 1877 and served as the principal residence for he and his wife until their deaths. It was taken over by the Sisters of St. Joseph who from 1929 operated a boarding school and later a retreat house for teaching sisters. In 1976 it was purchased by Donald Macdonald-Ross who operates it as a private historical museum surviving on donations from visitors and the proceeds of a restaurant on the grounds. The house is situated on $12\frac{1}{2}$ acres of land in the centre of Kirkfield.
 - 1 MCR, Heritage Administration Branch, Victoria County R.F. 3.



- About one-half mile south of the lift lock in the village of Kirkfield is the historic home and grounds which belonged to Sir William Mackenzie. On the grounds near the house is the former gate house which has been converted to a restaurant. It is the principal means of supporting Donald Macdonald-Ross's operation of the Mackenzie property as an historic site.
 - 1 MCR, Heritage Administration Branch, Victoria County R.F. 3; Donald Macdonald-Ross, Kirkfield.



- 77 Lock No. 41, Gamebridge, October 1978.

 Gamebridge Inn is located on the main street in the village of Gamebridge about one-half mile from the lock station. Erected in 1863 as the Royal Oak Hotel it was purchased by Lady Mackenzie of Kirkfield in 1908. It was then remodelled and reopened as the Gamebridge Inn. Since Lady Mackenzie's death the inn has changed hands several times.
 - PAO, Tweedsmuir History of Gamebridge,
 Microfilm Ms 8(9).



- Remains of old timber dam visible under water on Gull River just north of the Rosedale lock station. This dam was built under contract to the Ontario Government in 1873 as a water control device for the lock on the north side of the river. When the canal was made and a new lock and dam built in 1908-1910, this dam was abandoned and partly removed by dynamite. These remains on the north side of river are on or adjacent to the property of Arkadia Trailer Camp.
 - 1 TSWO File No. F361, various documents.
 - 2 TSWO Plan No. T-20-196.12.



- 79 Lock No. 35, Rosedale, August 1978.

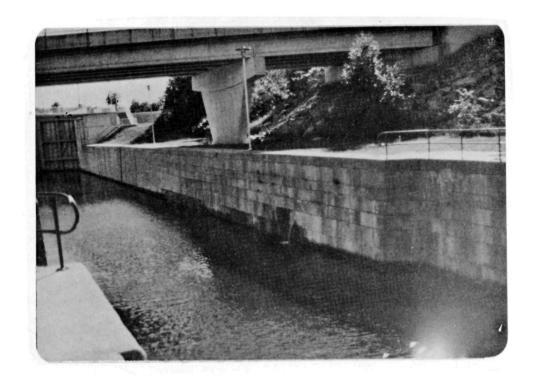
 View of old wooden lock on Gull River near
 Rosedale on grounds of "Arkadia" trailer camp.

 This lock and its side-dam was built by
 Wm. Whiteside between 1869 and 1873 under
 contract to the provincial government. It
 was replaced by the lock at Rosedale and the
 new dam upstream in 1910 and part of old
 dam was removed.
 - 1 TSWO Annual Report, 1909, p. 17.
 - 2 Ibid. 1910, p. 10; TSWO Plan No. T-20-196.12.



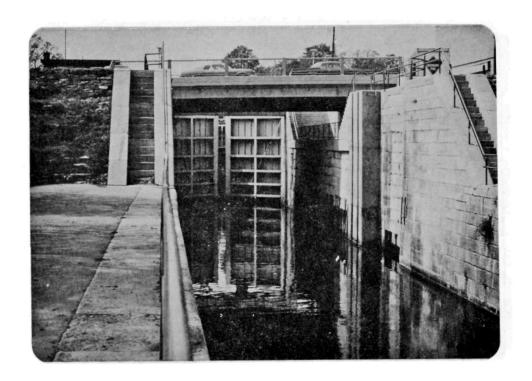
Near Lock No. 35, Rosedale, August 1978.

One of old lock gates from wooden lock built in 1873 on Gull River near Rosedale and abandoned in 1910. Gate is presently being used as a wharf by Arkadia Trailer Camp.

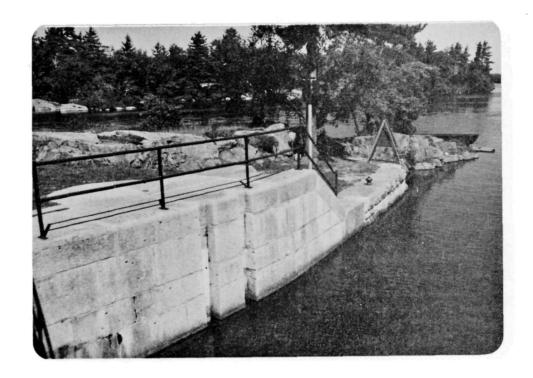


- 81 Lock No. 28, Burleigh Falls, August 1978.

 Lower entrance walls at Burleigh Falls constructed of masonry from original two locks in flight built 1884-1888. The present single lock here was built in 1966-1967.
 - 1 William Beahen, "Some Notes on the Modern Development of Burleigh Falls", Manuscript on File, PCORO, Cornwall, 1978, pp. 3-4.

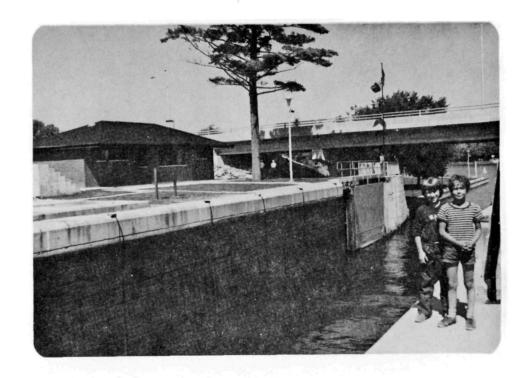


- No. 34, Fenelon Falls, June 1977.
 View of lower entrance to Lock No. 34. The face of the lower entrance walls is of natural limestone masonry. This material was recovered from the original flight locks built between 1883 and 1887 and re-used in the new lock completed in 1963.
 - 1 W. Beahen, "...Fenelon Falls...", op. cit., pp. 3-4.

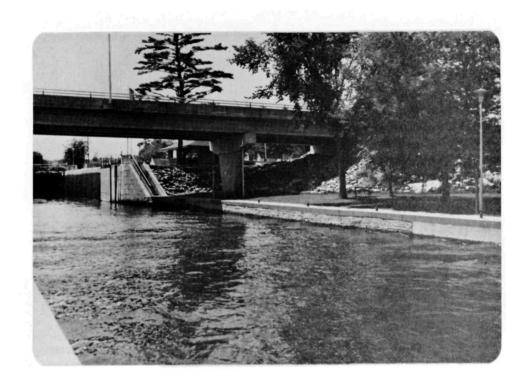


Masonry on the end of the lower entrance walls to lock may be from original construction in 1888. The entrance walls were rebuilt in 1973-1974. Some limestone masonry blocks are presently dumped behind lock control building perhaps having been removed from the entrance walls.

- 1 DRC Annual Report, 1888, p. 146.
- 2 TSWO Annual Report, 1973, p. 9.
- 3 Terry Ashford, Project Engineer, TSWO.



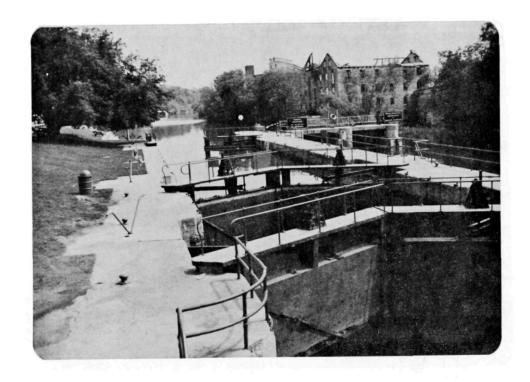
- View of Buckhorn lock station from south-east side. Lock was originally constructed by 1888. It has been rehabilitated, switched over to electro-hydraulic operation and steel gates added by 1971. The lock office was built in 1970. Below top level of lock chamber may be the original masonry.
 - 1 DRC Annual Report, 1888, p. 146.
 - 2 TSWO Annual Report, 1971, p. 9.
 - 3 TSWO File No. 4102-1, Alyea to Hamblin, 19 March 1976.



85 Lock No. 31, Buckhorn, August 1978.

View of Buckhorn lock from north-east. Lock
was originally completed in 1880 but some
surfaces of the lock structures have been
resurfaced recently with concrete. The
masonry on lower entrance piers and walls may
be original but they were rebuilt in 1970.

1 TSWO Annual Report, 1970, p. 10.



View of lock at Lindsay, August 1978.

View of lock at Lindsay from the north. Lock

was built in 1909-1910 by John Ritchie and Company

on the site of the original lock structure built

by the Province of Upper Canada between 1837

and 1843. A unique feature of this lock is

the additional set of gates at the west end

which creates a short lock chamber used when

locking through small boats. This helps the

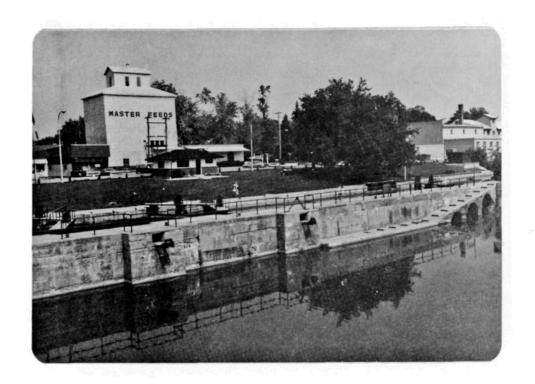
maintenance of the water level on Lake Scugog.

In the background is the former grist mill

dating to ca. 1861 and badly damaged by fire

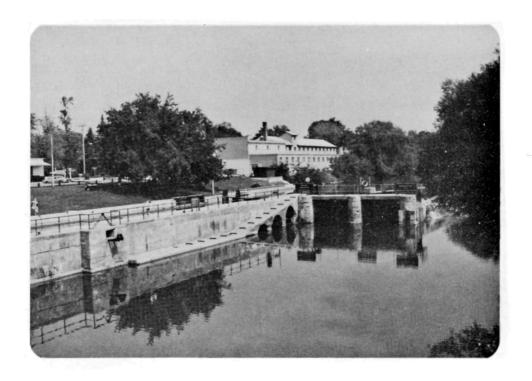
in June 1978.

l TSWO Annual Report, 1909, p. 24.



- 87 Lock No. 33, Lindsay, August 1978.

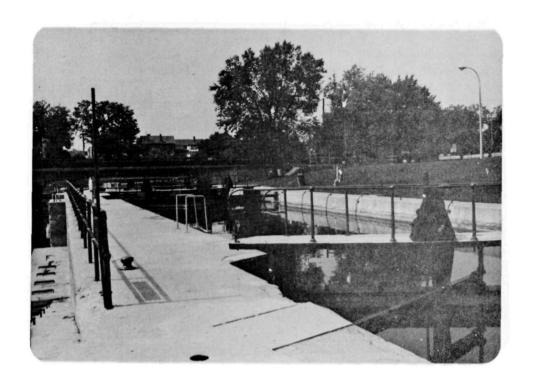
 Lock No. 33 office built in 1961-1962. Grain elevator in the background dates from at least 1899. Canoe slide to the right of the photograph.
 - 1 TSWO Annual Report, 1961, p. 23.
 - 2 TSWO Photograph, Interpretation Collection.



