

# **CEN 302**

# Canadian Sailing Directions

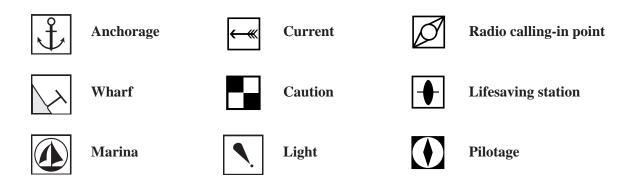
Lake Ontario







### **Pictograph legend**



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# **Record of Changes**

As the CHS acquires new information, relevant changes are applied to Sailing Directions volumes in order to maintain safety of navigation. It is the responsibility of the mariner to maintain their digital Sailing Directions file by ensuring that the latest version is always downloaded. Visit <u>charts.gc.ca</u> to download the most recent version of this volume, with all current changes already incorporated.

The table below lists the changes that have been applied to this volume of Sailing Directions. This record of changes will be maintained for the current calendar year only.

Date	Chapter / Paragraph	Description of Change
04/2024	C1/P104	Added link to ferry schedule and removed previous text regarding ferry schedule.
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he First Edition of *Sailing Directions, CEN 302 — Lake Ontario*, 1996, has been compiled from Canadian Government and other information sources. In general, all hydrographic terms used in this booklet are in accordance with the meanings given in the *Hydrographic Dictionary* (Special Publication No. 32), published by the International Hydrographic Bureau.

This edition introduces a new presentation and layout of the geographical areas.

General information for the Great Lakes is grouped in one booklet: *Sailing Directions, CEN 300* — *General Information, Great Lakes.* It contains navigational information and a brief description of the main port facilities as well as geographic, oceanographic and atmospheric characteristics. A geographical index at the end of that booklet should also be consulted.

The detailed descriptions of the geographical areas is given in a series of volumes and booklets. Their limits are printed on the back cover of the booklets. **The appropriate descriptive booklet(s) should be consulted in conjunction with** *CEN 300 — General Information, Great Lakes* booklet.

Tidal, water level and current information has been revised by the Tides, Currents and Water Level Section of the Canadian Hydrographic Service.

Meteorological and ice information has been revised by the Atmospheric Environment Service, Department of the Environment.

The photographs are by the Canadian Hydrographic Service, Fisheries and Oceans Canada.

Users' comments concerning the format, content or any other matter relating to *Sailing Directions* would be appreciated and should be forwarded to the Director General, Canadian Hydrographic Service, Fisheries and Oceans Canada, Ottawa, Ontario, Canada K1A 0E6.

anadian Sailing Directions amplify charted details and provide important information of interest to navigation which may not be found on charts or in other marine publications. Sailing Directions are intended to be read in conjunction with charts quoted in the text.

#### Remarks

**Buoys** are generally described in detail only where they have special navigational significance, or where the scale of the chart is too small to clearly show all the details.

**Chart references**, in italics in the text, normally refer to the largest scale Canadian chart but occasionally a smaller scale chart may be quoted where its use is more appropriate.

**Tidal information** relating to the vertical movements of the water is not given and the *Canadian Tide and Current Tables* should be consulted. However, abnormal changes in water level are mentioned.

**Names** have been taken from the most authoritative source. Where an obsolete name still appears on the chart or is of local usage, it is given in brackets following the official name.

Wreck information is included where drying or submerged wrecks are relatively permanent features having significance for navigation or anchoring.

## Units and terminology used in this booklet

**Latitude** and **longitude** given in brackets are approximate and are intended to facilitate reference to the chart quoted.

**Bearings** and **directions** refer to True North (geographic) and are given in degrees from 000° clockwise to 359°. The bearings of conspicuous objects, ranges and light sectors are given from offshore. Courses always refer to the course to be made good.

**Tidal streams** and **currents** are described by the direction towards which they flow. The **ebb** stream is caused by a falling tide and the **flood** stream is caused by a rising tide. **Winds** are described by the direction from which they blow.

**Distances**, unless otherwise stated, are expressed in nautical miles. For practical purposes, a nautical mile is considered to be the length of one

minute of arc, measured along the meridian, in the latitude of the position. The international nautical mile, which has now been adopted by most maritime nations, is equal to 1,852 m (6,076 ft).

**Speeds** are expressed in knots, which means nautical miles per hour.

**Depths**, unless otherwise stated, refer to chart datum. As depths are liable to change, particularly those in dredged channels and alongside wharves, it is strongly recommended that these be confirmed by the appropriate local authority.

Where sections are quoted verbatim from U.S. Coast Pilot 6, the figures in square brackets [thus] after **units of measurement** are the International System of Units (SI) equivalent in nautical miles, metres or tonnes.

**Elevations** and **vertical clearances** are given above chart datum.

**Heights** of objects, distinct from the elevations, refer to the heights of structures above the ground. A statement, "a hill...m (...ft) high", is occasionally used when there could be no confusion and in this case the reference will signify an elevation.

**Deadweight tonnage** and **mass** are expressed in metric tonnes of 1,000 kilograms (2,204.6 pounds). The kilogram is used for expressing relatively small masses.

**Figures in brackets** following the population identify the census year. The *List of Lights, Buoys and Fog Signals* number is shown in brackets after the navigational aid (light, leading lights, buoy). The expression "(seasonal)" indicates that it is operational for a certain period during the year; mariners should consult the *List of Lights, Buoys and Fog Signals* to determine the period of operation. The expression "(private)" means that the navigational aid is privately maintained; it will not necessarily be mentioned in the *List of Lights, Buoys and Fog Signals* and its characteristics may change without issuance of a *Notice to Shipping*.

**Time**, unless otherwise stated, is expressed in local standard or daylight time. Details of local time kept will be found in Chapter 3 of booklet *CEN 300 — General Information, Great Lakes*.

**Public wharf** is a Government wharf that is available for general use; it is still shown on older charts as "Government Wharf" or "Govt Whf".

**Conspicuous** objects, natural or artificial, are those which stand out clearly from the background

and are easily identifiable from a few miles offshore in normal visibility.

The expression "**small craft**" is used to designate pleasure craft and, in general, small vessels with shallow draught.

**Pictographs** are symbols shown at the beginning of certain paragraphs to allow quick reference to information or to emphasize details. The Pictograph Legend is shown on the inside front and back covers of this booklet.

#### **References to other publications:**

#### **Canadian Coast Guard**

- List of Lights, Buoys and Fog Signals
- Radio Aids to Marine Navigation (Atlantic and Great Lakes)
- Ice Navigation in Canadian Waters
- Annual Edition of Notices to Mariners
- The Canadian Aids to Navigation System
- Merchant Ship Search and Rescue Manual (CANMERSAR)
- The International Code of Signals

#### **Environment Canada**

- Great Lakes Marine Weather Guide
- Great Lakes Climatological Atlas

#### **Canadian Hydrographic Service**

- Canadian Tidal Manual
- Chart No. 1 Symbols, Abbreviations and Terms
- Tides in Canadian Waters
- Notes on the Use of Loran-C Charts
- Canadian Tide and Current Tables
- Catalogue of Nautical Charts and Publications (Great Lakes)

#### St. Lawrence Seaway Authority

• The Seaway Handbook

#### Units

°C	degree Celsius
cm	centimetre
h	hour
ha	hectare
kHz	kilohertz
km	kilometre
kn	knot
kPa	kilopascal
m	metre
min	minute
MHz	megahertz
mm	millimetre
ft	foot
t	metric tonne
0	degree (plane angle)
•	minute (plane angle)

#### Directions

Ν	north
NNE	north northeast
NE	northeast
ENE	east northeast
Е	east
ESE	east southeast
SE	southeast
SSE	south southeast
S	south
SSW	south southwest
SW	southwest
WSW	west southwest
W	west
WNW	west northwest
NW	northwest
NNW	north northwest
<b>X</b> 7	

#### Various

CCG	Canadian Coast Guard
CHS	Canadian Hydrographic Service
HF	high frequency
HW	high water
LW	low water
Μ	million, mega
NAD	North American Datum
SAR	Search and Rescue
VHF	very high frequency
VTS	Vessel Traffic Services

## Everett Point to Murray Canal Inner route

#### General

Charts 2006, 2007, 2011, 2017, 2018, 2069, 2021-Sheet 1

1 This chapter describes the route and the facilities between Everett Point and Presqu'ile Bay, following the inner route through North Channel, Adolphus Reach, Bay of Quinte and Murray Canal. This route is 62 miles long.

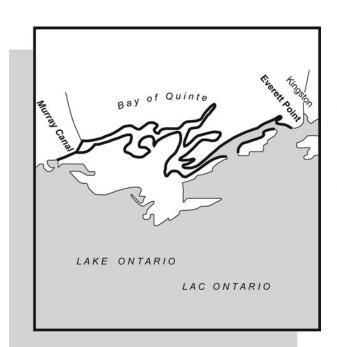
2 The **limiting depths** are 10 feet (3 m) through Telegraph Narrows and 7 feet (2.1 m) in the approaches to Murray Canal.

**Overhead clearances**. — An overhead cable at Murray Canal has a clearance of 105 feet (32 m); the highway bridge crossing Bay of Quinte at Belleville has a clearance of 74 feet (23 m); the highway bridge at Telegraph Narrows has a clearance of 90 feet (27.4 m); swing bridges crossing Murray Canal have a clearance of 8 feet (2.4 m) when closed. These clearances refer to chart datum; actual values will be reduced by the height of water above chart datum. (*See* information on *Chart datum* in Sailing Directions booklet *CEN 300* — *General Information, Great Lakes.*)

3.1 Real-time water level information for Lake Ontario at Kingston is available from the *Canadian Hydrographic Service Automated Water Level Gauge*, telephone number 613-544-9264. (*More information on water levels is given in Sailing Directions booklet CEN 300* — *General Information, Great Lakes.*)

4 **Submerged power and telephone cables** are found in areas covered by this chapter and are not all described individually in the text. Most cables are shown on the chart but newer cables may not be charted. As well as checking the chart before anchoring, boaters should examine the shore for cable warning signs, telephone or power lines, and other evidence of submerged cables. (*See* information on *Cables in Sailing* Directions booklet *CEN 300* — *General Information*, *Great Lakes*.)

5 Proceeding westwards from Kingston through North Channel and Bay of Quinte is considered to be "proceeding from seaward" or "upstream"; red buoys and beacons are kept to starboard. (*See* information on *Aids to navigation* in Sailing Directions booklet *CEN 300* — *General Information, Great Lakes.*)



6 For information on ice conditions in Lake Ontario and Bay of Quinte, *see* Sailing Directions booklet *CEN 300 — General Information, Great Lakes.* 

7 **Caution**. — The normal Magnetic Variation (1995) in the approaches to Kingston Harbour is 13°W. Due to **magnetic anomalies**, however, magnetic compass readings east of Melville Shoal (44°11'N, 76°35'W) are erratic; Magnetic Variation may range from 27°W to 3°E. Extreme caution is necessary when using a magnetic compass.

#### Kingston to Upper Gap

#### Charts 2017, 2018

8 **Amherst Island**  $(44^{\circ}09'N, 76^{\circ}42'W)$ , 4 miles west of the western limit of Kingston Harbour, is a large island separated from the mainland by North Channel. The island is partly wooded, with large areas of cultivated land and few conspicuous features.

9 (Lower Gap, Melville Shoal and the areas east of Amherst Island are described in Sailing Directions booklet CEN 301 — St. Lawrence River, Montréal to Kingston.)

#### Everett Point to Brother Island

10 **Everett Point**  $(44^{\circ}13'N, 76^{\circ}35'W)$ , 4.5 miles west of Kingston, is geographically the NW entrance point of St. Lawrence River.

11 A **shoal** spit extends 0.4 mile SSW of Everett Point. A **buoy** marks the outer end of the spit.

12 **Horsey Bay**, on the west side of Everett Point, consists of two indentations with comparatively deep water in the western part. The wharves charted (*Chart 2017*) on the north and NE shores of Horsey Bay are private.

13 **Lemoine Point**, on the mainland 1.3 miles west of Everett Point, is conspicuous from the east and west.

Kingston airport lies 0.5 mile NNE of Lemoine Point. Two **radio towers** SE of the runways have air obstruction **lights**. The tower farther inland has an elevation of 39 m (128 ft); the other has an elevation of 34 m (112 ft). These towers are visible but not prominent.

15 **Collins Bay** (44°14'N, 76°37'W) is entered 1 mile NW of Lemoine Point.

16 Small craft can find **anchorage** 0.5 mile inside Collins Bay in depths of 7 m (23 ft); this area is sheltered except from SW winds. There is a shallower anchorage towards the head of the bay.

17 The white **water tower** at **Amherstview**, 0.5 mile NW of the west entrance point of Collins Bay, has the name *Amherstview* on it. This conspicuous tower is 40 m (131 ft) high and has an elevation of 65 m (213 ft).

18 **Collins Creek** flows into the west side of Collins Bay 1.1 miles from the entrance. A highway **bridge** over Collins Creek has a clearance of 2.9 m (10 ft).

19 A rock **breakwater** at the west side of the entrance to Collins Bay has an elevation of 1.8 m (6 ft), except for the



#### COLLINS BAY (1994)

outer 30 m (98 ft) which has an elevation of 0.9 m (3 ft). The outer end is marked by a **buoy**. This breakwater is private.

20 **Caution**. — A rock 135 m (443 ft) off the east side of the bay, 0.67 mile NE of the rock breakwater, is almost awash. A **wreck** 130 m (427 ft) NW of the rock is reported to be 37 m (121 ft) long and had a depth of 0.9 m (3 ft) in 1994. Boaters are cautioned to avoid these dangers by keeping farther offshore.

There is a **speed limit** of 5 knots at the inner end of Collins Bay.

The suburban community of **Collins Bay** is at the head of the bay. In 1994 Collins Bay had churches, stores, hotels, motel, doctor, banks, restaurants, laundromat, service stations and post office. Veterinarian, dentist, liquor store and museums are near by.

23 Collins Bay marinas are **Customs** vessel reporting stations for pleasure craft.

A timber crib Public **wharf** on the north shore of Collins Bay, 0.1 mile east of Collins Creek, is 29.1 m (95 ft) long, 5.5 m (18 ft) wide and 1.9 m (6 ft) high; it had depths of 1.1 to 2.1 m (4 to 7 ft) in 1994. The wharf is connected to the shore by a gravel **causeway** with an elevation of 1.8 m (6 ft). There is a concrete **ramp** on the NE side of the wharf. *Clark's By the Bay* restaurant is near by.

25 Collins Bay Marina, on the SE shore near the head of Collins Bay, had depths of 1.2 to 2 m (4 to 7 ft) in 1994 and offered dockage with power and water, pump out, 45 tonne hoist, picnic area, pay phone, showers, ice, gasoline and diesel fuel, and monitored VHF Channel 68. Collins Bay Yacht Club was also based here. Repairs and salvage work were available on call. Motel, restaurant and groceries were available near by. A dredged channel leads to the marina. There is a privately maintained **light** on the Collins Bay Marina wharf.

26 *The Boat Warehouse*, at the NE end of Collins Bay, had a depth of 1.4 m (5 ft) in 1994 and offered repairs and salvage work, boat hardware, and boat and motor sales and service.

27 The three **Brother Islands**  $(44^{\circ}12'N, 76^{\circ}38'W)$  lie midway between the entrance to Collins Bay and the NE point of Amherst Island, to which they are connected by a narrow spit named **Amherst Bar. Centre Brother Island** is the largest island of the group. The Brother Islands and Amherst Bar are lightly wooded.

28 Brother Islands light (430), on the north side of Centre Brother Island, is shown at an elevation of 19.2 m (63 ft) from a white skeleton tower, 17.2 m (56 ft) high, with a white triangular daymark.

29 Brother Islands West light (430.2), on the west islet of the Brother Islands, is shown at an elevation of 5.2 m (17 ft) from a white circular tower, 3.7 m (12 ft) high, with a green band at the top.

30 **Salmon Island**  $(44^{\circ}12'N, 76^{\circ}35'W)$ , 1.6 miles ESE of Centre Brother Island, is a gravel bar 2.4 m (8 ft) high with a few scattered bushes (1994). Salmon Island is considered to be the SE entrance point of North Channel. *Salmon Island light buoy KN3* (418) lies NE of Salmon Island.

31 **Caution**. — A **shoal** with a depth of 0.3 m (1 ft) lies near the 10 m (33 ft) line, 0.6 mile WNW of Salmon Island.

#### North Channel

#### Chart 2018

32 **North Channel**, between Amherst Island and the mainland, is a deep and sheltered body of water 10 miles long with a least breadth of 1.5 miles and depths of more than 60 m (197 ft).

#### NW coast of Amherst Island

**Sand Bay** (44°11'N, 76°38'W), at the NE end of Amherst Island, is shallow and protected by the low-lying Brother Islands and Amherst Bar.

34 **Preston Cove**, with **Griffin Point** its west entrance point, is 2 miles WSW of Sand Bay. Most of Griffin Point is densely wooded, though there are several farm buildings and cottages on its NW side. The coast of Amherst Island is bold between Preston Cove and Stella Bay, 1 mile to the SW.

35 A **submerged telephone cable** crosses North Channel into Sand Bay. A **submerged power cable** crosses from Bayview to Preston Cove.

36 **Stella Point** (44°10′N, 76°42′W) is the NE end of the small peninsula between **Stella Bay** and **Wright Bay**. Stella Bay offers good shelter except in NE winds.

The village of **Stella**, population 95 (1981), is near the head of Stella Bay. In 1994, Stella had a church, school, general store and post office, and pay phone. There are two other churches on the island. A small workshop at Stella offered welding and general repairs.

The shoreline east of Stella is fringed with trees; to the west is open farmland.

A silo 0.8 mile NE of Stella is 35 m (115 ft) high and is conspicuous. A silo near the shore at Stella is prominent, as also are three silos on the point to the west (*these four silos are not shown on the 1990 edition of the chart*).

40 Stella Public **wharf** is near the east entrance point of Wright Bay. The outer face is 34.3 m (113 ft) long, with depths of 2.9 to 3.5 m (10 to 11 ft) in 1994. The deck has an elevation of 2 to 2.9 m (7 to 10 ft). The outer end

1-3

of the west wharf face had a depth of 2.1 m (7 ft) in 1994; the outer end of the east wharf had 2.3 m (8 ft). The outer and west sides of the wharf are reserved for use of the ferry.

41 A vehicle and passenger ferry operates on a scheduled service between the public wharf at Stella and Millhaven, on the mainland. *See* <u>http://www.amherstisland.</u> <u>on.ca/ferry.htm</u> for more information.

42 **Submerged bubbler pipelines** are laid between the Stella and Millhaven Public wharves, along the winter route of the ferry. This system helps keep an ice-free channel for the ferry during the winter. The route of the bubbler system is shown on the chart.

43 **Kerr Point**, midway between the NE and SW ends of Amherst Island, is thickly wooded; it projects 0.5 mile in a NE direction. **Kerr Point Shoal**, awash and marked by a **buoy**, lies 0.1 mile off its NW side.

44 There is a sheltered **anchorage** in **Kerr Bay**, SE of Kerr Point.

45 **Berdans Shoal**, 2 miles WSW of Kerr Point Shoal, has a least depth of 1.3 m (4 ft) over boulders. The 5 m (16 ft) line extends 0.3 mile offshore in this area.

46 **Barry Point**, 3.3 miles WSW of Kerr Point, is lowlying and wooded.

47 A **submerged power cable** crosses North Channel from the west side of Kerr Point. **Submerged cables** cross to the NW side of Barry Point. An **abandoned cable** crosses west of Barry Point.

48 **Pig Point**, 1.5 miles SW of Barry Point, is the west end of Amherst Island and the north entrance point of **Upper Gap**, which is the passage between Amherst Island and Cressy Point.

49 **Indian Point** (44°07'N, 76°51'W) is the north tip of Cressy Point; **Pleasant Point**, 0.4 mile to the SE, is the NNE end of Cressy Point.

50 Pig Point light (438), on the point, is shown at an elevation of 9.1 m (30 ft) from a white circular tower, 7 m (23 ft) high, with a red top.

51 The main shipping channel from the south enters North Channel through Upper Gap.

52 (Upper Gap and its southern approaches are described in Chapter 2.)

Charts 2018, 2006

#### NW coast of North Channel

53 The waters from Collins Bay to Sandhurst Shores, 14 miles to the SW, are mostly deep and free of offshore dangers. There are many landmarks along this shore.

Chart 2018

54 A **submerged water intake** west of Collins Bay entrance, near the community of Amherstview, extends 100 m

(328 ft) offshore. Another **submerged pipeline**, east of the water intake, extends 70 m (230 ft) in a SSE direction.

55 On the shore of an open bay 0.3 mile WSW of Amherstview is a small day-use park. This is *Fairfield Park*, operated by the *St. Lawrence Parks Commission*.

56 Close west of *Fairfield Park* stands *Fairfield White House*. This house was built in 1793 by William Fairfield, a United Empire Loyalist who settled here with his family after being imprisoned in Vermont during the American Revolution. This house is a fine example of a well-built eighteenth century home, few of which have survived the ravages of time.

57 **Nicholsons Point**  $(44^{\circ}12'N, 76^{\circ}41'W)$ , 2.6 miles WSW of the entrance to Collins Bay, is wooded and has several private homes.

58 Nicholsons Point light (431), on the point, is shown at an elevation of 10.9 m (36 ft) from a white circular tower, 9.7 m (32 ft) high, with a red top.

**Parrotts Bay**, west of Nicholsons Point, has several private homes along its east and west shores. A shallow spit extends from the east entrance point of the bay. On the east side of Parrotts Bay there are limestone cliffs 3 to 5 m (10 to 16 ft) high; the west side has sloping terrain and gravel beaches.

60 An **anchorage** in Parrotts Bay is sheltered from NW winds but open to the SW.

61 *Celanese Canada*, 1 mile west of Parrotts Bay, has red brick buildings and a red brick chimney with an elevation of 46 m (152 ft); these are **conspicuous**. The storage tanks of *Ashwarren International*, 0.15 mile to the east, are also **conspicuous**.

62 The discharging berth of Ashwarren International, 0.3 mile SE of the Celanese Canada plant, is at the outer end of a causeway 137 m (450 ft) long and 61 m (200 ft) wide. The berth consists of a centre pier and two concrete dolphins connected by catwalks, with a mooring dolphin on each side of the berth. The berthing face, 91 m (300 ft) long with an elevation of 3 m (10 ft), had depths of 10.6 to 11.9 m (35 to 39 ft) in 1994.

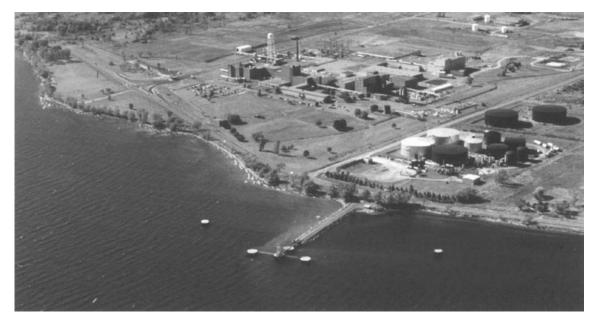
63 Millhaven East light (432), on the outer end of the Ashwarren International wharf midway between the central pier and the west dolphin, is shown at an elevation of 5.9 m (19 ft) from a mast. The light is privately maintained.

<sup>64</sup> There is a concrete **ramp** 100 m (328 ft) west of the *Ashwarren* berth. Due to shallow water, this ramp is suitable only for small boats.

65 The **submerged water intake** of the *Celanese Canada* plant, 0.3 mile west of the *Ashwarren International* wharf, extends 0.3 mile offshore. It is marked by two privately maintained **buoys**.

66 **Millhaven Creek** flows into North Channel 2.5 miles SW of Nicholsons Point. The village of **Millhaven**, population 561 (1981), is on both sides of the creek near its mouth.

#### ASHWARREN INTERNATIONAL BERTH (1994)



In 1994 Millhaven had a grocery store and gas station with a snack bar and pay phone. A bus service operated along the highway.

67 Millhaven Public **wharf**, which also serves as a ferry wharf, is on the SW side of the entrance of Millhaven Creek. The outer (south) face is 32 m (105 ft) long. In 1994 there were depths of 2.6 to 4.8 m (9 to 16 ft) along the outer face and depths of 1.7 to 3.5 m (6 to 11 ft) along the west face and 1.3 m (4 ft) along the 8 m (26 ft) long east tie-up wall. The outer deck has an elevation of 2.1 m (7 ft) and the inner deck 1.8 m (6 ft). There is a small shed on the SW side of the structure. The east and south walls of the wharf are reserved for the ferry.

67.1 Millhaven Ferry Dock light (*432.5*) is on the public wharf.
68 Caution. — Shoal water extends off the east

68 **Caution**. — Shoal water extends off the east entrance point of Millhaven Creek.

69 A vehicle and passenger ferry operates on a scheduled service between Millhaven and the public wharf at Stella, on Amherst Island. *See <u>http://www.amherstisland.on.ca/ferry.</u> <u>htm</u> for more information.* 

70 As described earlier, there are **submerged bubbler pipelines** along the winter route of the ferry between the Stella and Millhaven Public wharves.

71 **Bath Point**, 1.4 miles WSW of Millhaven, is at the east entrance point of an open bay. *Bath Point light buoy KN8 (434.5)* marks the outer edge of shoal water off Bath Point.

A conspicuous grey **water tower** 0.7 mile NNE of Bath Point has an elevation of 89 m (291 ft). The square grey **chimney** of Millhaven Prison, 0.3 mile east of the water tower, has an elevation of 65 m (213 ft); it is also conspicuous.

73 Loyalist Cove Marina, a private facility on the north shore of North Channel 0.3 mile NE of Bath Point, had depths of 0.7 m (2 ft) in 1994 and offered dockage with power and water, pump out, ramp, picnic area, pay phone and showers.

The village of **Bath**, with a population of 1,257 (1991), lies 0.3 mile NW of Bath Point. In 1994, Bath had churches, stores, bank, post office, laundromat, service station, small police detachment and a museum. The nearest medical facilities are at Amherstview, 11 km away by paved road.

75 *Bath Museum* is in the "Layer Cake Hall"; it features displays illustrating the history of the area and the lives of the early Loyalist settlers.

**Historical note**. — Originally known as *Ernestown*, the village was first settled in 1783 and 1784 by Loyalists moving north in the wake of the American Revolution. The community grew and flourished as an early industrial and administrative centre, and *Bath* was incorporated as a village in 1859. Many historic homes and other buildings of this era still exist and show interesting architectural details of the time, though no traces remain of the shipbuilding yard that was active here from 1816 to 1828.

The Public **wharf** at Bath is L-shaped; it is  $15.2 \text{ m} (50 \text{ ft}) \log \text{ with an end section } 9.1 \text{ m} (30 \text{ ft}) \log \text{ and an elevation of } 1.9 \text{ m} (6 \text{ ft})$ . The depth along the outer end was  $0.7 \text{ m} (2 \text{ ft}) \sin 1994$ . This wharf is protected on its west side by a rubble breakwater, elevation 2.9 m (10 ft), which extends south of the wharf.

#### BATH CEMENT PLANT BERTH (1994)



A small municipal day-use park SW of the Public wharf has picnic area, drinking water, sandy beach, playground and washrooms.

79 There is a good concrete **ramp** 0.7 mile SW of Bath. 80 The *Lafarge Canada – Bath Cement Plant (44°10'N,* 76°48'W), on the north side of North Channel 1.5 miles SW of Bath, is **conspicuous**. The plant chimney has an elevation of 89 m (292 ft); the upper part is painted red and white and has air obstruction **lights**.

Note: The loading berth near the cement plant is 90 m (295 ft) from shore. The berth is a dolphin and catwalk structure 152 m (500 ft) long with an elevation of 2.7 m (9 ft); it is floodlit at night. There were depths of 8.6 to 11.5 m (28 to 38 ft) in 2019. A conveyor leads from the shore to the loading tower, 26 m (85 ft) high, at the centre of the berth. Privately maintained **lights** are shown from masts on the NE and SW dolphins. The central dolphins and loading tower are illuminated at night.

82 The Ontario Hydro *Lennox Generating Station*, on the north shore 4 miles WSW of Bath, is **conspicuous**. The main building is a large structure, light brown in colour. The two chimneys have an elevation of 206 m (676 ft) and are grey in colour with the upper 15 m (49 ft) painted white. The buildings and chimneys make a good landmark from all directions. The chimneys have air obstruction **lights**.

A submerged water intake at the generating station extends 0.2 mile offshore.

#### **Bay of Quinte**

Charts 2018, 2006, 2064, 2069

**Bay of Quinte** is a long winding, comparatively narrow body of water between Prince Edward County on the south, and bordering parts of Northumberland, Hastings, and Lennox and Addington Counties on the north. The distance from Indian Point, at the Adolphus Reach east entrance, to Trenton, following the various reaches of Bay of Quinte, is 45 miles. Also on the shores of this fine cruising area are the towns of Picton and Deseronto, and the city of Belleville.

Murray Canal, in the SE corner of Northumberland County, connects the west end of Bay of Quinte with Presqu'ile Bay, thus continuing the inland route between Kingston and Presqu'ile Point ( $44^{\circ}00'N$ ,  $77^{\circ}40'W$ ).

86 Several rivers flow into Bay of Quinte, the largest being Trent River at Trenton.

Charts 2018, 2006

#### Adolphus Reach

Indian Point  $(44^{\circ}07'N, 76^{\circ}51'W)$ , on the south, and the community of **Sandhurst Shores**, on the north, mark the NE entrance to **Adolphus Reach**. This reach is deep with a generally bold coast.

88 *Percy Clarkson Park*, on the north shore of Adolphus Reach, is a private park for residents of Sandhurst Shores.

PRINYER COVE (1994)



A **submerged water intake** 0.1 mile NE of Sandhurst Shores extends 90 m (295 ft) offshore. A second **water intake** extends 0.15 mile offshore; the crib at the outer end of this latter pipeline has a depth of 11 m (36 ft).

89.1 A microwave tower, elevation 95 m (310 ft), is
0.5 mile NW of Conway (44°07′N, 76°55′W).

90 **Prinyer Point**, 1.6 miles SW of Indian Point, is the NE end of a peninsula on the NW side of **Cressy Point**. The coast in this area has an elevation of 10 to 15 m (33 to 49 ft) and is wooded. **Prinyer Cove** is entered east of Prinyer Point; the entrance is known locally as **Big Gap**. Prinyer Cove is well sheltered, except from NE winds, and offers good **anchorage** in depths of 4 to 7 m (13 to 23 ft), mud bottom. There is a ruined wharf on the SE side of the cove.

91 *Prinyer's Cove Marina*, on the SE side of Prinyer Cove, had depths of 0.7 m (2 ft) in 1994 and offered dockage with power and water, pump out, ramp, picnic area, showers, and ice. The nearest community is Waupoos, 20 km to the SW, which has churches, a museum, shopping and a service station. The town of Picton, 24 km to the west, has a hospital, police detachment, banks and motels.

92 *Prinyer's Cove Marina* is a **Customs** vessel reporting station for pleasure craft.

#### Chart 2006

93 **Cole Point**  $(44^{\circ}05'N, 76^{\circ}57'W)$ , a gentle slope on the NW side of Adolphus Reach 3.6 miles WSW of Prinyer Point, is the south side of a small bay.

94 **Caution**. — **Fishing nets** are laid in Adolphus Reach from the south shore SE of Cole Point. In 1994 these nets extended well offshore into deep water. Boaters are cautioned to avoid these hazards by keeping farther offshore. 95 A **silo** 0.2 mile SW of Cole Point is conspicuous.

96 Adolphus Reach light (440), on the north side of the reach 1 mile SW of Cole Point, is shown at an elevation of 33 feet (10.1 m) from a white circular tower, 28 feet (8.5 m) high, with a red upper part.

97 **Allens Point**, 1.9 miles WSW of Cole Point, is low-lying and wooded. **Pull Point** (44°03'N, 77°01'W) lies 1.4 miles WSW of Allens Point. A wide shallow bay lies between Allens Point and Pull Point. **Lyons Island**, in the east part of this bay, is partly wooded and almost separated into two parts, each 30 feet (9.1 m) high.

98 Adolphustown Provincial Park, on the north side of the shallow bay between Allens Point and Pull Point, in 1994 offered some dockage, concrete ramp, sandy beach, children's playground, picnic area, camping, pay phone, drinking water and showers. A store with ice, groceries, bait, tackle and gasoline is near the park entrance. 99 **Historical note**. — This bay is the site of the first Loyalist landing in the Bay of Quinte area; this was on 16 June 1784.

100 The United Empire Loyalist Museum is in Adolphustown Provincial Park. This museum has displays of early pioneer times, with artifacts and documents telling the story of the Loyalists and their activities in the area. The museum also has a genealogy library covering local counties. 101 The community of **Adolphustown**, population 1,200 (1994), is north of here.

102 A **shoal** of 10 feet (3 m) lies near the 10 fathom (18.3 m) line 0.3 mile ESE of Pull Point. **Keith Shoal**, 0.15 mile off the south side of Adolphus Reach, 0.8 mile SSE of Lyons Island, has a depth of 7 feet (2.1 m); *Keith Shoal light buoy Q1 (441)* marks its north edge.

103 **Youngs Point**  $(44^{\circ}03'N, 77^{\circ}03'W)$  is the south end of the peninsula on the north side of Adolphus Reach. The coast between Pull Point and Youngs Point is lined with houses, cottages and farms.

104 Passenger and automobile **ferries** serve Youngs Point and Glenora. The **ferries** schedule can be found at: <u>https://</u> <u>www.ontario.ca/page/ferry-services.</u> There is a reduced service during the winter.

105 There are two ferry wharves at Youngs Point; they have a deck elevation of 8 feet (2.4 m). There were depths of 5 feet (1.5 m) in 1994. There is a pay phone near the wharves.

106 The village of **Glenora**, population 64 (1981), is on the south side of Adolphus Reach, SW of Youngs Point. There is a provincial fisheries research station at the village.

107 A **church** on the high land behind the village of Glenora has a conspicuous spire; it is obscured from the east by trees on the bluff.

108 There are two **ferry wharves** at Glenora, with an elevation of 5 feet (1.5 m) and a depth of 8 feet (2.4 m). A store, service station and pay phone are near by.

108.1 Youngs Point Ferry Dock light (441.1) and Glenora Ferry Dock light (441.2) are on the outer ends of the respective wharves.

109 A **submerged power line** crosses Adolphus Reach 0.1 mile west of the ferry wharves.

110 *Glenora light buoy Q3 (443)*, 0.4 mile WNW of the Glenora ferry wharf, marks the north edge of shoal water.

111 Close east of the Glenora ferry wharves are the buildings and wharves of the *Glenora Fisheries Station*. This facility is operated by the Ontario *Ministry of Natural Resources* to further the interests of both sport and commercial fishing in Lake Ontario. As well as being the base for fish sampling and tagging expeditions, the buildings also house laboratory space where the life cycle of fish can be studied.

112 **Historical note**. — Glenora has played an active part in the life of the local community since early Loyalist

days, a grist mill being established here in 1790 and other mills following. Later, in 1872, the massive stone building of the *Little Giant Iron Foundry* water wheel factory was built, its machinery being powered by water from Lake on the Mountain, on top of the nearby hill, 180 feet (55 m) high. In 1922 the Ontario government acquired the property and operated a fish hatchery here until 1954 using the same pure clear waters of the Lake on the Mountain.

113 In 1957 the *Research Branch* of the *Ministry of Natural Resources* moved here and developed the fisheries laboratory, providing facilities for ongoing research and field investigations as well as some experimental work.

114 Today the *Glenora Fisheries Station* is a major centre for fisheries research and studies; the *Research and Assessment Fisheries Unit* opens its doors to many visiting scientists and graduate scientists who may complete their studies here and at the same time make a contribution to the knowledge and understanding of the Lake Ontario fish community, its problems and its possibilities.

115 *Glenora Marina*, 0.4 mile west of the Glenora wharves, had depths of 4 to 5 feet (1.5 m) in 1994 and offered dockage, ramp, engine repairs, 6.8 tonne hoist, boat cleaning and storage, fishing boat rental, water taxi service, picnic area, pay phone, ice, boat hardware, bait and tackle, gasoline and snacks.

116 **Glen Island**, 0.6 mile NW of Youngs Point, lies 0.1 mile offshore.

117 **Caution**. — Boaters are cautioned to avoid the shoal water extending SW from Glen Island, marked on its south side by a **buoy**.

#### Approaches to Picton Bay and Long Reach

Bay of Quinte forms a wide triangular bay west of Glen Island. Picton Bay is at the SW end of this area; Long Reach is at its north end; **Carnachan Bay**, Bygotts Bay and **Mallory Bay** are on its NE side. There are many summer cottages on the north side of Carnachan Bay. The south coast of the bay is densely wooded.

119 **Bygotts Bay**  $(44^{\circ}04'N, 77^{\circ}03'W)$ , between **Le Nid Point**, low and wooded, and **Trumpour Point**, offers shelter for small craft. *Trumpour Point light buoy* Q(444) is a fairway buoy 0.9 mile west of Trumpour Point. *Buoy* Q6 marks the SW end of a shoal area extending SW of Trumpour Point.

#### Picton Bay

120 **Picton Bay**  $(44^{\circ}02'N, 77^{\circ}08'W)$ , entered 2 miles west of Youngs Point, is the south corner of Bay of Quinte. The shores of Picton Bay are steep and well wooded. **Conger Shoal** is a 16 foot (4.9 m) patch in the west part of the bay. PICTON HARBOUR (1994)



121 The *Esroc Canada Inc.* plant is on the west shore at the entrance to Picton Bay. The plant buildings, towers, tanks, conveyors and chimney are **conspicuous** from north and east. The tallest part of the structures has an elevation of 345 feet (105 m).

122 Twelve dolphins, joined by catwalks parallel to the shore, provide a loading berth 1,000 feet (305 m) long; the dolphins have an elevation of 12 feet (3.7 m). The berth had depths of 20 to 26 feet (6.1 to 7.9 m) in 1994. The loading berth is illuminated at night. More than 100 ships use this facility each year.

123 The **wharf** of the *Port Hallowell Docks* is on the west side of Picton Bay, 1 mile SW of the *Esroc Canada Inc.* plant. The wharf is 250 feet (76 m) long, with an elevation of 11 feet (3.4 m). There were depths of 26 to 30 feet (7.9 to 9.1 m) in 1994. Large fenders NE and SW of the wharf extend the length of the berth to 750 feet (229 m). Road salt is unloaded here.

124 **Chimney Point**, 1.3 miles south of the *Port Hallowell Docks* wharf, is the west entrance point of **Picton Harbour**.

125 The Picton waterworks pump-house is on Chimney Point. Two **submerged water intakes** extend offshore from the north side of the point; one of the intake cribs is marked by a **buoy**.