View from the north of canoe slide and dam at Lindsay. These structures were built by John Ritchie and Company in 1909-1910.

Previously a canoe slide and dam had been on site since 1882. The canoe slide is one of only two on the waterway and is the only slide immediately adjacent to the lock and highly visible. It is frequently used by canoers.

1 TSWO Annual Report, 1909, pp. 14-15.

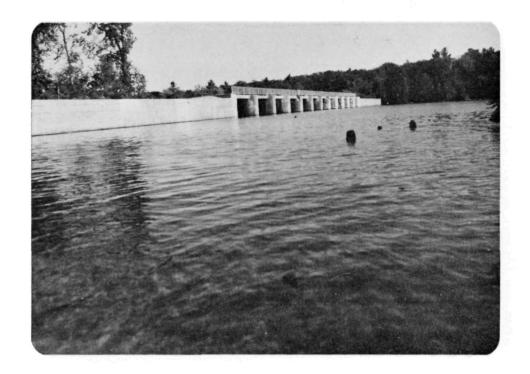


89 Lock No. 33, Lindsay, August 1978.

View of lock from south-east corner.

Gates are mechanically operated and lock is equipped with butterfly valves.

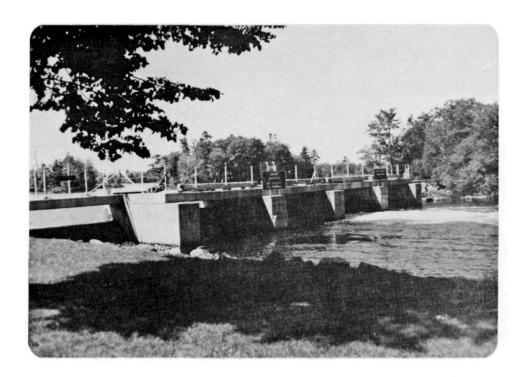
Both may be original.



Pool Lock No. 28, Burleigh Falls, August 1978.

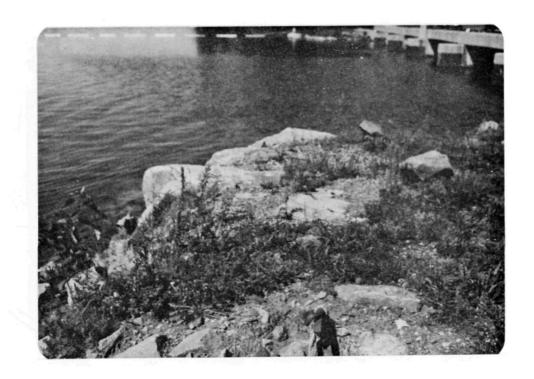
Remains of timber dam built in 1880's in connection with first canal structures at Burleigh Falls. Note two anchor bolts in foreground and remains of timber cribs in background. Timber dam was located across Burleigh River channel and was replaced by concrete dam shown in photograph in 1912.

1 W. Beahen, ... Burleigh Falls, p. 3.



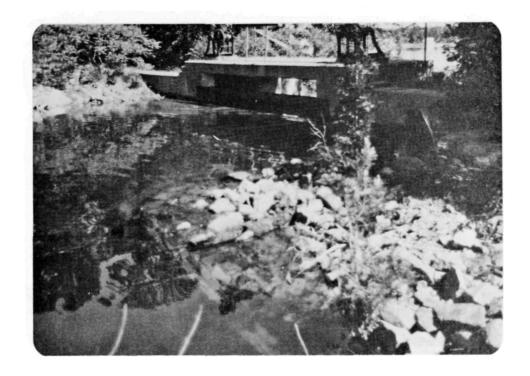
- 91 Lock No. 30, Lovesick, August 1978.

 Main dam across river channel at Lovesick lock station. This concrete structure was built in 1951-1953 to replace a timber cribwork dam completed here in 1888. On the far side of dam is a canoe slide consisting of metal rollers anchored in concrete used to portage small boats. Just beyond the slide in the water are the remains of a lock gate which probably came from Lovesick lock.
 - 1 DRC Annual Report, 1953, p. 44.
 - 2 TSWO File No. F361, various documents.
 - 3 John Witham, Senior Historian, PCORO.



- 92 Lock No. 30, Lovesick, August 1978.

 Just above concrete main dam on south side of river channel is a sheared-off anchor bolt embedded in rock. This is most likely a remainder from the timber cribwork dam which stood here from 1888 to 1953.
 - 1 DRC Annual Report, 1953, p. 44; TSWO File No. F361, various documents.



- 93 Lock No. 30, Lovesick, August 1978.

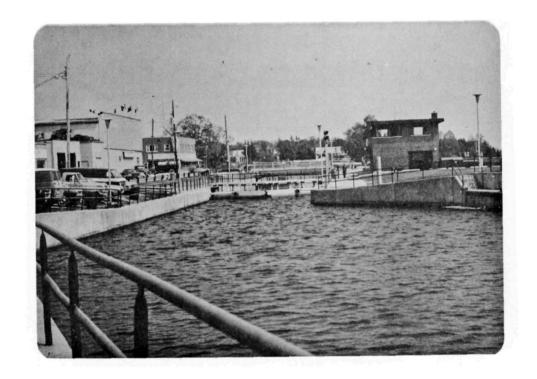
 Dam No. 3 south of lock station.

 In foreground under water are the remains of cribwork of timber dam which stood here from 1888 to 1952. In background is the concrete sluice dam which replaced it in 1952.
 - 1 TSWO File No. F346, various documents; TSWO Annual Report, 1952, p. 26.



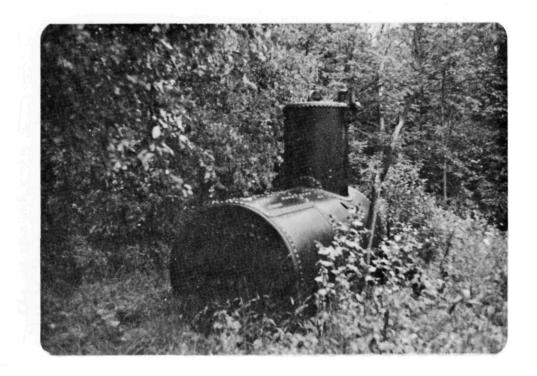
- 94 Lock No. 35, Rosedale, August 1978.

 Former lockmaster's dwelling house now located approximately 100 yards along the road southwest of the Rosedale lock station. Erected in 1910¹ this house was probably sold ca. 1965² when the present lock office was built. The dwelling has been extensively modified.
 - 1 TSWO Annual Report, 1965, p. 10.
 - 2 PCORO, Dwelling House File, various documents.



95 Lock No. 34, Fenelon Falls, May 1977. Upper entrance to lock at Fenelon Falls. This single lock was built between 1961 and 1963 replacing earlier two locks in flight. It has electro-hydraulic controls for the steel gates and valves and also a two-storey control building. On the north-west side of the lock station just outside the left side of the photograph is an old stone building. structure was built ca. 1880 as a stable for the no longer existing McArthur Hotel. presently houses several commercial establishments. Also in the town at 17 John St. is the former dwelling house used by the lockmasters since its erection in 1908. It originally stood in the north-west corner of the lock station but was sold and removed to its present location ca. 1963. This house is of the same architectural style as the lockmaster's house at Swift Rapids.

- William Beahen, "Preliminary History of Fenelon Falls Lock Station". Manuscript on File, PCORO, Cornwall, 1978, p. 4.
- 2 Marina McLennan, President, Fenelon Falls Historical Society, Fenelon Falls.
- 3 W. Beahen, "...Fenelon Falls...", op. cit.,
 p. 4.



- Dock No. 35, Rosedale, August 1978.

 Large engine type boiler located at the south end of dam at Rosedale on artificial island created by the convergence of the canal cut and the Gull River. Two explanations have been offered for the origin and function of this boiler:
 - a) It belonged to the Randolph Macdonald Construction Company and was used to power machinery during the construction of the lock and dam at Rosedale, 1908-1910, or;
 - b) It was mounted on a wheeled platform which traversed across the deck of the dam with hoses from it being used to steam logs free of ice in the winter.

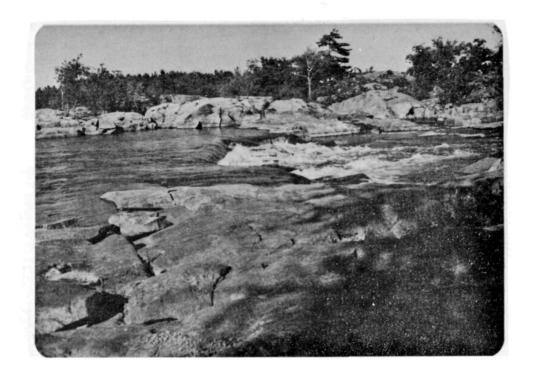
No documentary evidence has yet been discovered to support either theory.

- 1 Jack Hughes, former area manager, Northern
 area, Kirkfield.
- 2 Don Gormley, Manager Engineering and Architecture, PCORO; Jan Stammis, Engineer, TSWO.



- 97 Lock No. 35, Rosedale, August 1978.

 Cottage located on west end of artificial island created by convergence of canal cut and Gull River near Rosedale. It belonged to the Randolph Macdonald Construction Company which was responsible for the construction of the Rosedale lock and dam 1908-1910. It is now privately owned.
 - 1 PCORO, File No. C-8616/T90, Vol. 3, various documents.



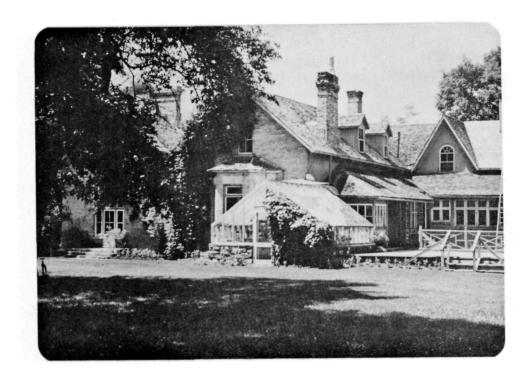
View of the south side of Small Burleigh Island from mainland across Burleigh River Channel.

From the mid nineteenth century a timber cribwork dam existed here to regulate the water levels to assist movement of lumber down the river.

Similarly on the other side of Small Burleigh Island, between it and Large Burleigh Island, was a timber slide. These structures were removed by about the turn of the century.

Considerable evidence of these structures still exists in the form of anchor bolts on both sides of the River channel. Note the anchor bolt embedded in the rock in the foreground of this photograph.

1 W. Beahen, ... Burleigh Falls, op. cit., pp. 2-5.



99 Lock No. 32, Bobcaygeon, July 1976. (Photo by J. Witham, PCORO.) View of Boyd house from the rear, west side.

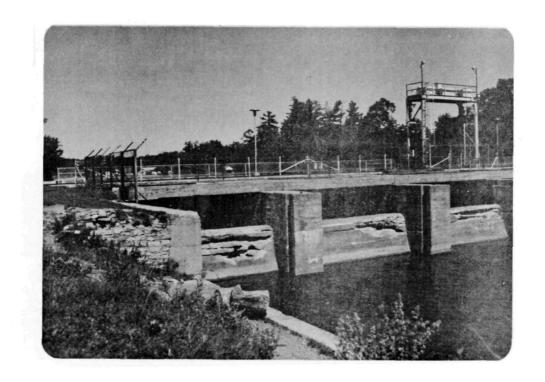
The Boyd house has been the home of the family possibly since the 1840's when lumber king Mossom Boyd first established himself in Bobcaygeon. The centre section of the house probably dates to this early period but a number of additions have been made to the sides in various times in the more recent past. This property is located adjacent to the south-east side of the canal cut at Bobcaygeon and is presently owned by Miss Sheila Boyd.