126 The channels north and south of Chimney Point are marked by light buoys and buoys.

127 There is a **speed limit** of 4.5 knots in Picton Harbour. 128 **Brick Kiln Point** is on the east side of the harbour 0.2 mile south of Chimney Point. Depths of 6 feet (1.8 m) extend 80 feet (24 m) off Brick Kiln Point; the outer edge of the shallows is marked by a **light buoy**.

129 The channel leading up Picton Harbour from Brick Kiln Point was originally dredged to a depth of 12 feet (3.7 m); **silting** has reduced this depth in places. In 1994 depths of 8 feet (2.4 m) could, with care, be carried as far as the town docks at the head of the bay, where a least depth of 5 feet (1.5 m) was found.

130 The town of **Picton**, with a population of 4,373 (1991), is built around the head of Picton Bay. Picton is the principal town of Prince Edward County and is noted for its numerous nineteenth century residences, many of which show interesting architectural detail of the times.

131 Picton has a hospital and all the facilities of a busy resort town. There is a daily bus service to Belleville, with bus and train connections to Toronto, Montréal and other major cities. Picton welcomes the visiting boater and offers the widest selection of facilities and services between Kingston and Belleville.

132 Picton is a **Customs** vessel reporting station for pleasure craft.

133 Picton Public **wharf**, on the west side of the harbour, west of Brick Kiln Point, has a total perimeter of 290 feet (88 m). The south part of the wharf has a frontage of 121 feet (37 m) and a deck elevation of 5 feet (1.5 m); there were depths of 6 to 12 feet (1.8 to 3.7 m) in 1994. There are four floating finger wharves on the north part of the main wharf. Dockage is managed by the *Prince Edward Yacht Club*.

134 Prince Edward Yacht Club, on the west side of the harbour, north of the Public wharf, had depths of 3 to 10 feet (0.9 to 3 m) in 1994 and offered dockage with power and water, picnic area, pay phone, showers, ice, snack bar, restaurant and a licensed dining room. A summer sailing school is based here. The Prince Edward Memorial Hospital is near by.

135 *Prince Edward Cruising Club*, a private facility on the east side of the harbour, south of Brick Kiln Point, has a T-shaped wharf with depths of 1 to 7 feet (0.3 to 2.1 m) in 1994.

Picton Harbour Park Marina, operated by the Town of Picton on the SE side of the harbour, had depths of 4 to 10 feet (1.2 to 3 m) in 1994 and offered dockage with power and water, pump out, ramp, picnic area, pay phone, showers, ice, gasoline and diesel fuel. *Picton Harbour Park Marina* is an authorized dealer for Canadian Hydrographic Service nautical **charts** and publications.

137 *Tip of the Bay Motor Hotel and Marina*, a hotel and restaurant in the SE corner of the harbour, had depths of 7 to 8 feet (2.1 to 2.4 m) in 1994 and offered dockage with power and water, fishing and yacht charters, motel accommodation, showers, pay phone, fishing tackle, restaurant with licensed dining room, snack bar and ice. A laundromat was near by.

138 *Picton Bay Motel*, at the head of the harbour, had depths of 1 to 5 feet (0.3 to 1.5 m) in 1994 and offered dockage with power and water, picnic area, pay phone, showers, motel accommodation, lunch room and ice.

139 The wharves at the SW corner of the harbour are private; they are part of the nearby condominium development. 140 **Historical note**. — Picton, known as *Hallowell* in its early days, was first settled in 1786 by Loyalists who had arrived in the area in 1784. The community later took the name *Picton* in honour of Major General Sir Thomas Picton who died at the Battle of Waterloo. Due to its well-protected natural harbour, Picton prospered in the days before good roads existed and became the business and administrative centre for Prince Edward County. In 1837, with a population of about 1,000, Picton was incorporated as a town.

141 Sir John A. Macdonald is Picton's most famed citizen; after Confederation in 1867, he became the first Prime Minister of Canada. As a boy he had lived at Glenora where his father operated a mill, then he practiced as a lawyer in Picton from 1833 until 1836.

142 **Points of interest**. — There are two museums close to Picton Harbour. Prince Edward County has several other museums and points of interest within a few miles of here. 143 *Macauley House*, built as the rectory by Rev. William Macauley in 1830, has been fully restored and furnished to offer a flavour of life in Picton in the 1850's.

14 *Prince Edward County Museum* occupies the former *St. Mary Magdelene Church* beside the Macauley House. This church was built in 1823 and has two floors of displays tracing the history of Picton and Prince Edward County from the earliest pioneer days.

145 *Scott's Mills*, 13 km south of Picton at Milford, is the reconstruction of a grist mill that was originally built here in 1810. Now a quiet village, this community was once a thriving timber milling town; this restoration shows the operation of a typical mill of those earlier times.

Mariner's Park Memorial Museum, 16 km south of Picton at South Bay, features artifacts and displays showing the life and times of seafarers of the area over the years. This museum is housed in a former lighthouse that was built in 1828 and is thus one of the oldest on Lake Ontario. The lighthouse was originally built on False Ducks Island and was re-erected here at South Bay after being replaced by a more modern structure in 1965.

147 North Marysburgh Museum, also known as Rose House, is 21 km east of Picton at Waupoos. This museum is housed in an early settler's home built about 1820; its period furnishings and displays depict the life of early Loyalists in the Marysburgh area. The Old Dutch Burying Ground is near by.

148 *Quinte Educational Museum and Archives* at Bloomfield, a stately village 9 km west of Picton, tells the story of the early one-room schoolhouses of the County and has displays of photographs, early records and artifacts, including a replica of an early classroom.

149 *Wellington Community Museum*, 19 km west of Picton in the village of Wellington, is housed in a former Society of Friends (Quaker) meeting house built in 1880. This museum traces the history of Wellington and the early settlers of the area.

150 *Ameliasburgh Museum*, 28 km NW of Picton in the village of Ameliasburgh, consists of a group of original pioneer village buildings furnished with artifacts and displays showing the way of life in Pioneer days.

151 Black River Cheese Factory, 11 km SE of Picton at Black Creek (*Chart 2064*), is the last cheese factory still in operation in the County. In 1874 the production and export of cheese was a major industry with 28 cheese factories in operation, but the introduction of modern mass production techniques has closed all the other traditional cheese producers. This cheese factory welcomes visiting tourists and has a sales counter. There is also some dockage and a launching ramp for the use of visitors.

### 1-11

#### Long Reach

152 **Long Reach**, 6 miles long and 0.5 mile wide, extends NNE from Picton Bay. The western shore is steep and mostly densely wooded; the eastern shore is flatter and mainly open farmland.

153 **Shermans Point**  $(44^{\circ}06'N, 77^{\circ}04'W)$  is the wooded tip of a long peninsula forming the east side of Long Reach. There is (1994) one large tree at the end of the point.

154 Shermans Point light (450), on the west side of the point, is shown at an elevation of 28 feet (8.5 m) from a white circular tower, 20 feet (6.1 m) high, with a red upper part.

155 A **shoal** spit extends 0.3 mile south from Shermans Point. The SW edge of this shoal area is marked by a **buoy**.

**Hay Bay**, extending 9 miles NE from the south part of Long Reach, is entered between Shermans Point and **Thompson Point**. This bay has good water for small craft, though the soundings are of a reconnaissance nature; uncharted dangers may exist. Weed growth can be a problem in the shallower parts of the bay.

157 Hay Bay is noted for its excellent fishing, with pickerel, bass, northern pike and some muskellunge being found here. There is also salmon fishing in the nearby rivers.

158 **Witlow Point**, low-lying, is on the south side of Hay Bay 1 mile SE of Shermans Point. **Ram Island**, wooded, lies in the middle of the bay 2.3 miles NE of Witlow Point.

159 The red top of a **silo** on the north side of Hay Bay, 0.9 mile NNE of Witlow Point, is prominent. There are several other silos in the Hay Bay area.

160 The village of **Gosport**, population 48 (1981), is on the west side of Hay Bay, 0.5 mile SSW of Ram Island. The community of **Hayburn**, population 46 (1981), is on the south side of the bay 3 miles ENE of Ram Island.

161 **Ramps**. — The *Hay Bay Boat Ramp* is on the south side of Hay Bay; there is a small floating wharf beside the ramp. A depth of 1 foot (0.3 m) was found in the approaches in 1994; the wharf itself was dry at chart datum. The *North Fredericksburgh Boat Launch* is near the NE end of Hay Bay.

162 Resorts on Hay Bay have some facilities for passing boaters.

163 *Bayview Resort*, a cottage and trailer resort on the north shore of Hay Bay, in 1994 offered dockage for resident guests, ramp, small boat and motor rentals, picnic area, camping, pay phone, drinking water, showers, ice and bait.

164 *Blakewood Lodge*, on the south shore, had depths of 1 foot (0.3 m) in 1994 and offered dockage, ramp, picnic area, camping, pay phone, dining room, drinking water, showers, some groceries and ice, and monitored VHF Channel 68.

165 *Perfect Vue Resort*, open all year on the north shore 2.5 miles NE of Ram Island, had depths of 1 foot (0.3 m) in 1994 and offered dockage for resident guests, ramp, boat and motor rentals, some boat hardware, picnic area, camping, pay phone, drinking water, showers, bait and tackle, ice, groceries and snack bar. The nearest medical facilities are at Napanee, 14 km to the NE.

*Pickerel Park*, a trailer resort on the south shore at Hayburn 3 miles ENE of Ram Island, had depths of 4 to 6 feet (1.2 to 1.8 m) in 1994 and offered dockage, pump out, concrete ramp, boat hardware, boat and motor rentals, picnic area, camping, pay phone, drinking water, showers, sandy beach, laundromat, children's playground, groceries, bait and tackle, snack bar, naphtha, ice and gasoline.

167 *Cedar Point Resort* is a private cottage resort on the south shore; facilities are for resident guests.

168 *Grey Church*, a historic building 5 km SW of Hayburn, has displays showing some of the Loyalist heritage of the area. This church is still in use as a meeting house of the Society of Friends (Quakers).

169 A **radio tower** on the west side of Long Reach, 2.2 miles NNW of Shermans Point, has an elevation of 710 feet (216 m); it has air obstruction **lights**.

170 **Hogsback** is a dangerous shoal extending out from the east side of Long Reach 1.8 miles north of Shermans Point. The outer end of this shoal area is marked by a **buoy**.

171 **Cole Wharf**, on the west shore 2.4 miles north of Shermans Point, was at one time a ferry landing. There is a weather-beaten barn near the shore.

172 **Grassy Point** and **Green Point** (44°10'N, 77°04'W), both wooded, together form the NW entrance point of Long Reach. Grassy Point is low lying and more sparsely wooded at its end.

173 **Caution**. — The cove between Green Point and Grassy Point was formerly used for storing logs; a log boom was secured across the entrance. In order to avoid the numerous underwater **obstructions** and deadheads, small craft operators should keep east of a line joining the entrance points of the cove.

174 **Carman Shoal** is on the east side of the channel, 0.5 mile SSE of Green Point. **Catalaque Shoal**, 0.6 mile south of Green Point, is the outer part of shoal water extending from the west side of the reach. *Catalaque Shoal light buoy Q11 (449)* is at the east edge of Catalaque Shoal.

175 **Submerged power cables** cross Long Reach 0.3 mile south of Green Point. The power lines continue on as overhead cables to the east along the south shore of Mohawk Bay; the line of the towers makes a good **landmark**.

176 North of Green Point, Bay of Quinte widens out into **Mohawk Bay**, a comparatively shallow body of water. Mohawk Bay is the northernmost part of Bay of Quinte.

177 **Foresters Island**, low-lying and wooded, is almost joined to Grassy Point by a sandy spit, overgrown by rushes, which extends from the SW side of the island. With local knowledge, craft can find a passage between the island and Grassy Point at usual summer water levels.

178 The town of **Deseronto**, with a population of 1,862 (1991), is on the north side of Mohawk Bay 27 km east of Belleville. Deseronto was formerly one of the principal commercial and lumber ports on the north shore of Lake Ontario between Kingston and Toronto.

179 **Historical note**. — Deseronto had its beginnings in the landing here of a party of 15 families of Mohawk Indians under Captain John Deserontyon in May 1784. These people were from Mohawk Valley in what is now New York State, but chose to remain loyal to the British crown during the American Revolution and were forced to leave their homelands. With them they brought the set of communion silver presented to their chiefs by Queen Anne in 1711; this silver is still used each year in a memorial thanksgiving and communion service after a re-enactment of their 1784 arrival.

180 The most **prominent** objects in Deseronto are the white water tower, elevation 217 feet (66 m), and the post office clock dial, which is illuminated. The water tower is visible from the south end of Long Reach and makes a good **landmark** for approaching boaters; the post office clock tower may be obscured by trees.

181 The **ruins** of the former town wharf are on the west shore of Mohawk Bay, 0.5 mile NNE of Foresters Island.

182 There is a **submerged sewer outfall** 0.1 mile NE of the ruined wharf. A **submerged water intake** close west of the ruins extends 0.25 mile in a SW direction; the intake crib has a depth of 15 feet (4.6 m) and is marked by a **buoy**.

**Quinte Marina**, 0.2 mile NE of the ruined wharf, had depths of 3 to 5 feet (0.9 to 1.5 m) in 1994 and offered dockage with power and water, pump out, ramp, hull and engine repairs, salvage work, 100 tonne marine railway, 30 tonne hoist, boat hardware, boat and houseboat rentals, canoe rentals, picnic area, camping, pay phone, showers, laundromat, bait and tackle, ice, gasoline and diesel fuel. All the facilities of Deseronto are near by. The channel to the marina pier leads between submerged cribs; these are marked by **buoys**. The channel had a depth of 4 feet (1.2 m) in 1994.

184 *Deseronto Centennial Park*, on the NW shore 0.3 mile west of the ruined wharf, is a municipal day-use park with a concrete launching ramp, picnic areas and shelter, children's playground, beach, drinking water, washrooms and snack bar. In 1994 there were three floating wharves with depths of 2 feet (0.6 m).

185 *Mohawk Bay Park*, a campground and a trailer park on the north shore of Mohawk Bay, offered some dockage (dry at chart datum) for resident guests, ramp, canoe and boat rentals, picnic area, camping, pay phone, showers, swimming pool, tennis courts, trailer unit rentals, ice, groceries, bait and tackle, propane and naphtha. 186 **Napanee River**  $(44^{\circ}12'N, 77^{\circ}01'W)$  flows into Mohawk Bay 1 mile east of Deseronto. The river is narrow and winding through low and marshy land. A channel 75 feet (23 m) wide has been dredged as far as the town of Napanee. Weeds are reported to grow on both sides of the channel.

187 The **channel** up Napanee River to the town of Napanee is marked by privately maintained **buoys**. In 1988 the limiting depth was 4 feet (1.2 m) in mid-channel, with 3 feet (0.9 m) or less on both sides. Local knowledge is necessary due to unmarked shoals.

**Caution**. — Napanee River is subject to **silting**; in 1994 depths in the channel were less than charted.

189 **Unger Island**, at the north entrance point to Napanee River, is thickly wooded and connected to the mainland by low-lying, marshy ground.

190 **Caution**. — The area at the north end of Mohawk Bay west of Unger Island is **foul** with the boulder remains of several cribs.

191 **Caution**. — High voltage **overhead power lines**, with a vertical clearance of 95 feet (29 m), cross Napanee River 2 miles NE of Unger Island. The supporting towers have air obstruction **lights**. Vessels with a masthead height of more than 56 feet (17 m) should not attempt to pass under the cables.

192 **Submerged high pressure gas and oil pipelines** and **submerged power cables** cross the river 3.5 to 4 miles NE of Unger Island.

193 The town of **Napanee**, with a population of 5,179 (1991), lies 5 miles upstream on the west side of Napanee River. Napanee has a hospital and all the facilities of a busy town.

A Public **wharf** on the north shore close west of the highway bridge is 120 feet (37 m) long and had a depth of 3 feet (0.9 m) in 1999. The **wharf** on the south side of the river is 494 feet (151 m) long and had depths of 2 feet (0.6 m) in 1994. There are two launching **ramps** on the north shore.

*Napanee Conservation Area*, a day-use park on the SE side of the river downstream of the highway bridge, had depths of 2 feet (0.6 m) in 1994 and offered dockage, picnic area, pay phone, drinking water, a shelter and toilets. A swimming pool and children's playground are near by.

#### **Deseronto to Belleville**

#### Chart 2069

197 The 15 mile stretch of Bay of Quinte from Deseronto to Belleville passes through Telegraph Narrows and the open waters of Big Bay. This is a fine cruising area with few unmarked shoals but there is little shelter from the prevailing westerly winds.

198 Mohawk Church (*not shown on the charts*) is 0.2 mile from the shore 0.7 mile west of Deseronto. Its stone **tower** is prominent from offshore.

A highway **bridge** 1.6 miles SW of Deseronto has a clearance of 90 feet (27.4 m) under the main span; the usable width is 150 feet (46 m). The structure is illuminated at night. The channel under the bridge has navigational **lights** and daymarks.

There is a concrete launching **ramp** on the north shore 0.1 mile east of the bridge. There is another **ramp** on the south shore close east of the bridge.

201 The tower and spires of a **church** l mile north of the bridge make a good landmark.

#### **Telegraph Narrows**

Telegraph Narrows (44°10'N, 77°07'W) is a narrow reach entered 2 miles SW of Deseronto. The channel through Telegraph Narrows is entered 0.8 mile west of the highway bridge. The channel is buoyed and is 150 feet (46 m) wide and 1 mile long, with a least depth of 10 feet (3 m).

203 **Telegraph Island**, joined to the south shore at chart datum, is at the west end of Telegraph Narrows, 200 feet (61 m) south of the channel.

204 Telegraph Island light (459), on a pier on the north side of the island, is shown at an elevation of 33 feet (10.1 m) from a white circular tower, 20 feet (6.1 m) high, with a green upper part.

#### Chart 2007

#### Telegraph Narrows to Big Bay

From the west end of Telegraph Narrows, Bay of Quinte gradually widens for 4 miles and opens out to form Big Bay. The south shore is wooded; the north shore is farmland fringed with trees.

206 **Sucker Creek** is a shallow river entering the north shore west of Telegraph Narrows. *Sucker Creek light buoy Q42 (462.5)* marks the SW edge of a shallow area extending SW from Sucker Creek entrance.

207 The village of **North Port**, population 82 (1981), is on the south shore 3 miles WSW of Telegraph Island. *Sophiasburgh Centennial Park*, at North Port, has a concrete launching **ramp**.

**EXAMPLE** 208 Foster's Fishing Centre, on the south shore of Telegraph Narrows 0.8 mile NE of North Port, had depths of less than 1 foot (0.3 m) at Chart Datum in 1994. Facilities included dockage with power and water, mobile pump out, ramp, repairs, hoist, some boat hardware, fishing boat rentals, bait and tackle, picnic area, pay phone, camping, trailer rentals, showers, laundromat, snack bar, ice and gasoline. The approach channel was buoyed but shallow. Boat storage and huts for ice fishing were also available.

209 **Quinte Point**, the NE end of **Big Island**, is the west entrance point of a narrow marshy shallow bay that connects with Muscote Bay. Small craft may be able to navigate between Big Island and the mainland at summer water levels.

210 **North Port Shoal**, a mid-channel danger with a depth of 3 feet (0.9 m), lies 0.4 mile NE of Quinte Point. *North Port Shoal light buoy Q43 (463)* marks the north side of the shoal.

211 **Trident Point** (44°09'N, 77°13'W), low and wooded, is the NE entrance point to Big Bay. *Trident Point light buoy Q46 (464)*, 0.7 mile SW of Trident Point, marks the south edge of a shoal spit extending from the point. There is an isolated 11-foot (3.4-m) **shoal** 0.3 mile south of Trident Point.

Bay of Quinte widens west of Trident Point to form **Big Bay**. The north shore of Big Island is low-lying with scattered clumps of trees. A shallow spit extends 0.4 mile from the NW shore of Big Island, 2 miles WSW of Quinte Point.

213 Baycrest Lodge and Marina, on the north shore of Big Island 1.5 miles SW of Trident Point, had depths of 2 to 5 feet (0.6 to 1.5 m) in 1994 and offered dockage with power and water, pump out, ramp, repairs and salvage work, 15 tonne marine railway, 6 tonne hoist, boat hardware, boat and outboard motor sales and service, canoe and fishing boat rentals, cottage rentals, picnic area, camping, pay phone, showers, laundromat, bait, ice, gasoline and diesel fuel. There was also a clubhouse and a swimming beach.

214 Big Island (Baycrest Marina) light (465.3), on the outer end of the marina wharf  $(44^{\circ}08'N, 77^{\circ}14'W)$ , is shown at an elevation of 10 feet (3 m) from a mast. The light is privately maintained.

Big Island Shoal, with a least depth of 3 feet (0.9 m), lies 2 miles west of *Baycrest Marina*.

216 **Muscote Bay** lies west of Big Island. The south part of the bay is weedy but can be navigated by small craft. **Huffs Island**, wooded, and connected to the mainland by marshy ground, is on the west side of Muscote Bay.

217 **Cole Point** is the NW corner of Big Island. **Miller Point** and **Robinson Cove** lie 0.3 mile east of Cole point. There is a concrete launching **ramp** on the SE side of Robinson Cove.

A conspicuous microwave **tower** 1.5 miles east of Cole Point, in the south-central part of Big Island, has an elevation of 682 feet (208 m); it has air obstruction **lights**.

219 The NE part of Big Bay is named **Hungry Bay**. **Salmon Island**, low and marshy, is on the NW side of Hungry Bay near the entrance to **Salmon River**, a shallow and narrow stream which runs through **Shannonville**, 1.4 miles to the NE. Small craft can navigate Salmon River as far upstream as a dam at Shannonville; the channel had depths of 2 to 13 feet (0.6 to 4 m) in 1994.

Historical note. — Shannonville was once an active port for shipping and a bustling village with many stores, hotels and small industries. This was a trading and shipping centre serving farmers and settlers for miles around, but the coming of the railroads took the flow of trade and Shannonville is now a quiet village. The community comes to life each fall for its "Little World Fair".

The village of **Point Anne** is at the west entrance point to Big Bay.

The slip charted l mile NNE of Point Anne was used for shipping cement and gypsum for the *Canada Cement Company* plant, demolished in 1974. In 1990 the facility was in a state of disrepair and was being used to store the vessels and equipment of *Cartier Construction Inc*.

#### Big Bay to Belleville

223 West of Big Bay, Bay of Quinte becomes narrow for a distance of l mile and then widens again, forming another bay; Belleville is at the west end of this bay.

224 **Minnie Blakely Shoal**  $(44^{\circ}09'N, 77^{\circ}18'W)$ , 0.1 mile south of the NE entrance point to the narrows, has a depth of 3 feet (0.9 m). *Minnie Blakely Shoal light buoy Q52* (467) lies south of the shoal.

**Ox Point**, a low wooded peninsula, is at the NW end of the above-mentioned narrows. The ruins of an abandoned cement plant lie close east of the point. Two islets and an island extend off the western tip of Ox Point.

**Horse Point**, long and narrow, is the SE entrance point to the narrows; a shallow spit extends north from its western tip. **Ship Islet**, 3 feet (0.9 m) high and composed of bare stones and boulders, lies close east of the shallow spit extending north of Horse Point. A **buoy** marks the east end of shoal water extending east of Ship Islet.

227 **Massasauga Point**  $(44^{\circ}09'N, 77^{\circ}19'W)$  is on the south side of the narrows, 0.7 mile NW of Horse Point. It is treed and has a sloping bedrock shore with a gravel beach. Several cottages and concrete piles on Massasauga Point are prominent.

Two **submerged power cables** cross the narrows at Massasauga Point.

229 **Rush Bar**, south of the channel 0.3 mile west of Massasauga Point, is partly submerged. *Massasauga Point light buoy Q53 (468)* marks the north edge of Rush Bar.

230 **Snake Island**, low-lying and wooded, is in the NE part of the bay 0.5 mile west of Ox Point.

Wallbridge Point, a peninsula on the south side of the bay 1.4 miles west of Massasauga Point, is low and partly wooded; there are several cottages on the point. Cow Island, 0.8 mile farther west, is low-lying and wooded. The plant of the *Bakelite Company* is on the north shore 1.3 miles NW of Ox Point. The chimney, water tower and red brick building of the plant make good **landmarks**. The wharf charted south of the Bakelite plant consists of an overgrown causeway (1994).

233 **Caution**. — A **crib**, dry 1 foot (0.3 m), lies close SE of the Bakelite Company wharf. Another crib, submerged 1 foot (0.3 m), lies 0.1 mile east of the wharf.

Charts 2011, 2007

#### Belleville

The city of **Belleville** (44°09'N, 77°23'W), with a population of 37,243 (1991), is on the north shore of Bay of Quinte on both sides of **Moira River**. This is the most important commercial and industrial centre on Bay of Quinte and is the largest centre of population between Kingston and Oshawa. Belleville has a general hospital. There is an *Ontario Municipal Airport* west of the city. Belleville is on *Highway 2* and lies close south of *Highway 401*. It is a station on the main rail line between Montréal and Toronto and is also served by scheduled bus services. Local machine shops can handle boat repair work.

Belleville is a **Customs** vessel reporting station for pleasure craft.

Norris-Whitney Skyway Bridge, a conspicuous highlevel highway **bridge**, crosses Bay of Quinte SW of the harbour. The best **landmark** for boaters approaching Belleville is the large semicircular apartment building near the shore on the east side of the river mouth. On closer approach, the redroofed building of the marina on the east side of the harbour entrance and the two silver-domed structures at the Pollution Control Plant east of the city centre make good landmarks.

237 Belleville is a recreational harbour administered by the *Department of Fisheries and Oceans* and by the *Belleville Parks and Recreation Department*.

238 The outermost **wharf** in Belleville Harbour is the Public wharf on the east side of the harbour entrance. This wharf is concrete, 152 m (499 ft) long, elevation 2 m (7 ft), and has an end section 52 m (170 ft) long; depths in 1994 were 2 to 4 m (7 to 13 ft). The red-roofed building on this wharf houses the *Meyer's Pier* marina facilities.

239 Belleville light (470), near the outer end of the rubble breakwater extending from the end section of the Public wharf, is shown at an elevation of 9 m (30 ft) from a white circular tower, 7 m (23 ft) high, with a green upper part.

**Caution**. — An area of shallow water extends from the west entrance point of Belleville Harbour. Small craft operators without local knowledge are cautioned to stay in the buoyed channel when navigating between the outer Public wharf and *Norris-Whitney Skyway Bridge*. NORRIS-WHITNEY BRIDGE AND BELLEVILLE (1994)



241 **Victoria Park**, formerly an island and now a peninsula joined to the east bank of Moira River, shelters the basin of the municipal *Victoria Park Marina* and *Bay of Quinte Yacht Club*. The mouth of Moira River at the north limit of Belleville Harbour is spanned by a railway **bridge** and a highway **bridge**. No navigation is possible beyond this point.



#### BELLEVILLE (1994)

243 A **submerged television cable** crosses the harbour from the Public wharf at the SE end of Victoria Park eastwards to the mainland.

244 *Meyer's Pier Marina*, on the east side of the outer Public wharf, had depths of 1.6 to 3 m (5 to 10 ft) in 1994 and offered dockage with power and water, pump out, picnic area, pay phone, showers, laundromat, snack bar, ice, gasoline and diesel fuel, and monitored VHF Channel 68.

245 *Victoria Park Harbour*, east of Victoria Park, had depths of 1.1 m (4 ft) in 1994 and offered dockage with power and water, picnic area, pay phone, showers, laundromat, ice and snack bar.

246 Bay of Quinte Yacht Club, at the SE part of Victoria Park, is a private organization with most facilities available only to members and guests. *The Quarterdeck Restaurant* here has a licensed dining room and patio.

247 *Morch Marina*, on the west side of the harbour, had depths of 1.5 m (5 ft) in 1994 and offered dockage with power and water, ramp, hull and engine repairs, 40 tonne hoist, mast stepper, boat hardware, picnic area, pay phone, showers, snack bar, restaurant with licensed dining room, ice, gasoline and diesel fuel, and monitored VHF Channel 68. This marina specialized in hull and engine repairs of all kinds. *C. Keeble for Sails*, also based here, made sails, rigging and canvas products to order and had a well-stocked chandlery.

247.1 *Stillwater Basin Marina*, 0.5 mile west of the *Norris Whitney Bridge*, has depths of 2.4 m (8 ft), and offers dockage with water and power, **ramp**, pump out, repairs, picnic area, showers, laundromat, mast stepper and a 35-ton (32-tonne) crane is available. There is grocery shopping nearby.

248 *Mackie Marine*, on the highway 5 km west of Belleville, in 1994 specialized in sales, service and storage of boats and motors.

249 *Meyer's Pier Marina* and *C. Keeble for Sails* are both authorized dealers for Canadian Hydrographic Service **charts** and publications.

There is a concrete launching **ramp** on the north shore at *South George Park*, 0.1 mile east of *Meyer's Pier Marina*.

250.1 A **submerged** outfall **pipeline** extends south, then SE, from the water pollution control plant close east of the aforementioned ramp.

**Historical note**. — When the first Empire Loyalist settlers arrived here in 1784 there was already a village of Mississauga Indians on the east bank of what was then called the Sagonaska River. Captain George Singleton established a trading post here, and in 1790 the first industry began with Captain Meyer's saw and grist mills.

Due to the efforts of the early settlers and the generosity and skills of the Native people, the community prospered; in 1836, with a population of about 2,000, it was incorporated as a village. It became a town in 1850 and continued to flourish with the coming of the railroad in 1856. In 1878, with a population of about 11,000, Belleville was incorporated as a city.

Belleville is now a major resort centre and prides itself on being "The Friendly City". Visitors are welcome in every season of the year, boaters being particularly catered to by the recently modernized and expanded waterfront facilities. *Glanmore House*, a mansion built in 1882 for a local banker, is styled after the early Chateaux of France. This home has been restored to its former grandeur with authentic Victorian furnishings, and has exhibits with displays on the history of the area.

#### **Belleville to Trenton**

#### Chart 2069

Norris-Whitney Skyway Bridge, a high-level highway bridge with a vertical clearance of 74 feet (23 m), crosses Bay of Quinte SW of Belleville. The **causeway** of an old bridge also crosses the bay here; boaters are advised to use the marked channel. The bridge is illuminated at night.

**Historical note**. — A ferry crossed Bay of Quinte here at Belleville from the earliest days of the settlement but it was not until 1891 that the first bridge was built. This bridge was the longest highway bridge in Canada at the time, though most of its length consisted of a solid causeway. This early bridge was a barrier to shipping and one section near the south shore was built with a swing span to allow vessels to pass. This arrangement lasted until 1983 when the highlevel *Norris-Whitney Skyway Bridge* was opened and the old swing-bridge dismantled.

257 **Zwick Island**, an area of park land with tennis courts, ball parks, picnic facilities, swimming beaches, launching **ramp** and a band shell, is a peninsula on the north side of the waterway close west of the north end of the bridge.

Two **submerged telephone cables** cross the channel about 0.1 mile west of *Norris-Whitney Skyway Bridge*. **Submerged power and television cables** cross the channel at the south end of the bridge.

Two **submerged pipelines**, the western one a water intake, extend from the north shore close west of Zwick Island.

#### Norris-Whitney Skyway Bridge to The Narrows

From *Norris-Whitney Skyway Bridge* to The Narrows, 5 miles to the SW, the channel has depths of 13 to 18 feet (4 to 5.5 m). Except for Anderson Shoal and offshore rocks near Rednersville, the reach is clear.

A **submerged water pipeline** crosses the channel 0.2 mile west of *Norris-Whitney Skyway Bridge*.

262 **Anderson Shoal**, south of the channel 2 miles SW of *Norris-Whitney Skyway Bridge*, has a depth of 2 feet (0.6 m) and is marked by *light buoy Q57*.

The village of **Rednersville**, population 141 (1981), lies to the south, 1.3 miles farther SW.

264 **Caution**. — **Rocks** with depths of 8 feet (2.4 m) lie 0.2 mile offshore 1.1 miles WSW of Anderson Shoal.

A water **intake pipe** extends 0.2 mile from the north shore 0.7 mile ENE of Makatewis Island. The **intake structure** at the outer end is submerged 14 feet (4.3 m).

265 **Makatewis Island** ( $44^{\circ}07'N$ ,  $77^{\circ}30'W$ ) lies north of the channel 5 miles west of *Norris-Whitney Skyway Bridge* and 3.5 miles east of Trenton. **Narrows Shoal**, with a rock dry 3 feet (0.9 m), extends SW from Makatewis Island. An unmarked channel, with a least depth of 8 feet (2.4 m), leads close north of Makatewis Island. Local knowledge is necessary to use this channel.

266 **Pine Point** (44°06'N, 77°30'W), low and partly wooded, extends from the south shore 5 miles SW of *Norris-Whitney Skyway Bridge*.

267 **The Narrows** is the main channel between Narrows Shoal and Pine Point. The Narrows channel is marked by one fixed and several floating aids to navigation.

268 Narrows Shoal light (472), on the north side of the channel 0.3 mile SW of Makatewis Island, is shown at an elevation of 31 feet (9.4 m) from a white circular tower, 24 feet (7.3 m) high, with a red upper part.

269 **Historical note**. — Narrows Shoal has been the site of a lighthouse since 1894; the original light structure stood here until 1959.

#### The Narrows to Trenton

The bay opens out SW of The Narrows and is shallower with shoal patches in its SW part. The channels to Trenton and to the Murray Canal entrance are buoyed.

Way Point (44°06'N, 77°30'W) is on the south side of Bay of Quinte, 0.8 mile SW of Narrows Shoal light-structure.
Meyers Point is on the north shore NW of Way Point. Baker Island, wooded on its north and south sides, is connected to Meyers Point by a wooded causeway. A breakwater extends NNE and north from the NE end of Baker Island. A floating breakwater with privately maintained lights extends 400 feet (122 m) farther north.

273 Bay Marine, on the north shore 0.7 mile NE of Baker Island, had depths of 5 feet (1.5 m) in 1994 and offered dockage with power and water, pump out, hull and engine repairs, salvage work, sales and service of boats and motors, picnic area and showers. Children's playground, gasoline and diesel fuel were planned for 1995. Bay Marine is also a yacht broker. 274 The *Canadian Forces Base Trenton* aerodrome lies north of Meyers Point. The *Rescue Coordination Centre* for the Great Lakes area operates from *C.F.B. Trenton*.

275 For information on search and rescue activities in Canadian waters, *see* Sailing Directions booklet *CEN 300* — *General Information, Great Lakes.* 

 $\sim$  276 There is a private L-shaped **wharf** on the east side of Meyers Point. It is a concrete structure, elevation 7 feet (2.1 m), with a floating wooden extension. In 1994, there were depths of 4 feet (1.2 m) at the concrete wharf and 5 feet (1.5 m) along the wooden part.

A **conspicuous** red and white **water tower**, 0.3 mile north of Meyers Point, has an elevation of 172 feet (52 m). The structure has a rotating red **light**.

C.F.B. Trenton Yacht Club, a private facility on the north side of Baker Island, had depths of 5 feet (1.5 m) in 1994. Most facilities are available only to yacht club members and guests. There is a privately maintained **light** at the entrance to C.F.B. Trenton Yacht Club.

279 There is a channel junction 0.4 mile WNW of Way Point; a **buoyed channel** leads from here to Trenton and Trent River. Boaters whose vessels draw more than 5 feet (1.5 m) should exercise caution when proceeding through this channel at low water levels. The *Trent-Severn Waterway* is entered at Trenton.

#### Charts 2021-1, 2069

The city of **Trenton**, with a population of 16,908 (1991), is near the west end of Bay of Quinte at the mouth of **Trent River**. Trenton is a station on the main railway line between Montréal and Toronto. It has a general hospital and all the facilities of a major resort town. Groceries and other supplies are available close to the waterfront.

There are three bridges at Trenton. The first and second bridges upstream of the harbour are arched road bridges with clearances of 30 feet (9.1 m) and 25 feet (7.6 m), respectively. The third bridge, a short distance upstream, is a girder train bridge. The piers of a former train bridge are just upstream of the second road bridge.

282 Trenton is a **Customs** vessel reporting station for pleasure craft. The customs office is in the post office building, which is on the SW side of the river upstream of the first bridge.

283 A Public **wharf** south of the first bridge has 219 feet (67 m) of frontage along the west side of the river; the SE face of the wharf is 136 feet (42 m) long, elevation 8 feet (2.4 m), and had depths of 5 to 14 feet (1.5 to 4.4 m) in 1994. There is a **floating wharf**, 75 feet (23 m) long, in the basin south of the Public wharf. The wharf south of here is occupied by a cold storage plant.

Another Public **wharf**, elevation 9 feet (2.7 m), lies south of the cold storage plant; this wharf had depths of 4 feet

#### **TRENTON** (1994)



(1.2 m) in 1994. There is a boat launching **ramp** in the basin at this wharf.

285 **Caution**. — A rock, dry 2 feet (0.6 m), lies close off the NE face about 67 feet (20 m) from the north corner of the wharf at the cold storage plant.

286

There are two municipal marinas in Trenton.

287 *Fraser Park Marina*, at the Public wharf on the west shore south of the first bridge, had depths of 5 feet (1.5 m) in 1994 and offered dockage with power and water, pump out, mast stepper, picnic area, pay phone, snack bar, showers, ice, gasoline and diesel fuel. A launching ramp and all the facilities of the town are near by.

288 *Robert Patrick Marina*, protected by breakwaters on the NE side of the river mouth SE of the first bridge, had depths of 2 feet (0.6 m) in 1994 and offered dockage with power and water, ramp, picnic area, pay phone, showers, snack bar and ice. There are also tennis courts, children's playground, amphitheatre and ball parks here.

289 *Randall's Bookstore*, 24 Dundas Street West, is an authorized dealer for Canadian Hydrographic Service nautical **charts** and publications.

Historical note. — Samuel de Champlain is said to have passed this way in 1615. The first known European settlers arrived here in about 1790, a sawmill being established soon after. In its early days this was known as *Trent Port* and was an important port of call for people and goods heading farther west and north. Being near the main road between Kingston and York (Toronto), built in 1798, the settlement prospered. In 1807 the first store was opened, and in 1837 Trent Port became an official Port of Entry. In 1853 it was incorporated as a village.

The village continued to grow with several industries flourishing, and in 1880 it was incorporated as the town of *Trenton*. A hundred years later, with a population of 15,000, Trenton achieved the status of city.

292 Trenton is now a lively resort centre with several service organizations and many facilities for visitors. It also has some industry.

#### Trent-Severn Waterway

The **Trent-Severn Waterway** is a series of rivers and lakes between Trenton and Port Severn. Its system of dams, locks and artificial channels allows vessels with a draught of 5 feet (1.5 m) to travel the distance of 210 miles to Georgian Bay.

The Canadian Hydrographic Service publishes smallcraft charts of the Trent-Severn Waterway. This pleasure craft route is described in detail in the *Trent-Severn Waterway Small Craft Guide*, which is also published by the Canadian Hydrographic Service.

**Historical note**. — This route between Lake Ontario and the Georgian Bay was already being well used by the Indians when Champlain passed this way in 1615. In those days people paddled canoes along the open stretches of river and lake but many portages were necessary to get from river to river and around some of the rapids along the route.

### 1-19

The logging industry that followed the early Loyalist settlers found the waterway convenient for transporting rafts of logs and soon began pressing for development to solve the problem of the rapids. Along with pressure from other groups and the need for a route to the Upper Lakes safe from the ever-present military threat to the south, this resulted in a scheme to develop the whole system. Work began in 1833 with the construction of a lock at Bobcaygeon.

In its earlier stages the Waterway developed as a series of unconnected sections; the opening of the new lock at Couchiching made the final connection in 1920. By this time the logging industry had moved on and the threat of military invasion had faded, but the pleasure boater had appeared in increasing numbers.

Today the waterway sees more visitors than the early planners could ever have imagined. With its 43 locks and one marine railway, boaters can move in ease along the tranquil waters of its 210-mile route between Trenton and Georgian Bay.

#### The Narrows to Murray Canal

299 The channel distance from The Narrows to the Murray Canal entrance at Twelve O'Clock Point is 4.5 miles. The recommended track is quite direct and leads through the SE side of the bay. The channel is buoyed and presents little difficulty to the prudent boater. 300 **Onderdonk Point**  $(44^{\circ}05'N, 77^{\circ}32'W)$  is on the south shore 2.4 miles SW of The Narrows. The land behind the point, about 100 feet (30 m) high, has the appearance of a large round hill.

301 A **shoal** of 7 feet (2.1 m) lies 0.4 mile NNW of Onderdonk Point, close NE of the recommended track between Trenton and Murray Canal.

**Indian Island**, a rounded island partly wooded and fringed with mature trees, lies 1.5 miles west of Onderdonk Point. **Indian Island Bank**, a weedy shoal with depths of 1 to 6 feet (0.3 to 1.8 m), lies between Indian Island and Onderdonk Point. *Onderdonk Point light buoy QT16 (475)* marks the east end of Indian Island Bank.

303 A **channel** for smaller craft navigating between Trenton and Murray Canal passes west of Indian Island in depths of 3 feet (0.9 m).

A **submerged power cable** crosses from the mainland in an ESE direction to Indian Island.

Twelve O'Clock Point  $(44^{\circ}04'N, 77^{\circ}35'W)$  is a low wooded area at the SW end of the bay. This general area closing the SW end of Bay of Quinte is known as **The Carrying Place** as it was the major portage for Indian canoes travelling south and west from the Bay of Quinte region.

306 Twelve O'Clock Point light (1346.2), near the outer end of the north pier at the east entrance to



#### MURRAY CANAL FROM NE (1994)

Murray Canal, is shown at an elevation of 34 feet (10.4 m) from a framework tower.

307 **Historical note**. — In the nineteenth century a stagecoach served Picton and Trenton, leaving Picton each day at 08:00 and stopping at The Carrying Place at noon. This stopping place soon became known as *Twelve O'Clock Point*.

#### Chart 2021-1

#### Murray Canal

**Murray Canal** cuts through an isthmus and connects Presqu'ile Bay and Bay of Quinte. The canal is 4.5 miles long and has no locks. Between the banks, the canal is 124 feet (38 m) wide; at the bottom of the cut it has a width of 80 feet (24 m). In 1985 there was a least depth of 9 feet (2.7 m) in the canal; the east and west approach channels had depths of 7 feet (2.1 m).

309 Murray Canal is administered by *Parks Canada*, *Department of the Environment*. Vessels navigating the canal are subject to the *Historic Canals Regulations*.

310 Murray Canal is normally open to navigation from mid-May to mid-October; the actual opening and closing dates and the hours of operation for the bridges are promulgated each year in *Notices to Shipping*.

Two highway **swing bridges** span the canal; their positions are shown on the chart. When closed, the west bridge has a vertical clearance of 10 feet (3 m); the east bridge has a vertical clearance of 8 feet (2.4 m). The piers for these bridges are north of the axis of the canal; similar piers of 3 former bridges are 2.4, 1 and 0.8 miles from the east end of the canal. Vessels must pass south of the piers.

**Signal for bridges**. — The vessel signal for opening a bridge on Murray Canal is *three blasts of five seconds*  *duration* on a whistle, horn or siren. Carrying Place Bridge and Brighton Road Bridge monitor VHF Channel 14 (156.7 MHz).

A red **light** is shown from the centre of each of the Murray Canal swing-bridges when the bridge is closed; a green **light** is shown when the bridge is open. The lights are maintained by *Parks Canada*.

**Submerged power and telephone cables** cross the canal near each swing-bridge.

315 *Turner's Tackle and Variety*, at the roadside close north of the eastern bridge, in 1994 offered ice, groceries, bait and tackle, pay phone, propane, naphtha, snack bar, gasoline and diesel fuel.

316 *Trippy's Variety Store*, 0.25 mile north of Lovett Bridge on County Road 64, in 1994 offered ice, groceries, bait and tackle, pay phone and naphtha.

317 There is a floating **wharf**, maintained by *Parks Canada*, close east of the eastern swing-bridge; dockage is also available along the south shore close west of the bridge. A **wharf** on the south shore close west of Lovett Bridge had depths of 3 to 7 feet (0.9 to 2.1 m) in 1990.

**Historical note**. — As mentioned earlier, this was a major portage route for people travelling between the sheltered waters of Bay of Quinte and the regions to the west. As the early settlers established their communities along the north shore of Lake Ontario, the increasing trade called for an easier access route, and construction work began on a canal here in 1882. In 1889 Murray Canal was officially opened by Sir John A. Macdonald; commercial shipping could now take full advantage of the sheltered route through Bay of Quinte.

319 (*Presqu'ile Bay, west of Murray Canal, is described at the end of Chapter 2.*)

## Wolfe Island to Presqu'ile Point Outer route

#### General

#### Charts 1439, 2017, 2018, 2059, 2060, 2064

1 This chapter describes the shores and route from Wolfe Island and Tibbetts Point to Presqu'ile Point, passing south of Prince Edward County. This route is 68 miles long. Also included is an area of the United States from Tibbetts Point to Galloo Island and Stony Point.

2 Caution. — This route is exposed over its entire length and there are few safe anchorages or facilities for small craft. Passage should be attempted only by well-found boats with experienced crews and favourable weather conditions. Small craft are advised to use the more-sheltered inner route, described in Chapter 1.

2.01 Real-time water level information for Lake Ontario at Kingston is available from the *Canadian Hydrographic Service Automated Water Level Gauge*, telephone number 613-544-9264. (*More information on water levels is given in Sailing Directions booklet CEN 300* — *General Information, Great Lakes.*)

[From U.S. Coast Pilot 6, Chapter 5, partial]

2.1 *Caution.*—A special use airspace is in midlake in U.S. waters bounded by the following coordinates:

- 2.2 *43°37′N.*, 76°45′*W*.;
- 2.3 43°24′N., 76°45′W.;
- 2.4 43°24′N., 78°00′W.; and
- 2.5 *43°37′N., 78°00′W.*

2.6 The area may be used for military purposes from the surface to an altitude of 50,000 feet [15,240 m]. The using agency is the Commander, 21<sup>st</sup> Air Div., Hancock Field, Syracuse, N.Y. Consult Local Notice to Mariners for additional information and firing schedules.

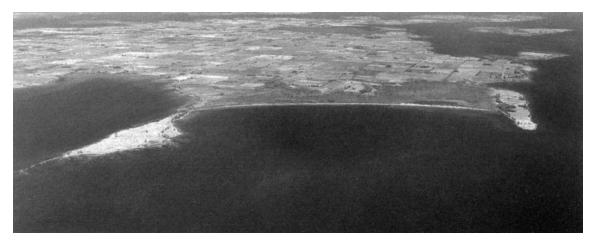
2.7 **Caution**. — Many **wrecks** (*some uncharted*) are scattered on the bottom of Lake Ontario. As they constitute navigation and anchoring hazards, the mariner is advised to consult the most up-to-date copy of their chart.

#### Chart 1439

3 **Wolfe Island**  $(44^{\circ}10'N, 76^{\circ}25'W)$  is a large island in the broad entrance to St. Lawrence River. It is separated



#### SSW SHORE OF WOLFE ISLAND (1994)



from the United States mainland by the main channel of the St. Lawrence Seaway, and from the Canadian mainland by Canadian Middle Channel.

4 (South Channel and Canadian Middle Channel are described in Sailing Directions booklet CEN 301 — St. Lawrence River, Montréal to Kingston.)

**5 Bear Point**  $(44^{\circ}06'N, 76^{\circ}26'W)$ , a low-lying densely wooded sandy point, is at the south end of Wolfe Island. The end of the point is rock, 3 m (10 ft) in elevation. Dark cliffs extend 1.5 miles NE of the point. Tibbetts Point  $(44^{\circ}06'N, 76^{\circ}22'W)$  and Bear Point are the entrance points to the main Seaway channel of St. Lawrence River.

6 From a position 1.5 miles west of Tibbetts Point, the route leads in a 207° direction for 5 miles to a position 1.3 miles SE of East Charity Shoal light. The shipping routes adopted by the *Canadian Shipowners Association* and the *Lake Carriers Association* for upbound and downbound vessels on Lake Ontario converge here.

7 There is a pilot boarding place off Cape Vincent (44°08'N, 76°20'W), 3 miles downstream of Tibbetts Point. For further information on pilotage, consult Sailing Directions booklet CEN 300 — General Information, Great Lakes, the Annual Edition of Notices to Mariners and Radio Aids to Marine Navigation (Atlantic and Great Lakes).

8 General information on the St. Lawrence Seaway traffic control system is given in Sailing Directions booklet *CEN 300 — General Information, Great Lakes.* 

9 Information on ice conditions and a physical description of Lake Ontario is given in Sailing Directions booklet *CEN 300 — General Information, Great Lakes.* 

#### Lake Ontario — United States shore

[from U.S. Coast Pilot 6, Chapter 5, partial]

10 **Chart 14802.**–The shoreline SE for about 11 [9.6] miles from Tibbetts Point to Point Peninsula is irregular, with numerous bays and outlying islands and shoals. 11 **Tibbetts Point**, 3 [2.6] miles SW of Cape Vincent, NY, is on the S side of the main ship channel leading from the St. Lawrence River to Lake Ontario. **Tibbetts Point Light** (44°06′02″N., 76°22′14″W.), 69 feet [21 m] above the water, is shown from a white conical tower on the point. Reefs extend off about 1,000 feet [305 m] around the point, and a rock ledge, with a least depth of 18 feet [5.5 m] near its outer end, extends about 1 [0.9] mile SW from the point. A lighted buoy marks the SW end of the ledge.

11.1 Anchorages. — There is an anchorage area off Tibbetts Point. (See **33 CFR 110.209**, chapter 2 [of U.S. Coast Pilot 6] for limits and regulations.)

Wilson Point is about 1 [0.9] mile SE of Tibbetts Point and is separated from it by **Fuller Bay**, which extends inshore about 0.5 [0.4] mile. A rocky spit, with 11 feet [3.4 m] near its outer end and shoaler water inside, extends about 0.6 [0.5] mile SW from Wilson Point. **Wilson Bay**, a rectangular indentation about 1 [0.9] mile long and 0.5 [0.4] mile wide, opens between Wilson Point on the N and **Dablon Point** on the S. The bay has depths of 10 to 20 feet [3 to 6.1 m], but the deep water at the entrance narrows between the spit extending from Wilson Point and a shallow bank extending 0.9 [0.8] mile W from Dablon Point. This bank has a depth of 11 feet [3.4 m] at the outer end and a 4-foot [1.2-m] spot 0.65 [0.56] mile W of Dablon Point. 13 *Mud Bay*, a narrow, shallow inlet about 1.4 [1.2] miles long, is E of Dablon Point with **Baird Point** on its S side.

14 Grenadier Island, 2.3 [2.0] miles long and 1.4 [1.2] miles in maximum width, is 0.8 [0.7] mile SW of Baird Point. Fox Island, E of Grenadier Island, is irregularly shaped, about 0.8 [0.7] mile across at its S end and quite narrow at its N end. Between Fox Island and Grenadier Island is a shallow passage about 0.6 [0.5] mile wide, with depths of 6 to 8 feet [1.8 to 2.4 m]. An expanse of shallow water with mud bottom separates both islands from the shore. The shallow water extends off the SW side of the islands as much as 1.2 [1.0] miles and extends SE to Point Peninsula. Charts 14802, 14811.-Point Peninsula (44°00'N., 15 76°15'W.), an almost detached body of land about 6 [5.2] miles long and 3 [2.6] miles wide, is joined to the mainland on its NW side by a narrow neck. Shoaling extends as much as 1.2 [1.0] miles off the W side and around the S end. A lighted buoy 1 [0.9] mile S of the SW end of the peninsula marks the S side of the shoaling. Between the SE side of the peninsula and **Pillar Point** on the mainland opposite, a deep channel extends NE to Chaumont and Guffin Bays. The channel has general depths greater than 30 feet [9.1 m] except for a shoal with depths of 22 to 28 feet [6.7 to 8.5 m] which generally parallels the SE end of the peninsula. 16 Between Point Peninsula and Stony Point, 8 [7] miles S, a group of large deep bays, including Chaumont Bay, Guffin Bay, Black River Bay, and Henderson Bay, open to the N and E.

17 **Chaumont Bay**, about 20 [17.4] miles by deep water from Tibbetts Point, is separated from Lake Ontario by Point Peninsula and the adjoining mainland point. It is a large and well-protected area with depths of 18 to 30 feet [5.5 to 9.1 m] of water to within 0.4 [0.35] mile of shore, except for shoals in the SW end and shoals extending about 1.5 [1.3] miles SE from Three Mile Point on the N side of the bay. The bay provides good anchorage, mud bottom.

18 **Three Mile Bay, NY**, is a village at the N end of **Three Mile Bay**, a small bay on the N side of Chaumont Bay. In 1977, the reported controlling depth through the bay to the village was 3 feet [0.9 m], thence 2 feet [0.6 m] to and in the marina. Gasoline, ice, marine supplies, a launching ramp, and limited repairs are available.

19 At the NE end of Chaumont Bay, **Independence Point** extends from the mainland to form two arms, the NE end of Chaumont Bay on the NW side of the point and **Sawmill Bay** on the SE side. **Johnson Shoal**, with a least depth of 2 feet [0.6 m], extends SW for about 1.4 [1.2] miles from Independence Point and is marked on the SE side by a lighted buoy.

20 *Chaumont, NY, a village at the NE end of Chaumont Bay, can be approached on the NW side of Independence*  Point or through Sawmill Bay on the SE side of the point. The Sawmill Bay approach is marked by a light on the SE side of Independence Point, and deep water in the harbor is marked by buoys and a daybeacon.

21 The **Chaumont River** flows through the village and into Chaumont Bay on the NW side of Independence Point. A fixed highway bridge at the mouth of the river has a clearance of 20 feet [6.1 m], and an overhead telephone cable on the N side of the bridge has a clearance of 22 feet [6.7 m]. The pier remains of a railroad bridge 0.1 [0.09] mile NE provide a horizontal clearance of 50 feet [15.2 m]. An overhead cable of unknown clearance crosses the river at the pier remains.

22 **Small-craft facilities.**–Several marinas provide limited transient berths, gasoline, water, ice, electricity, sewage pump-out, marine supplies, launching ramps, a 25-ton [22.7-tonne] marine railway, mobile lifts to 25 tons [22.7 tonnes], a mast-stepping crane, and hull and engine repairs. In 1977, the reported controlling depths were 5 to 10 feet [1.5 to 3 m] to the Sawmill Bay facilities with 5 to 8 feet [1.5 to 2.4 m] alongside, and 5 feet [1.5 m] to the facilities above the highway bridge crossing Chaumont River.

Chaumont has several stone quarries.

23

24 **Guffin Bay** is E of Chaumont Bay and is separated from it by **Point Salubrious** and Cherry Island. The bay has good water except for about 0.5 [0.4] mile of its head, where **Guffin Creek** enters. The deep portion affords good anchorage in 22 to 36 feet [6.7 to 11 m] with mud bottom.

25 **Cherry Island**, on the W side of Guffin Bay, is marked by a light on the SW end. The passage between the NE end of Cherry Island and Point Salubrious is about 0.5 [0.4] mile wide with depths of 15 to 19 feet [4.6 to 5.8 m] except for a detached 11-foot [3.4-m] shoal about 650 feet [198 m] off Point Salubrious.

Black River Bay, opening about 6 [5.2] miles E of the SW end of Point Peninsula, is entered between Everleigh Point on the N side and Horse Island on the S side. The bay is about 1 [0.9] mile wide and extends NE for about 5.5 [4.8] miles. The water is deep through the bay and close to the shores except for a very shallow expanse filling the upper 1.5 [1.3] miles. Black River enters at the head of the bay. A depth of about 5 feet [1.5 m] can be carried through the shallows and between the submerged ruins of breakwaters at the mouth of the river upstream to the village of Dexter, about 1 [0.9] mile above the mouth. The channel is marked by private lighted and unlighted buoys that are shifted to mark the best water.

27 **Sackets Harbor**, NY, is on the SE side of Black River Bay, about 22 [18] miles by water from Tibbetts Point. The harbor, about 7 acres [2.8 ha] in extent, is protected on the N side by Navy Point. Lights on the N side of Horse Island

2-3

and on Navy Point mark the approach to the harbor. Good anchorage is available with sand, mud, gravel, and rock bottom, taking care to avoid anchoring over the submarine cable in the SE part of the basin.

28 A seasonal **Coast Guard station** is on the N side of the basin.

30 Several marinas at Sackets Harbor provide gasoline, diesel fuel, water, ice, electricity, sewage pump-out, marine supplies, launching ramps, mobile lifts to 8 tons [7.2 tonnes], and hull and minor engine repairs. In 1977, depths of 3 to 15 feet [0.9 to 4.6 m] were reported alongside the facilities.

**Henderson Bay**, SW of Black River Bay on the E side of Stony Point, is a broad indentation separated from Lake Ontario by a line of shoals and small islands extending from Stony Point NE to Horse Island. The bay is about 7 [6] miles long and 2 [1.7] miles wide. Once inside, the bay is clear with depths of 20 to 40 feet [6.1 to 12.2 m] close to the shore except at the E end. Shoals extend 0.7 [0.6] mile SW from Horse Island and continue S to **Campbell Point** where a shoal with a least depth of 2 feet [0.6 m], and marked by a buoy, extends about 1 [0.9] mile W. The bay provides good anchorage, mainly sand and mud bottom.

32 **Bass Island**, 1.5 [1.3] miles SW of Horse Island, and **Gull Island**, 0.9 [0.8] mile SSW of Bass Island, are on a very small bank that extends 0.2 [0.17] mile NE from Bass Island and 0.5 [0.4] mile SW from Gull Island. The deep channel between the shoals off Horse and Bass Islands, about 0.7 [0.6] mile wide, is the NE entrance to Henderson Bay.

A partly submerged projection of land extends about 2 [1.7] miles NE from Stony Point and terminates in **Six Town Point. Lime Barrel Shoal**, with a least depth of 1 foot [0.3 m], is the NE end of shallow water that extends 1.2 [1.0] miles NE from Six Town Point. A lighted buoy on the W side of the shoal marks a small-craft passage with depths of 11 to 14 feet [3.4 to 4.3 m] between Lime Barrel Shoal and Six Town Point. A deepwater passage between Lime Barrel Shoal and Gull Island has depths of 23 to 33 feet [7 to 10 m].

34 **Henderson Harbor** is a small summer resort on the NE side of **Henderson Harbor**, a small inlet at the S end of Henderson Bay. In 1977, the reported controlling depth to marinas in the S end of the harbor was 4 feet [1.2 m] with 2 to 10 feet [0.6 to 3 m] reported alongside the berths. The marinas provide transient berths, gasoline, diesel fuel, water, electricity, ice, sewage pump-out, marine supplies, launching ramps, mobile lifts to 15 tons [13.6 tonnes], a 45-foot [13.7-m] marine railway, and hull, engine, and electronic repairs. 35 **Special anchorages** are in Henderson Harbor. (See **33 CFR 110.1 and 110.87**, chapter 2 [of U.S. Coast Pilot 6], for limits and regulations.)

36 Whites Bay, with good depths, and Snow Shoe Bay, small and shallow, are indentations in the W shore of Henderson Bay NW of Henderson Harbor. A privately maintained channel connecting Snow Shoe Bay with Lake Ontario has depths of about 3 feet [0.9 m] through a cut in the narrow peninsula on the NE side of Stony Point. A bridge across the channel has a 30-foot [9-m] fixed span with a clearance of 12 feet [3.6 m].

37 **Chart 14802.-Stony Point** (43°51'03"N., 76°16'18"W.) is a bold headland extending W from Henderson Bay with deep water close-to. **Stony Point Light** (43°50'20"N., 76°17'56"W.), 40 feet [12.2 m] above the water, is shown from a white skeleton tower on the W end of the point.

38 Stony Island is about 2.2 [1.9] miles NW of Stony Point. The channel between the mainland and the island is broad and deep and is occasionally used by tows bound to and from the St. Lawrence River. A rocky ledge with least depths of 2 feet [0.6 m] extends about 2.3 [1.9] miles SW from Stony Island. Calf Island is on the W part of the ledge, and the SW end of the ledge is marked by a buoy. A detached rock ledge with a least depth of 13 feet [4 m] is about 1 [0.9] mile S of the buoy. A shoal with a least depth of 14 feet [4.3 m] extends 0.4 [0.35] mile off the NE end of Stony Island and is marked on the E side by a lighted buoy. Dutch John Bay is a small bight of deep water on the W side of Stony Island. From the head of the bay, a narrow strip of water extends SW almost through the length of the island.

*Little Galloo Island*, about halfway between the SW ends of Stony and Galloo Islands, is on a bank 1 [0.9] mile long and 0.5 [0.4] mile wide, with broad and deep channels to either side. A detached 24-foot [7.3-m] spot is in the channel SW of the island.

40 Galloo Island is 2.4 [2.1] miles W of Stony Island. Gill Harbor, on the NE side of Galloo Island, provides shelter for small craft. The harbor is enclosed by a gravel spit across which a channel has been dredged. In 1961, the controlling depth was 7 feet [2.1 m] in the entrance channel.

41 **North Pond**, near the N end of the island, has a depth of 3 feet [0.9 m]. The entrance is through a narrow channel along a crib pier at the E end of the pond. In 1976, the controlling depth was 2 feet [0.6 m] in the entrance.

42 Shoals extend about 0.6 [0.5] mile off the NE and SW ends of the island.

44 **Galloo Shoal**, about 1.3 [1.1] miles W of Galloo Island Light, has a least depth of 3 feet [0.9 m] and is marked off its W side by a lighted buoy. Vessels bound to and from the St. Lawrence River should pass W of the buoy, although there is a deep passage about 0.8 [0.7] mile wide between the shoal and Galloo Island.

45 An unmarked snag, covered 16 feet [4.9 m], is 0.4 [0.35] mile NE of Galloo Shoal, and an unmarked wreck is 1 [0.9] mile NE of the shoal.

#### Lake Ontario — Canadian shore

#### Chart 1439

#### Wolfe Island to Long Point

46 A conspicuous **radio tower** near the geographic centre of the SW part of Wolfe Island has an elevation of 271 m (889 ft); it has air obstruction **lights**.

47 Long Point (43°56'N, 76°53'W), 20 miles SW of Wolfe Island, is described later in this chapter.

48 Proceeding south and west from Wolfe Island towards Niagara is "upstream"; red buoys and beacons are kept to starboard. (*See* information on *Aids to navigation* in Sailing Directions booklet *CEN 300* — *General Information*, *Great Lakes*.)

Charts 1439, 2064, 14802

### Islands and offshore dangers SW of Wolfe Island

49 **Pigeon Island**  $(44^{\circ}04'N, 76^{\circ}33'W)$ , 5 miles WSW of Bear Point, is surrounded by shoal water. The island, flat and bare and about 5 m (16 ft) high, has a greyish appearance.

50 Pigeon Island light (421) is shown from a white square skeleton tower, 15.2 m (50 ft) high, with a red upper part.

51 **Charity Shoal**  $(44^{\circ}02'N, 76^{\circ}30'W)$ , with a depth of 0.6 m (2 ft), and **South Charity Shoal** are dangerous reefs joined by shallow water near the International Boundary, 4 miles SSW of Wolfe Island. *South Charity Shoal light buoy M6* (422) marks the SW end of the shoal area; the NW edge is marked by a north cardinal **buoy**.

#### [from U.S. Coast Pilot 6, Chapter 5, partial]

52 *Allan Otty Shoal*, about 4.7 [4.1] miles SW of Tibbetts Point Light, is a narrow ridge about 0.5 [0.4] mile long E and W, with rocks covered 10 feet [3 m] along the N edge. A lighted buoy marks the SE side of the shoal.

53 East Charity Shoal, SE of Charity Shoal, has a least depth of 8 feet [2.4 m] and is marked by a light. The passage between Charity and East Charity Shoals is rendered unsafe by South Charity Shoal, a narrow ridge about 0.9 [0.8] mile SW of East Charity Shoal Light, having a least depth of 11 feet [3.4 m]. The SW extremity of South Charity Shoal is marked by a lighted buoy. About 3.7 [3.2] miles SSW of South Charity Shoal, a detached 25-foot [7.6-m] shoal is marked by a lighted buoy. An unmarked shoal with a least depth of 24 feet [7.3 m] is about 5.5 [4.8] miles SW of South Charity Shoal.

54 East Charity Shoal Traffic Lighted Buoy is about 1.5 [1.3] miles SE of East Charity Shoal Light. Vessels bound from and to the S channel of the St. Lawrence River should pass close on this buoy and well to the E and S of East Charity Shoal Light.

55 **Caution**. — There is a **magnetic anomaly** near Charity Shoals; extreme caution is necessary when using a magnetic compass.

#### Chart 2064

An isolated **shoal** with a depth of 24 feet (7.3 m) lies 4.7 miles SSW of Pigeon Island. Another **shoal**, 5 miles south of Pigeon Island and 0.6 mile west of the International Boundary, has a depth of 25 feet (7.6 m). *South Charity Shoal light buoy M7 (422.5)* marks the 25 foot (7.6 m) shoal.

57 **Main Duck Island** (43°56'N, 76°37'W), the larger of **The Ducks**, lies 11.7 miles SSW of Wolfe Island and 9.6 miles east of Long Point. The north side of the island has limestone cliffs about 30 feet (9.1 m) high at the west end; at the east end it is thickly wooded, low and gravelly. **Yorkshire Island**, 0.3 mile east of Main Duck Island, is low and wooded.

58 Main Duck Island light (424), on the west end of the island, is shown from a white octagonal tower with a red upper part.

59 The Ducks light buoy MM2 (423) marks the SE edge of shoal water extending from the islands; Main Duck Island light buoy M9 (425) lies near the western end of the shoal water. An isolated **reef** with 30 feet (9.1 m) of water over it lies 0.4 mile farther SW.

A ship's boiler, 8 feet (2.4 m) high, is all that is visble of a **wreck** 0.1 mile west of Main Duck Island light.

61 **Anchorage** with good shelter from south winds can be found north of the mid-part of Main Duck Island in depths of 9 to 10 fathoms (16.5 to 18.3 m).

62 There is a **harbour** for small craft on the north side of Main Duck Island, 1 mile from the west end. The channel leading into the harbour had a least depth of 8 feet (2.4 m) in 1994. There are two small **wharves** in the harbour. The wharf on the NW side, privately maintained, is used by commercial fishermen and in 1994 had depths of 2 feet (0.6 m). The inner wharf, on the SE side, is a Public wharf with depths of 2 to 3 feet (0.6 to 0.9 m) in 1994.

63 Main Duck Island (Schoolhouse Bay) **range lights**, in line bearing 232°, lead into the harbour. The front light (424.1) is shown from a white square skeleton mast, 18 feet (5.5 m) high, with a fluorescent-orange triangular daymark with a black vertical stripe. The rear light (424.2) is shown from a white skeleton tower, 24 feet (7.3 m) high, with a fluorescent-orange triangular daymark with a black vertical stripe.

64 **Caution**. — A wooded **islet** in the bay lies close NW of the range line. An **obstruction** close SE of the range line consists of a concrete crib, elevation 5 feet (1.5 m), with a cylindrical tower, 5 feet (1.5 m) high. The range line leads mid-way between the islet and the obstruction.

Charts 2064, 2060

65 **Psyche Shoal**, with a depth of 21 feet (6.4 m), is a small isolated danger 3.5 miles west of Main Duck Island. *Psyche Shoal light buoy M10 (426)* marks its SE side.

<sup>66</sup> Upbound and downbound sailing courses, recommended by the *Canadian Shipowners Association* and the *Lake Carriers Association* to provide traffic separation, are shown on the charts. The main downbound shipping route leads south and SE of Main Duck and Yorkshire Islands. It crosses the International Boundary SE of Yorkshire Island. The upbound shipping track leads in a passage, 1.9 miles wide, between Psyche Shoal and *Main Duck Island light buoy M9*.

67 **Harris Shoal**, at the east edge of a shoal area 1 mile WNW of Psyche Shoal, is a rocky area with a depth of 18 feet (5.5 m). **William Shoal**, 1.5 miles west of Harris Shoal, is a rocky area with a depth of 13 feet (4 m). *William Shoal light buoy K11 (426.5)* lies near the SW end of the shoal water extending SW of William Shoal.

68 False Ducks Islands  $(43^{\circ}57'N, 76^{\circ}49'W)$  lie at the SE entrance to Prince Edward Bay, off Long Point. False Ducks Island, the eastern island, is low-lying and thinly wooded. Timber Island, the western island, is thickly wooded.

69 False Ducks light (427), on the east end of the island, is shown from a hexagonal tower, 62 feet (18.9 m) high, with red and white horizontal bands.

70 A **submerged power cable** crosses from False Ducks Island light to the north shore of Long Point.

71 A **shoal** 0.8 mile NNW of False Ducks Island has a depth of 25 feet (7.6 m).

**Anchorage** can be found between Timber Island and False Ducks Island in depths of 6 to 9 fathoms (11 to 16.5 m), clay bottom.

Charts 1439, 2064

#### Wolfe Island to Amherst Island

There are four prominent projections on the SW side of Wolfe Island. Shallow spits extend from these points.
Bear Point, described earlier, and Long Point are the ESE and WNW ends of the broad bight named Big Sandy

**Bay**. Long Point is low and sparsely wooded. The coast on the east side of the bay has sand hills 6 to 9 m (20 to 30 ft) high.

75 **Caution**. — Mariners are cautioned to avoid the long shallow spits extending SW of Long Point and Bear Point; depths of 2 m (7 ft) lie 0.5 mile off Long Point.

**Reeds Bay**, NW of Big Sandy Bay, lies between Long Point and **Bells Point**, which is a low feature with scattered trees. Weeds may be encountered in depths of up to 3.7 m (12 ft) off the shores of Reeds Bay.

<sup>77</sup> Horseshoe Island, 8 m (26 ft) high and densely wooded, lies 1 mile NNW of Bells Point. Staley Point, a projection on the north side of the SW end of Wolfe Island, is the north point of Sand Bay.

78 **Simcoe Island**  $(44^{\circ}10'N, 76^{\circ}32'W)$ , off the west end of Wolfe Island, is flat and 10 m (33 ft) high with scattered trees. **Nine Mile Point** is the SW end of Simcoe Island.

79 Nine Mile Point light (419) is shown from a white circular tower, 12.5 m (41 ft) high, with a red upper part.

80 **Melville Shoal**, 1.8 miles NW of Simcoe Island, is a wide shallow area with a least depth of 0.5 m (2 ft).

81 (St. Lawrence River east and NE of Melville Shoal and Simcoe Island is described in Sailing Directions booklet CEN 301 — St. Lawrence River, Montréal to Kingston.)

Charts 2018, 2064

#### Amherst Island

82 **Amherst Island**  $(44^{\circ}09'N, 76^{\circ}42'W)$ , a large island 5 miles west of Wolfe Island, is separated from the mainland by North Channel. The island is partly wooded with large areas of cultivated land.

The east and SE shore of Amherst Island extends from **Amherst Bar** (44°11'N, 76°37'W) to **Emeric Point** (44°06'N, 76°42'W). There are no prominent features along this part of the island. The coast consists of low eroding banks and stony beaches.

**Long Point Bay** is entered between Emeric Point and **Nut Island**, which is lightly wooded at its higher south end and thickly wooded on its north part. Except in south or SW winds, the bay offers good **anchorage** for small craft, with good holding ground in sand and mud.

85 A Public **wharf** on the east side of Long Point Bay is a timber structure 46 m (151 ft) long, elevation 1.8 m (6 ft). The outer 20 m (66 ft) is 3.7 m (12 ft) wide and had depths of 1.4 m (5 ft) in 1994, with shallower depths towards shore. This wharf is used by local commercial fishermen. The approach channel had a least depth of 1.1 m (4 ft) in 1994. **Amherst Bay** lies between Nut Island and **Wemps Point**. Except for south and SW winds, the bay offers good **anchorage** for small craft, sand bottom.

87 Wemps Bay, 2 miles west of Amherst Bay, lies between Grape Island and Bluff Point. The north side of the bay is bordered by lightly wooded pasture land. Drain's Point, on the SE side of the bay, is sparsely wooded and ends in a low gravel spit. Grape Island is wooded.

**The Head**, with Bluff Point and **Pig Point** its SSE and NW ends, is a headland forming the WSW end of Amherst Island. It is densely wooded to Bluff Point, which is low-lying, and also treed to Pig Point, which is flat and sparsely wooded. The front of The Head is a bare limestone cliff.

89 Pig Point light (438), on the point, is shown at an elevation of 9.1 m (30 ft) from a white circular tower, 7 m (23 ft) high, with a red top.

90 (The north and NE shores of Amherst Island, and the route through North Channel, are described in Chapter 1.)

#### Dangers SE and south of Amherst Island

A rocky area 2.7 miles NE of Emeric Point, 1.5 miles offshore, has a depth of 9.4 m (31 ft). A rocky area 2.3 miles east of Emeric Point has a depth of 7.4 m (24 ft); the east side of this is marked by *Emeric Point light buoy K10 (420)*.

92 **Big Bar Shoal**  $(44^{\circ}04'N, 76^{\circ}44'W)$ , 2 miles south of Nut Island, is an extensive shoal with a least depth of 2.7 m (9 ft). A rocky area 1.6 miles south of Grape Island has a least depth of 7.3 m (24 ft); this is marked by *Upper Gap South Entrance light buoy KM2* (435).

#### Upper Gap

<sup>93</sup> **Upper Gap** (44°07′N, 76°49′W) is the passage between the SW end of Amherst Island and **Cressy Point**, which is the NE part of a broad peninsula. The east end of the peninsula slopes gently down to **Pleasant Point** and Indian Point. Pleasant Point is flat, low-lying and densely wooded; Cressy Point is mostly open farmland with densely wooded areas. There is a white gravel beach SE of Pleasant Point.

The main shipping channel leads through Upper Gap. The channel is buoyed.

The main danger in Upper Gap is a **shoal** with a least depth of 4.5 m (15 ft) lying 1.2 miles ENE of Pleasant Point; this shoal is marked by *Upper Gap light buoy KM5 (437)*. Shoal water also extends from the west shore of the passage and from Pig Point and Bluff Point.

97 The Ontario Hydro *Lennox Generating Station*, on the north side of North Channel, 1.9 miles NW of Pig Point, is **conspicuous**. The main building is a large structure, light brown in colour. The two **chimneys** can be seen through Upper Gap from the Main Duck Island area (*Chart 2064*). The chimneys have an elevation of 206 m (676 ft) and are grey in colour with the upper 15 m (49 ft) painted white. The chimneys have air obstruction **lights**.

#### Chart 2064

#### Prince Edward Bay

**Prince Edward Bay** (43°58'N, 76°57'W), 17 miles SW of Wolfe Island, is a large bight formed by two broad peninsulas; Cressy Point and Long Point are the outer parts of these peninsulas. The bay is bounded to the north by a low coastline about 10 feet (3 m) high with scattered gravel beaches. The south shore is fringed by limestone cliffs up to 50 feet (15 m) high.

99 **Caution**. — The normal Magnetic Variation in this area is  $12\frac{1}{2}$ °W (1995) but there are local **magnetic anomalies** that cause compass disturbances. Local disturbances of  $3\frac{1}{2}$ ° easterly were observed in 1976 along the south shores of Prince Edward Bay. Local disturbances may also exist along the north shores of the bay. Extreme caution is necessary when using a magnetic compass.

#### Charts 2064, 2060

100 **The Rock**  $(44^{\circ}02'N, 76^{\circ}54'W)$ , on the north side of Prince Edward Bay, is a conspicuous limestone cliff 0.5 mile long rising abruptly from the water to a height of over 150 feet (46 m). **Marys Cove**, north of The Rock, offers shelter from west and SW winds.

101 Two prominent **silos** 2.5 miles NNE of The Rock, 0.1 mile inland, are obscured from the south and partly obscured from the SE by trees.

102 **Green Island**, 1.7 miles SW of The Rock, is part of a shallow area of gravel and boulders; an exposed rock at the centre is 4 feet (1.2 m) high. The SE edge of this shallow area is marked by a **buoy**.

103 **Caution**. — The buoy marking the SE edge of the shallow area around Green Island is reported to be difficult to see from offshore. Boaters approaching from the east or south are cautioned to navigate with particular care in this area.

104 **Waupoos Island**  $(44^{\circ}00'N, 76^{\circ}58'W)$ , off the NW shore of Prince Edward Bay, is flat, low-lying, and partly wooded. There is a passage around the west and the NW sides of Waupoos Island, passing east of **Morrison Point** on the mainland. A small barge is used by local residents to carry supplies to Waupoos Island.

105 The settlement of **Waupoos**, population 157 (1981), is on the mainland 1 mile north of Morrison Point.

106 Waupoos is a **Customs** vessel reporting station for pleasure craft.

107 There is a conspicuous **silo** SW of Waupoos.

#### WAUPOOS FROM SOUTH (1994)



108 The Public **breakwater-wharf** at Waupoos is a timber structure 96 feet (29.3 m) long with a deck elevation of 7 feet (2.1 m). In 1994 there were depths of 1 to 4 feet (0.3 to 1.2 m). The concrete loading ramp for the barge is close west of the wharf.

109 A Public **breakwater-wharf** on the NW side of Waupoos Island is a timber and crib structure with a concrete deck 98 feet (29.9 m) long and 12 feet (3.7 m) wide, elevation 5 feet (1.5 m), with depths of 6 feet (1.8 m) in 1994. There is a concrete loading ramp for use by the barge but it is not suitable for boat launching.