- 1 Howard Pammett, area historian, Peterborough.
- Dorothe Comber with committee, <u>Bobcaygeon</u>: <u>History</u> (Bobcaygeon: The Bobcaygeon Independent, 1971), p. 51.



- 100 Lock No. 32, Bobcaygeon, August 1978.

 Municipal offices of the Village of Bobcaygeon and the township of Verulam share with the public library this building on the south-east side of the canal cut at Bobcaygeon. This structure was erected in 1889 to serve as the office for the Boyd Lumber Company and was turned over to the public in stages by Miss Sheila Boyd between the 1950's and 1972.
 - 1 MCR Heritage Administration Branch, R.F.6. The Founding of Bobcaygeon; D. Comber, op. cit., pp. 64-65.



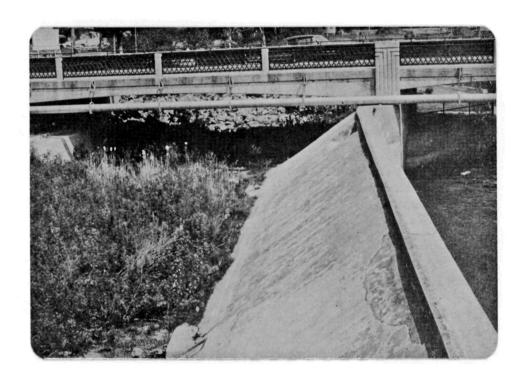
- 101 Lock No. 27, Young's Point, August 1978.

 Concrete dam built across the Otonabee River channel in 1924-1925 replacing a timber structure. The west end of the dam shown in the photograph provided the power supply sluices for the Canada Cement Company powerhouse built in 1901. The plant was purchased by Ontario Hydro in 1936 and the operation shut down ca. 1945. The foundations of the powerhouse are evident on the surface of the ground.
 - 1 DRC Annual Report, 1925, p. 103.
 - Nathaway Nan, Yesteryear at Young's Point, (Renfrew, Custom Printers: 1975), p. 23; TSWO Plan No. T22-427.12; TSWO Annual Report, 1922, p. 10.
 - 3 Ontario Hydro, Annual Report, 1937-1938, p. 132.
 - 4 Ibid. 1944-1945, p. 16.



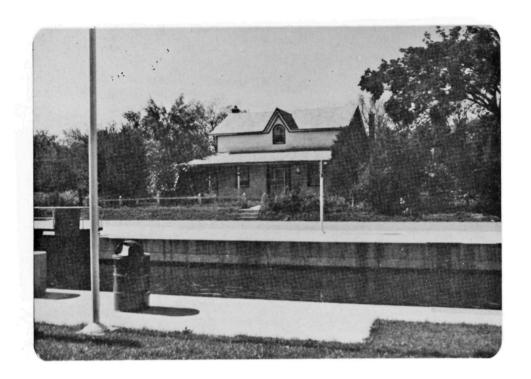
102 Lock No. 34, Fenelon Falls, August 1978. Ontario Hydro district office at Fenelon Falls, located on south side of falls about thirty yards from Falls View Restaurant. This impressive stone building was probably erected ca. 1869 as the home of R. C. Smith who ran the milling operation on the south side of the falls. It was purchased with the milling property by Lindsay Light, Heat and Power in 1899 and probably served as the residence for the superintendent of the power house which was built at the falls. The home was purchased by Ontario Hydro with the power plant in 1916 and more recently was converted into an office. It was scheduled for demolition in the spring of 1979 but may be saved by local initiative.

1 Randall Speller, LACAC researcher, Fenelon Falls.



103 Lock No. 34, Fenelon Falls, June 1977.

Forebay to former Lindsay municipal power plant at Fenelon Falls from the west. The plant was built in 1899 and operated until 1959. (See Fig. 102 for details).



104 Lock No. 27, Young's Point, August 1978.

Captain P. P. Young's home on the east side of the lock at Young's Point. Age is uncertain but residents claim it is the oldest house in the area! The home is presently unoccupied.

1 Nathaway Nan, op. cit., p. 41.



- 105 Lock No. 27, Young's Point, August 1978.

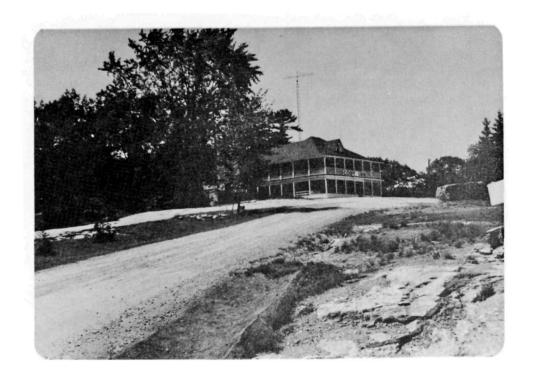
 The nucleus of the Old Bridge Inn, situated across the river channel from the west side of Young's Point lock station, was built in 1887. In the early years this was Kearney's General Store! The inn now belongs to Mr. Jeff Johnston grandson of a former lockmaster at Young's Point, Elmer Johnston?
 - 1 Nathaway Nan, op. cit., p. 21.
 - 2 Jeff Johnson, proprietor of Old Bridge Inn.



106 Lock No. 31, Buckhorn, August 1978.

According to present owner the Buckhorn Lodge is 140 years on this site. The rear eastern section is the oldest part of the present structure, being about 100 years old.

1 Mrs. Gemill, Proprietress, Buckhorn Lodge.



- 107 Lock No. 31, Buckhorn, August 1978.

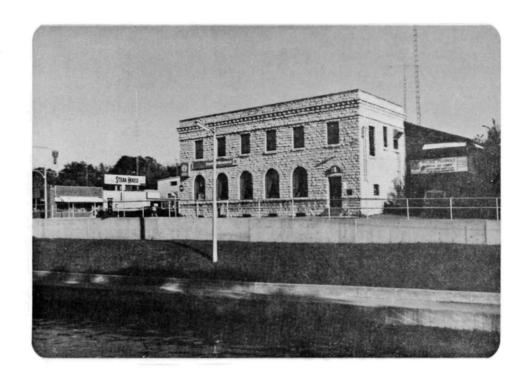
 Cody Inn on western side of Buckhorn lock station was built ca. 1900 on this location.

 Original owner was Nathaniel Pearson. It was called the Windsor House ca. 1918.
 - 1 Mrs. Cody, Proprietress, Cody Inn.
 - 2 TSWO Photograph album, Photograph entitled "Buckhorn Dam".



- 108 Lock No. 31, Buckhorn, August 1978.

 Outbuilding of Cody Inn on western side of Buckhorn lock station. Apparently at one time it served as boarding house for canal workers and lumbermen. This building was here ca. 1918.
 - 1 Mrs. Cody, Proprietress, Cody Inn.
 - 2 TSWO Photograph Album, Photographs entitled "Buckhorn Dam".



109 Lock No. 32, Bobcaygeon, August 1978.

Bank of Montreal building on Boulton St. on south-west side of canal cut at Bobcaygeon.

This stone structure was built in 1913 by William Langton, (son of John Langton, illustrious early settler). It originally housed the Bank of British North America until taken over by the Bank of Montreal in 1918.

1 Dorothe Comber, op. cit., p. 23.



110 Lock No. 32, Bobcaygeon, August 1978.

Fire hall at Bobcaygeon just north of bridge over river. This building was erected in 1874 as the town hall for the village. It was converted to a fire station in 1934 when the old town hall adjacent to the lock station was demolished to make room for the post office.

1 D. Comber, op. cit. p. 51.



- 111 Lock No. 32, Bobcaygeon, August 1978.

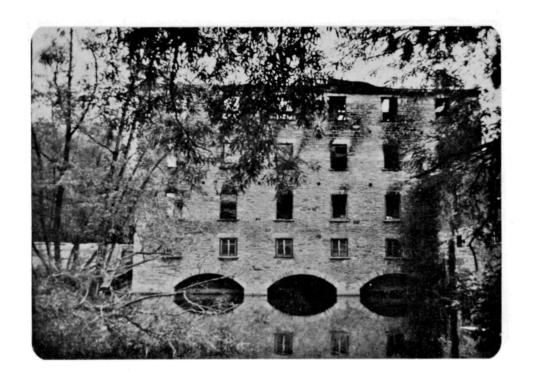
 On north side of river near bridge opposite

 Bobcaygeon lock station is Bobcaygeon Inn hotel.

 Parts of this structure are reputed to be over

 100 years old and it dates probably to at least

 1890.
 - 1 Fire Insurance Plan, Village of Bobcaygeon,
 1890.

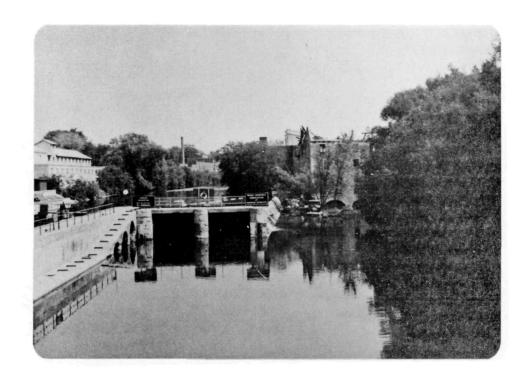


112 Lock No. 33, Lindsay, August 1978.

View of tailrace side of former Lindsay flour and grist mill immediately adjacent to the lock and dam on the south side of the river.

Mills have existed at this approximate location since 1830 when Wm. Purdy the founder of Lindsay started operation of the first sawmill. The present structure was erected after the great fire of 1861 which destroyed the grist mill built in 1845. The mill ceased to function ca. 1915 and was badly damaged by fire in June 1978.

- Watson Kirkconnell, Victoria County Centennial History (Lindsay: Watchman-Warder Press, 1921), pp. 92-103; PAC, National Map Collection, Maps Nos. VI/440, Lindsay, 1860, and H1/440, Lindsay 1894.
- 2 Peterborough Examiner, June 22, 1978.



- 113 Lock No. 33, Lindsay, August 1978.

 View from the east of mill built ca. 1861

 and adjacent waterway side dam constructed
 in 1909-1910.
 - 1 TSWO Annual Report, 1909, p. 14.



- 114 Lock No. 33, Lindsay, August 1978.

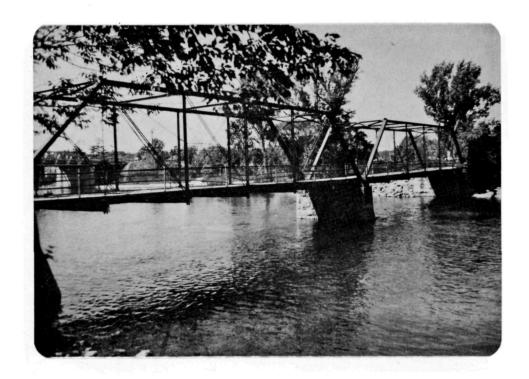
 Academy of Music building on the east side of Lindsay St. at the corner of Kent St. East, just south of the lock station. This important cultural centre for the town and surrounding area was built in 1892 and the first concert was staged in it on January 5, 1893. It is presently used by the Kawartha Summer Theatre group to stage a series of concerts each summer.
 - 1 Watson Kirkonnell, op. cit., p. 111.



115 Lock No. 34, Fenelon Falls, August 1978.

"Maryboro Lodge" housing the Fenelon Falls museum is located at the north-west end of the lock station. The home was built in the 1830's by James Wallis, the founder of the town.

W. Beahen, "...Fenelon Falls..." op. cit.,
p. 1.



- 116 Lock No. 27, Young's Point, August 1978.

 Crossing the Otonabee River on the east side of the lock station is probably the oldest bridge over the waterway. Built in 1884-1885 it has a wrought iron and steel superstructure. Its cross members are secured by pins, a method of assembly which disappeared in the 1890's with the invention of the pneumatic rivettes for use in the field.
 - Peterborough, Ontario County courthouse,
 Minutes of the Peterborough County Council,
 Engineer's Report, 1885, p. 183.
 - W. G. Richardson, op. cit., Appendix, Bridge No. 31.



- 117 Lock No. 32, Bobcaygeon, July 1976. (Photo
 by J. Witham, PCORO)
 View of lock station from the downstream side.
 In the foreground is the through steel plate
 highway bridge built in 1922. It is the
 earliest bridge of this type on the waterway
 and is the only one with a timber floor.
 - 1 Robert Passfield, "The Buckhorn Crossing",
 Manuscript on File, PCORO, Cornwall, 1975,
 p. 4A.



118 Lock No. 13, Campbellford, August 1978.

View of lockmaster's dwelling house at Lock

No. 13. House is located on road on west

side of lock station. It was built ca. 1921

and is probably in its original location.

1 TSWO File No. 4108-1-A, various documents.



- Lock No. 18, Hastings, August 1978.

 Lockmaster's dwelling house at north-west side of lock station. Erected in 1960 as a replacement to an earlier dwelling house, this is presently occupied by the lockmaster.
 - PCORO, Dwelling House File, various
 documents.



120 Locks Nos. 16 and 17, Healey Falls, August 1978.

View of former lockmaster's dwelling house on south-west side of lock station. This dwelling was built in 1919 but was sold with the land in recent times. It is now in private hands but is on its original location.

1 PCORO Dwelling House File, various documents.



121 North of Locks Nos. 11 and 12 on Trent River,
October 1978.

Anchor bolts on west side of Trent River at
Ranney Falls. These are almost certainly
remains from the timber slide at this site
from 1843 to 1870.

1 TSWO File No. F323, D. W. McLachlan memorandum 1909.



122 North of Locks Nos. 11 and 12 on Trent River,
October 1978.

Remains of rock-filled cribwork which was
probably part of timber slide here from
1843 to 1870.

1 TSWO File No. F. 323, D. W. McLachlan memorandum, 1909.



- Anchor bolt in rock of old river channel below blind part of dam above Healey Falls lock station. This anchor probably was part of crib structure supporting timber slide which was located on old Trent River channel. The timber slide of over 1400 feet was completed in 1845. The slide was partially destroyed by the heavy spring freshet of 1870 and thereafter fell into disrepair.
 - Department of Public Works, (hereafter referred
 to as DPW) Annual Report, 1882, p. 680.



124 Locks Nos. 16 and 17, Healey Falls, August 1978.

Anchor bolts in rock of old river channel below blind part of dam above Healey Falls lock station. These anchor bolts were probably part of over 1400 foot timber slide in place here from 1845 to 1870.

1 DPW, Annual Report, 1882, p. 680.

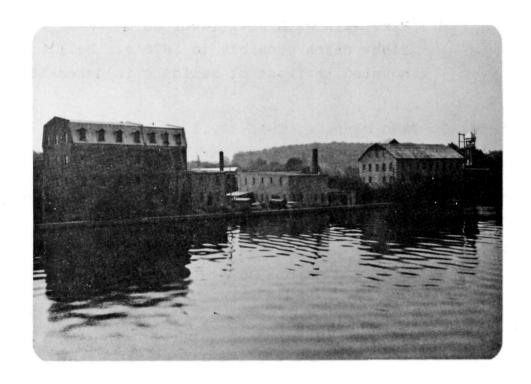


125 Lock No. 14, Crowe Bay, August 1978.

In centre of photo is anchor bolt just visible above water below dam at Crowe Bay. Bolt is just one of series visible in a line when water is lower. These probably held in place the cribs for the timber slide at Middle Falls built in 1844.

Dam No. 11 in background was built in 1911 by Messrs. Brown and Aylmer under a 1907 contract to construct Section 5 of the Ontario-Rice Lake Division of the Trent Canal. Dam was restored and mechanized in 1975-1976.

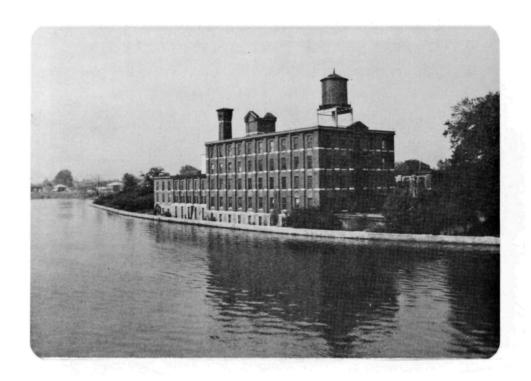
- 1 TSWO Plans Nos. T-22-399 and T-22-400.1;
 PAC RGll III, Vol. 374, no. 57601, Belcher
 to Brown, 3 February 1876.
- 2 TSWO Annual Report, 1911, p. 8.
- 3 Ibid. 1975, p. 9.



- 126 Above Locks Nos. 11 and 12, in town of Campbellford, August 1978.

 Row of historic buildings on the southeastern bank of canal below Bridge St. in Campbellford:
 - a) Four storey and 2 storey buildings on extreme left dates probably to 1870's or earlier as a grist mill. Left end of taller building is presently converted to apartments but not in use because of conflict with fire regulations. Right side and smaller building is still in use by a feed co-operative;
 - b) Yellow building in centre probably dates back to 1870's or earlier when it was a foundry;
 - c) $3\frac{1}{2}$ storey stone building at right probably was a woollen mill in 1870's or earlier but by 1900 had been converted to a shoe factory by the Sisman Company;

- d) Fire hall with bell tower on extreme right dates probably to 1870's. Bell mounted in front of building is dated 1877.
- 1 TSWO Plan No. T-22-387.5.
- 2 <u>Historical Atlas of Northumberland and</u> Durham - 1878. p. IX.
- 3 PCORO, Campbellford Fire Insurance Plan, 1900.



127 Above Locks Nos. 11 and 12, in town of Campbellford, August 1978.

Trent Valley Woollen Mills, view from northeast, all portions of the building showing with the exception of the water tower and wing to extreme left (3 window bays wide) date from original construction in 1881. The left wing dates from 1892. The factory originally was run on water power until the teens of this century when the canal was constructed through Campbellford and the mill switched to hydroelectricity.

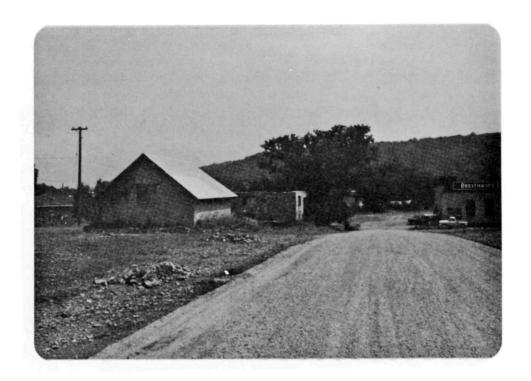
1 TSWO Plan No. T-22-387.10.



128 Above Locks Nos. 11 and 12, Ranney Falls, July 1978.

Former paper mill belonging to the Northumberland Paper Company at Ranney Falls. The property is now owned by Breithaupt Leather Company. The paper mill was built about 1881. In 1916 Ontario Hydro was forced to purchase the mill from the Electric Power Company as part of a package deal. The mill was not a successful financial venture and closed in 1931, probably for good.

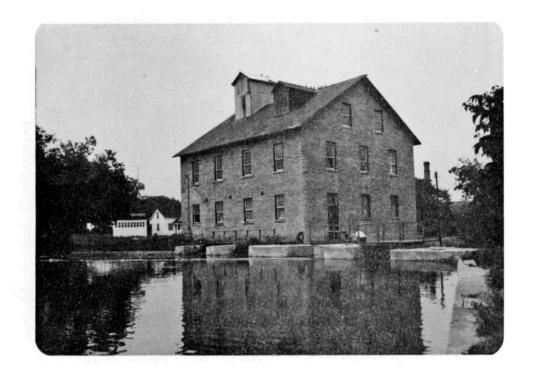
- 1 TSWO Plan No. T-20-193.16.
- 2 TSWO File No. F323, Memorandum by
 D. W. McLachlan, 1909; W. A. Kingston,
 The Light of Other Days: A History of
 Campbellford and Seymour Prior to 1900, p. 123.
- 3 Ontario Hydro Archives, File No. 111-3-1. General Memos. Unsigned "Report on the Quinte and Trent Valley Power Company's Plants on the Trent River." 1 March 1937.



129 Above Locks Nos. 11 and 12, Ranney Falls, July 1978.

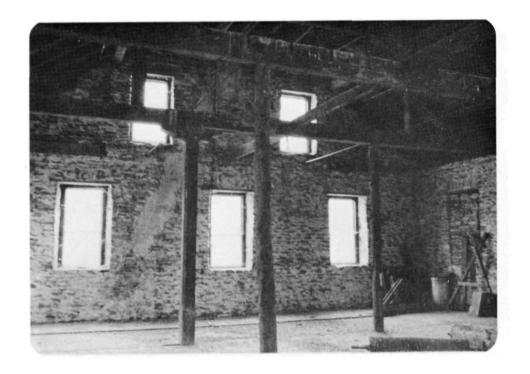
Buildings formerly belonging to the Northumberland Paper Company at Ranney Falls. The building on the left foreground was probably a granary with a storage building in the rear. The property now belongs to Breithaupt Leather Company.

1 TSWO Plan No. T-20-193.16.



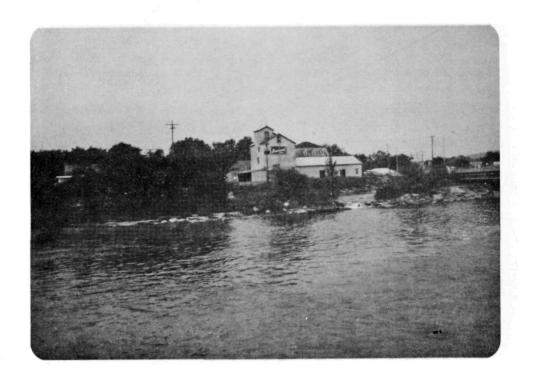
- 130 Below Lock No. 18, Hastings, August 1978.