110 Waupoos Marina, close NE of the Waupoos Public wharf, had depths of 2 to 3 feet (0.6 to 0.9 m) in 1994 and offered dockage with power and water, pump out, ramp, repairs and salvage work, 35 tonne crane, some boat hardware, pay phone, picnic area, showers, laundromat, restaurant and snack bar, groceries, tackle, ice, gasoline and diesel fuel, and monitored VHF Channel 68. Waupoos Marina is an authorized dealer for Canadian Hydrographic Service nautical **charts** and publications. Meals could be served to groups on request, and transport arranged to Picton or Waupoos.

111 A **submerged telephone cable** crosses to Waupoos Island from near the Public wharf.

112 **Smith Bay**, with **Pickerel Point** its south entrance point, is west of Waupoos Island. **Van Dousens Point**, 1.1 miles SW of Waupoos Island, is low lying and fringed by trees. **McMahon Bluff**, 0.6 mile SW of Van Dousens Point, is the highest point of land on the west side of Prince Edward Bay; it has limestone cliffs over 50 feet (15 m) high and is densely wooded.

Black Creek flows into the west end of Prince Edward Bay between McMahon Bluff and Van Dousens Point. The creek is navigable only by small boats; in 1994 there were depths of less than 1 foot (0.3 m). The **bridge** 0.5 mile from the creek entrance has a vertical clearance of 12 feet (3.7 m).

114 Black River Cheese Co., an outlet store near the bridge, had a ramp and pay phone in 1994.

Flatt Point, Little Bluff and Halfmoon Point, which is 50 feet (15 m) high and steep-to, are on the south side of Prince Edward Bay. Little Bluff is a limestone cliff rising 80 feet (24 m) from the water; it is covered by low evergreen trees with one prominent silver birch on its highest point (1994). There is a stony beach on its SE side and marsh on the other.

116 **South Bay**, at the head of which is a settlement of the same name, is entered between Flatt Point and McMahon Bluff.

117 The **tower** of a former light-structure on the NW side of the head of South Bay is part of the *Marine Museum*. This structure, which was the original Main Duck Island light, is prominent. The South Bay United Church is north

#### LONG POINT HARBOUR (1994)



of the museum. A black **silo** with a white top, on the west side of the bay, is prominent.

#### Long Point

118 **Long Point** (43°56'N, 76°53'W), 20 miles SW of Wolfe Island, is the outer part of a long peninsula lying between Prince Edward Bay and Lake Ontario; it is generally low-lying and wooded. The outer end of Long Point is a *National Wildlife Area*.

119 **Point Traverse** (43°57'N, 76°52'W) and **Prince Edward Point** are the NE and SE ends of Long Point.

120 **Long Point Harbour**, used by commercial fishermen and pleasure craft, is entered on the north side of Prince Edward Point.

121 A Public **wharf** on the NW side of Long Point Harbour is a timber and crib structure 95 feet (29 m) long and 16 feet (4.9 m) wide with an elevation of 8 feet (2.4 m). In 1995, a depth of 1 foot (0.3 m) was found in the entrance channel. There is a concrete **ramp** on the NE side of the wharf.

122 **Caution**. — The channel leading into the harbour and to the Public wharf is narrow and subject to shifting; it must be navigated with care.

123 Prince Edward Point light (429), at the south entrance point of Long Point Harbour, is shown from a white skeleton tower 43 feet (13.1 m) high. The former light structure and dwelling close west of the present light structure are **conspicuous**.

124 **Gull Bar** is a drying area 1 mile SW of False Ducks Island. There is a gravel islet 9 feet (2.7 m) high at the north end of Gull Bar.

125 A winding **channel**, marked by buoys, leads south of Gull Bar and west of Timber Island.

126 **Traverse Shoal**, 1.2 miles SE of Prince Edward Point, is partly rocky and has a least depth of 9 feet (2.7 m).

127 False Ducks Bank light buoy K12 (427.3) lies 0.7 mile south of False Ducks Island. *Traverse Shoal light* buoy K14 (428) marks the SSE edge of the shoal water extending south of Traverse Shoal.

**Caution**. — The passage between Main Duck Island and False Ducks Island, with its outlying dangers, should be approached with caution. Vessels approaching from west or south in thick or foggy weather should not approach to a depth of less than 7 fathoms (12.8 m). Great care is necessary when approaching the passage from the north; soundings give little or no indication of the outlying dangers, there being depths of 12 to 19 fathoms (21.9 to 35 m) as close as 0.3 mile offshore.

## Long Point to Presqu'ile Point

Charts 2059, 2060

129 Caution. — The 41 miles of coastal route between Long Point and Presqu'ile is exposed and has few safe anchorages or facilities for small craft. Operators of small craft are cautioned to consider carefully the dangers and difficulties involved before attempting this passage.

Chart 2060

## Long Point to Point Petre

130 The coast of Prince Edward County from Long Point (43°56'N, 76°53'W) to Point Petre, 14 miles to the WSW, is low and swampy in places and has few conspicuous features. A few farmhouses and other farm buildings 1 to 2 miles inland are visible from offshore. Most of the coast is bordered by shallow water or shoal flats covered with numerous boulders, making landing difficult and dangerous. The 5 fathom (9.1 m) line can be considered to be the danger line; it lies 1 to 1.4 miles offshore except near Point Petre. 131 There is an *Ocean Data Acquisition System (ODAS)* light buoy 8.6 miles south of Prince Edward Point. 132 **Little Poplar Point**, with **Poplar Bar** SW of it, lies 1.7 miles WSW of Prince Edward Point. Poplar Bar has a rocky spot dry 2 feet (0.6 m).

133 **Poplar Point, Gravelly Point** and **Ostrander Point**, with **Big Sand Bay** and **Gravelly Bay** between them, lie WSW of Prince Edward Point.

134 **Petticoat Point** lies 7 miles WSW of Prince Edward Point. **Gull Bar**, 4 miles farther SW, is a narrow bar of sand and gravel. The shallow boulder spit extending south of it can be seen on the chart. The SE end of Gull Bar is the SW entrance point of **Gull Pond**. Gull Pond is not accessible to boaters; the entrance is closed by a gravel bar (1994).

135 Two white **houses** 1.5 miles NE of Gull Bar are visible from offshore.

136Point Petre (43°50'N, 77°09'W), the south limit ofPrince Edward County, is low-lying and sparsely wooded.

Point Petre light (490), at the SE end of Point
 Petre, is shown from a white circular tower, 62 feet
 (18.9 m) high, with red horizontal bands.

There are 24 **radio masts** 0.4 mile north of the Point Petre light-structure. Some of the masts are 150 feet (46 m) high. The air obstruction **lights** on the masts show up as a cluster of red lights.

<sup>139</sup> There is a traffic control calling-in point for upbound and downbound vessels off Point Petre.



#### POINT PETRE (1994)

#### SALMON POINT (1994)



Consult the *Seaway Handbook* for details of the St. Lawrence Seaway traffic control system.

#### Point Petre to Scotch Bonnet Island

140 **Salmon Point** (43°51'N, 77°15'W) lies 4 miles WNW of Point Petre.

141 **Soup Harbour** lies between Point Petre and Salmon Point. The east shore of the bay is bounded in places by rocky cliffs 15 feet (4.6 m) high. The north and NW shores of the bay are low, wooded and featureless; the beach is gravel with boulders.

142 A **barn** 1.2 miles north of Point Petre, near the east shore of Soup Harbour, is prominent. A former light-structure, a white square building with a red top, on Salmon Point is **conspicuous**.

143 An L-shaped breakwater-wharf 0.1 mile east of the end of Salmon Point is in disrepair; the outer 30 feet (9.1 m) is in ruins.

*Quinte's Isle Campark*, a campground and trailer park at Salmon Point, had depths of 2 to 3 feet (0.6 to 0.9 m) in 1990 and offered some dockage, gravel ramp, pay phone, picnic area, camping, showers and ice.

145 The former light-structure and the breakwater-wharf are private and are part of the *Quinte's Isle Campark*.

146 **Wicked Bank** is the outer end of a rocky spit extending 2 miles offshore from Salmon Point. This danger is not marked.

147 **Athol Bay** lies between Salmon Point and **West Point**. The head of the bay is a sand beach with good landing in calm weather. 148 **Caution**. — The **fishing nets** of a commercial fishery extend up to 2 miles off Salmon Point and are found in many areas of Athol Bay.

Anchorage with some shelter from north to SE winds can be found in Athol Bay in 6 to 8 fathoms (11 to 14.6 m), sand bottom.

150 **East Lake** lies NE of Athol Bay and is connected to it by a shallow channel. The south entrance to this channel is obstructed by a drying sand bar (1994).

151 Wellington Bay is a large bight between West Point and Huycks Point, 9.5 miles to the WNW. The NE side of the bay is a narrow strip of land separating West Lake from the bight; this is *Sandbanks Provincial Park*. The northern part of this strip of land is low and sandy. The southern part, known as **The Sandbanks**, has sand dunes 45 feet (14 m) high and sparsely wooded. These sand dunes, buff in colour, are conspicuous.

152 Two narrow and **shoal** boulder spits extend 1 mile SW from the NE shore of Wellington Bay.

153 The NNW side of Wellington Bay has no prominent features other than a few houses and farm buildings, some of which are close to the shoreline.

154Caution. — The north coast of WellingtonBay has poor radar-reflecting qualities.

155 **Spencer Point** lies 3 miles east of Huycks Point. The area west of Spencer Point is mainly wooded but to the east is mostly open farmland.

The village of **Wellington**, with a population of 1,426 (1991), is at the head of Wellington Bay 4.5 miles NW of West Point. At one time Wellington was a shipping port for grain.

2-11

CEN 302 Lake Ontario

#### WELLINGTON (1994)



157 The **water tower** at Wellington is white with a green horizontal band; it is conspicuous from Wellington Bay. There are 13 **radio towers** of various sizes up to 303 feet (92 m) in elevation, 4 miles NE of Huycks Point. The towers have air obstruction **lights** and are prominent. A **microwave tower** 3.6 miles north of Wellington is 150 feet (46 m) high and has air obstruction **lights**.

158 The **channel** into West Lake is cut through the narrow strip of land ESE of Wellington. The entrance is between two boulder **breakwaters** which extend offshore. In 1994, the shallow channel at the entrance was marked by privately maintained **buoys**. This channel is subject to silting and is reported to be dredged to a depth of 4 feet (1.2 m) each spring.

159 Wellington West breakwater light (490.5), at the outer end of the NW breakwater, is shown at an elevation of 29 feet (8.8 m) from a white circular tower, 20 feet (6.1 m) high, with a green upper part.

160 There is a municipal **wharf** near the inner end of the entrance channel on its NW side. This wharf is 80 feet (24 m) long and has an elevation of 6 feet (1.8 m). The wharf had depths of 1 foot (0.3 m) in 1994. A concrete boat **ramp** and 50 foot (15 m) floating wharf just west of the inner end of the entrance are maintained by the *Prince Edward Region Conservation Authority*.

161 Wellington Public **wharf**, near the NW corner of West Lake, is a timber crib structure 104 feet (31.7 m) long and 18 feet (5.5 m) wide with an elevation of 5 feet (1.5 m). There were depths of 1 to 4 feet (0.3 to 1.2 m) along the wharf in 1994. The wharf has a floating outer section 96 feet (29.3 m) long and 10 feet (3 m) wide with depths of 4 to 6 feet (1.2 to 1.8 m) in 1994. There is a concrete **ramp** on the NW side of the wharf.

162 Pickard's Bait & Tackle Shop, at the Public wharf, had depths of 1 to 5 feet (0.3 to 1.5 m) in 1994 and offered dockage with power and water, ramp, fishing boat rentals, picnic area, pay phone, washrooms, ice, some groceries, boat hardware, bait and tackle, and monitored VHF Channel 68. The facilities of Wellington are near by.

163 *Westlake Marine*, on the north shore 1 mile east of the Public wharf, had depths of less than 1 foot (0.3 m) in 1994 and offered some dockage with power and water, concrete ramp, boat and motor rentals, picnic area, laundromat, ice and gasoline.

*Willowridge Campgrounds and Lodge*, a bed-andbreakfast lodge 0.5 mile farther east, had depths of less than 1 foot (0.3 m) in 1994 and offered dockage, small ramp, canoe and boat rentals, picnic area, camping, bait and tackle, water, ice and some groceries.

165 *Cosy Cove Cottages*, 0.3 mile west of *Westlake Marina*, had depths of 1 foot (0.3 m) in 1994 and offered dockage, ramp and boat rental.

#### Charts 2059, 2060

#### Islands and dangers off Huycks Point

166 **McFaul Shoal** (43°54'N, 77°29'W), 2 miles SSE of Huycks Point, is a rock with a depth of 18 feet (5.5 m). **Palen Bank**, 3 miles SSW of Huycks Point, has a depth of

#### SCOTCH BONNET ISLAND AND NICHOLSON ISLAND (1994)

24 feet (7.3 m), rock bottom. **Nicholson Island**, heavily wooded and saddle-shaped, is separated from Huycks Point by a shallow passage; this passage has a depth of 21 feet (6.4 m) but requires local knowledge.

167 A **submerged power cable** crosses from Huycks Point to Nicholson Island.

#### Chart 2059

168 **Scotch Bonnet Island** (43°54'N, 77°32'W), 0.9 mile SW of Nicholson Island, is flat and bare. A shallow spit extends 0.3 mile east of the island. Scotch Bonnet Island is a *National Wildlife Area*.

169 Scotch Bonnet Island light (491) is shown from a white skeleton tower 60 feet (18.3 m) high. The former lighthouse and lightkeeper's residence, east of the light, were ruined but still prominent in 1994.

170 **Scotch Bonnet Shoal**, 2 miles south of the island, has depths of 13 to 18 feet (4 to 5.5 m).

171 The west end of Nicholson Island bearing 028° in line with the Scotch Bonnet Island light-structure leads 0.2 mile west of Scotch Bonnet Shoal.

171.1 There is an *Ocean Data Acquisition System (ODAS)* light buoy 18 miles south of Huycks Point.

#### Scotch Bonnet Island to Presqu'ile Point

172 The distance from Huycks Point to the entrance to Wellers Bay is 8 miles. Along this stretch of coast there are offshore shoals and several small points with outlying boulders. 173 **Huycks Bay**, landlocked, lies north of Huycks Point. **Island Point**, 1.4 miles NW of Huycks Point, has densely wooded dunes fringed by a sandy shore. **Pierson Point**, 0.6 mile farther NW, consists of wooded dunes up to 30 feet (9.1 m) high with a sandy shore. **Snider Point**, 1 mile farther NW, is low-lying with a sandy shore and wooded with groves of large deciduous trees with cleared land and scattered trees behind.

174 Two large **barns** near the end of Pierson Point are prominent.

175 **Moira Shoal** (43°56'N, 77°32'W), 1.2 miles SW of Island Point, has a depth of 7 feet (2.1 m).

176 **North Bay**, SE of Snider Point, is landlocked. **North Beach** is the narrow strip of land forming the west side of the bay.

177 **Robinson Point**, 4 miles NW of Huycks Point, is low-lying and wooded. A small **house** on the end of Robinson Point has a silver-coloured roof and is prominent.

#### Approaches to Wellers Bay and Presqu'ile Bay

178 **Dobbs Bank**  $(43^{\circ}59'N, 77^{\circ}37'W)$ , 2.5 miles WNW of Robinson Point, is a rocky area with a depth of 6 feet (1.8 m). **Quick Shoal** and **Gore Shoal** are isolated reefs NW and west of Dobbs Bank.

**Caution**. — There are **submerged explosives** near Dobbs Bank and in Wellers Bay. The limit of the danger area is shown on the chart.

180 A **conspicuous** microwave tower 3.7 miles NNE of Robinson Point is 247 feet (75 m) high; it has air obstruction **lights**. There is a group of 3 **radio towers**, 226 feet (69 m)

2-13

## NORTH ENTRANCE TO WELLERS BAY (1994)



high, 1 mile NE of **Young Point** which is near the north end of Wellers Bay.

Charts 2021-1, 2059, 2069

## Wellers Bay

181 **Wellers Bay**  $(44^{\circ}00'N, 77^{\circ}35'W)$  is almost land-locked. Although the bay is deep in places, the entrances are shallow. Weeds abound along the shores of the bay. Wellers Bay is a *National Wildlife Area*.

**Bald Head Island** is the north end of a narrow strip of sandy beach, known as **Bald Head Beach**, which forms the SW side of Wellers Bay. The NW part of Bald Head Island is heavily wooded; the SW part is bush. **Bald Head**, 12 feet (3.7 m) high, is the west end of Bald Head Island.

183 The sand dunes along Bald Head Beach rise to about 10 feet (3 m) and are partly covered by groves of deciduous trees and scattered coniferous trees. The dunes are not prominent from offshore.

184 Between Bald Head Island and the mainland at Barcovan Beach is a low-lying island 1.0 mile long. Channels NW and SE of this island are entrances to Wellers Bay; the north channel has a shale bottom, the south channel a sandy bottom. A boulder **breakwater** on the east side of the north channel is 1,200 feet (366 m) long and 8 feet (2.4 m) high. In 1994 there was a private red **daymark** near the south end of the breakwater. The channel is marked by private **buoys** and in 1994 was reported to be dredged to a depth of 4 feet (1.2 m). An area awash was found on the east edge of the north end of the channel in 1994.

186 The south channel, known locally as **Baldhead Channel**, was found in 1994 to be narrow and dry at chart datum.

187 **Stoneburg Cove** is the NW corner of Wellers Bay; **Young Cove**, shallow, is the NE corner.

The village of **Gardenville**, population 150 (1994), is on the east side of Wellers Bay, east of **Pine Point**. The ruins of a railway terminal pier extend 0.25 mile into the inlet south of Pine Point; piles at the outer end of the ruins were 1 foot (0.3 m) dry in 1994.



189 There are several resorts and marinas on the west and north sides of Stoneburg Cove.

190 *Stoneburg Cove Resort* had depths of 1 to 2 feet (0.3 to 0.6 m) in 1994 and offered dockage with power and water, ramp, some engine repairs, boat rentals, water taxi service, pay phone, camping, picnic area, swimming pool, showers, laundromat, some groceries, bait, tackle, ice and gasoline.

#### PRESQU'ILE BAY (1994)



191 *Wellers Bay Campground* had depths of 2 feet (0.6 m) in 1994 and offered dockage with power and water, concrete ramp, some boat hardware, canoe and boat rentals, pay phone, picnic area, camping, showers, laundromat, groceries, snack bar, propane, naphtha, bait, tackle, ice and gasoline.

*Bailey's Cedar Cove Camp*, a trailer park and cottage resort, had depths of 1 foot (0.3 m) in 1994 and offered dockage with power and water, ramp, boat rental, camping, picnic area and showers. Most facilities were for resident guests.

193 *McSpadden's Marina* had depths of 1 foot (0.3 m) in 1994 and offered dockage with power and water, pump out, concrete ramp, camping, picnic area and showers. Most facilities were for seasonal boaters. *Captain Ernie's Charters* and other charter services were also based here.

194 *Camp Barcovan*, mainly a tent and trailer park, had depths of 1 to 3 feet (0.3 to 0.9 m) in 1994 and offered dockage, ramp, small boat rentals, picnic area, camping, pay phone, drinking water, showers, swimming pool, children's playground, games room, laundromat, ice, groceries, bait and tackle, snack bar, propane and naphtha.

*North Shore Park*, a trailer park at the north corner of Stoneburg Cove, had depths of 2 feet (0.6 m) in 1994 and offered dockage, ramps, canoe and boat rentals, pay phone, picnic area, camping, bait and tackle, showers, swimming pool, groceries, drinking water and ice. Most facilities were available only to resident guests.

196 There is a gravel launching **ramp** at **Smoke Point**, on the east shore of Wellers Bay. This ramp is suitable only for small boats.

197 The village of **Consecon**, population 295 (1981), is on the SE side of Wellers Bay.

197.1 Consecon has a prominent **water tower** on a hill 0.5 mile south of the village.

198 **Historical note**. — From 1668 to 1680 Consecon was a Jesuit mission station serving the Cayuga Indians.

Chart 2021-1

#### Presqu'ile Bay

199 **Presqu'ile Bay**  $(44^{\circ}01'N, 77^{\circ}42'W)$ , a natural harbour for small craft, takes its name from **Presqu'ile Peninsula**, which is the west side of the bay. The bay is entered between **Salt Reef** and **Shoal Point**. Weeds may be encountered in Presqu'ile Bay, even along the recommended track.

200 **Caution**. — The holding ground is not always good in Presqu'ile Bay. The bay is protected from wave action but the low-lying terrain does not offer much protection from winds.

201 **Caution**. — For buoyage purposes, Presqu'ile Bay and Murray Canal are considered to be a continuous passage from the east end of Bay of Quinte. When entering Presqu'ile Bay from Lake Ontario, and also inside the bay, red buoys are kept to port.

202 **Presqu'ile Point**, the east end of Presqu'ile Peninsula, is a densely wooded point with a rocky ledge extending from it. Cottages line the shore leading to the point.

203 **Presqu'ile Middle Ground**, an extension of the shallows off Shoal Point, is a shoal area with depths of 5 feet (1.5 m).

## 2-15

Lake Ontario

#### BRIGHTON (1994)



204 **Salt Reef** is a rock formation NE of **Salt Point**. Vessels entering Presqu'ile Bay from Lake Ontario pass close north of this reef.

205 Brighton **range lights**, in line bearing 295°, lead into Presqu'ile Bay. The front light (487), on an offshore crib, is shown from a white circular tower, 25 feet (7.6 m) high, with a fluorescent-orange triangular daymark with a black vertical stripe. The rear light (488) is shown from a skeleton tower, 59 feet (18 m) high, with a fluorescent-orange triangular daymark with a black vertical stripe. The range lights are visible only on the line of the range. Due to haze, these light structures are often difficult to see in daylight in the summer months.

206 Presqu'ile Point light (492), on the point, is shown at an elevation of 76 feet (23.2 m) from a white octagonal tower 60 feet (18.3 m) high.

207 Salt Reef light (489), on Salt Reef, is shown at an elevation of 31 feet (9.4 m) from a white circular tower, 25 feet (7.6 m) high, with a red upper part.

208 *Presqu'ile Point light buoy P (491.8)* lies 0.5 mile east of Presqu'ile Point on the line of the Brighton range.

209The narrow dredged entrance channel intoPresqu'ile Bay had a depth of 7 feet (2.1 m) in 1983.

210 A wharf 0.1 mile west of Salt Point, in *Presqu'ile Provincial Park*, is 100 feet (30 m) long and 20 feet (6.1 m) wide with depths of 3 to 8 feet (0.9 to 2.4 m) in 1999. The wharf has an elevation of 6 feet (1.8 m); there is a roofed shelter 20 feet (6.1 m) long and 15 feet (4.6 m) wide near its outer end. The town of **Brighton**, with a population of 4,366 (1991), is 1.5 miles NW of Presqu'ile Bay. It has banks, churches, grocery and hardware stores, motels, restaurants, several service clubs and other facilities. There are doctors, dentists, and a pharmacy; the nearest hospital is at Trenton.

212 Brighton is a **Customs** vessel reporting station for pleasure craft.

**Gosport** is a community on the peninsula jutting into the NW side of Presqu'ile Bay. There is a motel here and a small commercial fishery operation.

214 There are three Public **wharves** at Gosport, each 48 feet (14.6 m) long with depths of 3 to 4 feet (0.9 to 1.2 m) in 1994. Most of the wharf space is leased to local fishermen. The wharves are protected by a rock breakwall. There is also a launching **ramp**.

215 Presqu'ile Landing (formerly Brighton Marina), in the sheltered bay near the rear range light, had depths of 4 feet (1.2 m) in 1994 and offered dockage with power and water, pump out, ramp, 20 tonne hoist, picnic area, camping, pay phone, showers, laundromat, ice and gasoline, and monitored VHF Channel 68. Stewart's Marine, also based here, specialized in sail repairs and hull and engine repairs of all kinds. Depths of 2 feet (0.6 m) were found in the approach channel in 1994.

216 *Harbour View Marina*, in Gosport, had depths of 1 to 6 feet (0.3 to 1.8 m) in 1994 and offered dockage with power and water, ramp, small boat rental, motel accommodation, snack bar, picnic area, camping, showers, ice, groceries,



bait and tackle. Depths of 3 feet (0.9 m) were found in the approaches in 1994.

217 *Presqu'ile Yacht Club*, a private club on the NE side of the Gosport peninsula, had depths of up to 4 feet (1.2 m) in 1994 and offered some dockage with power and water, pump out, mast stepper, picnic area and showers. Depths of 1 foot (0.3 m) were found in the approaches in 1994.

218 A Public **wharf** and launching **ramp** are on the north side of a bay 0.5 mile SW of the Brighton rear range light, at the foot of Ontario Street. This wharf is floating and 46 feet (14 m) long with depths of 2 to 3 feet (0.6 to 0.9 m) in 1990.

219 *Presqu'ile Provincial Park* includes the whole of the peninsula and High Bluff Island and the other islands between it and the peninsula. This park is particularly interesting to naturalists because of the variety of habitats in close proximity to each other; sand dunes, forest, marsh and wet meadows existing side by side have attracted and nourished a selection of plants and birds unknown in any other Provincial park. Special walking and cycling trails and a marsh boardwalk have been laid out so that visitors can enjoy the park to the full, and there are organized shows and activities throughout the summer.

As well as being a Nature Park, this is also a Recreation Park with picnic and camping facilities, showers, store, snack bar, launching ramp, docks, nature museum and a mile long sand beach.

Historical note. — The first settler in this area is reputed to have been Obadiah Simpson who set up his homestead at Presqu'ile in 1796. It was in 1857 that the village of Brighton itself was first formed, being incorporated 2 years later. Over the years the village grew and prospered, building itself a town hall in 1884, and achieving the status of town in 1980.

222 *Proctor House* was built in the 1860's for the Proctor family and has been carefully restored and furnished in the style of 1850 and 1880. This fine old home is now the *Proctor House Museum* and also has a gallery which houses changing exhibits, often by local artists and artisans.

## SW approach to Murray Canal

223 The SW approach to Murray Canal consists of a narrow channel which leads through a shallow swampy arm of Presqu'ile Bay between **Stony Point** ( $44^{\circ}01'N$ ,  $77^{\circ}42'W$ ) and **Woods Point**.

224 **Caution**. — The above-described channel is subject to **silting**.

225 **Carley Point** and **Sherwood Point** are on the north side of the entrance to Murray Canal.

226 Brighton No. 3 light (486), 0.5 mile NW of Stony Point, is shown from a white circular tower, 20 feet (6.1 m) high, with a red upper part.

227 Sherwood Point light (1346.6), on the outer end of the north pier at the entrance to Murray Canal, is shown at an elevation of 34 feet (10.4 m) from a tower. The structure is maintained by *Parks Canada*, *Department of the Environment*.

228 (Murray Canal is described in chapter 1.)

## **Presqu'ile Point to Toronto**

## General

Charts 2021-1, 2049, 2050, 2053, 2054, 2055, 2058, 2059, 2077, 2085

1 This chapter describes the north shore of Lake Ontario between Presqu'ile Bay and Toronto. The coastal distance is 78 miles.

1.01 Real-time water level information for Lake Ontario at Cobourg is available from the *Canadian Hydrographic Service Automated Water Level Gauge*, telephone number 905-372-6214 and for Lake Ontario at Toronto from the *Canadian Hydrographic Service Automated Water Level Gauge*, telephone number 416-868-6026. (More information on water levels is given in Sailing Directions booklet *CEN 300 — General Information, Great Lakes.*)

[From U.S. Coast Pilot 6, Chapter 5, partial]

1.1 **Caution**.— A special use airspace is in midlake in U.S. waters bounded by the following coordinates:

- 1.2 43°37′N., 76°45′W.;
- 1.3 43°24′N., 76°45′W.;
- 1.4 43°24′N., 78°00′W.; and
- 1.5 *43°37′N.*, 78°00′*W*.

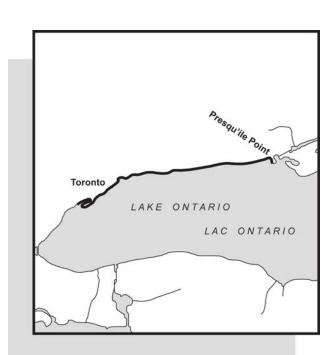
1.6 The area may be used for military purposes from the surface to an altitude of 50,000 feet [15,240 m]. The using agency is the Commander, 21<sup>st</sup> Air Div., Hancock Field, Syracuse, N.Y. Consult Local Notice to Mariners for additional information and firing schedules.

## Presqu'ile to Cobourg

#### Charts 2021-1, 2059

2 **Chatterton Point** (43°59'N, 77°42'W), 1.4 miles WSW of Presqu'ile Point and part of *Presqu'ile Point Provincial Park*, is low-lying and densely wooded, with a sand and gravel shore.

3 **High Bluff Island**, 3.5 miles WSW of Presqu'ile Point, is partly wooded; the southern end is bare with only a few trees. It is the offshore end of a chain of islands extending off Presqu'ile Peninsula. The islands are part of *Presqu'ile Provincial Park*.



#### **OGDEN POINT** (1994)



4 **Proctor Point** is the SW end of High Bluff Island. The SE side of High Bluff Island, elevation 60 feet (18 m), is known as **The Bluff**. The south and west shores of the island are shale cliffs, 15 feet (4.6 m) high, with a few trees on top.

5 Proctor Point light (492.2), on the SE side of High Bluff Island, is shown at an elevation of 40 feet (12.2 m) from a white circular tower, 25 feet (7.6 m) high, with a red upper part. In 1994 this light was obscured from the west by trees growing on the higher western part of the island.

6 High Bluff Island and the islands to the NE are a **bird sanctuary**. Landing on these islands is prohibited, except by prior arrangement with the *Ministry of Natural Resources* resident park naturalist.

7 There is a traffic control calling-in point for upbound and downbound vessels south of High Bluff Island (*see Chart 2000*). For details of the St. Lawrence Seaway traffic control system *see* the *Seaway Handbook*.

#### Chart 2059

8 **Spencer Point**  $(44^{\circ}00'N, 77^{\circ}48'W)$  is on the mainland 2.6 miles NW of High Bluff Island. A wooded bluff, elevation 25 feet (7.6 m), skirts the shore on each side of the point.

9 An isolated **shoal** 1 mile SSW of Spencer Point has a depth of 21 feet (6.4 m).

10 **Popham Bay** is entered between High Bluff Island and Spencer Point. The bay has depths of 3 to 5 fathoms (5.5 to 9.1 m) in its central part. The head of Popham Bay consists of a sand beach. Shallow sand flats extend 0.1 mile offshore. The north shore of the bay is lined with cottages.

Anchorage can be found in Popham Bay in a depth of 21 feet (6.4 m), sand and rock bottom.

12 **Caution**. — An area of **shoal** water extends westwards across the south entrance to Popham Bay. Boaters are cautioned to avoid this area.

13 **Camel Shoal**, 1 mile SW of High Bluff Island, is a reef with a depth of 13 feet (4 m). **Collier Shoal**, 3 miles WSW of High Bluff Island, is an isolated reef with a depth of 16 feet (4.9 m).

14 A conspicuous **microwave tower** 2.1 miles NNW of Spencer Point has air obstruction **lights**. A **radio tower** 1 mile east of the first tower is also conspicuous.

15 Between Spencer Point and **Ogden Point** (43°58'N, 77°53'W), a distance of 3.8 miles, a clay bank skirts the west part of the shore; there is little space for landing.

16 The **wharf** and quarry of the *St. Lawrence Cement Company* are at Ogden Point. The berth, 870 feet (265 m) long, consists of seven dolphins joined by catwalks with an elevation of 21 feet (6.4 m). In 1997, the berth had depths of 16 feet (4.9 m) at the NE end, 24 feet (7.3 m) near its mid-point, and 22 feet (6.7 m) at the SW end. Limestone is loaded here and shipped to the company's plant at Clarkson, midway between Toronto and Hamilton.

17 Ogden Point light (492.4) is shown from the top of a building on the centre dolphin of the *St. Lawrence Cement Company* wharf. The light is privately maintained.

3

18 The village of **Colborne**, with a population of 2,001 (1991), is 3 km NNW of Ogden Point.

19 The community of **Lakeport**, population 114 (1981), is near the shore 1 mile WNW of Ogden Point.

The **ruins** charted at Lakeport are the remains of *Keeler's Wharf*; all that remains of this wharf is a section of boulders and piles 13 feet (4 m) wide extending 164 feet (50 m) offshore. These remains were submerged 1 to 7 feet (0.3 to 2.1 m) in 1994. An old concrete wall structure near shore close east of the ruins was dry 4 feet (1.2 m) in 1994.

21 **McGlennon Point**, with rocks awash close to the east, lies 2.4 miles west of Ogden Point. A wooded clay bluff, 30 feet (9.1 m) high, skirts the shore 0.5 mile each side of the point. The point has a park-like appearance at the shore.

22 **Caution**. — **Boulders** 0.25 mile offshore 0.7 mile east of McGlennon Point have a depth of 3 feet (0.9 m).

23 A silver-roofed barn close west of McGlennon Point is **conspicuous**; a large residence west of the point is prominent.

24 **Chub Point**, 3.2 miles west of McGlennon Point, is low-lying and densely wooded, with mature trees at the water's edge. There are white houses on the west side of the point, with farmland farther inland. A rocky spit 0.9 mile east of Chub Point extends 0.3 mile offshore with depths of less than 6 feet (1.8 m).

25 Between McGlennon Point and Chub Point, the coast is up to 30 feet (9.1 m) in elevation, with wooded and open patches and farmland beyond the trees. It is more wooded near McGlennon Point. The narrow shore, of sand and gravel, has few landing spots for small craft but a sand beach midway between the two points offers good landing for boats in calm weather. There is a public **ramp**, protected by breakwalls, 1 mile WNW of McGlennon Point, at Wicklow Beach.

25.1 *Wicklow Beach* light is shown at an elevation of 6.9 m (23 ft) from a square steel pole 4 m (13 ft) high at the outer end of the west breakwall.

In 1994 there was a large amount of driftwood on the shore of the bay west of Chub Point.

27 A light-coloured Church spire at the rural community of **Grafton**, 1.8 miles NNW of Chub Point, is visible among the trees.

28 **Mulcaster Patch** (43°53'N, 77°56'W), 5 miles south of McGlennon Point, is a rock with a depth of 36 feet (11 m). 29 Between Chub Point and Cobourg, 7 miles to the west, the coast for the most part consists of a narrow gravel shore and clay banks. These banks, 15 to 50 feet (4.6 to 15 m)

high, are well wooded in places with open farmland beyond. Some houses are visible from offshore. There are no safe landing areas for small craft.

30 **Lucas Point** (43°57′N, 78°07′W), 5 miles west of Chub Point, is 15 feet (4.6 m) high and well-wooded.

The silos and buildings of the *G. E. Plastics* plant near Lucas Point are **conspicuous**. A microwave tower 5 miles NNE of Lucas Point and another tower 3 miles north of the point are also **conspicuous**.

A **submerged sewer outfall** at Lucas Point extends 0.15 mile offshore. Two **submerged pipelines** 1.3 miles to the west extend 0.5 mile offshore.

#### Chart 2054

The town of **Cobourg** (43°57'N, 78°10'W), with a population of 15,079 (1991), is a residential and manufacturing town on the north shore of Lake Ontario, 57 miles ENE of Toronto. Cobourg is served by scheduled bus and rail services and is on *Highway 2* and near *Highway 401*. The town is on low-lying and generally level terrain. The coast on each side of the town consists of low clay banks, well wooded in places, with open farmland beyond. Beaches of fine sand extend east and west of the harbour entrance.

34 Cobourg is a **Customs** vessel reporting station for pleasure craft.

35 A Canadian Coast Guard Search and Rescue Cutter is based at Cobourg from the beginning of May to the beginning of December each year, though these dates are subject to change (see information on Search and rescue in Sailing Directions booklet CEN 300 — General Information, Great Lakes).

**Cobourg Harbour** is a recreational harbour administered by the *Department of Fisheries and Oceans*. The outer harbour is protected by two concrete piers, elevation 2.1 m (7 ft). The entrance, at the SE corner, is further protected by a boulder breakwall extending from the outer end of the SW pier. The inner basin is protected by a centre pier and by a checkwater arm of the east pier.

37 A white water tower, a brown chimney NW of the water tower, the town hall clock, and a church spire are **prominent**.

**Caution**. — Cobourg Harbour is subject to silting; depths are reported to be maintained by periodic dredging. There has been silting off the entrance to Cobourg Harbour since the breakwall was extended in 1984; in 1992, depths of 2.4 m (8 ft) were found 80 m (262 ft) ESE of the East Pierhead light-structure. Vessels entering Cobourg Harbour are cautioned to proceed with care in case of further shoaling.

Solution Cobourg East Pierhead light (493), on the outer end of the east pier, is shown from a white square structure 12.2 m (40 ft) high, with a red upper portion.

40 Cobourg West Pierhead light (494), at the NE end of the boulder breakwall extending from the SW pier, is shown at an elevation of 8.8 m (29 ft) from a white circular tower, 3.7 m (12 ft) high, with a green upper part.

#### **COBOURG** (1994)



41 Cobourg Harbour "T" Pier light (496.5), at the SW end of the checkwater arm, is shown at an elevation of 4.6 m (15 ft) from a white circular tower, 3.6 m (12 ft) high, with a red upper part.

42 *Cobourg Marina*, a municipal marina on the west side of the inner basin, had depths of 4.1 m (13 ft) at the wharves and 1 m (3 ft) at the fuel pump in 1994 and offered dockage with power and water, pump out, ramp, picnic area, camping, pay phone, showers, laundromat, ice, gasoline and diesel fuel.

43 *Cobourg Yacht Club*, based at the marina, in 1994 had snack bar, restaurant and licensed dining room.

44 *Dean Marine*, at 57 Albert Street in Cobourg, in 1994 offered boat hardware, bait and tackle. *Dean Marine* is an authorized dealer for Canadian Hydrographic Service nautical **charts** and publications.

45 **Caution**. — Gales from SE to SW are reported to cause a **surge** in the outer part of Cobourg Harbour; SW swells can sweep over the breakwalls. During these conditions small craft should be moved to the inner harbour where the surge is less severe.

46 **Historical note**. — Originally known as *Amherst*, the town had its beginnings in 1798 when a United Empire Loyalist named Eliud Nickerson settled here. Other settlers followed and the first store opened in 1808. The community grew rapidly with the arrival of retired servicemen after the war of 1812, and in 1819 the town

changed its name to *Cobourg* in honour of the wedding of Prince Leopold of Saxe-Coburg and Princess Charlotte.

47 In the 1830's the town was flourishing with a population of about 1,000 and began constructing a harbour to handle its vigorous import and export trade, later building a railway, which was one of the first in North America, across Rice Lake to Peterborough.