 View of former Fowlds grist mill northeast of Hastings lock station. Built in 1871 by the Fowlds family this building was originally used as a grist mill. More recently it has served as a leather factory for Breithaupt Leather Company. The building is now vacant.
 - 1 Date of construction is marked over the
 centre door.
 - 2 Sidney Young, Manager, Breithaupt Leather Company, Hastings.



131 Below Lock No. 18, Hastings, August 1978.

Second floor of former grist mill/leather factory at Hastings, constructed in 1871 the building is now vacant.

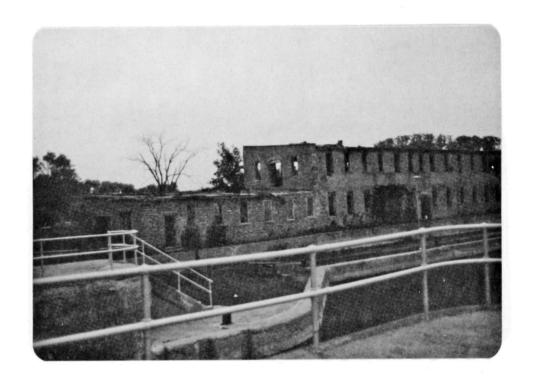


132 Lock No. 18, Hastings, August 1978.

View of grain elevator on south side of
Trent River at Hastings.

Part of Fowlds family business at Hastings this elevator was built sometime between 1878^{1} and 1911^{2} .

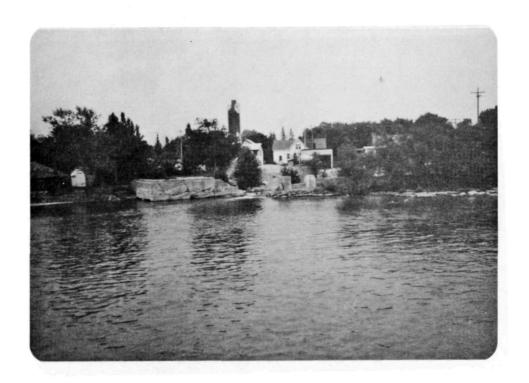
- 1 TSWO Plan No. T-22-407.8.
- 2 Fire Insurance Plan, Hastings, 1911.



- 133 Lock No. 18, Hastings, August 1978.

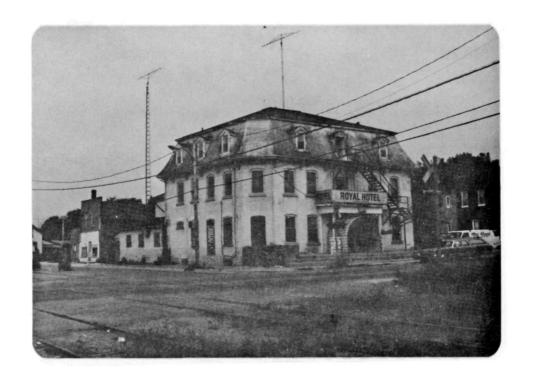
 View of old foundry building immediately adjacent to lock station on north-east side.

 This building was the Machine and Woodworking shop of the Plant Foundry built here in 1895. It has been badly damaged by fire.
 - 1 Two Centuries of Change , United Counties
 of Northumberland and Durham; 1767 1967
 (Cobourg: United Counties Centennial Book
 Committee, 1967), p. 61.
 - 2 Fire Insurance Plan, Hastings 1911.



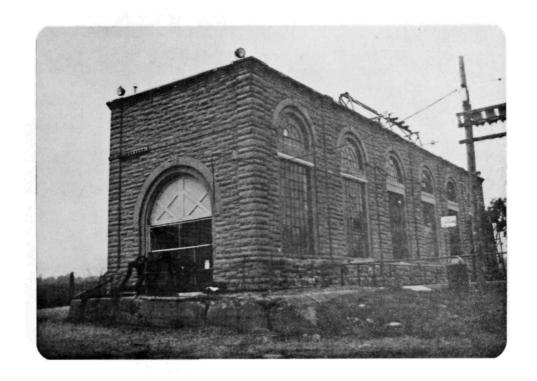
134 Lock No. 18, Hastings, August 1978.

Remains of probable early twentieth century industrial structure on south side of Trent River at Hastings.



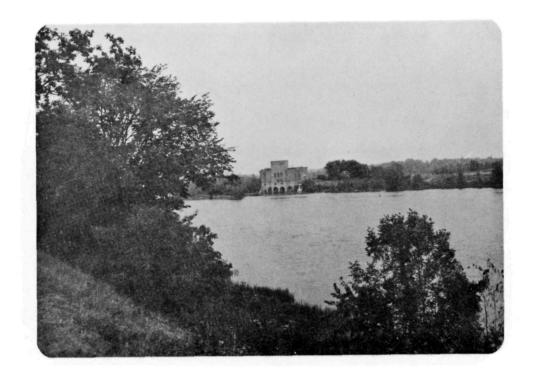
- 135 Lock No. 18, Hastings, August 1978.

 Royal Hotel on south side of Trent River opposite Hastings lock station. Hotel was built in 1857.
 - 1 Two Centuries of Change, op. cit., p. 51.



- 136 Lock No. 13, Campbellford, August 1978.

 Across the river from Lock No. 13 is an Ontario Hydro power plant. Construction was finished in 1910 but power was delivered from this site in 1909. Originally built by the Seymour Power Company the plant was taken over by Ontario Hydro in 1916.
 - 1 DRC Annual Report, 1910, p. 286.
 - 2 E. B. Biggar, Hydro-Electric Development in Ontario (Toronto: Biggar Press, 1920), p. 180.



137 Lock No. 13, Campbellford, August 1978.

Hydro power plant from lock station No. 13

across the river. Originally owned and

constructed by the Seymour Power Company the

plant was erected in 1908-1910 but was

delivering power by 1909. Ontario Hydro

acquired the plant from the Electric Power

Company in 1916.

Dam No. 11 is just above power station. Dam was built by 1911 by Messrs. Brown and Aylmer under a 1907 contract to construct Section 5 of the Ontario-Rice Lake Division of the Trent Canal.

- 1 TSWO Plan No. T-22-399; DRC Annual Report, 1910, p. 286.
- 2 E. B. Biggar, op. cit., p. 180.
- 3 TSWO Annual Report, 1911, p. 8.

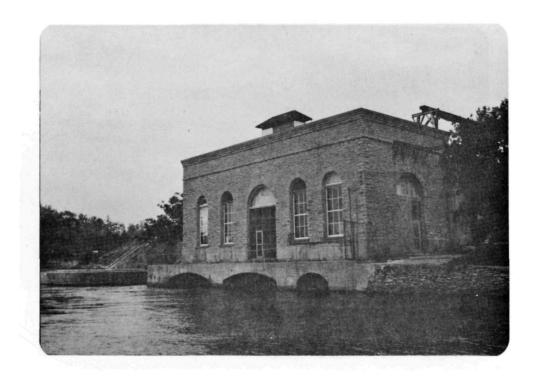


138 Locks Nos. 16 and 17, Healey Falls, August 1978.

View of Healey Falls power plant and three penstocks from above.

This generating station went into operation in 1913 and was the property of the Electric Power Company. It was purchased in 1916 by Ontario Hydro.

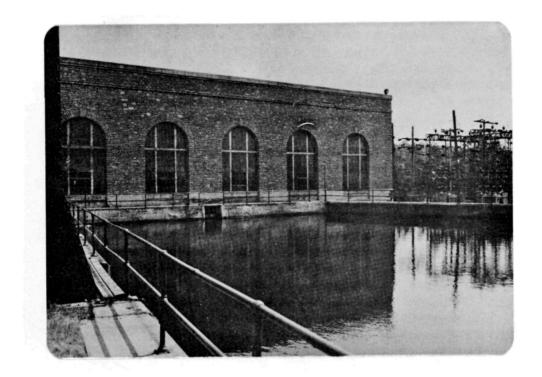
1 Ontario Hydro, Annual Report, 1937-1938,
p. 448.



- 139 Lock No. 14, Crowe Bay, August 1978.

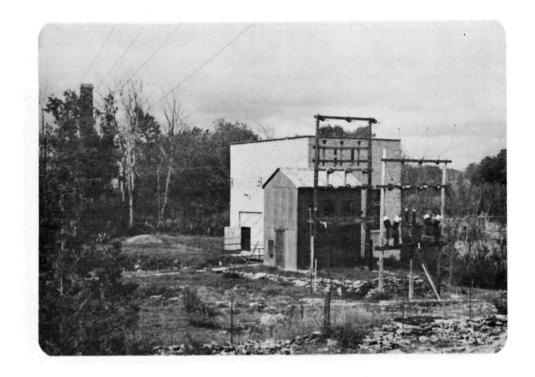
 Hydro-electric plant at Crowe Bay from downstream, south-east side. Plant was built in 1909-1910¹ by the Municipality of Campbellford to whom it still belongs.

 The plant replaced an earlier generating station operated by the municipality in the same area since 1899.
 - 1 DRC Annual Report, 1910, p. 286.
 - 2 T. J. Wilson, <u>Campbellford's Story</u>
 (Campbellford: The Warkworth Journal,
 1956).



- Near Locks Nos. 11 and 12, Ranney Falls, July 1978.

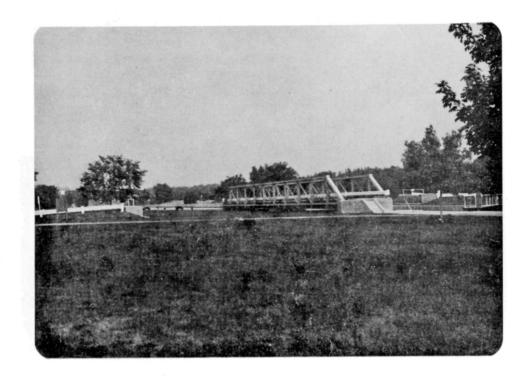
 Power house near Ranney Falls from side of headrace. Built by Ontario Hydro between 1920 and 1922. Stone exterior is blue-gray limestone mostly obtained from the tailrace excavation dump. It was arranged into brokencoursed, squared stone masonry pointed in chocolate coloured mortar.
 - 1 TSWO Annual Report, 1922, p. 3.
 - 2 Ontario Hydro, Annual Report, 1921-1922,
 p. 88.



141 Near Locks Nos. 11 and 12, Ranney Falls, October 1978.

On Trent River at Ranney Falls below main power plant is this stone building housing a generating unit. Built ca. 1927 by the Quinte and Trent Valley Power Company it is supplied with water power from a penstock running from the forebay of the main plant. This facility was purchased by Ontario Hydro in 1937 and named Unit No. 3.

- 1 Ontario Hydro, Annual Report, 1926-1927, p. 74.
- 2 Ibid, 1937-1938, p. 448.



142 Lock No. 15, Healey Falls, August 1978.

Open swing bridge at Lock No. 15 from the south-east.

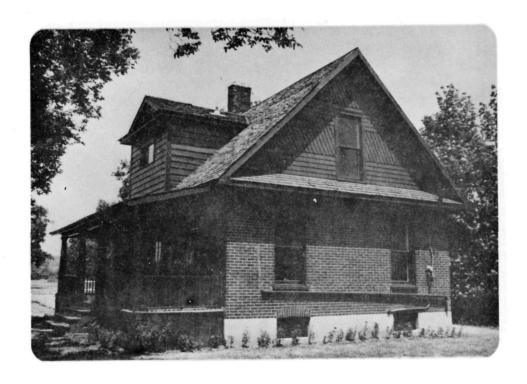
The superstructure was built in 1894 and was moved to Healey Falls and re-erected ca. 1912. It is the only pin-connected truss swing section on the waterway. Previous to the invention of the field rivettes pins were used to connect metal members of truss bridges assembled on site. The builder of the bridge was F. Waddell of Trenton, Ontario.

- W. G. Richardson, op. cit., Appendix, Bridge No. 17.
- 2 Ibid, Bridge No. 15.
- 3 Nameplate on bridge.



- 143 Lock No. 2, Sydney, July 1978.

 Dwelling house at lock built in 1922 and presently moth-balled.
 - 1 PCORO Dwelling House File; PCORO C-4945-T90, Beahen to Witham, 11 July 1978.



- 144 Lock No. 4, Batawa, July 1978.

 Dwelling House at lock built in 1924 and presently being used as lock office.
 - 1 PCORO, Dwelling House File; PCORO C-4945-T90, Beahen to Witham, 11 July 1977.



145 Lock No. 5, Trent, July 1978.

View of lock from upstream end. Dwelling house at lock is on original location and original stone foundation. It was built in 1921 and is now used as a lock office.

Lock was built as part of a contract made in 1908 to complete Section 2 of the Ontario-Rice Lake Division of the Trent Canal. The lock was finished in 1911, the lock gates hung by 1916, and the Division opened in 1918. Hydraulic controls were placed on one upper and one lower valve in 1965. The concrete on the lock walls was patched in 1973.

- 1 PCORO Dwelling House File: PCORO C-4945-T90, Beahen to Witham, 11 July 1977.
- 2 TSWO Annual Report, 1911, p. 2.
- 3 Ibid, 1917, p. 6.
- 4 Ibid, 1918, p. 1.
- 5 Ibid, 1965, p. 11.
- 6 Ibid, 1973, p. 7.



View of lock station from north-west,
upstream end. Lock No. 9 was built by 1912
by Messrs. Haney, Quinlan, Robertson under a
1910 contract to construct Section 4 of the
Ontario-Rice Lake Division of the Trent Canal.
The lock gates were hung by 1916² and the
Division opened in 1918. The dwelling house
was built ca. 1914 and sits on its original
stone foundation. It is now used as a lock
office. Hydraulic controls were placed on one
upper and one lower valve in 1965.

- 1 TSWO Annual Report, 1912, p. 5.
- 2 Ibid, 1917, p. 6.
- 3 Ibid, 1918, p. 1.
- 4 TSWO File No. 4102-1. Accommodation Record 1974.
- 5 TSWO Annual Report, 1965, p. 11.



- 147 Lock No. 7, Glen Ross, July 1978.

 View of lock control office at Glen Ross.

 This structure was built as a dwelling house for the lockmaster in 1958. In 1968 it was converted to a lock control building.
 - 1 TSWO Annual Report 1958, p. 29.
 - 2 Ibid, 1968, p. 6.



- 148 Below Lock No. 1, Trenton, July 1978.

 Channel in vicinity of Meyer's Island, Trenton.

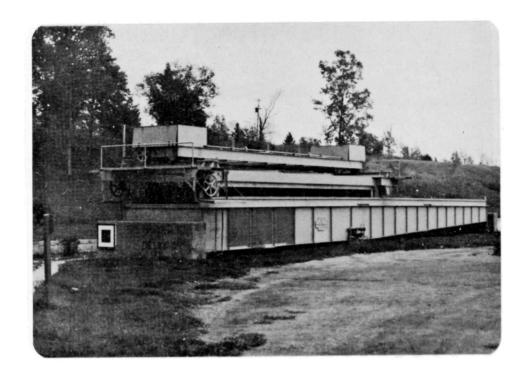
 This may be the beginning of the 2000 feet canal channel built between 1837 and 1841 in the vital phase of waterway development. The channel is quite visible in several places and its route is traceable.
 - 1 TSWO File No. F361, various documents.
 - 2 TSWO Plan No. T-22-348.14.



- 149 Lock No. 6, Frankford, October 1978.

 Remains of iron carriage at west end of Dam No. 6.

 This carriage apparently at one time bore a steam boiler, and the assembly traversed the deck of the dam on rails. The purpose of this mechanism was to provide steam which conducted by hoses was used to free frozen logs in the dam during the winter.
 - Dan Gormley, Manager Engineering and Architecture, PCORO; Jan Stammis, Engineer, TSWO.



- Guard gate mechanism just above Lock No. 6.
 The gate was built by the Dominion Bridge
 Company in 1912 and installed here shortly
 thereafter. It is lowered in the fall to
 maintain the water level in this portion of
 the canal over the winter when fluctuating
 conditions could damage the banks. Similar
 mechanism used to be in place above locks 7,
 11 and 12, and 14 but since have been removed.
 - Dave Ballinger, Acting Southern Area
 Manager, TSWO.

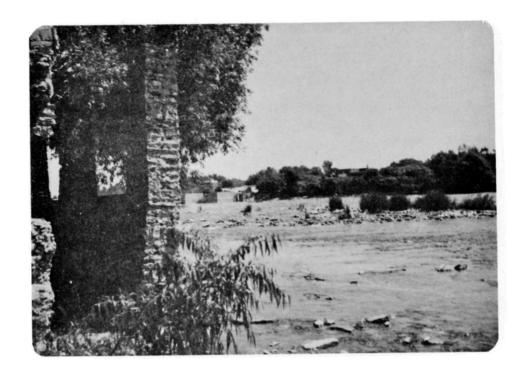


151 Below Lock No. 1, Trenton, July 1978. Ruins of a power plant on the west side of the Trent River just below Lock No. 1 on an island created by the cutting of the canal channel ca. 1909. This plant was probably built by the Town of Trenton ca. 1885-1886 and may have been the first municipally operated power utility in the province. Trenton received permission in 1885 from the Ontario Legislature to develop water power on the Trent River. According to a local history "....it is worthy of note that no similar legislation was on record in the province at that time". The dam and plant were built ca. 1885-1886 and the generating station was operating at least by 1888 but probably began producing electricity earlier. The site was modified in 1899 after an agreement was reached with Trenton Electric Company re sharing power production. This plant was superseded by the station at Dam No. 2 and abandoned ca. 1911. The town

considered building another plant in this area in the 1930's but finally in 1929 sold its water rights to Ontario Hydro.

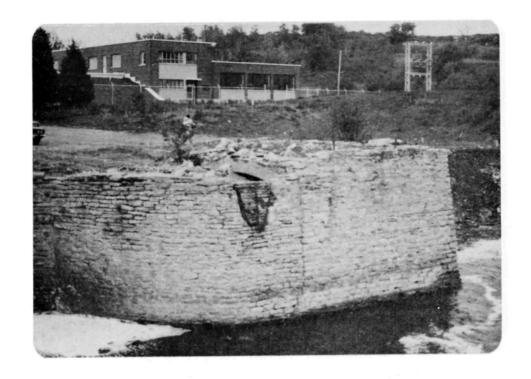
Orillia and Goderich have rival claims to being the first municipally operated power utilities both having begun operations in 1887.

- 1 Ontario Hydro Archives, River Files, Box 9,
 Nos. 4-5, Belleville Manager to General
 Manager, 23 July 1926.
- 2 T. Jarrett, op. cit., p. 8.
- Ontario Hydro Archives, River Files, Box 10, Nos. 4-51, M. Hogg, Memorandum Re: Corporation of the Town of Trenton and Dam No. 1, 6 October 1927.
- 4 Ontario Hydro Archives, Summary No. 1375, prepared from a 28 May 1929 agreement between Ontario Hydro and Trenton.
- 5 R. N. Beattie, "The Impact of Hydro on Ontario", in Ontario Historical Society <u>Profiles of a Province</u> (Toronto: Bryant Press, 1967), pp. 167-168.



152 Below Lock No. 1, Trenton, July 1978.

Ruins of Trenton power plant built ca. 18851886 and abandoned ca. 1911 (see Fig. 152
for details).



- Probable ruins of Trenton, July 1978.

 Probable ruins of Trenton Power Company power plant on east side of Trent River at Dam No. 1. This small power operation was built by the Gilmour Lumber Company ca. 1885-1886 and transferred to the power company when the lumber operation closed in the early twentieth century. The power plant was destroyed by fire on 11 July 1911.
 - 1 Ontario Hydro Archives, River Files, Box 10, Nos. 4-51, M. Hogg, Memorandum Re: Corporation of the Town of Trenton and Dam No. 1, 6 October 1927.
 - 2 Ibid, Box 9, Nos. 4-5, Belleville Manager to General Manager, 23 July 1926.
 - 3 TSWO Plans Nos. T-22-348.2, T-22-348.11 and T-22-348.15.



154 Lock No. 9, Meyers, July 1978.

The construction of the Hydro s

The construction of the Hydro station was completed in 1924 and the plant was placed in operation. The power house has the distinction of being the first remote control station constructed by Ontario Hydro. It was operated from Ranney Falls. The tailrace excavation is unusually long at over one-half mile. It was necessary to excavate this length of channel to conserve as far as possible the head available in this section of the river. The station's exterior walls were built from stone in the immediate area.

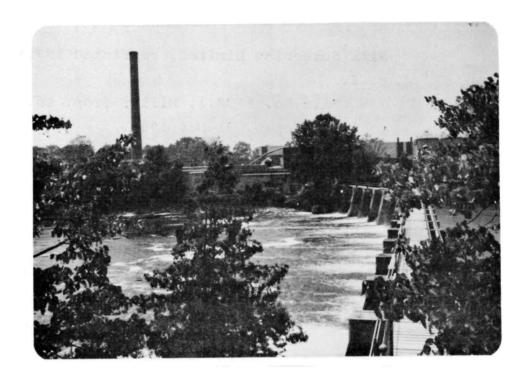
- 1 Ontario Hydro Annual Report, 1923-1924, p. 76.
- 2 Ibid. 1922-1923, p. 150.



155 Lock No. 9, Meyers, July 1978.

Former residence of power house superintendent on hill immediately north of Lock No. 9. House now belongs to Patten Family of Toronto. This house was apparently built ca. 1924 at the same time as the power house. In 1925 Ontario Hydro reported: "A stable, garage and shed were erected near the site of the operator's cottage."

- 1 Lockmaster, Lock No. 9.
- 2 Ontario Hydro, Annual Report, 1924-1925, p. 92.