48 Confident of the town's future prosperity, the town fathers built a magnificent town hall, completed in time to be opened by the Prince of Wales in 1860. The fortunes of the town rose and fell, however, with the tide of industry and Cobourg later found itself eclipsed with the growth of Toronto and Hamilton as industrial centres.

49 Cobourg today enjoys the legacy of its past with many fine buildings from the mid-nineteenth century. It is now a manufacturing town as well as being a holiday resort, and is also noted for its antique shops. Summer concerts are held in the band shell in the park.

50 **Points of interest.** — *Victoria Hall* is the most prominent building in town and a landmark for approaching boaters. This imposing building is the town hall opened in 1860; it has recently been completely restored and now houses municipal offices, Chamber of Commerce, art gallery, concert hall, and an Old Bailey courtroom.

51 The *Art Gallery of Northumberland*, housed in *Victoria Hall*, features contemporary works as well as more traditional displays of art work of all kinds and special exhibitions throughout the year.

3-4

52 *Town Hall Theatre*, the concert hall in the same building, hosts special live theatre performances presented by the *Northumberland Players* and other local theatre groups from time to time, year round.

53 *Dressler House*, built in 1833, was the birthplace and early home of actress Marie Dressler. Now the local Chamber of Commerce building, the building still retains the air of gracious living of the 1860's.

54 *Barnum House*, 10 km east of Cobourg, is a stately home built in the Georgian style by Colonel Eliakim Barnum in 1817. Exhibits include displays of local antique and period furnishings, and various special exhibits are also shown.

## Cobourg to Newcastle

#### Chart 2058

55 The coast from Cobourg to Port Hope, 5 miles to the west, is very similar to the area east of Cobourg, consisting of low clay banks, well wooded in places, with open farmland beyond.

56 **Caution**. — **Peter Rock**  $(43^{\circ}56'N, 78^{\circ}14'W)$ , which dries to 1 foot (0.3 m) and is connected to shore by a shallow **rocky spit**, lies 0.7 mile offshore midway between Cobourg and Port Hope.

57 *Peter Rock south cardinal buoy MN (497.5)* lies 0.35 mile south of Peter Rock.

Three conspicuous **radio towers**, two with an elevation of 186 feet (56.7 m) and a shorter tower between them, lie 1 mile NNE of Peter Rock; the towers have air obstruction **lights**. A conspicuous **microwave tower** 3 miles NNE of Peter Rock has an elevation of 441 feet (134 m); it has air obstruction **lights**.

<sup>59</sup> The town of **Port Hope** (43°57′N, 78°18′W), with a population of 11,505 (1991), is near the harbour on the rising land each side of **Ganaraska River**. West of the town the land rises from the lake to an elevation of about 53 m (175 ft). There is a *Canadian Mining and Energy Corporation Plant* at the harbour. Port Hope has scheduled bus and rail services and is on *Highway 2* and near *Highway 401*.

The best **landmarks** are the tall white and green buildings of the *Canadian Mining and Energy Corporation* on the west side of the harbour. Also **conspicuous** is a microwave tower 1.6 miles to the NE, and the white standpipe of the town waterworks, rising above the trees of the wooded hills.

The harbour at Port Hope consists of an artificial basin protected by concrete walls, and an east arm formed by Ganaraska River. The harbour is entered between a concrete pier, to the west, and a boulder breakwall, to the east.

62 Port Hope is a recreational harbour administered by the *Department of Fisheries and Oceans* and managed by municipal authorities.

63 Port Hope is a **Customs** vessel reporting station for pleasure craft.

64 **Caution**. — Port Hope is subject to **silting**; depths may be less than charted.



**PORT HOPE** (1994)

Two **submerged water intakes** 0.25 mile west of Port Hope extend 0.5 mile offshore. **Submerged water, sewer and gas pipelines** cross Ganaraska River.

66 **Caution**. — A small area close to shore at Port Hope was observed in 1975 to have a Magnetic Variation of 12° west when the normal variation was 10° west. Mariners are cautioned not to rely on a magnetic compass in this area.

67 Port Hope West Pier light (499), on the outer end of the west breakwater, is shown from a white circular tower, with a green upper part, 6.1 m (20 ft) high.

68 Port Hope light (498), near the south end of the east breakwater, is shown at an elevation of 8.5 m (28 ft) from a white circular tower, 6.1 m (20 ft) high, with a red upper part.

70 Port Hope has a municipal marina. 71 Port Hope Marina, operating from Ganaraska Rainbow Cafe on the east side of Ganaraska River, had depths of 0.6 to 0.8 m (2 to 3 ft) in 1994 and offered dockage with power and water, ramp, picnic area, pay phone, showers, bait and tackle, snack bar, restaurant, ice and gasoline. A day-use park, picnic area and children's playground were near by.

73 **Historical note**. — The first settler in this area was Peter Smith, a fur trader, who arrived in 1778. Other settlers followed and the early community became known as *Smith's Creek*. The first grist mill was built in 1797 and, being on the route of the 1798 road between Kingston and York (Toronto), the settlement prospered and expanded rapidly.

<sup>74</sup> In 1819 the community took the name of *Port Hope* and the same year became an official Port of Entry, though the harbour itself was not much developed until 1829 when work began on a substantial wharf for steamboats.

<sup>75</sup> In 1834 Port Hope was incorporated as a village and continued to thrive as an early industrial and commercial centre, becoming a town in 1850.

Now a residential and industrial town as well as being a tourist resort, Port Hope is noted for its nineteenth century architecture. Many of the original buildings of the town centre have survived the ravages of the modern developer, and the Port Hope branch of the *Architectural Conservancy of Ontario* is vigorous in helping present owners care for their buildings as part of the town's heritage.

#### Chart 2058

77 **Caution**. — A **shoal** of 6 feet (1.8 m), boulders, lies 0.25 mile offshore 0.6 mile WSW of the Port Hope east breakwater light-structure.

77.1 A **wreck**, least depth unknown, dangerous to surface navigation, is located 1.75 miles on a bearing of 205° from Port Hope West Pier light.

The coast from Port Hope to **Otty Point** (43°56'N, 78°21'W), 3 miles to the west, has bluffs up to 20 feet (6.1 m) high; Otty Point, elevation 70 feet (21 m), is the highest part of

this coast and is wooded. From Otty Point to **Crysler Point**, 5.5 miles west of Port Hope, the coast is generally flat, gently rising farther inland, and the western part is fringed with trees. At **Port Britain**, 0.8 mile west of Otty Point, there are many houses at the water's edge.

79 The clay cliff which skirts the sandy shore, leaving a narrow space for boat landing, gradually rises; 1 mile west of Crysler Point it has an elevation of 90 feet (27 m). The bluffs are densely wooded down to the shore in some places, especially where the bluffs are gullied. There are occasional small clearings on the bluffs and a longer clearing shows 0.75 mile west of Crysler Point. The village of **Wesleyville** is north of Crysler Point.

The main building and the chimney of the Ontario Hydro *Wesleyville Generating Station*, 1 mile ENE of Crysler Point, are **conspicuous**. The white concrete chimney, 650 feet (198 m) high, with an elevation of 664 feet (202 m), has white strobe **lights**. A microwave tower 0.9 mile NE of Crysler Point has an elevation of 383 feet (117 m) and has air obstruction **lights**.

A **submerged water intake** 1 mile ENE of Crysler Point extends 0.6 mile offshore; the crib at the outer end has a depth of 37 feet (11.3 m).

There are several houses along the shore at Port Granby, 1.8 miles west of Crysler Point; the most prominent of these houses is grey with a brown roof (1994).

83 **Bouchette Point**, 3 miles WSW of Crysler Point, is 100 feet (30 m) in elevation. The high clay cliff near the point is bare at the top.

West of Bouchette Point, the clay bank recedes at the mouth of a creek, then again skirts the shore with little space for boat landing. There are groups of trees, especially between gullies in the bluff. Bouchette Point is more heavily wooded.

**Bond Head**, 3 miles west of Bouchette Point, is 50 feet (15 m) in elevation. Bond Head is a sand and clay bluff sloping to the west and fringed with mature trees. Open farmland extends inland.

**Caution**. — A shallow spit extends 0.5 mile offshore at Bond Head, ending in a **reef** with a depth of 18 feet (5.5 m).

87 There is a traffic control calling-in point for upbound and downbound vessels south of Bond Head. For details of the St. Lawrence Seaway traffic control system see the Seaway Handbook.

The town of **Newcastle** ( $43^{\circ}54'N$ ,  $78^{\circ}35'W$ ), with a population of 49,479 (1991), is 13 miles west of Port Hope.

The harbour at Newcastle is an enclosed bay near the mouth of **Graham Creek**. The harbour is entered between two boulder and concrete breakwalls extending out from shore. The east breakwall has a total length of 475 feet (145 m), the outer 100 feet (30 m) being a sheet piling and concrete pier,

#### NEWCASTLE (1994)



elevation 6 feet (1.8 m). The west breakwall has a total length of 302 feet (92 m), with the outer 180 feet (55 m) being a sheet piling and concrete pier, elevation 6 feet (1.8 m). Due to the configuration of the shore the west entrance pier extends farther into the lake than the east pier.

90 Newcastle Entrance light (500.8), at the outer end of the west breakwater, is shown at an elevation of 20 feet (6.1 m) from a white circular tower, 16 feet (4.8 m) high, with a green upper part. The light is privately maintained. 91 Two **submerged cables**, one telephone the other power, cross the north end of the entrance to the harbour.

92 The entrance channel is subject to **silting**. A depth of 4 feet (1.2 m) was found in the entrance channel in 1993. 93 Port of Newcastle Marina and Tennis Club, in a protected basin on the west side of the mouth of Graham Creek, had depths of 5 to 8 feet (1.5 to 2.4 m) in 1994 and offered dockage with power and water, pump out, 25 tonne hoist, picnic area, pay phone, showers, tennis, snack bar, restaurant with licensed dining room, ice, gasoline and diesel fuel.

94 **Points of interest**. — *Clarke Museum and Archives*, 10 km north of Newcastle harbour in the village of Orono, is on the second floor of the *Clarke Public Library* building. Built in 1882, this was the home of John Waddell who was a prominent local businessman. The museum has displays of local historical items and archives of local documents.

95 *Kirby Schoolhouse Museum*, 5 km farther north at Kirby, is one of the area's last one-room schools. Built in 1878, the school is furnished in its original style and has displays of school documents and artifacts.

Mosport, 19 km NNW of Newcastle, is noted for being the home of Mosport Park, a world class race track.

Motor races of various types are hosted here from May to October, ranging from motorcycle and vintage car events to high-powered racing car competitions. Music festivals and concerts are also hosted here on occasion.

97 The town of Newcastle, which includes the communities of Darlington and Bowmanville as well as the village of Newcastle, is also noted as being the home of four weekly newspapers and the centre of a thriving antique business with weekly auction sales and many shops.

## Newcastle to Oshawa

This 11-mile stretch of coast consists of low clay banks or cliffs, broken by a sand and gravel area west of Port Darlington and by a low marshy area east of Oshawa. The bluff near Raby Head (43°52'N, 78°43'W) is prominent.

A **submerged water intake** 0.3 mile west of the entrance to Newcastle Harbour extends 0.6 mile offshore. The outer end is marked by a privately maintained **buoy**. A **submerged sewer outfall** 0.3 mile west of the water intake extends 0.15 mile offshore.

100 **Port Darlington** (43°53'N, 78°40'W), 4 miles west of Newcastle, is on **Bowmanville Creek** close north of the Lake Ontario shoreline. The harbour is entered between two parallel boulder breakwaters which extend into the lake 160 feet (49 m) apart.

 $101 \quad Caution. - Port Darlington is subject to silting; depths may be less than reported. There were depths of 2 feet <math>(0.6 \text{ m})$  in the entrance channel in 1994.

102 Port Darlington is a **Customs** vessel reporting station for pleasure craft.

#### PORT DARLINGTON (1994)



103 Port Darlington light (501), at the outer end of the west breakwater, is shown at an elevation of 31 feet (9.4 m) from a white circular tower, 12 feet (3.7 m) high, with a green upper part.

104 There are two **submerged water intakes** 0.1 mile east of Port Darlington. A **submerged sewer outfall** at the same location extends 0.2 mile offshore and then in a WSW direction for 0.4 mile.

104.1 A **submerged cable** extends one mile offshore in a SE direction on the east side of the east breakwater. The position of a submerged current meter at the outer end of the cable is marked by a privately maintained **buoy**.

105 Port Darlington Marina Hotel, on the east side of the creek, had depths of 2 to 5 feet (0.6 to 1.5 m) in 1994 and offered dockage with power and water, pump out, hull and engine repairs, 20 tonne hoist, motel accommodation, picnic area, pay phone, showers, laundromat, boat hardware, restaurant and licensed dining room, swimming pool, ice, gasoline and diesel fuel.

106 On the east shore of the creek, 100 feet (30.1 m) north of *Port Darlington Marina*, is the paved launching **ramp** and some dockage of *Bowmanville Harbour Conservation Authority*, a development of the *Central Lake Ontario Conservation Authority*.

107 **Bowmanville**, a community which forms part of Newcastle, is NNW of Port Darlington.

108 A **water tower** at Bowmanville is visible from the lake.

109 **Historical note**. — This area was first settled in 1793 when three Loyalist families landed close west of here after fleeing from their homes in the United States. In 1798 John Burk and his family set up their home on the banks of Bowmanville Creek, later building a sawmill and a grist mill here. The community that grew up around the mills was known as *Darlington Mills* in its early days, then in 1823 the name *Bowmanville* was adopted. The village prospered and in 1858 was incorporated as a town.

**Points of interest**. — *Bowmanville Museum* is housed in an 1847 building, once home to prominent local citizens. The museum has special displays and events through most of the year and hosts exhibits on the history of the town and local pioneers. Displays include selections from a collection of early furniture, tools and equipment.

111 *Bowmanville Zoo*, said to be the largest privately owned zoo in Canada, has a large collection of animals and birds. Planned so that visitors can enjoy close contact with many of its animals, the zoo is also noted for its large herd of camels.

*Tyrone Mill*, 16 km north of Port Darlington, was the first grist mill in the area. The mill has been operating continuously since it was built in 1846, though its product has changed with the times. Originally built to grind wheat into flour, it changed to become a feed mill in 1908, then a sawmill was added in 1957, and apple cider production began in 1981. Still operated by water power, this is a working mill but visitors are welcome.

From Port Darlington to **Raby Head** the coast is low, sandy and gravelly, except for a prominent bluff 105 feet (32 m) high near a point 1 mile SW of Port Darlington. Raby Head is also **prominent**. The *St. Marys Cement Plant*, 1 mile NE of Raby Head, is **conspicuous**, with numerous silos, 180 feet (55 m) in elevation, and plant chimneys, with elevations of 380 feet (116 m) and 283 feet (86 m). The chimneys have air obstruction **lights**; the plant is also conspicuous at night because of numerous lights on the different structures.

115

The St. Marys Cement Company

wharf forms the outer end of a landfill area which extends about 0.4 mile from the natural shoreline 1 mile SW of Port Darlington. The berth, 840 feet (256 m) long, consists of five concrete dolphins joined by catwalks. The dolphins have elevations of 13 to 14 feet (4 to 4.3 m). There were depths of 27 feet (8.2 m) along the berth in 1993. Privately maintained **lights** are shown from the dolphins at the north and south ends of the berth.

116 A **submerged water intake** 0.2 mile west of the *St. Marys Cement Company* wharf extends 0.4 mile offshore; the crib at the outer end has a depth of 22 feet (6.7 m) and is marked by a privately maintained **buoy**.

117 The *Ontario Hydro Darlington Generating Station* at Raby Head is **conspicuous**. It is **floodlit** at night.

<sup>118</sup> Two **submerged pipelines** 0.6 and 0.7 mile west of Raby Head extend 0.4 and 0.8 mile offshore and are marked by privately maintained **buoys**.

**Caution**. — All vessels are prohibited from entering an area around the *Darlington Generating Station*. The **prohibited area** extends 1 mile offshore and is marked by **buoys**.

120 From Raby Head the clay cliff skirts the shore for a distance of 3 miles then becomes a low gravelly beach backed by low-lying swampy land with some open water.

121 The entrance to **McLaughlin Bay**, 1.2 miles east of Oshawa Harbour, is closed by a shingle bar. In 1994 there was a narrow access channel to **Second Marsh** across a shingle beach close west of McLaughlin Bay. In 1993 the channel had a width of 33 feet (10 m) and a depth of 3 feet (0.9 m). 122 Shallow water extending 0.6 mile off McLaughlin

Bay is marked by a **buoy**. 123 There is a group of five **conspicuous radio towers** 0.3 mile inland midway between Raby Head and Oshawa Harbour. The towers, up to 208 feet (63 m) in elevation, have air obstruction **lights**. A microwave tower 1 mile NNW of McLaughlin Bay has air obstruction **lights**.

124 *Darlington Provincial Park*, open year round along the NE side of McLaughlin Bay, is a Recreation Park and offers facilities such as camping, picnic areas, showers, store, pay phone, launch ramp, dockage, boat and canoe rentals, and a children's playground. Points of interest here include an early pioneer cemetery, nature walking trails and a pioneer cabin. There is a restaurant 3 km from the park.

#### Chart 2050

125 The City of **Oshawa**  $(43^{\circ}52'N, 78^{\circ}50'W)$ , with a population of 129,344 (1991), is on the north shore of Lake Ontario, 26 miles ENE of Toronto and 24 miles west of Port Hope. Oshawa has scheduled bus and rail services and an airport, and is on *Highway 401* and *Highway 2*.

**Oshawa Harbour** lies 1.5 km SE of the city centre. The coast on each side of the harbour consists of clay banks, generally wooded, rising to a bluff 20 m (65 ft) high 0.6 mile SW of the harbour entrance. The harbour itself consists of an artificial basin entered between a concrete pier, elevation 2.1 m (7 ft), and a boulder breakwater, elevation 3 m (10 ft), that extend out from shore. Cargoes handled at the port include petroleum products, steel, salt, calcium chloride, potash and general cargo. The port was used by 38 ships in 1993.

127 A sandy beach and swimming area extend SW from the harbour pier, with a lifeguard station and toilets. Oshawa's *Lakeview Park*, close west of here, is a municipal day-use park with children's adventure playground, landscaped boardwalk, picnic areas, snack bar and pay phone.

128 Four boulder islands have been built close offshore at *Lakeview Park*. Each island is 15 to 20 m (49 to 66 ft) long and has an elevation of 2 m (7 ft). The westernmost island is connected to shore by a boulder breakwater.

129 Oshawa Harbour is a commercial harbour administered by the *Oshawa Port Authority*.

130 Oshawa is a **Customs** vessel clearing station for commercial traffic and a vessel reporting station for pleasure craft.

131 The *City of Oshawa Marine Rescue Association*, in conjunction with the Oshawa Fire Department and Power Squadron, is reported to maintain two rescue boats on a 24 hour basis from April to November.

132 There is a **speed limit** of 7 knots in Oshawa Harbour for vessels navigating within 305 m (1,000 ft) of the shore. No vessel shall move at a speed exceeding 5 knots when passing any vessel that is anchored, moored or made fast, which has explosives on board.

133 **Caution**. — It has been reported that during strong east winds vessels tend to drift towards the west pier. Mariners are cautioned to guard against this set.

134 **Caution**. — Oshawa Harbour is subject to silting; charted depths are reported to be maintained by periodic dredging. In 1994 a depth of 7.7 m (25 ft) was found at the north end of the East Wharf.

135 The main **wharves** of Oshawa Harbour are used by commercial vessels. Small-craft facilities are offered by a marina and a yacht club in the NW part of the harbour.

136 On approaching the harbour, the groups of light-coloured oil **storage tanks** on the east and west sides of

## Lake Ontario

#### **OSHAWA HARBOUR** (1994)



the harbour are prominent. There is a group of **storage domes** on the east side of the entrance.

137 Oshawa Harbour **range lights**, on concrete pads at the head of the harbor, are in line bearing  $327\frac{1}{2}^{\circ}$ . The front light (502.5) is shown from a square skeleton tower, 9.8 m (32 ft) high, with a fluorescent-orange trapezoidal daymark with a white vertical stripe. The rear light (502.6) is shown from a square skeleton tower, 20.4 m (67 ft) high, with a fluorescent-orange trapezoidal daymark with a white vertical stripe.

139 Oshawa Harbour light buoy MV4 (501.2) lies 0.18 mile SE of the front range light.

140 Ample supplies are available from Oshawa stores. Fresh water, diesel fuels and lubricating oils for ships are available.

141 *Port Oshawa Marina* (formerly *Durham Cruise Marina*), in the NW part of Oshawa Harbour, had depths of 1.4 to 2.7 m (5 to 9 ft) in 1997 and offered dockage with power and water, pump out, ramp, repairs and salvage work, 30 tonne hoist, picnic area, pay phone, showers,

#### Wharves

## Oshawa Harbour

Berth	Wharf Length *	Elevation †	Storage		Remarks		
	m (ft)	m (ft)	Note: All info	ormat	ion in this table was provided by local authorities.		
			User should consult local authorities for latest conditions.				
East Wharf	222.5 (730)	2.4 (8)	2,090 m <sup>2</sup> (22,500 sq ft) heated transit shed.		Crane capacity 326 tonnes.		
			Air-supported storage bubble.		4 hectares (10 acres) fenced and paved.		
South Wharf	152.4 (500)	2.1 (7)	Bulk storage, project cargo.		0.7 hectare (1.7 acres) paved.		
West Wharf - north	280.4 (920)	2.1 (7)	Bulk storage 1.2 hectares (3 acres).		There is a railway spur line 457 m (1,500 ft) north of		
- south	200.4 (920)		2 hectare (5 acre) tank farm available.		the wharves at Oshawa Harbour.		
West Pier (inner end)	152.4 (500)	2.1 (7)	Same as South Wharf (adjacent), paved.				

\* Estimated berth length. † Elevation above chart datum.

ice, gasoline and diesel fuel. Several charter fishing boats were based here.

142 *Oshawa Yacht Club*, open to yacht club members, also had its club house and other facilities in the NW part of the harbour.

143 *Port Oshawa Marina*; *Barkleys*, 423 Bloor Street; and *Gagnon Sporting Goods*, 818 Simcoe Street South, in Oshawa, are authorized dealers for Canadian Hydrographic Service nautical **charts** and publications.

144 **Historical note**. — French fur traders established a trading post near the mouth of the Oshawa Creek in 1750 but the first settler was Benjamin Wilson, who arrived here in 1790. Others soon followed, and the first industry began in 1793 with the manufacture of looms and spinning wheels. The store operated by Edward Skae gave the early settlement the name *Skae's Corners*, then in 1842 the community adopted the name *Oshawa*, and in 1850 was incorporated as a village.

145 Oshawa prospered as an early industrial centre. In 1869 Robert S. McLaughlin moved here to set up his new carriage works, an enterprise that flourished and later became *General Motors of Canada*. In 1879 the vigorous village became a town, and in 1924 Oshawa was incorporated as a city.

146 Today Oshawa is busier than ever, now being one of the largest industrial centres in Canada but still taking pride in its early heritage.

147 **Points of interest**. — *Robinson House*, a brick house in *Fairview Park* west of the harbour, was built in 1846 by John Robinson and has been restored by the *Oshawa and District Historical Society*. Noted mainly for interesting architectural detail, the building has displays and furniture of the Victorian era and a reconstruction of an early general store.

148 *Henry House*, built in 1849-50, was the home of Thomas Henry, a prominent local churchman and citizen. The house is now a museum of local history with many period exhibits including several furnished rooms.

149 *Guy House*, a mid-nineteenth century wood-frame farmhouse, has been recently restored and is part of the *Oshawa Sydenham Museum* complex, along with *Robinson House* and *Henry House*. Guy House has the museum's administrative offices, an exhibit gallery, a gift shop, and community archives for Oshawa and Durham Region.

150 The *Canadian Automotive Museum*, in downtown Oshawa, has displays of vehicles tracing the history of the motor car from the earliest "horseless carriage" to the present day automobile.

151 *Robert McLaughlin Gallery*, the art gallery at the *Oshawa Civic Centre*, features exhibits of contemporary Canadian art of all kinds and hosts special exhibitions during the year.

152 *Parkwood*, the stately mansion home built in 1917 by Robert McLaughlin, is open to the public. With its priceless furnishings and landscaped grounds, this allows a rare view of gracious living.

153 *Robert Stuart Aviation Museum* is a privately owned museum at Oshawa Airport. This museum traces the role of aviation in both World Wars and features displays of aviation and espionage equipment.

154 *Oshawa Little Theatre* and other active amateur groups present live theatre productions from time to time throughout the year. These presentations include musicals as well as comedy and dramatic productions.

155 The city is home to the *Oshawa Symphony Orchestra* and is also noted for its weekly band concerts, held during the summer at Memorial Park.

## Oshawa to Frenchman's Bay

#### Chart 2077

There are no conspicuous natural features between Oshawa and Whitby, 4.5 miles to the west. Shallow water with boulders extends off **Gold Point** and **Thicksons Point**, 2.2 and 3.5 miles WSW of the entrance to Oshawa Harbour. <sup>157</sup> On each side of Whitby Harbour, the coast consists of low clay banks, mostly wooded, with open farmland beyond, rising to a height of 15 m (49 ft) 4 miles WSW of Whitby. From here west to Frenchman's Bay the coast is lower with marshy areas.

158 Two **submerged water intakes** 1.5 miles east of Gold Point extend 0.5 mile offshore. The cribs at the outer end of the pipelines have depths of 7.7 m (25 ft) and 10 m (33 ft) and are marked by privately maintained **buoys**.

The chimney of the *General Motors* plant, north of Gold Point, is **conspicuous**. The chimney, elevation 99 m (324 ft), has air obstruction **lights**.

160 Three **submerged water intakes** 0.1 mile east of Whitby Harbour extend up to 1 mile offshore.

#### Chart 2049

161 The town of **Whitby**  $(43^{\circ}51'N, 78^{\circ}56'W)$ , with a population of 61,281 (1991), is 4.5 miles west of Oshawa and 21 miles NE of Toronto. Whitby is the administrative centre of the Regional Municipality of Durham and has rural, urban and industrial areas. There is a general hospital. Whitby is served by scheduled bus services and is on *Highway 401* and *Highway 2*.

162 **Whitby Harbour**, 3 km south of the town centre, lies in a sheltered bay at the mouth of the **Pringle Creek**, 1.2 miles WNW of Thicksons Point. The harbour is protected along its south side by a sand bar and a breakwater, and is entered at

#### WHITBY HARBOUR (1994)



its SE corner between two concrete piers which extend out from shore. The west entrance pier has an elevation of 2.4 m (8 ft); a rubble breakwater extends 91 m (300 ft) southwards from its outer end. The east pier has an elevation of 2 m (7 ft). 163 Whitby Harbour is a Public Harbour administered by the *Department of Fisheries and Oceans* and managed by the Town of Whitby.

164 Whitby is a **Customs** vessel reporting station for pleasure craft.

**Caution**. — The harbour is subject to silting; charted depths are reported to be maintained by periodic dredging.

166 A tall light-coloured condominium close north of the harbour is **conspicuous**, as is a microwave tower, with air obstruction **lights**, 0.2 mile north of the harbour. On closer approach, the black-topped chimney of the *Ontario Hospital*, 0.2 mile west of the harbour, is prominent.

167 Whitby Harbour East Pierhead light (504), at the outer end of the east pier, is shown from a white circular tower, 6.4 m (21 ft) high, with a fluorescent-orange triangular daymark with a black vertical stripe.

167.1 Whitby West Breakwater light (505), with a port-hand daybeacon mounted on the support mast, is shown from the outer end of the rubble breakwater on the west side of the harbour entrance.

168 Whitby Inner Harbour light (505.4), on the north end of the inner rubble breakwater, is shown at an elevation

of 6 m (20 ft) from a white circular tower, 3.2 m (10 ft) high, with a green upper part.

169 Port Whitby Marina, in the NW part of the harbour, had depths of 1.6 m (5 ft) in 1994 and offered dockage with power and water, pump out, ramp, 35 tonne hoists, picnic area, pay phone, showers, ice, gasoline and diesel fuel. The marina is an authorized weigh station for the annual *Toronto Star Salmon Hunt*.

170 Whitby Boat & Specialty Woodwork Ltd.; Custom Yacht Builder; and PDQ Yachts are also in the NW part of the harbour at the Port Whitby Marina complex; boat building and repair facilities were available in 1994.

Whitby Yacht Club, in the SW part of the harbour, is private but visiting boaters are welcome. With depths of 1.3 to 4.5 m (4 to 15 ft) in 1994, the club offered dockage with power and water, pump out, ramp, mast stepper, picnic area, pay phone, showers, ice, snack bar and restaurant with licensed dining room.

172 *Port Whitby Marine Supplies*, 1636 Charles Street, Unit 3, in Whitby, is an authorized dealer for Canadian Hydrographic Service nautical **charts** and publications.

173 The concrete **ramp** on the NW shore of the harbour, at Gordon Street, is a municipal facility.

Historical note. — The area around Whitby was already being surveyed in 1792. The first known settler was Jabez Lynde, who made his home on the creek close west of here in 1804, and then John Scadding, who founded a village near the harbour in 1819. The early settlement around the harbour was originally known as *Windsor*, changing its name to *Whitby* in 1848 and being incorporated as a town in 1855.

175 The town prospered in its early days, being very busy with its railway lines serving the active grain export trade to the United States. This trade was killed overnight, however, when the United States passed the *McKinley Tariff Act* in 1890. Deprived of its main trading partner, Whitby became a quiet country town.

Today Whitby is a growing industrial and residential community with all the facilities of a major town and is increasingly becoming known as a tourist resort.

177 **Points of interest**. — *Station Gallery*, the art gallery housed in the original 1903 railway station, has displays of both historic and contemporary art works. *Whitby Arts Inc.* hosts special exhibitions here as well as offering arts and crafts courses.

178 *Cullen Gardens and Miniature Village* has magnificent floral gardens and a village of over 100 scale replicas of historic buildings in a landscaped setting. This is a real highlight of the area with floral displays from spring until fall, and special Christmas decorations in the miniature village from November to early January. Also here is the *Lynde House*, which is the home built about 1812 by Jabez Lynde. This museum is operated by the *Whitby Historical Society* and has displays of early pioneer furniture and artifacts.

179 *Whitby Information Centre* has over 500 different brochures with information on places and activities in the region and Canada-wide.

Chart 2077

180 **Richardson Point** (43°50'N, 78°59'W), 2.7 miles SW of Whitby Harbour, is 5 m (16 ft) high and wooded. Just west of Richardson Point is **Pickering Beach** with its summer cottages.

182 **Simcoe Point** and **Moore Point**, with **Duffins Creek** between them, are 1.8 and 3.2 miles, respectively, WSW of Richardson Point. The coast has a park-like appearance between Simcoe and Moore Points.

183 **Caution**. — **Shoal** water extends 0.4 mile offshore in places between Richardson Point and Moore Point. Boaters are cautioned to avoid these dangers by keeping farther offshore.

184 Asubmerged water intake 1 mile WSW of Richardson Point extends 0.4 mile offshore; the crib at the outer end has a depth of 9.1 m (30 ft). A submerged sewer outfall 1.7 miles farther WSW extends 0.5 mile offshore; the diffusers at the outer end are marked by a privately maintained **buoy**.

The Ontario Hydro *Pickering Generating Station* complex at Moore Point includes a **conspicuous** cylindrical vacuum tower surmounted by a radio tower with an elevation of 87 m (285 ft). The radio tower has air obstruction **lights**. A microwave tower 0.2 mile north of the power plant has an elevation of 98 m (322 ft); this tower has air obstruction **lights**. The eight cooling towers and associated buildings are conspicuous. Also prominent is a white spherical structure on a tall pedestal.

185.1 A **submerged cable** extends 0.9 mile offshore in a SE direction from the generating station. The position of a submerged current meter at the outer end of the cable is marked by a privately maintained **buoy**.

#### Chart 2055

186 **Frenchman's Bay**, 16 miles NE of Toronto, is entered 1.3 miles WNW of Moore Point. It is a shallow well-sheltered bay protected from the force of storms by



## PICKERING GENERATING STATION (1994)

#### FRENCHMAN'S BAY (1994)



a narrow sand bar named **Fairport Beach**. The *Pickering Generating Station*, to the east, makes a good landmark for locating the bay. The bay is entered between two parallel breakwaters, 30 m (100 ft) apart, extending 122 m (400 ft) into the lake. A sandy beach extends westward from the entrance.

**Caution**. — Parts of the boulder breakwaters are covered at summer water levels. It is reported that privately maintained **buoys** mark the channel between the breakwaters at such times.

188 Frenchman's Bay is a **Customs** vessel reporting station for pleasure craft.

189 The *Pickering-Ajax Rescue Unit* (PARU) is reported to operate a rescue launch from Frenchman's Bay.

The channel into Frenchman's Bay is reported to be 15 m (50 ft) wide. It is reported to be dredged periodically to a depth of 2.4 m (8 ft). A limiting depth of 1.3 m (4 ft) was found in the entrance channel in 1994.

192 Frenchman's Bay Entrance East light (506), on a crib at the east side of the outer end of the entrance to the bay, is shown at an elevation of 7.5 m (25 ft) from a white circular tower, 5 m (16 ft) high, with a red upper part. 193 Frenchman's Bay Entrance West light (506.5), on a crib at the west side of the outer end of the entrance to the bay, is shown at an elevation of 7.5 m (25 ft) from a white circular tower, 5 m (16 ft) high, with a green upper part.

194 A **submerged power cable** crosses the channel at the entrance to Frenchman's Bay. A filtration plant **submerged outlet** 0.25 mile to the east extends 0.3 mile

offshore; the outer end of this pipeline is marked by a privately maintained **buoy**.

195 **Caution**. — Twin stone groynes, 0.15 mile long, extend offshore from the western part of the power station complex 0.7 mile ESE of the entrance to Frenchman's Bay. The groynes are 75 m (250 ft) apart. **Entry between these groynes is prohibited; anchorage in this area is prohibited.** 

Privately maintained **lights** are shown from skeleton masts, 10 m (33 ft) high, at the outer end of the groynes. The groynes are floodlit.

196.1 Fish exclusion netting, set in a semicircle outside the groins, is marked by lighted **hazard buoys**.

197 Facilities for small craft are offered by marinas and yacht clubs in Frenchman's Bay.

198 *Port Pickering Marina*, on the NE shore 0.2 mile north of the entrance, had depths of up to 0.7 m (2 ft) in 1994, and offered dockage with power and water, pump out, repairs and salvage work, 50 tonne hoist, some boat hardware, picnic area, pay phone, showers, laundromat and ice. *Winston's Mobile Marine Service*, offering service to all types of marine engines, is based here.

199 *East Shore Marina, Pickering Harbour Company Ltd.*, on the SE shore of Frenchman's Bay, had depths of 0.6 to 1.3 m (2 to 4 ft) in 1994 and offered dockage with power and water, pump out, ramp, repairs, hoist, picnic area, pay phone, showers, laundromat, ice, bait, tackle and snack bar. *Genco Marine Sales*, at *East Shore Marina*, is a well-stocked chandlery, with boat hardware and yachting supplies. 200 *Nautically Yours Maggie*, in the *East Shore Marina* complex, in 1994 offered repairs for sails and canvas, with emergency service available. *Boat-U-Drive*, also based here, offered sailboat rentals, charters and yacht sales, and the *Frenchman's Bay Sailing School*.

201 *Moore Haven Wharf Inc.*, a private marina on the east shore of Frenchman's Bay, had depths of 1.1 to 1.6 m (4 to 5 ft) in 1994 and offered dockage with power and water, pump out, 30 tonne hoist, pay phone, showers, boat hardware, gasoline and diesel fuel.

202 Shaker's Bait & Tackle, on the east shore of Frenchman's Bay, in 1994 offered bait and tackle. S & S Boat Repairs (at the same location) offered hull repairs and salvage work. B & H Mobile Marine Services, also here, offered engine repairs.

203 *Swans Marina*, in the SE corner of Frenchman's Bay, had depths of 0.6 to 1.2 m (2 to 4 ft) in 1994 and offered dockage with power and water, picnic area, pay phone, showers, snack bar and licensed restaurant.

204 Frenchman's Bay Yacht Club, a private club on the west side of Frenchman's Bay, had depths of 0.6 to 2 m (2 to 7 ft) in 1994 and offered dockage with power and water, and picnic area. PARU was based here in 1994, as were the Frenchman's Bay Junior Sailing School and Junior Sailing Club.

## Frenchman's Bay to Toronto

Chart 2077

Most of the 13 miles of coast between Frenchman's Bay and Toronto consists of clay cliffs or bluffs. These are lowest near **Rouge River** and **Highland Creek**, 1.5 and 3.5 miles, respectively, SW of Frenchman's Bay, and highest along the Scarborough Bluffs, 2 miles farther SW.

206 **Caution**. — The 5 m (16 ft) contour extends up to 0.7 mile offshore in places along this stretch of coast. Boaters are cautioned to avoid shoal water by keeping farther offshore.

There are five isolated **chimneys**, 0.3 mile inland, 1.8 miles SW of Highland Creek. Four of these chimneys are black and one is grey (1994).

208 **Submerged pipelines** extend offshore 0.2 and 0.8 mile SW of the mouth of Highland Creek; the outer end of each pipeline is marked by a private **buoy**.

209 The dome of the *St. Augustine Seminary* building, 0.6 mile inland, 5.2 miles SW of Highland Creek, is **conspicuous**.

210 A landfill project by the *Metropolitan Toronto and Region Conservation Authority* at the foot of Brimley Road ravine, SE of the *St. Augustine Seminary* building, is known as **Bluffers Park**. This facility is operated by the *Metropolitan Toronto Parks Department*.

211 Bluffers Park is a **Customs** vessel reporting station for pleasure craft.

212 Bluffers Park light (507), on the east side of the entrance to the main sheltered basin, is shown at an elevation of 9.1 m (30 ft) from a white circular tower, 6.7 m (22 ft) high, with a red upper part.

213 Bluffers Park offers a combination of yacht club facilities and day-use park land. The SW part of the development includes landscaped picnic areas, pathways and lookouts, two double launching ramps, visitors' dockage, parking areas and washrooms. The NE part of the development provides sheltered dockage for over 500 boats and is operated under the auspices of the *Bluffers Park Boating Federation*. Access to the yacht club areas is restricted to yacht club members and guests.

214 Northeast of the yacht basin development of Bluffers Park there is a recreational area with picnic tables, toilets and sandy beach.



215 At Bluffers Park there are private yacht clubs, a sailing club and a marina.

216 Bluffers Park Marina, in the western part of Bluffers Park, had depths of 0.6 to 3.3 m (2 to 11 ft) in 1994 and offered dockage with power and water, pump out, repairs and salvage work, ramp (near by), 40 tonne hoist, boat hardware, picnic area, pay phone, showers, laundromat, snack bar, restaurant and licensed dining room, ice, gasoline and diesel fuel. *Performance Sailing School and Club* was also based here.