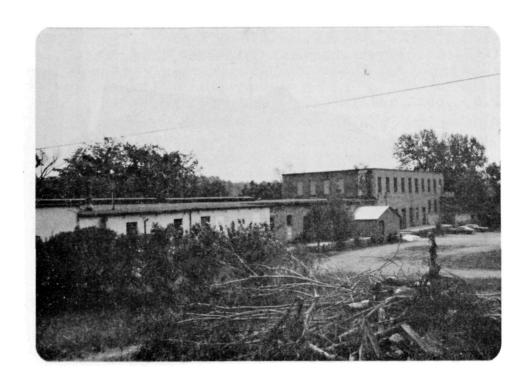
- Lock No. 3, Glen Miller, July 1978. 156 Paper Mill at Glen Miller probably dates back to nineteenth century. There was a mill in this approximate location in 1878 named Gordon's Mill. The property was bought by Millar Bros. Company Limited in 1881 who built a dam and since then have continuously operated a paper mill here. The company was later known as Millar Bros. Company 1962 Limited, and now as Trent Valley Paper Board Mills. This mill has its own power house. The present dam (Dam No. 3) was built by Millar Bros. in 1912-1913 replacing their wooden structure at the same place. The work was carried out by Ambersen Hydraulic Construction Company of Montreal.
 - 1 Historical Atlas of Hastings and Prince Edward Counties, 1878 (Belleville: Mika

- Silk Screening Limited, reprinted 1972), p. 6.
- 2 TSWO File No. F373.1, Millar Bros. Co., Ltd. to L. K. Jones, 31 May 1909.
- 3 TSWO Annual Report, 1913, p. 2.



157 Lock No. 3, Glen Miller, July 1978.

Trent Valley Paper Board Mill at Glen Miller office building. This centre gabled stone building is probably one of nineteenth century structures (see Fig. 156 for details).

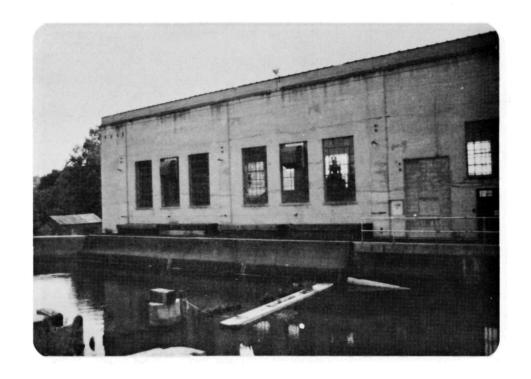


158 Above Lock No. 6, Frankford, July 1978.

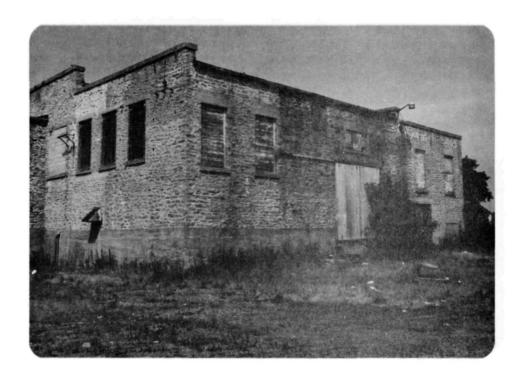
Factory complex 1 mile north of Frankford on West Channel of Trent River. Structures here date back probably as early as 1878.

Buildings were owned by Trent River Paper Company in 1907, Canada Boxboard Company in 1917, later to Gair Paper Company and presently are owned and used by Bata Shoe Company.

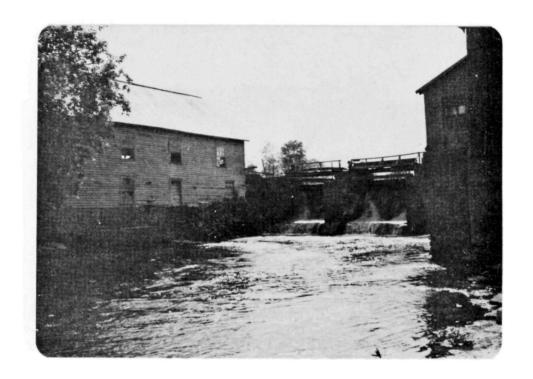
- 1 Historical Atlas of Hastings, op. cit., p. 62.
- 2 TSWO Plan No. T22-361.2.
- 3 TSWO Plan No. T22-360.1.
- 4 Jim Howard, lockmaster, Lock No. 1.



- Power house adjacent to old factory presently owned by Bata Shoe Company 1 mile north of Frankford on shore of West Channel of Trent River. Power house is built over original paper mill structure dating from nineteenth century. Built originally by the town of Frankford, the power house was owned for a time by the Quinte and Trent Valley Power Company and sold to Ontario Hydro in 1937. (See Fig. 158 for more details.)
 - l Jim Howard, lockmaster, Lock No. 1.
 - 2 Ontario Hydro, Annual Report, 1936-1937,
 p. 122.



- Above Lock No. 6, Frankford, July 1978.
 Factory building located about two miles above lock 6 on West Channel on shore beside Dam "C". This building belonged to Gair Paper Company in the twentieth century until taken over by Bata Shoe. Bata presently owns this building but it is no longer used. This structure probably dates back to the nineteenth century; a paper mill is shown in this approximate location in 1878.
 - 1 James Howard, lockmaster, Lock No. 1.
 - 2 <u>Historical Atlas of Hastings, 1878</u>, op. cit., p. 62.



- 161 Near Lock No. 6, Frankford, July 1978.

 Located at Stockdale approximately 1½ miles from Frankford lock station are a pair of mills joined by a dam located on a small river. On the south side is a frame sawmill still operating. On the north side is a grist mill no longer operating but with waterwheel and some other machinery in place. The latter is presently used as a warehouse/outlet for a feed business. These buildings appear to date from at least 1878.
 - 1 <u>Historical Atlas of Northumberland and Durham, 1878</u>, (Belleville: Mika Silk Screening Limited, reprinted 1972), p. 55.



- 162 Lock No. 7, Glen Ross, July 1978.

 Channel cut into mainland at east end of Glen Ross lock station. This is probably the excavation referred to by Clement Armstrong in 1881 when he was engaged in developing the site for industry and residence. This was probably to be a raceway to a mill?
 - 1 PAC, RG 43, B1, Vol. 292, file 2, No. 92446½, Clement Armstrong to Commissioner of Public Works, Tuperville, 9 August 1881.
 - 2 TSWO Plan No. T-22-365.3.



Below Lock No. 1, Trenton, July 1978.

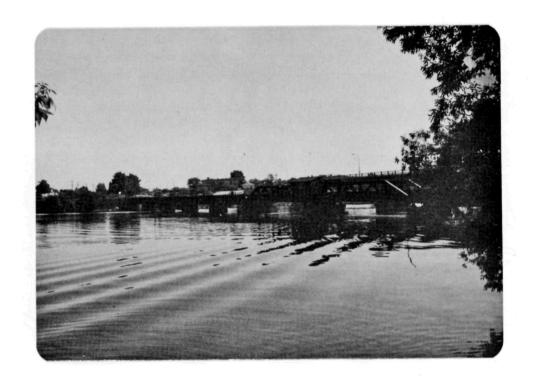
Bridge over the Trent River extending Highway 2.

This is the oldest through truss highway swing span on the waterway; built in 1916.

Only two remain from an overall total of twenty-two similar structures over the waterway. This is also the oldest and most important crossing over the waterway. A bridge was built in 1833 and a ferry existed here since the late eighteenth century.

Visible on the west side of the bridge (to the right of the photograph) is the tower of Trenton's former post office now owned by the town. Built in 1888 this solid limestone structure served as a post office and customs house until 1965 when a new federal building was opened. This edifice is regarded as Trenton's most permanent landmark.

- W. George Richardson, "Bridges over the Trent-Severn Waterway 1826-1978". Manuscript on File, Historical Research Section, Parks Canada Ontario Region Office (hereafter referred to as PCORO), Cornwall, 1975, Appendix, Bridge No. 1.
- 2 Thomas Jarrett, <u>The Evolution of Trenton</u> (Trenton: 1912), p. 36.
- Nick and Helma Mika, <u>Trenton</u>, <u>Past and Present</u> (Belleville: Mika Silk Screening Limited, 1967), p. 128.



- 164 Below Lock No. 1, Trenton, July 1978.

 CNR Railway Bridge at Trenton.

 Built in 1910-1911, this is the only half pony truss railway bridge ever built over the waterway.
 - W. G. Richardson, op. cit., Appendix
 Bridge No. 2.



- 165 Lock No. 7, Glen Ross, July 1978.

 CNR Railway Bridge crossing canal at Glen Ross.

 View is of swing bridge open from south side.

 Built by the Central Ontario Railway in 1909,

 this is one of four remaining through truss

 swing bridges on the waterway. This is the

 only one with a central tower rather than an

 "A" frame.
 - W. G. Richardson, op. cit., Appendix, Bridge No. 8.



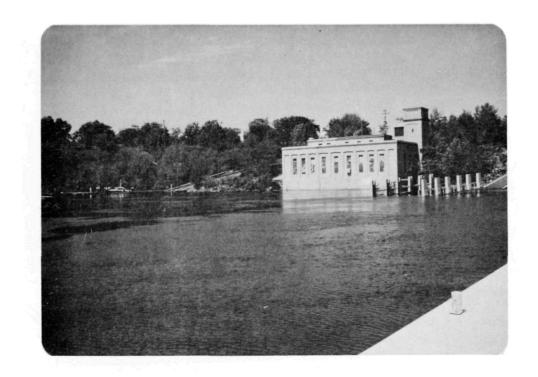
- 166 Lock No. 44, Big Chute Marine Railway, June 1978.

 View of Marine Railway from upper end of crossing.

 Built in 1923 this was the successor to the original railway operation opened here in 1917.

 Though this form of operation dates to 1923 most of the actual structures are replacements.

 The large control building was constructed in 1969.
 - 1 William Beahen, <u>Development of the Severn</u>
 River and Big Chute Lock Station, Manuscript
 Report Series No. 230 (Ottawa: Parks Canada,
 1977), p. 57.



167 Lock No. 44, Big Chute Marine Railway, June 1978.

View of Big Chute from basin at lower end.

On the left is old marine railway (see Fig. 166) and on the right the new marine railway constructed in 1978. In the centre is the power house originally constructed by the Simcoe Railway and Power Company by 1911. The plant was purchased by Ontario Hydro in 1914 and the structure extended in 1917. This was the first power producing facility acquired by Ontario Hydro.

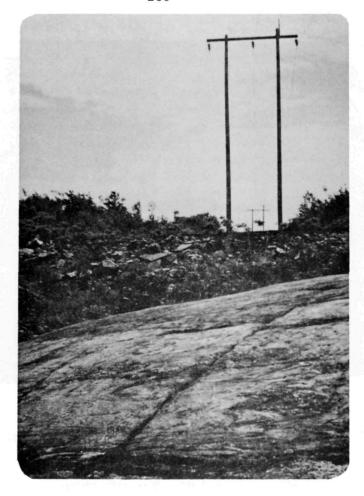
1 W. Beahen, op. cit., pp. 68-87.



Lock No. 44, Big Chute Marine Railway, June 1978.

Core wall "A" built in a marsh area south-west of Big Chute. This was one of three blind dam structures built as part of a plan to construct a one-mile canal to circumvent Big and Little Chutes. Work on the canal was done by the York Construction Company between 1919 and 1921 but never completed. The project was terminated because of a government austerity program.

1 W. Beahen, op. cit., pp. 113-144.



Lock No. 44, Big Chute Marine Railway,
June 1978.

Core wall "B" near Big Chute (see Fig. 168 for details).



170 Lock No. 44, Big Chute Marine Railway,
June 1978.

Core wall "C" near Big Chute (see Fig. 168
for details).