*Cathedral Bluffs Yacht Club*, at the eastern end of
Bluffers Park, had depths of 1.3 to 3.1 m (4 to 10 ft) in 1994. *Highland Yacht Club*, in the north part of the Bluffers
Park complex, had depths of 1.6 m (5 ft) in 1994.

219 *Bluffers Park Yacht Club*, on the western part of the central section at the Bluffers Park complex, had depths of 0.8 m (3 ft) in 1994.

220 *Scarborough Bluffs Sailing Club*, a sailing school, has its dryland facilities at the centre of the central section at the Bluffers Park complex.

A submerged water intake 0.6 mile SW of Bluffers Park extends 0.5 mile offshore. A submerged water intake 1.9 miles farther SW extends 1.25 miles offshore.

#### Chart 2085

Several artificial boulder islands serve as shoreline protection between **Balmy Beach** ( $43^{\circ}40'N$ ,  $79^{\circ}17'W$ ), 0.5 mile SW of the Port of Toronto NE limit, and **Kew Beach**, 0.6 mile farther SW. Each island is 15 to 20 m (49 to 66 ft) long and has an elevation of 2 m (7 ft).

3-15

#### **BLUFFERS PARK** (1994)

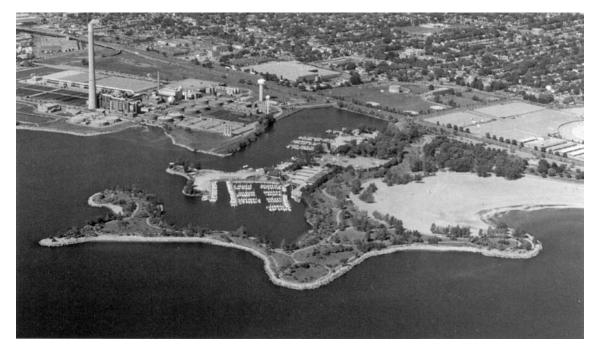


222.1 **Cautionary buoys** SW of the artificial islands mark offshore breakwaters; these breakwaters may be submerged at summer water levels.

A **submerged sewer outfall** at Kew Beach extends 0.25 mile offshore. The diffuser at the outer end has a depth of 3.4 m (11 ft).

224 **Coatsworth Cut** (43°39'N, 79°19'W) is the entrance to **Ashbridges Bay**. Coatsworth Cut and Ashbridges Bay are subject to **silting**. 225 A landfill project by the *Metropolitan Toronto and Region Conservation Authority* extending SE of Ashbridges Bay has created an attractive feature known as *Ashbridges Bay Waterfront Area*. The facilities are operated by the *Metropolitan Toronto Parks Department*.

This landfill development includes a combination of yacht club facilities and landscaped park land. The outer areas offer attractive picnic areas, pathways and lookouts. There



### ASHBRIDGES BAY (1994)

the second secon

#### OUTER HARBOUR EAST HEADLAND, TORONTO (1994)

is visitors' dockage on the SE side of the sheltered bay, and there are car parks and multiple-lane launching **ramps**.

A submerged sewer outfall on the SE side of the Ashbridges landfill area extends 0.15 mile offshore. A submerged outfall from the sewage treatment plant west of Coatsworth Cut extends 0.6 mile in a SSE direction; the outer end of this pipeline is marked by a privately maintained buoy. A submarine cable extends in a SE direction from Ashbridges Bay to just west of Olcott, NY

228 **Caution**. — The Coatsworth Cut channel is narrow. Boaters are cautioned to stay inside the channel markers in order to avoid **sandbanks** on each side of the channel. The channel had depths of 1.5 m (5 ft) in 1994. 229 The best **landmark** for the approach to Ashbridges Bay is the **conspicuous chimney** of the sewage treatment plant 0.2 mile west of Coatsworth Cut. This chimney, elevation 261 m (856 ft), is the most eastern landmark in the area. There are air obstruction **lights** about half way up and at the top of the chimney.

Ashbridge's Bay Yacht Club, a private club on the SE side of Ashbridge's Bay, had depths of 1.1 to 2.6 m (4 to 9 ft) in 1994.

231 *Toronto Hydroplane & Sailing Club*, a private club in the NE corner of Ashbridges Bay, had depths of 0.7 to 1.7 m (2 to 6 ft) in 1994.

232 Sea Cadets and Sea Scouts have facilities in Ashbridges Bay.

#### Toronto

The city of **Toronto**, with a population of 635,395 (1991), is on the NW side of Lake Ontario, 27 miles from its SW end. Toronto is the capital of Ontario. With a population of 2,275,771 in the metropolitan municipality, Toronto is the largest city in Canada. This is a major industrial, manufacturing and shipping centre and has several hospitals. The city centre lies close NW of the harbour.

Toronto is served by a network of bus and rail services and by a system of modern highways. Scheduled airline services are provided by two airports; *Toronto City Centre Airport*, on the west side of the harbour, and *Pearson International Airport*, 20 km to the NW.

#### Port of Toronto — General

**Port of Toronto (Toronto Harbour)**  $(43^{\circ}38'N, 79^{\circ}22'W)$  is one of the largest and busiest ports on Lake Ontario, with many marine terminals equipped to handle full-sized cargo vessels. The harbour is served by numerous shipping companies. The main imports are general cargo, steel, cement, sugar and agricultural machinery. The main exports are lumber, machinery, and project equipment. The port was used by 245 ships in 1993.

The Port of Toronto consists of two parts. Inner Harbour is bounded to the north and east by the city of Toronto waterfront, and to the south and west by Toronto Island and a series of other low islands. Outer Harbour lies to the SE and is bounded to the south and east by the **Outer Harbour East Headland** landfill project, also known as the **Leslie Street Spit**.

237 Most of the port's facilities are on the shores of Inner Harbour. Outer Harbour has been developed to offer facilities for small craft and pleasure boaters.

238 The Port of Toronto is a commercial harbour administered by the *Toronto Harbour Commissioners*. The harbour limits are shown on the charts.

239 Toronto is a **Customs** vessel clearing station for commercial traffic and a vessel reporting station for pleasure craft. There is a Customs reporting station for pleasure craft near the NE corner of *Toronto City Centre Airport*.

240 The Port of Toronto is under surveillance by the *Metropolitan Toronto Police Marine Unit*, based on the north shore 0.5 mile ENE of Western Gap.

241 The *Metropolitan Toronto Police Marine Unit* operates a life-saving station at their office on the north shore. There are sub-stations at the mouth of the Humber River and at Leuty Beach and Cherry Beach.

242 Emergency fire services and a fireboat are based at the *Marine Fire Station*, on the north shore of Inner Harbour, 1 mile ENE of Western Gap.

243 **Pilotage** in the vicinity of Port of Toronto is administered by the *Great Lakes Pilotage Authority Limited*. For more information on pilotage, consult Sailing Directions booklet *CEN 300* — *General Information, Great Lakes* and the *Annual Edition of Notices to Mariners*.

Harbour movements of all vessels except small craft are controlled by the harbour master. Masters of vessels should check with the *Toronto Harbour Communications Centre*, call sign *XJF495*, before entering or leaving the harbour and before moving in the harbour. VHF Channels 12 and 16 are constantly monitored. For the details of this radio facility see *Radio Aids to Marine Navigation (Atlantic and Great Lakes)*.

The **speed limit** in the entrances to the Port of Toronto and within 152 m (500 ft) of the shore or any shore installation is 5.4 knots. The speed limit in the rest of Inner Harbour is 10 knots.

246 The main **wharves** in the north and east parts of Inner Harbour are used by commercial vessels. Facilities for small craft are offered by marinas and yacht clubs along the NW and south shores of the harbour, and also north of the western approaches and along the shores of Outer Harbour.

247 The best **landmark** in the area, visible for many miles from all directions, is the *CN Tower*. This **conspicuous tower**, the world's tallest free-standing structure, rises like a needle SW of the skyscrapers of downtown Toronto. The tower, built in 1975, is 550 m (1,804 ft) tall; it houses transmitter antennas for most of Toronto's FM radio and TV stations. The tower has air obstruction lights and high-intensity strobe **lights** at various levels. These lights make the tower conspicuous both by day and by night. The white dome of the *SkyDome* sports park, 0.1 mile SW of the *CN Tower*, is also a good landmark.

248 The white sphere of *Cinesphere* and the other pavilions of **Ontario Place**, an amusement park on the north shore west of Western Gap, are prominent. These features make a good landmark for boaters approaching Western Gap from the south and west.

The *R*. *L*. Hearn Generating Station chimney, south of the inner end of Ship Channel, has an elevation of 216 m (709 ft); the structure has air obstruction **lights**. The city incinerator, north of the east end of Ship Channel, has a chimney 137 m (449 ft) in elevation. These chimneys are **conspicuous**.

251 **Gibraltar Point** (43°37'N, 79°23'W), the SSW corner of Toronto Island, is low and wooded. A pier 0.3 mile east of Gibraltar Point, on the SE side of Centre Island, is private.

251.1 Multiple large water intake pipelines extend south from shore close west of the pier for 0.8 miles and then SE another 2.2 miles. These pipelines deliver cooling water to an innovative air conditioning system that serves several of the downtown office buildings.

There are two groups of **radio towers** 0.5 mile NE of Gibraltar Point; these towers have air obstruction **lights**.

Two **submerged pipelines** 0.3 mile east of Gibraltar Point extend 0.4 mile offshore; the outer end of each pipeline is marked by a **buoy**.

*Gibraltar Point light buoy TE 18 (511)* lies 0.5 mile SSW of Gibraltar Point.

## Main Harbour Channel

255 **Main Harbour Channel**  $(43^{\circ}37'N, 79^{\circ}21'W)$  is the usual entrance to the Port of Toronto. Entered from the south at the east side of the harbour, Main Harbour Channel is dredged to a depth of 8.8 m (29 ft) over a width of 305 m (1,000 ft) and leads to the Eastern Gap entrance.

The outer entrance and the dredged limits of Main 256 Harbour Channel and Eastern Gap are marked by light buoys. 257 Toronto Main Harbour Channel range lights are in line bearing  $002\frac{1}{2}^{\circ}$ . The front light (509.7), on shore NE of Eastern Gap, is shown from a white circular tower, 6.1 m (20 ft) high, with a fluorescent-orange triangular daymark with a black vertical stripe. The rear light (509.8), near the east corner of the Torport container depot, is shown from a skeleton tower, 1.8 m (6 ft) high, with a fluorescent-orange inverted triangular daymark with a black vertical stripe. The lights are visible on the line of the range. Toronto Harbour Aquatic Park light (509.2), near 258 the SSW end of Outer Harbour East Headland, is shown at

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an elevation of 22.5 m (74 ft) from a white hexagonal tower, 12 m (39 ft) high, with a red upper part.

Toronto East Harbour Headland light (509.1), near the outer end of the landfill 0.9 mile ENE of the SSW end of the headland, is shown at an elevation of 6 m (20 ft) from a red mast, 4.1 m (13 ft) high. The light is privately maintained. Toronto Outer Harbour Keep-Out light buoy (509.35) is moored over the submerged stern of a wreck used as a breakwater on the NW side of Outer Harbour East Headland. The buoy is privately maintained. There are other keep-out buoys in the area.

260.1 **Caution**. — Mariners are reminded that this portion of Outer Harbour East Headlands is a **migratory bird nesting area**, protected under the *Migratory Bird Convention Act*. See Chapter 2 of *Sailing Directions* booklet *CEN 300* — *General Information, Great Lakes* for more information.

## Eastern Gap

The east entrance to Toronto Inner Harbour is known as **Eastern Gap**. This channel has a width of 183 m (600 ft) and is dredged to a depth of 8.8 m (29 ft). The NE side of the channel is walled with concrete and sheet steel piling; the SW side of the channel consists of a concrete wall. A rubblemound breakwater extends 229 m (750 ft) southwards from the SW entrance point.

263 Main Harbour Channel West light (509.61), at the south end of the above-mentioned breakwater, is shown at an elevation of 3.6 m (12 ft) from a mast. The light is privately maintained.

#### Western Gap

264 **Western Gap** ( $43^{\circ}38'N$ ,  $79^{\circ}24'W$ ), the west entrance to Toronto Inner Harbour, was the main entrance channel until 1975. The channel has a least width of 91 m (300 ft) and is dredged to a depth of 8.2 m (27 ft). The channel had a depth of 7 m (23 ft) in 1997. Both sides of this entrance consist of concrete walls. *Toronto City Centre Airport* is on the SE side of this channel.

265 **Caution**. — Most commercial ships now use Main Harbour Channel and Eastern Gap but some vessels use the Western Gap entrance. These vessels require a clear channel; due to their large size they have difficulty with emergency manoeuvres. Boaters are cautioned not to obstruct any channels and to avoid passing in front of or close behind such vessels.

266 **Caution**. — A vehicle and passenger **ferry** operates on a 15 minute schedule across Western Gap. The ferry slips are near the inner end of the channel.

268 West Entrance light buoy T (513) lies 0.8 mile SW of Western Gap, close north of the range line. West Entrance light buoy TT3 (515) is on the NW edge of the channel.

269 **Caution**. — Mariners transiting Western Gap and Inner Harbour east of *Toronto City Centre Airport* are requested to abide by the areas marked by the keep-out buoys. Mariners should be aware that vessels of considerable height may interfere with and present a hazard to **low-flying aircraft**, and as such should proceed with extreme caution when transiting close by the airport.

269.1 **Caution**. — All vessels in excess of 18.3 m (60 ft) overall height, waterline to topmost extremity, when transiting the Toronto Western Gap from either direction between the hours of 06:15 and 22:45 local time are required to inform, and obtain clearance from, the *Toronto City Centre Airport* on VHF Channel 12, contact name "City Centre Airport". Notification to be made when abeam of, and then when clear of, *West Entrance light buoy T* (513) and Light buoy TT14 (518.6).

All vessels in excess of 18.3 m (60 ft), as above, maneuvering in Humber Bay, must contact the *Toronto City Centre Airport* when one mile off the airport and/or when requiring clearance through the Western Gap, during the times noted above.

269.3 All vessels in excess of 18.3 m (60 ft) overall height manoeuvring in Inner Harbour, when in line with the main runway of *Toronto City Centre Airport*, must remain east of longitude 79°22'44"W. A keep-out buoy marks this limit of approach.

270 Several "keep out" buoys and light buoys mark the restricted area at each end of the *Toronto City Centre Airport* runways.

271 Two privately maintained **lights** are shown at the west end of Toronto Island, south of Western Gap. These lights are on tripods, one at each end of the landfill retaining wall.

#### **Toronto Inner Harbour**

272 **Toronto Inner Harbour**, 1.5 miles long and 0.9 mile wide, is bounded to the north and east by the wharves and marine terminals of the Toronto commercial waterfront facilities. The south and west sides of the harbour are formed by a series of low wooded islands. Prior to 1965, the northern part of Inner Harbour was dredged to a depth of 8.2 m (27 ft).

273 There are three designated **anchorage areas** in the south part of Inner Harbour. All anchorages are controlled by the harbour master.

274 **Ship Channel** extends 1.5 miles from the east side of Inner Harbour, ending in a turning basin and the Leslie Street Slip. Concrete walls extend the full length of both sides of Ship Channel and around the perimeter of Leslie Street Slip and the turning basin. A bascule **bridge** spans Ship Channel near the entrance. Each abutment is marked by a white **light**. A red light indicates that the bridge is in a closed position; a green light indicates that the bridge is raised and that a vessel may proceed. There is a clear channel width of 35.97 m (118 ft) between the abutments. The bridge has a vertical clearance of 3 m (10 ft) in a closed position.

276 Mariners intending to pass through the Ship Channel bridge must give at least two hours notice prior to transit. Such requests, from both incoming and outgoing vessels, should be made to the *Toronto Harbour Communications Centre* by VHF radio, or by telephone to: the bridge operator (416) 402-8013; the Harbour Master (416) 462-1228; or the Marine Police Unit (416) 324-0500.

277 The signal for the bridge to open is one long blast followed by one short and one long blast. The bridge-master sounds the same signal before opening, and two short blasts before closing the bridge. If the bridge is not ready to be opened, three short blasts are sounded.

278 **Caution**. — Reversing through the Ship Channel bridge opening is prohibited.

279 **Overhead power cables** with a clearance of 40 m (131 ft) cross Ship Channel near its upper end.

280 **Caution**. — A **submerged water main** and a **submerged oil pipeline** cross Ship Channel near the bascule bridge. A **submerged oil pipeline** crosses the channel 0.5 mile east of the bridge. A submerged natural gas pipeline crosses the channel 0.1 mile further east. Mariners are cautioned against dragging anchor in the vicinity of the pipelines.

281 **Keating Channel**, an artificial outlet of the **Don River**, extends NE from the NE corner of Inner Harbour. It is subject to **silting** after the freshet in the Don River and requires seasonal dredging. Mariners should obtain the latest information on channel depths from the harbour master.

282 A bascule **bridge** crosses Keating Channel near its entrance. Navigational lights are shown on the structure. The bridge has a vertical clearance of 3 m (10 ft) in a closed position.

283 **Caution**. —A regular passenger **ferry** service operates across Inner Harbour. The ferries ply between a terminal near the middle of the north shore and Hanlan's Point, Centre Island, and Ward's Island. The routes generally followed by the ferries are shown on the chart; each ferry slip has leading **lights** and a **fog signal**.

284 Most marine terminals in the Port of Toronto have St. Lawrence Seaway draught berths and are equipped with a variety of cargo-handling gear, and have covered and outside storage. Heavy-lift facilities, including a 270 tonne stationary dockside crane and a floating derrick with a 45.4 tonne lifting capacity, are available. *Marine Terminal 51*, on the south side of the entrance to Ship Channel, can handle both break-bulk and containerized cargoes. There are roll-on/roll-off facilities at berths 521 and 522, along the east wall of Eastern Gap.

285 The *Container Distribution Centre* (TORPORT) is equipped with a mobile container crane, container and paper handlers and fork lifts. Modern facilities for loading and unloading bulk cargo, such as petroleum products, sugar, coal, salt, aggregates etc. are available within the port.

The table at the end of this chapter lists the major facilities in Inner Harbour; the various berths are shown on the chart. All except *Marine Terminal 51* and the heavy-lift facility at *Terminal 35* are administered by the *Toronto Port Lands Company* (TPLC).

**Caution**. — The Port of Toronto is subject to **silting**; there may be less water than shown on the chart and in the table of facilities. Mariners must obtain the latest information on depths from local authorities.

The navigation season in the Port of Toronto is mainly governed by the opening and closing of the St. Lawrence Seaway. The usual season for lake vessels is from the end of March to the end of December. For ocean-going vessels the navigation season is generally from the first week of April to mid-December.

Tugs are available but under normal conditions are not necessary for handling ships. Tugs are usually required when a ship is heavily laden or with cross winds.

All kinds of marine supplies for deck and engine stores are available. Fresh water can be obtained at all berths. Fuel oils and diesel fuels are generally available on twelve hours notice. Arrangements can be made to supply small quantities of diesel fuels by tank truck. Marine lubricating oils are available.

291 Several firms offer divers, electrical welding, machining, and casting, as well as repairs to electrical equipment. A floating derrick and a heavylift crane are available.

292 Toronto Drydock Corporation operates two floating drydocks at the east end of Ship Channel. The nearest dry dock is Port Weller Dry Docks, at Port Weller Harbour (St. Catharines), 24 miles SSE of Toronto. See Sailing Directions booklet CEN 300 — General Information, Great Lakes for a table of Shipyards.

293 There are several authorized dealers for Canadian Hydrographic Service nautical **charts** and publications in Toronto and surrounding communities:

294 Canada Map Company, 63 Adelaide Street East; The Dock Shoppe Inc., 249 Queen's Quay West; Federal Publications Inc., 165 University Avenue; Fogh Marine Ltd., 2242 Lakeshore Blvd. West; Genco Marine Ltd., 544 King Street West; Holland Marine Products, 3008 Dundas Street West; Ocean Marine Outfitters Inc., 73 Railside Road, Don Mills; Open Air Books & Maps, 25 Toronto Street; *The Nautical Mind Bookstore*, 249 Queen's Quay West, all of Toronto.

295 Canadian Boaters Wholesale Inc., 1040 Martin Grove Road, Unit 18, Etobicoke; A-1 Maps, 5004 Timberlea Blvd., Unit 36, and Compass Rose, c/o Power Plus Marine, 314 Lakeshore Road East, Mississauga; Outdoor Spectacular, 130 Davis Drive, Unit 11, Newmarket; and The Rigging Shop Ltd., 44 Midwest Road, Scarborough.

296 Several yacht clubs and marinas around the Port of Toronto offer facilities for visiting boaters. All the activities of downtown Toronto are within walking distance. The city also has an excellent network of bus, streetcar and subway services for ready access to other parts of the city.

Due to the large population of Toronto, membership at local yacht clubs is difficult to obtain and there are few berths for visiting yacht club members. Visiting boaters are advised to ascertain what facilities are available before arrival. *Queen City Yacht Club*, at the NE tip of Algonquin Island, had depths of 2.4 m (8 ft) at the wharves and 5.2 m (17 ft) in the entrance channel in 1997.

*The Royal Canadian Yacht Club*, in the middle of Centre Island, had depths of 2.2 to 2.4 m (7 to 8 ft) in 1994. *Island Yacht Club*, on the west side of Mugg's Island, had depths of 2.2 m (7 ft) at the wharves and 3.3 m (11 ft) in the entrance channel in 1997.

301 *The National Yacht Club*, at the west end of Western Gap, had depths of 2.1 to 3 m (7 to 10 ft) in 1994.

302 *Alexandra Yacht Club*, at the west end of Western Gap east of *National Yacht Club*, had depths of 2.4 m (8 ft) in 1997.

303 *Toronto Island Marina*, a private marina in the NW corner of Centre Island, had depths of 2.9 m (10 ft) at the wharves, 2.4 m (8 ft) at the fuel dock and 4.4 m (14 ft) in the approaches, in 1997.

304 *Toronto Island Marina* also operates at Hanlan's Point, on the east side of *Toronto City Centre Airport*. In 1994 facilities included short-stay dockage with power and water, snack bar and showers. Near by are the facilities of *Centreville Amusement Park*, licensed restaurants, canoe and bicycle rentals.

305 *Marina 4*, a private marina near the western end of the north shore of Inner Harbour, had depths of 6.1 m (20 ft) in 1994.

306 *Marina Quay West*, a private marina on the north shore near Western Gap, had depths of 3.4 m (11 ft) in 1997. *F. and N. Yacht Service* is also here.

307 *Outer Harbour Marina*, in the NE corner of Toronto's Outer Harbour, had depths of 1.6 m (5 ft) at the fuel dock, and 2.8 m (9 ft) in the entrance channel and at the wharves in 1997, and offered dockage with power and water, pump out, 35 tonne hoist, picnic area, pay phone, showers, laundromat, ice, gasoline and diesel fuel. 307.1 *Outer Harbour Sailing Federation*, on the NW shore of the Outer Harbour, has a mooring area for sailboats and camping and picnic grounds.

308 Ontario Place Marina, west of the Western Gap, had depths of 2.9 m (10 ft) in 1997 and offered dockage with power and water, pump out, picnic areas, pay phones, water taxi, showers, laundromat, ice, snack bars, and restaurants with licensed dining rooms.

**Historical note**. — The French were the first Europeans to stay in this area, establishing a blockhouse and trading post here in 1720. This was abandoned in 1729 but rebuilt as *Fort Toronto* in 1750. The first settler, Jean Baptiste Rousseau, arrived soon after. Fort Toronto was again abandoned by the French in 1759 and the area was virtually ignored until 1787 when the British authorities purchased the land from the Mississauga Indians.

Permanent settlement began here in 1793 when Lord Simcoe arrived with his entourage, naming the place *York* after the Duke of York. Although the early village was only a small military outpost with few residents, this was chosen to be the capital of Upper Canada in 1797 – mainly because of its fine harbour.

In 1813 the small village of York was attacked by the United States, a force of 1,700 men landing here from a fleet of 13 ships. The defenders were overwhelmed and the settlement was destroyed by the invaders. After the later defeat of the United States, however, the settlement at York was rebuilt, this time with a more defensible fort. And a permanent garrison was stationed here in case of any further difficulties.

With the major influx of settlers to Ontario in the 1820's and 1830's the village prospered and the harbour became a busy shipping port. Commerce flourished as the community grew, then in 1834 with a population of some 9,000 the village of York was incorporated as the City of *Toronto*. The coming of the railway in 1856 spurred industrial development in the area, and Toronto also grew in importance as a commercial and administrative centre with the general growth of Ontario.

Today Toronto is Canada's largest city and as the capital of Ontario has many splendid buildings, notably the tall bank office buildings that have grown up around the downtown and parliament areas. A very modern and vigorous city, Toronto has not forgotten its vital early heritage and prides itself on its roots. This fact can best be seen in the many flourishing ethnic communities that prosper within the city, giving Toronto its own cosmopolitan flavour.

**Points of interest**. — Toronto is a major cultural centre as well as being a business and manufacturing area; it has enough museums, galleries, theatres and historic sites to keep visitors busy for months. The city, being such a cosmopolitan centre, is also noted for its vast selection of

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## Major Port Facilities

## Toronto Inner Harbour

Berth W	harf Length *	Depth †	Elevation ++	Storage	Remarks
	m (ft)	m (ft)	m (ft)	Note: All information in this	table was provided by local authorities.
Iorth Section User should consult local authorities for latest conditions.					thorities for latest conditions.
211, 212, 213	122 (400)	6.1 (20)	2.1 (7)	Disused grain elevator.	
Marine Terminals 27: 272, 273	230 (755)	8.2 (27)	2.7 (9)	Outside storage 9,290 m <sup>2</sup> (100,000 sq ft).	Privately leased.
Redpath Sugars Ltd. 274	244 (800)	8.2 (27)	2.1 (7)	Refined sugar silos.	Sugar.
275	152 (500)	7.6 to 8.2 (25 to 27)	2.1 (7)	Raw sugar warehouse.	Two gantry cranes.
281	152 (500)	8.2 (27)	3 (10)	Outside storage for raw sugar.	
** Queen Elizabeth Docks 282, 28	33 326 (1,070)	8.2 (27)	3 (10)	Outside storage 1 hectare (2.5 acres).	Privately leased.
** 291, 292	328 (1,075)	8.2 (27)	3 (10)	Privately leased.	
293	137 (450)	7.3 (2.4)	3 (10)	Leased.	Royal Canadian Yacht Club.
294	91 (300)	6.7 to 7.3 (22 to 24)	3 (10)	Outside storage.	
311	210 (690)	6.7 (22)	2.1 (7)	Open space.	
312	91 (300)	6.7 (22)	2.1 (7)	Open space.	
Keating Channel					
313, 314	274 (900)	4.3 (14)	2.1 (7)	Open space.	Designated parkland.
Essroc Canada 341 to 345	122 (400)	6.0 (20)	2.1 (7)	Silos. Outside storage.	Cement, stone. Pipeline for cement.
East Side					
E.L. Cousins Docks.	207 (1 270)	7.0 (2()	2.7 (0)	Drivetely leased by Terente Feenemie Devel	anment Corporation (TEDCO)
Terminal 35: 351, 352, 353 354, 355	387 (1,270) 229 (750)	7.9 (26) 7.9 (26)	2.7 (9) 2.7 (9)	Privately leased by Toronto Economic Develo Outside storage 8 hectares (20 acres).	Privately leased (as above).
554, 555		7.6 to 7.9	2.7 (9) 2.1 to 3	Pipeline for oil and molasses.	Rail access.
356, 357, 358	366 (1,200)	(25 to 26)	(7 to 10)	ripeline for oil and molasses.	272-tonne crane (south dock).
Lafarge Canada Ltd. 361	152 (500)	7.6 (25)	1.8 (6)	Warehouse 1,784 m <sup>2</sup> (19,201 sq ft). Outside	
** 362, 363, 364	335 (1,100)	8.2 (27)	1.8 (6)		Vacant.
365	122 (400)	8.2 (27)	1.8 (6)	Outside area 51,302 m <sup>2</sup> (552,163 sq ft).	
** 366, 367, 368	387 (1,270)	8.2 (27)	1.8 (6)		Vacant.
Toronto Harbour Commission					
Marine Terminals No. 51: 512, 51	3 349 (1,145)	7.9 (26)	2.1 (7)	Warehouse 19,788 m <sup>2</sup> (213,000 sq ft).	Container distribution centre. Rail access.
514, 51		7.9 (26)	2.1 (7)	Rail access.	Mobile container crane, 32 tonnes.
522, 52		7.9 (26)	2.1 (7)	Outside storage 21.4 hectares (53 acres).	Container handlers. Fork-lifts, paper handlers
	. ,	. ,	.,	Rail access.	Roll-on/roll-off berths.
Ship Channel (North side)	107 (1 100)	70/2/	0 1 /7\		Vacant
** 412, 413, 414	427 (1,400)	7.9 (26)	2.1 (7)		Vacant.
Harkow Recycling 415	91 (300)	7.9 (26)	2.1 (7)		Private lease.
National Rubber 416	183 (600)	7.9 (26)	2.1 (7)		Private lease.
Liquiterminals 421, 422, 425	229 (750)	7.9 (26)	2.1 (7)	Tanks.	Petroleum products. Pipeline.
Malivoire Films 423	76 (250)	7.9 (26)	2.1 (7)		Private lease.
** 424	122 (400)	7.9 (26)	2.1 (7)		Vacant.
Cliffside Pipelayers Ltd. 426, 431	152 (500)	7.9 (26)	2.1 (7)	Construction equipment.	Private lease.
433	152 (500)	6.7 to 7.6 (22 to 25)	2.1 (7)		Vacant.
Harbour-master's Public Dock 434	4 183 (600)	7.6 (25)	2.1 (7)	Outside storage 5,667 m <sup>2</sup> (61,000 sq ft).	
Lafarge Building Materials 435 to	438 610 (2,000)	7.3 to 7.7 (24 to 25)	2.1 (7)	Outside storage 7 hectares (17 acres).	Private. Aggregates.
Intermetco Ltd. 439	152 (500)	7.3 to 7.6 (24 to 25)	2.1 (7)	Outside storage 5 hectares (12 acres).	Scrap metal.
** TPLC, 441, 442	335 (1,100)	6.7 (22)	2.1 (7)	Outside storage 7 hectares (17 acres).	Vacant.

\* Estimated berth length. †† Elevation above chart datum.

† Depth below chart datum.\*\* Facilities administered by the Toronto Economic Development Corporation (TEDCO).

#### Major Port Facilities

#### Toronto Inner Harbour

Berth	Wharf Length *		Depth †	Elevation ++	Storage	Remarks	
		m (ft)	m (ft)	m (ft)	Note: All information in thi	s table was provided by local authorities.	
Ship Channel (South side)					User should consult local authorities for latest conditions.		
Hydro-Electric Power Commission				Warehouse 741 m <sup>2</sup> (7,980 sq ft).			
R. L. Hearn Generating Station					Outside storage 16 hectares (40 acres).	Coal. Conveyors. Self-unloaders.	
443, 444, 445, 451, 452, 453		792 (2,600)	7.6 (25)	2.1 (7)	1,360,777 tonnes.		
Roy L. Fuels 454		61 (200)	7.9 (26)	2.1 (7)	Tanks.	Gasoline, lubricating oils. Pipeline.	
* 455		213 (700)	7.9 (26)	2.1 (7)		Vacant.	
* 456		137 (450)	7.9 (26)	2.1 (7)		Vacant.	
Canadian Salt Company 461	١	198 (650)	7.9 (26)	2.1 (7)	Outside storage.	Salt.	
* 462	}	198 (650)	7.9 (26)	2.1 (7)	Outside storage.		
Akzo Salt 463		152 (500)	7.6 (25)	2.1 (7)	Outside storage.	Salt.	
Sifto Salt Division (Domtar) 464	Ļ	152 (500)	7.6 (25)	2.1 (7)	Outside storage.	Salt.	
* 465		61 (200)	7 to 7.6 (23 to 25)	2.1 (7)	Outside storage 5 hectares (12 acres).	Vacant.	

\* Estimated berth length.

† Depth below chart datum.

**††** Elevation above chart datum.

\*\* Facilities administered by the Toronto Economic Development Corporation (TEDCO).

ethnic restaurants. Several hundred of these offer food of over 40 different ethnic styles, ranging from the revolving restaurant atop the CN Tower to innumerable little specialty eating places scattered all over the city.

The points of interest mentioned here are only a few 315 of the many that exist; visitors will find many more described in the Ontario Travel publications.

316 Royal Ontario Museum (ROM) is Canada's largest public museum and has many galleries of displays, ancient and modern. Special exhibitions are hosted year round.

McLaughlin Planetarium, near the ROM, has 317 regularly changing programs of astronomy and adventure in the heavens.

Marine Museum, housed in the 1841 officers' 318 quarters of Fort York, has exhibits covering the history of ships and shipping on the Lakes.

319 Art Gallery of Ontario, noted for its collection of sculptures by Henry Moore, specializes in both Old Masters and contemporary Canadian works.

Black Creek Pioneer Village is a living museum 320 consisting of an entire village of earlier times, complete with craftsmen in period costume plying their various trades.

Scadding Cabin, the oldest house in Toronto, is 321 an eighteenth century log cabin now preserved at Exhibition Place.

Ontario Science Centre is a magnificent modern 322 museum dedicated to revealing the secrets of science. Many hands-on exhibits show that physics is fun for visitors of all ages.

Metro Toronto Zoo has its own monorail system and 323 is noted for its herds of exotic animals roaming freely, as well as for its large climate-controlled pavilions.

# **Toronto to Hamilton**

## General

Charts 2047, 2048, 2067, 2070, 2077, 2085, 2086

1 This chapter describes the west shore of Lake Ontario between Toronto and Hamilton. The coastal distance is 26 miles.

## Charts 2077, 2086

2 The coastal area between Toronto and Hamilton is densely populated and has industrial marine installations, several harbours of refuge for small craft, and also several major yachting centres. There are numerous conspicuous objects and landmarks, many of which are shown on the charts.

2.1 Real-time water level information for Lake Ontario at Burlington is available from the *Canadian Hydrographic Service Automated Water Level Gauge*, telephone number 905-544-5610. (*More information on water levels is given in Sailing Directions booklet CEN 300* — *General Information, Great Lakes.*)

3 An *Ocean Data Acquisition System (ODAS)* light buoy is moored in mid-lake, 11.3 miles south of Toronto Island.

## **Toronto to Port Credit**

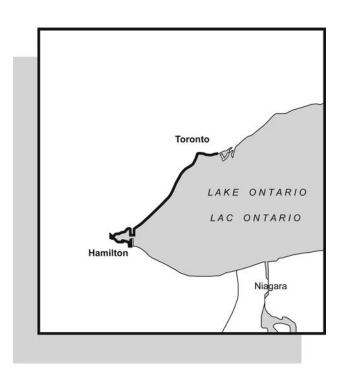
#### Chart 2085

#### Humber Bay

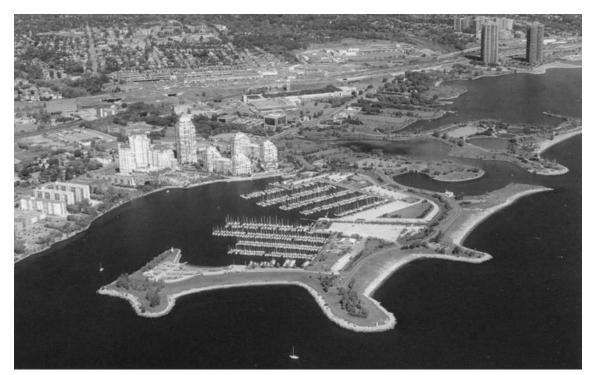
4 **Humber Bay** (43°37'N, 79°27'W) is an open bay lying west of Ontario Place and Toronto Island. A concrete **seawall** built parallel to the shore extends for 2.3 miles from the west limit of Ontario Place to the mouth of Humber River. This gives a sheltered aquatic course 60 to 90 m (197 to 295 ft) wide. Small craft can find good shelter behind this seawall. There are several entrances, some lighted.

5 **Humber River** flows into the NW side of Humber Bay through a shallow mouth. The river is navigable by small craft for 1.5 miles from its mouth. The channel is subject to silting; local knowledge is required.

6 A foot-bridge, three highway bridges and a railway bridge cross Humber River near its mouth. The least clearance



#### HUMBER BAY PARK (1994)



under these **bridges** is 3.2 m (10 ft). **Overhead power cables** cross Humber River north of the railway bridge; two towers, 79 m (258 ft) high, support the power cables.

*Toronto Humber Yacht Club*, on the west side of
 Humber River 1.5 miles from its mouth, is a private facility.
 Two tall dark-coloured apartment buildings on the
 west side of the mouth of Humber River make good landmarks. The buildings have air obstruction lights.

9 A **submerged sewer outfall** 0.1 mile SW of the Humber River entrance extends 0.3 mile offshore; the crib at its outer end has a depth of 4.9 m (16 ft) and is marked by a **buoy**.

10 **Mimico Creek** lies 0.7 mile SSW of Humber River. 11 A landfill project by the *Metropolitan Toronto and Region Conservation Authority* around the mouth of Mimico Creek has created an attractive combination of landscaped park land and sheltered boating facilities. This development is known as *Humber Bay Park Waterfront Area*. The facilities are operated by the *Metropolitan Toronto Parks Department*. 12 The NE part of the complex, known as *Humber Bay East*, offers picnic facilities, walkways, lookouts and washrooms as well as parking areas and a model-boat basin. Restaurants, stores, motel and bus service are near by on Lakeshore Road.

13 The SW part of the development, known as *Humber Bay West*, is administered by the *Humber Bay Boating*  *Federation* and provides moorings and accommodation for two yacht clubs and a sailing school. There are landscaped picnic areas and walkways around the yacht club facilities, as well as parking, washrooms and boat launching **ramps**.

14 There is a historic light structure near the north end of the breakwater on the east side of the entrance channel. A privately maintained **light** shown from this structure is not visible from southern approaches.

15 Humber Park light (519.6), 0.4 mile south of Mimico Creek, on the south point of the *Humber Bay Park Waterfront Area*, is shown at an elevation of 7.9 m (26 ft) from a white circular tower, 4.9 m (16 ft) high, with a red upper part.

16 The yacht club facilities here are generally available only to yacht club members and guests.

17 *Etobicoke Yacht Club*, on the SE side of the sheltered basin, had depths of 0.6 to 2.6 m (2 to 9 ft) in 1994. Facilities included dockage with power and water, pump out, ramp, picnic area, pay phone, mast stepper, showers, laundromat, ice and licensed snack bar.

18 *Mimico Cruising Club*, in the NE part of the basin, had depths of 2.6 m (9 ft) in 1994. Facilities included dockage with power and water, pump out, 2 tonne hoist, picnic area, pay phone, mast stepper, showers, laundromat, ice, snack bar, restaurant and licensed dining room. *Humber College Keel Boat Sailing Club* is also based here.

4-2

19 **Historical note**. — The two red and white lighthouses now on the north and south sides of the *Humber Bay West* yacht basin originally served at Toronto Harbour. Built in 1895, they formed a leading line for vessels entering Eastern Gap. With the progress of landfill work on the Outer Harbour East Headland, the leading line was no longer in use and in 1973 the lighthouses were retired. The *Humber Bay Boating Federation* obtained the old lighthouses from the *Toronto Harbour Commissioners*, and the clubs undertook to restore and preserve them as private harbour aids.

Charts 2077, 2086

#### Mimico to Port Credit

20 **Mimico, New Toronto** and **Long Branch**, SW of Mimico Creek, are urban communities within the city of **Etobicoke**.

21 The *Ontario Hospital* building at New Toronto, 0.2 mile from the lake shore on the west side of the community, has a tall brick chimney and is **conspicuous**. A grey water tower 0.5 mile NNW of the *Ontario Hospital* and a white-coloured water treatment plant near the shore east of Long Branch are also conspicuous.

22 Three **submerged water intakes** extend 0.3 mile offshore from the New Toronto pump house. A **submerged** 

water intake east of the water treatment plant east of Long Branch extends 0.8 mile offshore; the depth over the intake crib is 11.5 m (38 ft). Another **submerged intake** 0.3 mile west of the water treatment plant extends 0.2 mile offshore; the crib at its outer end has a depth of 4.4 m (14 ft). The outer end of each pipeline is marked by a **buoy**.

23 *Colonel Samuel Smith Park*, east of Long Branch, is a landfill development project of the *Metropolitan Toronto and Region Conservation Authority*.

24 *Lakeshore Yacht Club*, at *Colonel Samuel Smith Park*, in 1994 offered dockage with power and water, pump out, picnic area, pay phone, showers and ice.

25 **Etobicoke Creek** (43°35'N, 79°33'W), between Long Branch and Lakeview, is entered between two breakwaters. There is a launching **ramp** at *Marie Curtis Park* on the west side inside the breakwaters. This day-use park is operated by *Metropolitan Toronto Parks and Property Management*. There is a privately maintained **light** near the outer end of the breakwater on the east side of the entrance to the creek.

A **submerged pipeline** 0.5 mile SSW of Etobicoke Creek extends 0.5 mile NE. A **submerged sewer outfall** 0.1 mile farther SW extends 0.6 mile ESE. The outer end of each pipeline is marked by a **buoy**.





## PORT CREDIT (1994)



27 **Lakeview**, an urban community within the city of **Mississauga**, is 1.3 miles SW of Etobicoke Creek.

A pier at Lakeview is at the outer end of a **causeway** which extends 0.3 mile into the lake. The pier is 305 m (1,000 ft) long and has a depth of 7.5 m (25 ft). A **breakwater** 610 m (2,000 ft) long lies NE of and parallel to the above structure; it protects a **water intake pipeline**.

30 There are three **submerged water intakes** extending SE from Lakeview as much as 1 mile into the lake.

31 The small craft harbour of *Lakefront Promenade Public Marina* is sheltered by a breakwater. With depths of 2.1 to 2.7 m (7 to 9 ft) in 1994, facilities included dockage with power and water, pump out, picnic area, pay phone, showers, laundromat, snack bar, restaurant and licensed dining room, ice, gasoline and diesel fuel.

32 *Port Credit Yacht Club*, a private facility at *Lakefront Promenade Park*, had depths of 3.7 to 4.7 m (12 to 15 ft) in 1994. Facilities included dockage with power and water, pump out, ramp, picnic area, pay phone, showers, ice, snack bar, licensed dining room and restaurant.

33 Lakefront Promenade light (519.8), on the east side of the entrance to the harbour at Lakeview, is shown at an elevation of 7.6 m (25 ft) from a white circular tower, 4.8 m (16 ft) high, with a red upper part.

34 During the yachting season, privately maintained orange spar **buoys** are moored in the approaches to *Lakefront Promenade Park*. These mark race courses.

## Chart 2048

35 **Port Credit**  $(43^{\circ}33'N, 79^{\circ}35'W)$ , near the lake shore on each side of Credit River, 9 miles SW of Toronto, is an urban community within the city of Mississauga. Port Credit is served by scheduled bus and rail services and is on *Highway 2* and near the *Queen Elizabeth Way* highway.

The whole area along the SW shore of Lake Ontario is a well developed residential area with some industry, but the shore around Port Credit and to the SW appears to be densely wooded due to the fringe of mature trees along the shoreline.

37 Port Credit is a **Customs** vessel reporting station for pleasure craft.

A tall apartment building north of the harbour and the grounded lake freighter lying across the SE side of the harbour make good landmarks.

An area along the shore SW of Port Credit has been developed as the *J.C. Saddington Park* by the *Credit Valley Conservation Authority.* This is a day-use park with landscaped walkways and picnic areas and a children's playground.

40 A **submerged water intake** extends 0.4 mile offshore 0.15 mile NE of the Port Credit east breakwater. An **abandoned oil pipeline** 0.2 mile SW of Credit River extends 0.4 mile offshore.

41 The harbour at Port Credit is a recreational harbour owned by *Canada Lands Company Ltd.* The harbour lies between two breakwaters extending out from shore, with a grounded lake freighter forming a protective breakwall across the SE side. The entrance to the harbour is at the south corner; there is a channel 38 m (125 ft) wide between the bow of the grounded lake freighter and the head of the west breakwater.

42 Port Credit East breakwater light (521), on the SE end of the east breakwater, is shown at an elevation of 9.7 m (32 ft) from a red mast.

43 Port Credit West breakwater light (522), at the east end of the west breakwater, is shown at an elevation of 7.6 m (25 ft) from a mast, 4.8 m (16 ft) high. <sup>44</sup> Port Credit East breakwater extension light (*523*), at the SW end of the grounded lake freighter, is shown at an elevation of 11.2 m (37 ft) from a white circular tower, 5 m (16 ft) high, with a red upper part.

45 Port Credit Harbour Marina had depths of 2.2 to 3.7 m (7 to 12 ft) in 1994 and offered dockage with power and water, pump out, ramp, repairs, 35 tonne hoist, mast stepper, picnic area, pay phone, restaurant and licensed dining room, laundromat, showers, ice, gasoline and diesel fuel. Bristol Marine Ltd., a parts and repair shop, and "The Store" Mason's Chandlery Ltd. are near by. The latter carried an extensive line of boat and sailboat hardware, yachting needs, cordage and marine paints, and offered demonstrations and seminars. The Store is also an authorized dealer for Canadian Hydrographic Service **charts** and publications.

45.1 *Credit Village Marina*, operated by the *City of Mississauga*, has dockage with water and power. It is located in a basin on the east side of the Credit River close downstream of the footbridge.

46 Churches, banks, doctors, post office, shops, restaurants, liquor store and laundromat are all near the harbour. In 1994, repairs were available locally and many fishing guides and charter boats were based here. The nearest hospital is 5 km away in Mississauga.

47 A channel 30 m (98 ft) wide leads to a basin near a highway **bridge**, clearance 3.6 m (11.8 ft), across **Credit River**. A **footbridge**, with a clearance of 2.3 m (7.5 ft) spans the Credit River close downstream of the highway bridge. The channel, marked by buoys, is bounded to the north by the training wall which forms the SW side of Port Credit harbour. 48 There is a **speed limit** of 6 km/h (3.2 knots) from the mouth of Credit River to the *Queen Elizabeth Way* bridge, 1.2 miles upstream.

49 Caution. — The mouth of Credit River is subject to silting; depths may be shallower than charted.
 50 Port Credit Inner Harbour light (525), at the SW corner of the training wall which separates the

river entrance from the harbour, is shown at an elevation of 7.0 m (23 ft) from a mast.

<sup>51</sup> Port Credit Inner Channel light (525.5), at the west corner of the basin, is shown at an elevation of 19 m (62 ft) from a white tower, 16 m (52 ft) high, with a red upper part; the light is visible from  $235^{\circ}$  through west to  $307^{\circ}$ . This light is privately maintained.

52 **Historical note**. — The first permanent building on the west side of Lake Ontario was *Government House*, an inn and post house built on the NE bank of Credit River. This inn was where the *First Purchase* treaty with the Mississauga Indians was signed in 1805, thus opening the area to settlement. Philip Cody, the first settler, arrived soon after and built his home 2 miles to the NE. The mouth of Credit River (originally the 'trusting creek' where traders came annually to give the Indians "credit") provided an important salmon fishery for the Mississauga Indians. As cultural contact and interaction increased, a permanent Indian village developed on Credit River. By 1838, under the leadership of Peter Jones (Kahkewaquonaby), the village had become a prosperous agricultural and commercial community that included a port capable of accommodating any ship on Lake Ontario. In 1847, having failed to secure tenure from the colonial governments for the Credit River reserve and mission, the Mississauga Indians were required to relocate; they moved to lands offered by the Six Nations Iroquois Council, near Brantford, Ontario.

54 The coming of the *Great Western Railway* in 1855 brought stability to Port Credit, at the expense of the much larger villages of Streetsville, Springfield (Erindale) and Cooksville; these vigorous villages, not served by the railways until many years later, began to decline at the same time as Clarkson, 3 miles SW of Port Credit, began to develop as a new railway town.

<sup>55</sup> In 1914 Port Credit officially incorporated as a village and in 1961, with a population of 6,500, became a town. In 1974 the towns of Port Credit, Streetsville and Mississauga were amalgamated as the new city of *Mississauga*.

56 With a population of 463,388 in 1991, the city of Mississauga is a vibrant modern community. The city's past is being carefully preserved by the *Mississauga Heritage Foundation*, which was founded in 1960 to save the *Bradley House* and restore it as a museum.

57 **Points of interest**. — *Bradley House Museum*, an 1830 farmhouse at Clarkson, has been restored with period furnishings. Displays and activities show life in a typical pioneer home.

58 *Cherry Hill*, 5 km north of Port Credit, is the oldest existing house in Mississauga, being built in 1811 and 1822. This home of one of the earliest settler families is now a restaurant.

59 *Britannia School House*, 11 km to the NW, was built in 1852 and has been restored to show a typical school of the times.

60 *Dixie Union Chapel*, 5 km north of Port Credit, was built in 1838 and shared by several early congregations of different denominations.

61 The *City Hall* of Mississauga, itself a successful study in modern architecture, features monthly free exhibitions by local artists.

## Port Credit to Oakville

#### Charts 2086, 2077

The shore between Port Credit and Oakville, 7 miles to the SSW, appears to be densely wooded though it is well developed with residential areas and has some industry.

63 A **submerged water intake** 1.7 miles SSW of the Credit River entrance extends 0.7 mile offshore.

#### Chart 2047

64 **Clarkson** (43°30'N, 79°37'W) is an urban community forming part of the city of Mississauga. It is 3.2 miles SSW of Port Credit and 12 miles SW of Toronto. The marine facilities at Clarkson include a refinery wharf and a cement company wharf.

65 Clarkson is a **Customs** vessel clearing station for commercial vessels.

66 The *Petro Canada Products* refinery wharf at Clarkson, at the outer end of a **causeway** 0.2 mile long, is a concrete structure 226 m (740 ft) long. The berth on the NE side of the wharf is 198 m (650 ft) long and had depths of 7.6 m (25 ft) in 1995. The outer berth on the SW side is 114 m (375 ft) long and had depths of 6.9 m (23 ft) in 1995; an inner berth on the SW side, 91 m (300 ft) long, had a least depth of 6.1 m (20 ft). In addition to facilities for loading and discharging fuels, ballast water can be discharged ashore.

68 Clarkson Refinery Dock **range lights** are in line bearing 338°. The front light (526) is near the outer end of the wharf. Another light is shown at a lower elevation on the same structure. The rear light (527) is at the NNW end of the wharf. A whistle sounds a **fog signal** when a vessel is expected. The lights and the fog signal are privately maintained. 69 There are three **submerged water intakes** near the refinery wharf.

The most **conspicuous** features of the refinery are two concrete chimneys, 127 m (417 ft) high, 0.3 mile and 0.45 mile NNW of the rear range light. The chimneys have air obstruction **lights**. The refinery can also be identified by its many storage tanks, towers and chimneys.

71 The plant and **wharf** of the *St. Lawrence Cement Company* are 0.7 mile SW of the refinery wharf. A **causeway**, 0.2 mile long, leads to a wharf 335 m (1,100 ft) long, which has a width of 20 m (67 ft) at the inner end to 67 m (220 ft) at the outer end, with mooring dolphins off the end of the wharf. In 1994 there were depths of 7 m (23 ft) along the outer 180 m (590 ft) of the NE berth, and depths of 6.3 m (21 ft) at the berth on the SW side.

72 Two hoppers on the SW side of the wharf have a combined capacity of 900 tonnes. Powdered coal and limestone are discharged at the wharf and taken ashore by conveyor belt.

73 Clarkson light (527.5), on the outer dolphin of the cement company berth, is shown from a black mast. The light is privately maintained.

A conspicuous **chimney** 0.9 mile NW of the outer end of the wharf has an elevation of 179 m (587 ft); it has air obstruction **lights**. The two hoppers mentioned above also make good landmarks.

An **abandoned submerged sewer outfall** lies 100 m (328 ft) NE of the *St. Lawrence Cement Company* wharf. A **submerged sewer outfall** 0.2 mile NE of the wharf extends 0.8 mile offshore and a **submerged pipeline** 0.6 mile SW of the Clarkson wharves extends 0.2 mile offshore; the outer end of each pipeline is marked by a **buoy**.

#### Charts 2086, 2077

76 A **submerged water intake** 1.7 miles SW of Clarkson extends 0.45 mile offshore; the crib at the outer end is marked by a **buoy**.



#### CLARKSON (1994)

#### **OAKVILLE** (1994)



#### Chart 2070

The town of **Oakville**  $(43^{\circ}26'N, 79^{\circ}40'W)$ , with a population of 114,670 (1991), is a residential town 3.5 miles SW of Clarkson and 16 miles SW of Toronto. There is a general hospital. Oakville is served by scheduled bus and rail services and is on *Highway 2* and near the *Queen Elizabeth Way* highway.

78 Oakville is a **Customs** vessel reporting station for pleasure craft.

Tall apartment buildings near Oakville Harbour make good **landmarks**. There are two church steeples in the NE part of Oakville; the western steeple shows above the top of the trees. There is a flag staff, 49 feet (15 m) in elevation, on a mound near the SW entrance point of the harbour.

80 **Oakville Harbour** is entered between two piers at the mouth of **Oakville Creek**. The entrance between the piers is 120 feet (37 m) wide.

Two highway **bridges** cross Oakville Creek above the main harbour basin; the upstream bridge has an overhead clearance of 32 feet (9.8 m) and the downstream bridge a clearance of 33 feet (10 m).

**Caution**. — Oakville Harbour is subject to silting; charted depths are reported to be maintained by dredging.

83 Oakville light (528), on the south end of the east pier, is shown at an elevation of 29 feet (8.8 m) from a white circular tower, 20 feet (6.1 m) high, with a red upper part.

85 The club facilities at Oakville are generally private and available only to yacht club members and guests.

86 *Oakville Yacht Squadron* has extensive dockage on the SW shore near the harbour entrance. The depth at the wharves was 2 feet (0.6 m) in 1994.

87 *Oakville Club*, on the north shore, is a private racket club.

88 *Oakville Power Boat Club*, on the north shore beyond the two bridges, had depths of 2 feet (0.6 m) in 1994 and offered dockage with power and water, pump out, showers, laundromat, pay phone, ice and gasoline. Some slips were available for transient boaters.

89 Sharkeys on the Water, on the SW shore between the bridges, had depths of 3 to 5 feet (0.9 to 1.5 m) in 1994 and offered some dockage, a licensed patio, lounge and restaurant, with live evening entertainment. Fishing charter boats were also based here.

All the services and facilities of the town of Oakville are close to the harbour. There is a pump out station on the east shore south of the first bridge.

91 Dock 16, a marine supply store at 126 Lakeshore Road East, NE of the harbour, in 1994 offered marine paints, sailboat hardware and cordage, outdoor activity clothing, and a complete line of yachting supplies and gifts.

92 *Oakville Yacht Outfitters*, at 30 Lakeshore Road West, west of the harbour, is a marine chandlery carrying cordage, fasteners, boat maintenance supplies and a full line of marine hardware. A repair service was also available in 1994.

93 *Dock 16* and *Oakville Yacht Outfitters* are authorized dealers for Canadian Hydrographic Service nautical **charts** and publications.

94 **Historical note**. — The land stretching from Toronto to Burlington Bay was purchased from the Mississauga Indians in 1805. European settlement in the area began in about 1822 when Joshua Leach settled on his concession at Joshua's Creek between present-day Clarkson and Oakville. 95 Oakville itself had its beginnings in 1827 when William Chisholm acquired land bordering Sixteen Mile Creek and began laying out town lots. With its natural harbour and immense stands of fine timber, the community grew rapidly and soon had a grist mill, saw mill and hotel as well as Chisholm's general store and fleet of schooners. In 1857 Oakville incorporated as a town; many of the buildings in Old Oakville date from this period when the population was about 2,000.

<sup>96</sup> The town of Oakville has continued to prosper over the years and is noted as being an industrial centre as well as a pleasant residential town and active summer resort.

97 **Points of interest**. — The *Oakville Historical Society* maintains three of Oakville's oldest buildings as a museum. These buildings, the *Thomas House*, the *Post Office* and the *Customs House*, are near the harbour at *Lakeside Park* and have furnishings and exhibits telling something of the history of Oakville.

98 *Old Oakville*, an area of quiet streets NE of the harbour, has many fine examples of homes built in the midnineteenth century.

99 *Centennial Plaza*, a modern complex including swimming pool, library and art gallery, houses the *Oakville Centre for the Performing Arts* with its two theatres. These theatres host live productions by local groups, both amateur and professional.

100 *Centennial Art Gallery* and *Gairloch Gardens Art Gallery* host special exhibitions. Displays feature works in various art forms by contemporary and local artists.

101 *Glen Abbey Golf Course*, in the north part of Oakville, is a championship course noted for being the home of the *Canadian Open Golf Championship*.

102 *Coronation Park* is a lakeside municipal park SW of the harbour. Summer concerts are held in the band shell in the park.

## Oakville to Bronte

## Charts 2077, 2086

103 The 3.4 mile stretch of shore between Oakville and Bronte consists of wooded clay banks up to 12 m (39 ft) high. The shore gives the appearance of being densely wooded.

104 Two **submerged water intakes** 0.2 mile SW of Oakville Harbour entrance extend up to 0.4 mile offshore in a SE and SSE direction. There are two **submerged pipelines** 1.8 miles farther SW; the longer of these extends 0.4 mile offshore in an easterly direction. These pipelines are all marked by privately maintained **buoys**.

105 **Caution**. — A bottom-anchored **deadhead**, 0.2 m (8 inches) in diameter and 0.8 m (3 ft) above chart datum, has been reported 0.1 mile south of the outer end of the last-described pipeline. Boaters are cautioned to avoid this obstruction which may be submerged at normal summer water levels.

## Chart 2070

106 **Bronte**  $(43^{\circ}24'N, 79^{\circ}42'W)$ , a community forming part of the town of Oakville, is on the west shore of Lake



## **BRONTE** (1994)

Ontario 3.4 miles SW of Oakville Harbour and 19 miles SW of Toronto. Bronte is served by scheduled bus services and lies on *Highway 2* and near the *Queen Elizabeth Way* highway. 107 Bronte is a **Customs** vessel reporting station for pleasure craft.

A group of tall apartment buildings NE of Bronte Harbour entrance is **conspicuous** and makes a good landmark for approaching boaters.

**Bronte Harbour**, consisting of the sheltered mouth of **Bronte Creek**, is entered between two concrete piers which extend out into the lake. A boulder **breakwater** extends 700 feet (213 m) ENE from the outer end of the north pier. Another **breakwater** to the NE extends SE and south from shore. These breakwaters have elevations of 10 to 13 feet (3 to 4 m) and protect *Bronte Harbour Outer Marina*.

110 Bronte light (530), near the outer end of the north pier at the entrance to Bronte Creek, is shown at an elevation of 30 feet (9.1 m) from a white circular tower, 25 feet (7.6 m) high, with a red upper part.

Bronte Outer light (529), at the south end of the eastern breakwater at the entrance to the marina basin, is shown at an elevation of 27 feet (8.2 m) from a white circular tower with a red upper part.

113 A **submerged power cable** crosses from Bronte light to Bronte Outer light.

Inside the harbour entrance, the channel follows along the north pier. Bronte Harbour is subject to **silting**. Depths of 6 feet (1.8 m) were found in the harbour channel in 1994. A highway **bridge** across Bronte Creek at the upper end of the inner harbour has a vertical clearance of 20 feet (6.1 m).

115 **Caution**. — A boulder **wave-break** near the inner end of the north pier extends 55 feet (16.8 m) into the channel. A similar **wave-break** at the entrance to the inner harbour extends 55 feet (16.8 m) into the channel from the south pier. These two wave-breaks have an elevation of 6 feet (1.8 m) and may be nearly awash at high lake levels.



116 **Caution**. — A strong **current** flows out of the harbour during the spring flood. High

winds may cause a dangerous **surge** in the outer part of the harbour.

117 A **submerged pipeline** crosses the inner part of Bronte Harbour.

118 There are launching **ramps** at Bronte; the municipal ramp on the north shore 115 feet (35 m) east of the bridge has a double width.

119 *Metro Marine*, on the NW shore of the inner harbour, had depths of 3 to 5 feet (0.9 to 1.5 m) in 1994 and offered dockage with power and water, pump out, repairs, 31.7 tonne hoist, mast stepper, boat rentals, boat hardware, pay phone, snack bar, ice, gasoline and diesel fuel. *Dock 16*, a chandlery store here, carried a complete line of marine equipment and accessories, and is an authorized dealer for Canadian Hydrographic Service nautical **charts** and publications.

120 *Bronte Harbour Yacht Club*, a private organization on the NW shore east of the highway bridge, had depths of 2 feet (0.6 m) in 1994.

121 The business section of Bronte is near the harbour and has churches, banks, doctors, dentists, veterinarian, several stores, laundromat, beer store and restaurants. The nearest hospital is at Oakville.

## **Bronte to Burlington Canal**

## Charts 2086, 2077

122 The 7 mile stretch of shoreline between Bronte and Burlington Canal is low and fringed with trees. There are no natural landmarks, though the bluffs of the Niagara Escarpment, some 5 miles to the west, are helpful to vessels approaching from offshore.

123 The Petro Canada Oakville Refinery oil terminal  $(43^{\circ}22'N, 79^{\circ}43'W)$  is 1.2 miles SSW of Bronte Harbour. The pier is 686 m (2,250 ft) long and has an elevation of 5.5 m (18 ft). There is a tanker berth at the outer end of the pier. There is a pay phone. Fresh water is available by tanker truck, and ballast water can be discharged ashore.

**124** Canada Shell (*Petro Canada*) Wharf light (531) is shown at an elevation of 5.5 m (18 ft) from a structure on the outer end of the wharf. This light is privately maintained.

125 A **submerged water intake** 100 m (328 ft) NE of the *Petro Canada* refinery pier extends 0.25 mile offshore. A second submerged pipeline here extends 0.7 mile offshore.

The *Petro Canada Oakville Refinery* is 1.5 miles west of Bronte Harbour. Two chimneys at the refinery site are 154 m (505 ft) in elevation, with white bands at the top; a third chimney, north of Bronte Harbour entrance, has a black band at the top. These chimneys are **conspicuous** and have air obstruction **lights**.

Mount Nemo (43°25'N, 79°53'W), 8 miles WNW of Bronte, is a hill which rises steeply from the surrounding high land. Mount Nemo (*shown on Chart 2077*) is 207 m (680 ft) above the level of Lake Ontario and is conspicuous because its north and east sides are steep for a distance of 30 m (98 ft) from its summit, which summit is practically level for 3 miles north and south.

128 **Rattlesnake Point** (43°28'N, 79°55'W), 6 miles NNW of Mount Nemo, is the steep south side of another conspicuous hill, 253 m (830 ft) high. The sides of the hill which are visible from the lake are steep for a distance of

## **OAKVILLE OIL TERMINAL** (1994)



30 m (98 ft) below the summit, which summit is a fairly level plateau extending 2 miles north and south.

129 Two **submerged water intakes**, 4.2 miles SW of Bronte Harbour, extend 0.4 mile offshore. The outer end of each pipeline is marked by a **buoy**.

#### Charts 2067, 2086, 2077

130 A narrow strip of land at the SW end of Lake Ontario shelters the waters of Hamilton Harbour, formerly known as **Burlington Bay**. The communities of **Burlington Beach** and **Hamilton Beach** are on this neck of land, formerly called Burlington Bar and known locally as the **Beach Strip**.

131 The city of **Burlington** (43°20'N, 79°48'W), with a population of 129,575 (1991), lies north and NE of Hamilton Harbour. There are secondary industries in the city, but the area is mainly residential.

A seawall graces the lakefront of downtown Burlington. A landfill area at the NE end of the seawall is 188 m (617 ft) long and extends 100 m (328 ft) into the lake. The *Venture Inn* motel is on the inner part of this landfill area; the outer part is a public park.

133 *Spencer Smith Park*, sheltered by the abovementioned seawall, is a municipal day-use park with washroom facilities and a children's playground. A building here houses the Mohawk Canoe Club and the Chamber of Commerce Tourist Information Centre.

134 The small-craft facilities at Burlington are on the north shore of Hamilton Harbour, described later.

135 **Historical note**. — The area's best known early resident was Joseph Brant, a Mohawk Indian Chief of the *Six Nations* who lived here from 1798 until his death in 1807. A few settlers were already living here by then, but Burlington itself dates from 1810 when James Gage bought 338 acres of Brant's land and laid out a village near the lake. This village, at the north end of the Beach Strip, was called *Wellington Square* and grew with the arrival of the Late Loyalists from the United States and new immigrants from Britain. Several other inland communities also developed, serviced by schooners docking at the timber wharves of Wellington Square.

The village grew rapidly in the 1840's, spurred by the tremendous activity of the grain and timber export trade passing through its docks. The coming of the railroad in 1855 diverted a lot of the trade away from the fleets of schooners, but the community continued to thrive. With a population of over 750 in 1873, the community was formally incorporated as the village of *Burlington*, taking its name from Burlington Bay, and in 1914, with a population of about 2,100, it became a town. 137 Despite the growth of neighbouring Hamilton and Oakville as industrial centres, Burlington has continued to prosper and in 1974, with a population of 100,000, was incorporated as a city which now included other earlier villages such as Ancaster, Appleby, Freeman and Port Nelson.

138 Today Burlington is a prosperous residential town and, though fringed by some industrial development, is noted for the successful restoration and development of part of its old town core as a lively *Village Square* of specialty shops and restaurants.

139 **Points of interest.** — *Joseph Brant Museum*, near the *Joseph Brant Memorial Hospital* at the NW end of the Beach Strip, is a faithful reproduction of the home that Chief Joseph Brant built here in 1798. The house has displays of pioneer and Indian artifacts as well as a fine collection of momentoes of Joseph Brant and his family.

140 *Burlington Arts Centre*, a modern complex of multiuse studios and meeting rooms, hosts many visual arts groups and presents special exhibitions throughout the year.

141 *Halton Regional Museum*, 16 km north of Burlington at Milton, includes several pioneer buildings with displays of local Indian finds and historic pioneer items.

142 *Ontario Agricultural Museum*, near Milton, has a large collection of early farm machinery. The displays show something of life in pioneer farming communities.

143 *African Lion Safari* at Rockton, 16 km to the west, is a drive-through park with herds of lions, tigers, buffalo and other wild animals in six open game reserves. There are special elephant and tiger shows as well as birds of prey demonstrations. There is also a fully serviced campground.

144 *Royal Botanical Gardens* cover 800 hectares (1,976 acres) at the west end of Hamilton Harbour, between Burlington and Hamilton, and includes special areas such as the rose garden, rock garden, arboretum and lilac garden, and a tranquil scented garden. There is also a *Nature Interpretive Centre* with nature trails, and a modern visitor centre which hosts special exhibitions and concerts from time to time.

## **Burlington Canal**

#### Chart 2067

145 **Burlington Canal**  $(43^{\circ}18'N, 79^{\circ}47'W)$ , at the SW end of Lake Ontario, is an artificial walled channel 75 m (246 ft) wide which allows access through the Beach Strip to Hamilton Harbour. The canal is entered between concrete piers that extend 0.2 mile offshore. The channel between the piers is reported to be maintained at a depth of 8.8 m (29 ft) over a width of 73 m (240 ft).

146 **Regulations** respecting navigation in Burlington Canal are quoted in Sailing Directions booklet *CEN 300* — *General Information, Great Lakes.* 

147 A **submerged oil pipeline** crosses the outer entrance to Burlington Canal. This pipeline is marked by two privately maintained **buoys**.



**BURLINGTON CANAL** (1994)

A **lift-bridge** and two high-level **bridges** cross Burlington Canal. The lift-bridge, near the mid-point of the canal, has a vertical clearance of 37 m (121 ft) when open and 3 m (10 ft) when closed. An **overhead power line**, with a clearance of 51 m (167 ft), crosses the canal 25 m (82 ft) NE of the lift-bridge. *Burlington Bay James N. Allan Skyway Bridge*, a twin high-level highway bridge with a vertical clearance of 38 m (125 ft), crosses the canal 135 m (443 ft) SW of the lift-bridge.

149 The Burlington Canal lift-bridge operates twenty four hours a day; it opens on the hour and half hour for pleasure craft, and at any time for commercial and Government vessels. The *Department of Public Works* operates a **radio facility** at the Burlington Canal lift-bridge for the control of ship traffic. The call sign is *XL146* on VHF Channels 12 and 16. Details are given in *Radio Aids to Marine Navigation (Atlantic and Great Lakes)*.

150 There are traffic-regulating **lights** on the inner and outer ends of the south pier.

151 Burlington Canal South Pier Outer light (535), on the east end of the south pier, is shown from a white square tower.

Burlington Canal North Pier Outer light (*533*), on the east end of the north pier, is shown at an elevation of 8.2 m (27 ft) from a white circular tower, 6.1 m (20 ft) high, with a red upper part.

Burlington Canal North Pier Inner light (534), at the SW end of the north pier, is shown at an elevation of 8.2 m (27 ft) from a white circular tower, 6.1 m (20 ft) high, with a red upper part.

156 *Fisherman's Pier*, in a sheltered area south of Burlington Canal, in 1994 offered a **ramp**, water, ice, some boat hardware, bait, tackle and a snack bar.

157 Burlington Bay James N. Allan Skyway Bridge makes a good **landmark** for approaching vessels, as do the twin towers of the lift-bridge. Two power-line towers on the beach near the lift-bridge, one on each side of the canal, have air obstruction **lights**. A white concrete chimney 1.8 miles SSW of Burlington Canal, on the SE side of Hamilton Harbour, is 141 m (462 ft) in elevation and has air obstruction **lights**.

158 **Pilotage** in the vicinity of Hamilton Harbour is administered by the *Great Lakes Pilotage Authority Limited*. Further information on pilotage is given in Sailing Directions booklet *CEN 300* — *General Information, Great Lakes, the Annual Edition of Notices to Mariners* and *Radio Aids to Marine Navigation* (*Atlantic and Great Lakes*).

159 **Historical note**. — The original natural outlet from Hamilton Harbour to Lake Ontario was north of the present canal. This outlet was shallow and used only by small boats except at times of high water. In 1823 work began on dredging and building a canal with piles and substantial cribwork piers, making this the first canal project in Upper Canada. This early canal, however, was soon demolished by storms and work on a new canal began in 1828. The 1828 canal, with improvements, is the one still in use today.

160 The first lighthouse here was a wooden structure built in 1838 on the south pier. This was replaced in 1858 by a substantial stone lighthouse which still exists, though it is no longer in use as an aid to navigation.

## **Hamilton Harbour**

161 **Hamilton Harbour** (43°18'N, 79°49'W) is a natural harbour at the SW end of Lake Ontario. It has an area of more than 2,000 hectares (4,940 acres) and is sheltered from Lake Ontario by a narrow neck of land known as the **Beach Strip**. The harbour has general depths of 10 to 23 m (33 to 75 ft) with mud and clay bottom. The north shores of the harbour are mostly thickly wooded; the south side of the harbour consists mainly of commercial wharves, with landfill and construction areas in the SE.

162 There is a designated **anchorage area** in the northern part of the harbour.

163 **Caution**. — **Submerged oil pipelines** cross the SW part of Hamilton Harbour between **Centennial Dock**, which is near the west end of the south shore, and **Willow Point**, a low feature on the NW shore. **Anchorage is prohibited** in this area.

There are **small-craft facilities**, described later, on the NW shore and near the west end of the south shore.

165 A **shoal** on the south side of the channel, 0.2 mile SW of the inner end of Burlington Canal, has a depth of 4.9 m (16 ft). This shoal is marked by *Hamilton Harbour light buoy 1 (537.2)*. **Randle Reef**, a shallow area off the wharves in the south part of the harbour, is marked by a **light buoy** and **spar buoys**.

*Canada Centre for Inland Waters*, a research facility established in 1968 by the Government of Canada, is NW of the Burlington Canal inner entrance. Among the many functions of the *CCIW* is the undertaking and co-ordinating of major studies of the waters of the Great Lakes. A fleet of vessels ranging in size from ships to small open boats is based here. These vessels are used for carrying out hydrographic surveys and as platforms for freshwater research programs.

167 A detached **breakwall** with a deck elevation of 3 m (10 ft) lies 100 m (328 ft) off and parallel to the main *CCIW* wharf.

168 Burlington Breakwater North (537.6) and South (537.4) lights, at the north and south ends of the above mentioned breakwall, are shown at an elevation of 4.9 m (16 ft) from masts 3.7 m (12 ft) high. These lights are privately maintained.

169 Two **submerged sewer outfalls**, 0.4 mile north of the *CCIW* breakwater, extend 0.2 mile in a SW direction.

The city of **Hamilton**, with a population of 318,499 (1991), is an industrial city on the south side of Hamilton Harbour. The main part of the city is on low and level terrain, with several major steel industries and other industrial structures along its north side. The residential area extends southwards to a plateau, known locally as **Hamilton Mountain**, which rises abruptly to an elevation of 122 m (400 ft) 3 km south of the harbour. The newer residential parts of the city spread a further 3 km southwards on top of the plateau.

171 Being an important industrial and commercial centre as well as a central tourist area, Hamilton is a major railroad junction and is served by two major freight carriers: *Canadian National* and *Canadian Pacific* railroad companies. *GO Transit*, a commuter rail service operated by the Government of Ontario, also connects Hamilton with the Toronto area. *VIA Rail*, a passenger rail service, connects Hamilton with the rest of the country. Modern highways connect Hamilton with Toronto to the NE, and Niagara Falls and the United States to the ESE, as well as other Canadian cities. Hamilton is served by two International airports; *Hamilton Civic Airport*, 10 km SW of the city centre, and *Pearson International Airport*, 48 km to the NNE.

172 Hamilton Harbour is a commercial harbour administered by the *Hamilton Harbour Commissioners*. Harbour security is under the jurisdiction of the *Hamilton Wentworth Regional Police*. The offices and wharf facilities of the harbour police and the harbour master are located south of Centennial Dock.

173 Hamilton is a **Customs** vessel clearing station for commercial craft and a vessel reporting station for pleasure craft.

174 There is a **speed limit** of 10 knots in Hamilton Harbour. The **speed limit** is 5 knots within 152 m (500 ft) of the shore or any shore installation.

174.1 All ships destined for Pier 23 in Hamilton Harbour are to test the reversing capability of the vessel's engine in the area between the Burlington Canal and coming abreast of Dofasco's Pier 20. If a malfunction occurs at this point, the vessel will have sufficient time to take evasive action.

175 Harbour movements, except of small craft, are controlled by the harbour master. Masters should contact the harbour master's office when entering or leaving the harbour, and when intending to move within the harbour. The harbour master's office, call sign *XJF496*, monitors VHF Channel 12 from 07:30 to 23:30 hours, Monday to Friday, and can be contacted seven days a week, 24 hours a day, by telephone at (905) 525-3412.

176 **Caution**. — Every vessel in the harbour that is not engaged in commercial activities of the port shall give way to any vessel so engaged.

177 Privately owned tugs are available for docking and assisting ships in the harbour.

178 The port of Hamilton is equipped to handle palletized cargo, containers, and a variety of bulk cargoes. There is also a roll-on/roll-off terminal. A wide range of mechanical equipment is available, including a 68-tonne floating derrick. Most piers are served by railway spur lines.

179 The main facilities of Hamilton Harbour are listed in the adjacent tables.

180 A major **landfill** and construction project is being developed (1995) in the SE part of Hamilton Harbour, near the *Queen Elizabeth Way* highway. This development is known as **East Port**. An area on the NE side of Hamilton Harbour, north of *CCIW*, is being developed (1995) as a fish and wildlife habitat.

181 The main **wharves** along the south side of Hamilton Harbour are used by commercial vessels. This is an important terminal for domestic and international trade, being used by many shipping lines. Principal imports are coal, iron ore, sand and steel. Principal exports are steel, stone, mill scale and coke. The port was used by 696 ships in 1994.

182 There are **lights** on most piers along the harbour front. The limits of the reclaimed land in the SE part of the harbour are marked by **lights** and **buoys**.

183 Stores and provisions are available through ship chandlers. Diesel fuel is available by tank truck; bunker grade fuels can be delivered by a 180-tonne capacity bunker barge.

184 Several local companies are equipped to do hull work and repairs to deck and engine-room machinery. In 1994 *Heddle Marine Services* operated a 3,000-tonne floating dry dock and offered full repair facilities.

*Elstone Stationery Office Products*, 3017 New Street, Burlington; *Brewer Bros Marine Supplies*, 65 Guise Street East, Hamilton; and *Dowsar Yachts & Marine Supplies*, 522 James Street North, Hamilton, are authorized dealers for Canadian Hydrographic Service **charts** and publications.

186 Harbour West Marina Complex, in the SW part of Hamilton Harbour SW of Centennial Dock, is operated by Hamilton Harbour Commissioners. The complex includes a marina, boatyard and sailing school. With depths of 2 to 6 m (7 to 20 ft) in 1994, facilities included dockage with power and water, pump out, repairs and salvage work, 45.4 tonne hoist, boat hardware, indoor and outdoor storage, pay phone, showers, picnic area, ice, gasoline and diesel fuel.