171 Lock No. 44, Big Chute Marine Railway,
November 1976.

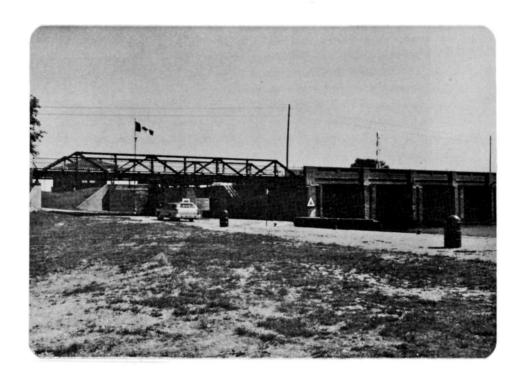
Engine Type steam boiler used by the York
Construction Company in constructing the
canal works near Big Chute, 1919-1921.

1 W. Beahen, op. cit., p. 144.



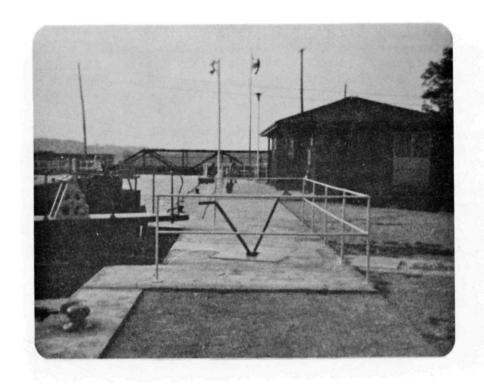
172 Lock No. 44, Big Chute Marine Railway,
November 1976.

Regulating sluice dam near Big Chute built as
part of canal works, 1919-1921 (see Fig. 168
for details).



- 173 Lock No. 45, Port Severn, June 1978.

 The lock, bridge and dam structures at Port Severn were constructed between 1913 and 1915 and remain substantially unchanged since then. The completion of these structures admitted for the first time marine passage between the Severn River and Georgian Bay.
 - 1 PCORO, C4870-T90-2, Beahen to Gambhir, 30 August 1978.



174 Lock No. 45, Port Severn, June 1978.

View of Port Severn lock from the east side.

The valves and gates are still mechanically operated. The lock control building was built in 1967-1968.

1 TSWO Annual Report, 1968, p. 13.



Lock No. 42, Couchiching, June 1978.

Lockmaster's dwelling house on east side lock.

Built in 1929 in the same architectural style
as dwelling houses erected in that period in the
southern division. The house in on its original
location. Previously there had been two other
houses at this station for canal personnel.

1 PCORO, Dwelling House File.



- 176 Lock No. 43, Swift Rapids, June 1978.

 Lockmaster's dwelling house (No. 46) at

 Swift Rapids. Built in 1914 this is the

 earliest house at this lock station and it

 remains at its original location.
 - 1 PCORO, Dwelling House File; PCORO, C-4945-T90, Beahen to Witham, 11 July 1977.



- 177 Lock No. 43, Swift Rapids, June 1978.

 Assistant lockmaster's house at Swift Rapids.

 Originally built in 1927 for the marine railway operator. This house is of the same plan used for dwellings in the Southern Division and it remains in its original position.
 - 1 PCORO, Dwelling House File; PCORO C-4945-T90, Beahen to Witham, 11 July 1977.



178 Above Lock No. 43, Hydro Glen (formerly Ragged Rapids), June 1978.

View of a private summer residence perched on promontory above the river on south side just below the CNR train bridge. This handsome frame home built on Georgian lines was formerly the dwelling house of the Superintendent of the Orillia Water, Light and Power Company's power house at Ragged Rapids. Probably built ca. 1902 this home was probably disposed of after the company moved its operation downstream to Swift Rapids.

Orillia Water, Light and Power Commission,

A Centennial Look at Orillia's Power and

Water Development (Orillia: Askett Printing
Services, 1967) pp. 4-10; W. Beahen, op. cit.,
Fig. 14, pp. 50-51.



179 Lock No. 43, Swift Rapids, June 1978.

Former public school and boat house used by Orillia Water, Light and Power Commission colony. These buildings are shown on 1923 and 1930 plans. This is probably the schoolhouse building erected at Ragged Rapids early in the century and moved to Swift Rapids ca. 1917 when the original plant was blown up.

- 1 TSWO Field Notebook No. 265, 1923 Plan of Swift Rapids, p. 23.
- 2 TSWO Plan No. T-22-449.3.
- 3 Orillia Water, Light and Power Commission, op. cit., p. 10.



180 Lock No. 43, Swift Rapids, June 1978.

Orillia Water, Light and Power Commission's dwelling house for power plant superintendent.

Built ca. 1916 and still in use in its original location on the south side of the river at Swift Rapids (rear view).

1 TSWO Photograph Book No. 2, Photo No. 157.1.



181 Lock No. 43, Swift Rapids, June 1978.

Orillia Water, Light and Power Company's dwelling house for staff just west of Superintendent's house at Swift Rapids.

Building dates at least from 1930 but probably from ca. 1916.

1 TSWO Plan No. T22-449.3.



182 Lock No. 43, Swift Rapids, June 1978.

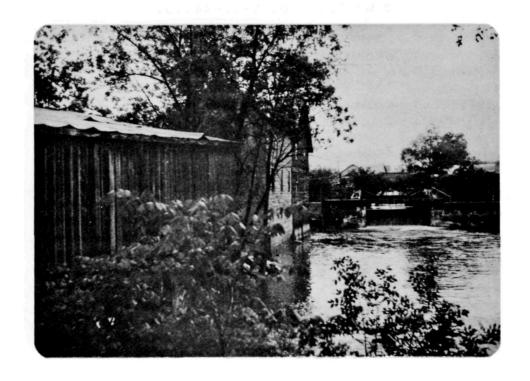
Orillia Water, Light and Power Commission
power plant at Swift Rapids built 1914-1917.

This station replaced the earlier operation
at Ragged Rapids just upstream.

1 W. Beahen, op. cit., pp. 42-53.



- Near Lock No. 42, at Wasdell Falls, June 1978. Site of first power plant built by Ontario Hydro, in 1914. Operated until 1955 and granted a provincial historic site plaque in 1963. Recently it was removed by Ontario Hydro and replaced by a water control dam.
 - 1 Ontario. Ministry of Culture and Recreation.
 Heritage Administration Branch. Simcoe
 RF 18.
 - 2 William Beahen, op. cit., p. 57.



Near Lock No. 42, at Washago, June 1978. Line of Mill structures off the Middle branch of the Severn River at Washago about $1\frac{1}{2}$ miles from banks of canal. View is from east looking at Dam D.

Building visible from left to right:

Derelict sawmill which appears in 1918 plan but is probably much older, building constructed in 1882 intended for use as a woolen mill but never put into operation. Used for storage for grist mill and in the First World War for drill by military; grist mill built in 1872 by Abial Marshall and of great importance to town until closed in 1970. Belonged to succession of owners - last two were Sam Langman and John N. Storrey. Of late parts of former grist mill and intended woolen mill have housed a printer's shop. Dam D was built here ca. 1915 and its concrete was partially restored in 1947 and again in 1957.

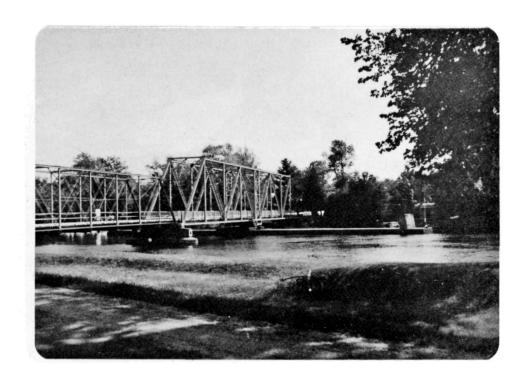
- 1 TSWO Plan No. T-22-445.5.
- 2 F. MacArthur, <u>Green and Sparkling: The Story of Washago</u> (Washago: John Dyment Printing, 1975), pp. 90-92.
- 3 Ibid., pp. 95-96.
- 4 TSWO Annual Report, 1947, p. 26.
- 5 Ibid., 1957, p. 24.



Near Lock No. 42, at Washago, June 1978.

Sawmill on the middle branch of the Severn
River at Washago. Site dates back to 1852
but buildings represent several periods. In
the twentieth century this mill belonged to
the Marshall family and more recently to the
Gibson's. The mill is still in operation and
probably represents the longest operating mill
on the Severn River¹ and perhaps even on the
entire waterway. In the right background is
old Dam E belonging to Parks Canada and built by
ca. 1919. The dam has since been replaced
a new structure visible on left of photograph.

1 TSWO Plan Nos. T-22-445.5, F11-219.2 and T-11-219.3.



- Below Lock No. 42, Hamlet Bridge, June 1978.

 This highway bridge was erected in 1922. The fixed span is part of an earlier bridge (1904-1905) built downstream about ½ mile.

 This part of the span is the only pin-connected through truss in full use on the waterway.
 - 1 TSWO Annual Report, 1922-1923, pp. 13-17.
 - 2 W. G. Richardson, op. cit., Appendix Bridge No. 57.



187 Below Lock No. 42, Old Abutments of previous bridges, June 1978.

About ½ mile below Hamlet Bridge on the west side of the Severn River just before Sparrow Lake are abutments for two previous bridge structures. On the left are probable cribwork supports for wooden bridge built in 1881-1882 and raised in 1886. On the right is cement abutment for steel bridge erected in 1904-1905. One span of this pin-connected through truss structure is now fixed span of Hamlet Bridge.

- 1 PAO, Tweedsmuir History of Sparrow Lake, MS 8, Reel 64.
- 2 TSWO Annual Report, 1922-1923, pp. 13-17.

Bibliographic Essay

To prepare an inventory of heritage structures for such an extended area in a short time comprehensive research of all sources was not possible. Instead I consulted published works and unpublished records most likely to yield the essential information in the most productive manner. This means that a number of important potential groups of records, including most local repositories, had to be left untouched until a more detailed inventory is prepared.

The most important source of information were the records at the Trent-Severn Waterway Office in Peterborough. Photograph albums, dormant and active files, maps and plans, and annual reports all made significant contributions to the assessment of the heritage value of existing waterway structures. In addition personnel both at the Peterborough office and at the lock stations were most helpful, particularly in pointing out physical remains of previous structures which I might otherwise have missed.

Much of the background research done prior to the field work was conducted at Parks Canada Ontario Region Office in Cornwall. A collection of five insurance plans for urban areas along the waterway are held at the regional office on microfilm. These plans, along with a larger collection of waterway maps and plans on microfilm aperature cards, provided the initial evidence of heritage value of structures in the vicinity of lock stations. Also useful were research files compiled from records, particularly annual reports, of government departments which at

different times have been responsible for the development of the waterway.

Some of the material used in this study came from the files of the Ministry of Culture and Recreation of the Province of Ontario. The Heritage Administration Branch has done considerable research in connection with its program of historical plaques. The fruits of this work as it applied to sites in the area of the Trent-Severn Waterway were made available to me with utmost courtesy and co-operation. At the Archives of Ontario a number of manuscripts containing information on local history were consulted with much value.

At the Public Archives of Canada photographs obtained from the National Photographic Collection provided visual clues to the identity and age of structures. At the National Map Collection I consulted cartographic material which resolved several issues concerning non-waterway buildings.

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