# 4-14

Lake Ontario

**CEN 302** 

## **Major Port Facilities**

## Hamilton Harbour

Berth			Wharf Length*	Depth+	Elevation++	Storage	Remarks								
			m (ft)	m (ft)	m (ft)	Note: All information in this	table was provided by local authorities.								
						User should consult local authorities for latest conditions.									
H.H.C.**	Centenn	ial Dock					Floating derrick, 68 tonnes.								
Pier 8 West 8 North			183 (600)	8.2 (27)	2.4 (8)	General cargo.	All types overseas cargo.								
			488 (1,600)	8.2 (27)	2.4 (8)	8 hectares (20 acres).	Marine Terminals Nos. 6 and 7.								
		8 East	152 (500)	8.2 (27)	2.4 (8)	Covered storage 12,848 m <sup>2</sup> (138,300 sq ft).	Piers 8 and 10, cranes, lift trucks.								
Navy Ba	sin Pier 9	)	244 (800)	6.1 (20)	1.8 (6)		Basin fronting HMCS Star.								
H.H.C. V	Vellingtor	n Street Termina	al												
	Pier 10 North		397 (1,304)	8.2 (27)	2.4 (8)	General cargo 7.3 hectares (18 acres).	All types overseas cargo.								
						Covered storage 18,200 m <sup>2</sup> (195,940 sq ft).	All types overseas cargo.								
		10 East	518 (1,700)	North to South	1.8 (6)	As above.	All types of cargo.								
			8.2 for 218 (27 for 715)												
			7 f	or 300 (23 for	985)										
H.H.C.	Pier	11 North	305 (1,000)	6.7 (22)	1.8 (6)	Liquid bulk storage.	Petroleum products and bulk storage.								
		11 East	396 (1,300)	6.4 to 6.7 (21 to 22)	1.8 (6)	6.5 hectares (16 acres).	Petroleum products and bulk storage.								
		11 West	518 (1,700)	North to South		Dry bulk storage 11 hectares (27.3 acres).	Sand, gravel and soya beans.								
				for 240 (27 for	,										
				for 278 (23 for 9											
H.H.C.	Pier	12 North	250 (820)	8.2 (27)	2.1 (7)	Liquid bulk storage 2.4 hectares (6 acres).	Roll-on/roll-off berth.								
		12 East	384 (1,260)	8.2 (27)		Dry bulk storage 9.6 hectares (24 acres).	Coal and chemicals in bulk.								
		12 West	396 (1,300)	8.2 (27)		Covered storage 13,098 $m^2$ (141,000 sq ft).	The use of bow thrusters is prohibited when berthing or leaving the north and west sides of Pier 12.								
H.H.C.	Pier	14 North	244 (800)	8.2 (27)	2.7 (9)	Dry bulk storage 4.9 hectares	Chemicals in bulk, dry cargo,								
		14 West	366 (1,200)	8.2 (27)	2.7 (9)	(12 acres), and general cargo.	and all types of overseas cargo.								
		14 East	122 (400)	8.2 (27)	2.7 (9)	Ship repair.	51 5 2								
H.H.C.	Pier	15A	213 (700)	5.2 (17)	2.7 (9)	Nil.	Tug and								
		15B	100 (328)	5.2 (17)	2.7 (9)	Nil.	barge storage.								
Steel Co	mpany o	f Canada: Pier	16												
	Ore d	ock No. 2	1,219 (4,000)	7.6 to 8.2	2.4 (8)	Private property.	Ore, coal. Travelling bridge unloaders,								
01 10			-	(25 to 27)			capacity 680 tonnes per hour.								
Steel Co		f Canada: Pier		F F I. 7 2 (10 I. 24)		Di ata mana da									
Develop		ock No. 3	427 (1,400)	5.5 to 7.3 (18 to 24)		Private property.	Ore, coal. Self unloaders.								
Dominio		ies and Steel	1 210 (4 000)	70(24)	2 1 (7)	Drivete property	Maughle grappe. Ore and applicators								
	Pier 2		1,219 (4,000)	7.9 (26)	2.1 (7)	Private property.	Movable cranes. Ore and coal storage.								
H.H.C.	Pier	23 North 23 East	84 (276) 722 (2.400)	5.8 (19)	2 4 (0)	Dry bulk storage 1.6 hectares (4 acres).	Bulk cargo, scrap, oil berth.								
			732 (2,400) 366 (1,200)	8.2 (27)	2.4 (8) 2.4 (8)	Liquid bulk storage 1.1 hectares (2.7 acres). General cargo 4 hectares (10 acres).	Domestic and overseas.								
H.H.C. Pier 24		24	300 (1,200)	8.2 (27)	2.4 (0)	Covered storage 10,450 m <sup>2</sup> (112,500 sq ft).	בסווובשוני מווע טיפושפמש.								
H.H.C.	Pier	25	244 (800)	8.2 (27)	2.4 (8)	Dry bulk storage.	Fertilizers, grain and slag.								
H.H.C.	Pier	25	244 (800)	8.2 (27)	2.4 (8)	Dry bulk storage.	i crunzers, grani anu siag.								
H.H.C.	Pier	20	No berthage.	0.2 (27)	2.4 (0)	by built storage.	Under development.								
H.H.C.	Pier	27	335 (1,100)	6.4 to 8.2 (21 to 27)	2.4 (8)		Canada Centre for Inland Waters.								
11.11.0.	FIEI	۲7	333 (1,100)	0.4 10 0.2 (21 10 27)	2.4 (0)										

\* Estimated berth length. †† Elevation above chart datum. † Depth below chart datum.

\*\* Hamilton Harbour Commissioners.

187 *Royal Hamilton Yacht Club*, a private organization west of the *Harbour West Marina Complex*, had depths of 0.2 to 3.3 m (1 to 11 ft) in 1994 and had a modern clubhouse and swimming pool. *Canadian Yachting Association* operated winter sailing and navigation courses here. *Leander Boat Club*, a private organization west of
 *Royal Hamilton Yacht Club*, had depths of 0.9 m (3 ft) in 1994.
 *MacDonald Marine Services*, in a sheltered bay south
 of the marina complex, had depths of 0.1 to 1.3 m (0.3 to 4 ft)
 in 1994 and offered dockage with power and water, ramp,

#### HAMILTON (1994)



repairs, boat hardware, 4.5 tonne hoist, pay phone, picnic area, showers and ice. A local crane is available for any lift. 190 *Macassa Bay Yacht Club*, a private organization in the same sheltered bay, had depths of 0.7 to 1.5 m (2 to 5 ft) in 1994.

191 *Harbourfront Park*, a City of Hamilton day-use park, had depths of 1.1 m (4 ft) in 1994 and offered a launching ramp and picnic area.

192 Five artificial **reefs** in the small bay 0.25 mile west of *Macassa Bay Yacht Club* are fish habitat areas. These are obstructions to surface navigation.

193 La Salle Park **wharf**, at *La Salle Park* on the NW side of the harbour, SE of a conspicuous white apartment building, is 113 m (370 ft) long and 52 m (170 ft) wide, with depths of 2.4 m (8 ft) along the outer face. This wharf is administered by the City of Burlington. Two concrete launching **ramps** are near the wharf. A **buoy** marks the limit of **shoal** water off the SW end of the wharf.

194 *La Salle Park Marina*, a private organization, had depths in 1994 ranging from shallows at shore to 9.5 m (31 ft) at the outer ends of the floating wharves. The wharves are protected by a system of floating breakwaters.

195 *Burlington Sailing and Boating Club*, also at *La Salle Park*, is a private shore-based sailing school.

196 A **light** at the SW end of La Salle Park wharf and several **lights** around the breakwaters are privately maintained.

197 There is a **submerged sewer outfall** 0.1 mile SW of La Salle Park wharf.

**Historical note**. — The first European settlers arrived here in the 1780's, moving from the more crowded Niagara area. Richard Beasley established a trading post on the south shore of the bay, then known to the British as *Lake Geneva*. In 1792 the bay's name was changed to *Burlington Bay*, and in 1794 an inn and small military staging post was established at the south end of the Beach Strip. By this time there were several settlers in this area.

In 1812 George Hamilton acquired land on the south side of the bay and in 1813 laid out plans for his village. A flood of settlers arrived after the war of 1812, and in 1816 a courthouse and jail were built here, giving the village the nucleus of an administrative centre.

Hamilton's life as a major port began in 1826 with the arrival of the first cargo ship to pass through Burlington Canal. At this time Dundas and Hamilton were both petitioning to be declared the District Town; Dundas with its fine water power had a lot of industry and a larger population, and Hamilton was developing a new port and was also well located on the stage coach road to Toronto, then known as York. In 1833 Hamilton was incorporated as a town. With waves of new immigrants from Britain and the establishment of industrial and manufacturing enterprises, the town grew rapidly and in 1846 achieved the status of city. The coming of the railroad in 1855 opened up the city as an industrial centre, and the city grew in waves with the ebb and flow of industry. In the early part of the nineteenth century, major steel industries came to Hamilton and the city earned the nickname of "Steeltown". Heavy industry continues to prosper here; over 60 per cent of Canada's steel is produced in the city.

In recent years the "Ambitious City" has undertaken a major renewal of its downtown core, replacing areas of the old city centre with fine modern complexes. These include office towers, art gallery, shopping malls and a magnificent concert hall as well as a modern arena and convention centre. **Points of interest**. —As well as being a prosperous industrial city, Hamilton is very conscious of its pioneer past and has 14 or more separate museums and historic buildings open to the public, only some of which are mentioned here. Hamilton is a popular tourist and convention centre year round; many of the points of interest are open all year, though some have shorter hours during winter months.

205 *Dundurn Castle*, an imposing mansion built in 1835, was the home of Sir Allan Napier MacNab who was a prominent local citizen and Prime Minister of Upper Canada. This stately home has been carefully restored and shows something of high society life in early Hamilton.

206 *Whitehern*, for 100 years the home of a leading Hamilton family, is an elegant early town house still possessing most of its mid-nineteenth century furnishings. Special displays also show souvenirs of Hamilton's history.

207 *Canadian Football Hall of Fame and Museum* is dedicated to the history and thrills of Canadian football and its heroes of over 100 years.

208 *Canadian Warplane Heritage Museum*, at *Hamilton Civic Airport*, has a world-renowned collection of historic military aircraft. Many of these planes see action at air shows each year, and others are being lovingly restored.

209 *Hamilton Theatre Inc., Theatre Aquarius* and *The Player's Guild* each present live theatre productions such as Broadway musicals, drama and comedy shows from time to time throughout the year.

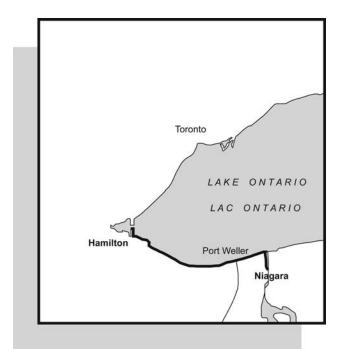
210 *Hamilton and Scourge* are two armed merchant schooners of the United States fleet of 13 ships that attacked York (Toronto) in 1813. These two ships later sank in a sudden storm and have lain undisturbed ever since. Now owned by the City of Hamilton, they will one day be the focus of a world class museum. A suitable site is being prepared at *Centennial Park*, ESE of the Beach Strip, where an *Interpretive Centre* tells the tale of those eventful times.

# Hamilton to Niagara River

## General



1 This chapter describes the south shore of Lake Ontario between Hamilton and Niagara River, a distance of 35 miles, and Niagara River from its mouth to the foot of Niagara Falls.



**Caution**. — This stretch of shoreline is exposed and offers little shelter from storms or from the prevailing NW'ly winds. Good marina facilities exist at places along the coast between Hamilton and Niagara River, but boaters are cautioned to be sure of their position before approaching the shore in unfavourable weather conditions.

2.1 Real-time water level information for Lake Ontario at Port Weller is available from the *Canadian Hydrographic Service Automated Water Level Gauge*, telephone number 905-646-9568. (*More information on water levels is given in Sailing Directions booklet CEN 300* — *General Information*, *Great Lakes.*)

#### Chart 2077

3 South of Hamilton, the high land of the Niagara Escarpment falls back to lie 3 miles inland then gradually approaches the coast. At Grimsby, 12 miles to the east, the escarpment is one mile inland. East of Grimsby, the escarpment again recedes until at Queenston, on Niagara River, it is nearly 7 miles inland. Along the strip of low land fronting the escarpment lie some of the most fruitful orchards and vineyards of North America. This is known as the **Niagara Fruit Belt**.

4 There are several wineries in this area. The quality of the wines produced is outstanding and equals the best wines in the rest of the world. The wineries offer conducted tours through their premises, including samples of their products.

## Hamilton to Fifty Point

5 The 5 miles of shore SE of Burlington Canal consists of a sand beach. Farther east, the shore becomes more of a low bank fronted by a narrow strip of rocks and boulders, becoming sand again around Fifty Point.

#### FIFTY POINT (1994)



6 A scientific **tower** lies 0.6 mile off **Van Wagners Beach** (43°16'N, 79°46'W), 2.3 miles SSE of the Burlington Canal entrance. The structure consists of a square platform supported by four legs and is painted bright yellow (1994). The scientific instruments on the platform are sometimes floodlit.

7 Van Wagners Beach light (537.8) is on the centre of the above-described platform. The light is privately maintained.

8 A **submerged power cable** crosses from the abovedescribed scientific tower in a SW direction to the shore. Three **submerged pipelines** 2.7 miles SSE of the Burlington Canal entrance extend 0.4 mile offshore.

9 A blue-coloured **sphere** 3 miles SSE of Burlington Canal is visible from offshore. The structure is part of the Hamilton sewage treatment plant.

10 On a grassy area overlooking the lake at *Confederation Park*, 3.4 miles SSE of Burlington Canal, is a **memorial** to the sailors who died in the sinking of the two schooners *Hamilton* and *Scourge* in 1813. This memorial includes an 18 m (59 ft) replica of a ship's mast with rigging, and gravestones of Vermont granite for each of the 53 seamen. An *Interpretive Centre* in a nearby building tells the story of the sinking of the two ships and of life in the days of sailing schooners.

11 There are television towers and a radio tower on top of the escarpment 2.8 miles SSW and 2.9 miles SSE of *Confederation Park*. These towers are **conspicuous** from all directions. 12 Newport Yacht Club Marina, 5.8 miles SE of Burlington Canal, is entered between two riprap breakwaters 3 to 5 m (10 to 16 ft) high. The western breakwater extends 120 m (394 ft) offshore. The entrance is 25 m (82 ft) wide and had depths of 3.3 m (11 ft) in 1994. The marina had depths of 1.2 m (4 ft) in 1994 and offered dockage with power and water, pump out, pay phone, picnic area, showers and ice.

13 Stony Creek light (537.85), at the entrance to the marina, is shown at an elevation of 6 m (20 ft) from a mast. The structure that supports the light is part of a statue of two figures. The light is privately maintained.

Fifty Point (Fifty Mile Point) (43°14'N, 79°38'W),
8.5 miles ESE of Burlington Canal, is low lying and wooded.
The stone breakwaters at the entrance to *Fifty* Point Marina lie 0.2 mile SE of Fifty Point, close west of a narrow landfill area which extends 150 m (492 ft) offshore. The entrance channel between the breakwaters had a depth of 2.1 m (7 ft) in 1990.

**16** Fifty Mile Point light (537.9), privately maintained, on the outer end of the east breakwater, is shown from a white circular tower, 7.3 m (24 ft) high, with a green upper part.

17 There is a privately maintained light on a starboard hand **daybeacon** on a mast on the west breakwater at *Fifty Point Conservation Area Marina*.

18 **Caution**. — A **shoal** with a depth of 1.9 m (6 ft) lies 0.2 mile NE of Fifty Mile Point Sector light; avoid this shoal by keeping in the bright sector of the light.

19 *Fifty Point Conservation Area Marina* lies in the sheltered basin SE of Fifty Point; it is operated by the *Hamilton Region Conservation Authority*. In 1994 this marina had depths of 0.6 to 2.4 m (2 to 8 ft) and offered dockage with power and water, pump out, ramp, 27.2 tonne hoist, boat hardware, picnic area, camping, pay phone, snack bar, restaurant and licensed dining room, laundromat, showers, ice, gasoline and diesel fuel. Also on the grounds is a day-use park with a stocked trout pond and a sandy beach. *Fifty Point Yacht Club* is also based here.

20 *Fifty Point Conservation Area Marina* is a **Customs** vessel reporting station for pleasure craft.

## Fifty Point to Jordan Harbour

The 11 miles of shoreline between Fifty Point and Jordan Harbour consists mostly of wooded bluffs. These are 3 m (10 ft) high just east of Fifty Point to 12 m (39 ft) high at Grimsby Beach. The banks become lower to the east, with elevations of 1.5 to 5 m (5 to 16 ft). The narrow beach is mostly rocks and boulders.

22 **Caution.** — Firing practice area. — A *Canadian Land Forces* small arms range 0.6 mile ESE of Fifty Point extends 1.5 miles offshore. The range perimeter is marked by **spar buoys**. Mariners and fishermen are strictly forbidden to pass through, troll or anchor in the area inside the buoys when the **red flag** of the range is flying. It is vital to recognize and avoid this danger area. Details of the firing area are given in the *Annual Edition of Canadian Notices to Mariners. Grimsby Small Arms Range light buoy WY (538.2)* and *Grimsby Small Arms Range light buoy WT (538.3)* mark the outer end of the firing practice area. These light buoys are maintained by the *Department of National Defence*. Rows of ruined piles extend 50 m (164 ft) offshore
at the small arms range. These piles are up to 2.1 m (7 ft) high.
There is a group of 8 radio towers near the shore
mile SE of Fifty Point. These towers have air obstruction
lights and make a good landmark.

The steel girders and concrete **ruins** of a wharf, elevation 1.5 m (5 ft), lie 0.1 mile offshore 1.8 miles SE of Fifty Point.

**Grimsby Harbour** (43°12'N, 79°33'W), 3.7 miles ESE of Fifty Point, is a sheltered basin entered between two stone breakwaters with an elevation of 2.1 m (7 ft). The entrance is 30 m (98 ft) wide.

**Caution**. — The entrance to Grimsby Harbour is very **shallow** and subject to continual **silting**. Marinas in the harbour cooperate to keep a channel dredged to a safe depth for their clients. This channel, quite narrow, runs along the inside of the east pier; vessels must keep left when entering the harbour. Bad weather makes this harbour difficult or impossible to enter; better harbours of refuge can be found nearby at Fifty Point or at Jordan Harbour. Mariners wishing to enter Grimsby Harbour can contact *Lakecourt Marine* by telephone at (905) 945-5852 to obtain further information.

28 Grimsby Harbour is a **Customs** vessel reporting station for pleasure craft.

C Grimsby breakwater light (538), on the outer end of the east breakwater at Grimsby Harbour, is shown at an elevation of 9.1 m (30 ft) from a white circular tower, 7.2 m (24 ft) high, with a green upper part.

30 *Foran's Marina*, in the SW part of Grimsby Harbour, had depths of 1 m (3 ft) in 1994 and offered dockage with power and water, pump out, ramp, repairs, 9.1 tonne fork-lift, boat hardware, pay phone, picnic area, showers, ice, bait, tackle and gasoline.

31 *Lakecourt Marine*, in the east part of the harbour, had depths of 0.2 to 1.2 m (1 to 4 ft) in 1994 and offered



#### **GRIMSBY HARBOUR** (1994)

## **JORDAN HARBOUR** (1994)



dockage with power and water, pump out, ramp, limited repairs, 7.2 tonne crane, picnic area, boat hardware, showers and ice.

The town of **Grimsby**, with a population of 18,520 in 1991, is 1 km south of the harbour. Grimsby has a general hospital and all the facilities of a residential and resort town. There is a municipal launching **ramp** on the SW side of a small shallow bay at the mouth of **Forty Mile Creek**, on the west side of the entrance to Grimsby Harbour.

A concrete pier-like structure 0.1 mile west of Grimsby Harbour extends 40 m (131 ft) from shore. This structure consists of a concrete walkway with an elevation of 1.2 m (4 ft) built over a municipal pipeline; it offers no shelter or facilities.

35 A **submerged sewer outfall** 0.9 mile SE of Grimsby extends 0.5 mile offshore.

36 **Grimsby Beach**, in a wooded area on the bluffs overlooking the lake 1.3 miles east of Grimsby Harbour, is a residential part of Grimsby.

37 **Caution**. — The concrete and boulder **ruins** of two wharves lying offshore at Grimsby Beach are awash or submerged; boaters are cautioned to avoid these dangers by keeping at least 0.2 mile offshore. The ruins are marked by a privately maintained **hazard buoy**.

38 **Caution**. — **Shoal** water extends 0.3 mile offshore between Grimsby Beach and Jordan Harbour. Boaters are cautioned to avoid these shoals by keeping well offshore.

**Jordan Harbour** (43°11'N, 79°22'W), 8 miles east of Grimsby and 5 miles west of Port Dalhousie, is a shallow and almost landlocked bay. The narrow entrance channel is

protected on its east side by a small landfill and breakwater area, lightly wooded, that extends 50 m (164 ft) offshore. The entrance channel is spanned by the twin bridges of the *Queen Elizabeth Way* highway, with a clearance of 2.1 m (7 ft).

It has been reported that the freshet scours the channel to a depth of 1.8 m (6 ft) and that the narrow entrance channel normally has a depth of 0.6 m (2 ft). It has also been reported that the bay has a depth of 0.9 m (3 ft), with slightly deeper water just inside the entrance.

41 *Campbell's Boats*, on the NW side of Jordan Harbour, had depths of 0.2 m (1 ft) in 1994 and offered dockage, ramp, engine and hull repairs, 6.3 tonne fork-lift, boat and motor sales, canoe and boat rentals, picnic area, boat hardware, bait and tackle, snack bar, drinking water, ice and gasoline.

42 There is a conspicuous group of eight **radio towers**, elevation 128 m (420 ft), 2.8 miles WSW of the entrance to Jordan Harbour. Four of these towers have air obstruction **lights**.

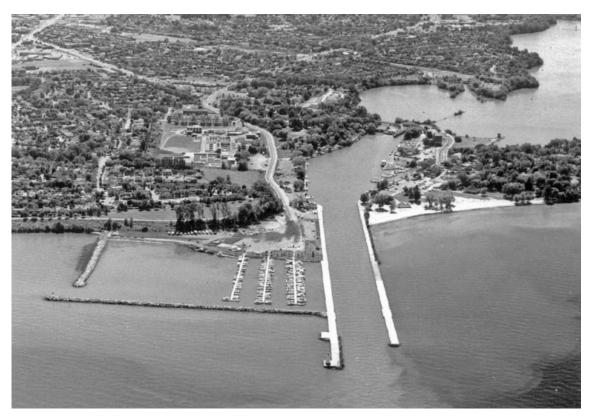
## Jordan Harbour to Port Dalhousie

43 There is a sand beach at Jordan Harbour and another 2.4 miles to the east. These beaches offer some landing for boats in favourable weather conditions. The rest of the coastline is mainly wooded clay bluffs 10 to 15 m (33 to 49 ft) high behind a narrow beach. The fine sand beach of a municipal park lies west of the Port Dalhousie piers.

44 **Breakwaters** 0.15 mile east of Jordan Harbour extend 200 m (656 ft) offshore to enclose an area 400 m

5\_/

#### PORT DALHOUSIE (1994)



(1,312 ft) wide at the *Beacon Harbourside Inn*. The breakwaters, which protect a marina basin, have an elevation of 3 to 4 m (10 to 13 ft). An opening near the NW corner is marked by a starboard hand **daybeacon** on the south entrance wall and Jordan Harbour light on the north breakwall.

45 Beacon Harbourside Marina, in the protected basin, reported depths of 3 m (10 ft) in 1996 and offered dockage with power and water, ramp, sheltered picnic area, pay phone, motel accommodation, inside swimming pool, showers, sauna, ice, snack bar, and the *Breakers* licensed dining room. Pump out, laundromat, VHF radio, gasoline and diesel fuel were planned for 1997.

46 Jordan Harbour light (538.5), on the west end of the north breakwater, is shown at an elevation of 9.1 m (30 ft) from a white circular tower, 3.7 m (12 ft) high, with a green upper part. The light is privately maintained.

47 **Caution**. — An area of **boulders** and shoal water 0.3 mile west of the Port Dalhousie piers has a depth of 1.5 m (5 ft) and extends up to 0.4 mile offshore.

#### Chart 2044

48 **Port Dalhousie** (43°12'N, 79°16'W), a suburban community within the city of St. Catharines, lies 24 miles ESE of Hamilton Harbour and 9 miles WSW of Niagara River.

In 1994, the revitalized seaport area of Port Dalhousie, on the west side of the harbour, had churches, a bank, grocery stores, liquor and beer store, laundromat, and several lively specialty shops and licensed restaurants. The nearest hospital is in St. Catharines, 2.4 km to the SE.

49 Port Dalhousie is a **Customs** vessel reporting station for pleasure craft.

The harbour at Port Dalhousie consists of a sheltered basin at the outlet of Martindale Pond. The harbour is entered between two parallel concrete piers which extend 0.3 mile into the lake. These piers are 200 feet (61 m) apart, but the usable width is reduced by protective rocks placed around the outer ends of the piers and along 330 feet (101 m) of the inner side of the east pier. A boulder **breakwater**, elevation 13 to 15 feet (4 to 4.6 m), extends 0.2 mile east from the east pier. This breakwater protects a marina basin.

50.1 **Caution**. — There is a row of **piles** along parts of the face of the east pier for a distance of 400 feet (122 m) south of the protective rocks. These piles have an elevation of 2 feet (0.6 m) and are submerged at summer water levels. Another similar **pile** is close to the face of the east pier 330 feet (101 m) north of an old lighthouse structure. 51 The building of the *Lincoln Fabrics* hosiery mill, on the SW side of the harbour, is prominent and makes a good **landmark**.

52 Port Dalhousie light (539), near the outer end of the east pier, is shown from a white square tower with green upper and lower parts.

53 Port Dalhousie Marina light (540.5), at the east end of the breakwater extending from the east pier, is shown at an elevation of 30 feet (9.1 m) from a white circular tower, 19 feet (5.8 m) high, with a red upper part.

54 There is a starboard hand **daybeacon** on a mast at the outer end of the west pier.

55 **Caution**. — The outer sections of the west pier may be awash or submerged at high water levels. Boaters are cautioned to be aware of this possible danger when approaching the harbour.

56 **Caution**. — Port Dalhousie harbour is subject to **silting**; depths may be less than charted.

57 Measurements taken in 1990 indicate a **current** of 1 knot at the entrance piers near the *Dalhousie Yacht Club*, and a current of 4.2 knots in the south end of the inner harbour.

58 A **submerged sewer outfall** extends 160 feet (48.8 m) into the harbour from the east wall, 250 feet (76.2 m) south of the inner end of the east pier. The crib at the outer end of this pipeline has a depth of 8 feet (2.4 m).

59 **Martindale Pond**, south of the harbour, is not accessible from Lake Ontario. Martindale Pond is the home of the *Royal Canadian Henley Regatta*.

60 Lincoln Marina, in a protected basin in the SW corner of the harbour, had depths of 3 to 12 feet (0.9 to 3.7 m) in 1994 and offered dockage, pay phone, drinking water and licensed restaurant. Fast flowing water has been reported at this marina (*see* note on *Currents*, above). A **footbridge** across the entrance to this marina has a clearance of 13 feet (4 m).

61 Dalhousie Yacht Club, a private organization at the south end of the east entrance pier, had depths of 6 to 13 feet (1.8 to 4 m) in 1994. Facilities included dockage with power and water, pump out, ramp, 1.8 tonne hoist, pay phone, licensed restaurant and dining room, laundromat, showers, naphtha, gasoline and diesel fuel.

62 *Port Dalhousie Pier Marina*, in the protected basin east of the entrance, had depths of 5 to 7 feet (1.5 to 2.1 m) in 1994 and offered dockage with power and water, pump out, 27.2 tonne hoist, picnic area, showers and ice. A floating restaurant and banquet facility called the *Dalhousie River Boat* was planned for 1995.

63 **Historical note**. — The story of Port Dalhousie is tied closely to that of the Welland Canal, which is an engineering marvel that allows ships on their way to Lake Erie to climb the Niagara Escarpment and by-pass Niagara Falls. In 1829 ships began using the newly opened Welland Canal; the community that grew up around the northern end of the canal became *Port Dalhousie*, named after the Earl of Dalhousie who was then Governor General of Upper Canada.

With continuing improvement work on the canal and ever increasing ship traffic, Port Dalhousie grew over the years and flourished as a busy seaport community. In 1932, however, the new Welland Canal outlet at Port Weller came into use, and with the loss of its shipping trade the character of Port Dalhousie changed. Formerly busy buildings fell into disuse and lay empty.

Today Port Dalhousie is prospering again as a resort community, though somewhat more sedate than in its earlier seaport days. Visiting boaters and tourists are increasingly catered to; former warehouses now enjoy life as interesting restaurants, and there are several craft shops and specialty boutiques.

67 **Points of interest**. — The rest of the city of St. Catharines, population 129,300 in 1991, lies SE of Port Dalhousie harbour.

68 The *Welland Canal Viewing Centre* at Lock 3 lets visitors see the modern canal locks in use and offers a *Tourist Information Centre* and gift shop.

69 The *Welland Canal Parkway* (new in 1995) is a major recreational development on the Welland Canal and includes a bicycle trail along the length of the canal.

The *Old Welland Canals*, of which there were three, passed through St. Catharines from Port Dalhousie. Parts of these earlier canals and their lock systems have been restored and can be viewed from the *Merritt Trail*, which is a bicycle and walking trail along the route of the old canals.

71 *Morningstar Mill*, built in 1872 and now housing the *Mountain Mills Museum*, shows the workings of an early flour and grist mill.

72 *St. Catharines Historical Museum* features exhibits telling the story of the Welland Canals and early pioneer industries.

73 *Rodman Hall Art Gallery* is housed in the 30-room mansion home of the Merritt family. Exhibits here feature displays of work by local artists.

74 The antique hand-carved *Lakeside Carousel*, at Port Dalhousie Beach, was donated to the city on condition that rides would never cost more than a nickel. The city remains true to its bargain; rides on this carousel still cost 5 cents.

## 5-7

## Port Dalhousie to Port Weller

Chart 2077

75 There is an **anchorage area** off Port Dalhousie for vessels waiting to enter the Welland Canal. Depths are 12 to 35 m (39 to 115 ft) with a mud bottom.

The coastline between Port Dalhousie and Port Weller consists of wooded clay buffs 12 m (39 ft) high. The most conspicuous feature along this stretch of coastline is the pair of massive parallel **breakwaters** of the Welland Canal entrance. These breakwaters extend 1.2 miles offshore at Port Weller, 2.5 miles NE of Port Dalhousie.

The **wrecks** of two grounded barges and other craft lie up to 0.1 mile from shore 0.4 mile east of Port Dalhousie harbour. The outer wreck is marked by a **buoy**. In 1994 one wreck was visible above water; part of the wreck had an elevation of 1.8 m (6 ft).

## **Port Weller**

#### Chart 2042

79 **Port Weller Harbour** (43°14′N, 79°13′W), 23 miles SSE of Toronto Harbour and 7 miles west of Niagara River, is an artificial harbour forming the Lake Ontario entrance to the Welland Canal. Port Weller Harbour and the adjoining urban communities of **Weller Park** and **Port Weller East** are part of the city of St. Catharines.

80 Port Weller is a commercial harbour administered by the *St. Lawrence Seaway Authority*.

The harbour is protected by two substantial breakwaters of earthwork and reinforced concrete cribwork, built 366 m (1,200 ft) apart, converging at the north end to form an entrance 122 m (400 ft) wide. Between the breakwaters, the channel, marked by buoys, has been dredged to a depth of 8.2 m (27 ft) over a width of 122 m (400 ft).



#### PORT WELLER HARBOUR (1994)

The harbour is entered between two concrete piers, 182 m (597 ft) long, including the pier heads. The centre line of the entrance bears due south, as does that of the harbour for a distance of 1.2 miles from the entrance. At this point the centre line deflects  $15^{\circ}$  to the east to align with Lock 1, which lies 0.4 mile farther south.

<sup>83</sup> There is a traffic control calling-in point for upbound vessels in the approaches to Port Weller Harbour (*see Chart 2077*). For details of the St. Lawrence Seaway traffic control system *see* the *Seaway Handbook*.

84 **Caution**. — **Anchorage is prohibited** in the approaches to Port Weller Harbour.

85 A **submerged power cable** crosses the entrance to Port Weller Harbour.

86 A Canadian Coast Guard Search and Rescue Lifeboat is based at Port Weller from mid-April to the beginning of December each year, though these dates are subject to change (see information on Search and Rescue in Sailing Directions booklet CEN 300 — General Information, Great Lakes).

87 Tugs, if required, are available from Port Weller Dry Docks.

<sup>88</sup> Wharf 1, on the east side of the head of the harbour, is 194 m (636 ft) long. Wharf 2, on the SW side of the head of the harbour, is 393 m (1,289 ft) long. Both wharves have an elevation of 2.6 m (9 ft) and are reported to have depths of 8.2 m (27 ft).

89 **Caution**. — The Welland Canal, entered at Port Weller, is a busy international thoroughfare for commercial ships. These vessels require a clear channel and have difficulty with emergency manoeuvres due to their large size. Operators of small craft are cautioned not to use the harbour at Port Weller unnecessarily, and not to obstruct passage for other vessels.

90 A tie-up **wharf** for small craft awaiting transit of the Welland Canal, on the east side of Port Weller Harbour at Mile 1.3, has a direct-line telephone for communicating with Lock Control. Other use of this wharf is not permitted.

91 (The Welland Canal is described in Sailing Directions booklet CEN 303 — Welland Canal and Lake Erie.)

92 Port Weller Outer light (551.06), on a white concrete building at the outer end of Port Weller west breakwater, is shown from a red skeleton tower 12.3 m (40 ft) high.

Port Weller **range lights** are in line bearing  $180^{\circ}$ . The front light (544.4), at the west side of the canal entrance, is shown at an elevation of 16.5 m (54 ft) from an orange and white mast. The rear light (544.5), a sector light, is shown at an elevation of 32 m (105 ft) from an orange and white skeleton tower. The yellow sector of the rear light indicates the pre-

ferred channel. The lights are maintained by the *St. Lawrence Seaway Authority*.

Port Weller East Breakwater light (542), on the outer end of the east breakwater, is shown at an elevation of 10.4 m (34 ft) from a white square mast 7.2 m (24 ft) high.

There is an orange **daymark** on a pole, 11 m (35 ft) high, near the inner end of the east breakwater.

96 A land reclamation project is in progress on the east side of the Port Weller Harbour east breakwater.

97 St. Catharines Outer light (544.6), on the east end of the arm of reclamation, is shown at an elevation of 7.8 m (26 ft) from a white circular tower, 3.6 m (12 ft) high, with a red upper part.

98 *St. Catharines Marina*, protected by breakwaters on the east side of the main eastern breakwater of Port Weller Harbour, had depths of 0.7 to 1.7 m (2 to 6 ft) in 1994 and offered dockage with power and water, pump out, ramp, engine repairs, 31.7 tonne hoist, boat hardware, picnic area, camping, pay phone, snack bar, laundromat, showers, ice, gasoline and diesel fuel, and monitored VHF Channel 68. *St. Catharines Marina* specialized in engine repairs. In 1994 a depth of 1.1 m (4 ft) was found in the approaches.

A mast on the roof of the *St. Catharines Marina* clubhouse is reported to be 24.4 m (80 ft) above ground level. It is reported to show a white strobe **light** at the top as well as red air obstruction **lights**. Also reported are eight strings of white lights mounted on guy wires supporting the mast.

100 St. Catharines breakwater light (544.7), on the outer end of the marina east breakwater, is shown at an elevation of 13 m (43 ft) from a white circular tower, 11 m (36 ft) high, with a red upper part.

## Port Weller to Niagara River

#### Charts 2043, 2077

101 The 7 miles of coastline between Port Weller and the mouth of Niagara River consists of wooded clay bluffs gradually reducing to a height of 10 feet (3 m) close west of Four Mile Point, 3 miles west of Niagara River. East of Four Mile Point the shore is low and swampy for 1.3 miles then higher again on each side of the Niagara River mouth.

102 **Four Mile Point** (43°16'N, 79°08'W) is a low gravelly point covered with tall trees. The terrain is swampy on the east side of the point.

**Caution**. — **Shoal** water near Four Mile Point extends up to 0.3 mile offshore. Boaters are cautioned to avoid this danger by keeping farther offshore.

104 The **wreck** charted 0.2 mile west of Four Mile Point is a concrete-filled barge with an elevation of 7 feet (2.1 m).

#### NIAGARA RIVER (1994)



105 A **submerged sewer outfall** extends 0.4 mile offshore 1 mile east of Four Mile Point.

## Lower Niagara River

#### Chart 2043

Niagara River (43°16'N, 79°04'W), 6.5 miles east of Port Weller Harbour, lies between the province of Ontario and the state of New York. The mouth of Niagara River, which flows from Lake Erie to Lake Ontario, is entered between **Mississauga Point** on the Canadian side, and **Fort Niagara** on a point of land in New York state. The International Boundary lies near the middle of this part of the river. The banks of the lower Niagara River are bold and steep-to except at the mouth on the west side and just inside the river on the east side. From its mouth to Niagara Falls the lower section of the river is 11 miles long; the first 7 miles is navigable.

107 The silt of Niagara River has formed **sandbanks** in a radius of 4 miles from its mouth. The main feature of this area is **Niagara Bar**, an area of shallow water extending 4 miles NE from Four Mile Point. Depths of 8 feet (2.4 m) lie up to 1.5 miles NE of Four Mile Point. The outer end of Niagara Bar is marked by *Niagara Bar Lighted Buoy 2* (U.S. 2490). [from U.S. Coast Pilot 6, Chapter 5, partial]

108 ... A bank with least depths of 5 feet [1.5 m] extends about 0.8 [0.7] mile off the E side of the entrance and is marked on its NW side by a lighted bell buoy. **Rumsey Shoal**, with depths of 17 feet [5.2 m], is an unmarked detached shoal about 1.5 [1.3] miles N of Fort Niagara.

109 ... Fort Niagara Light (43°15'42"N., 79°03'50"W.), 80 feet [24 m] above the water, is shown from a tower with a white and green diamond-shaped daymark on the E side of the river at the mouth.

110 *Niagara Coast Guard Station* is on the *E* side of the Niagara River entrance. In 1977, depths of 14 feet [4.3 m] were reported alongside the Coast Guard wharf.

111 **Caution**. — Because of the fineness of the sand, storms may shift the banks that have formed off the river entrance; depths and positions of shoals may change. 112 Commercial sand dredging operations take place intermittently close off and west of the mouth of the river; depths are subject to change.

113 The current at the mouth of Niagara River flows at 1 to 2 knots; it generally flows in a NW direction across Niagara Bar. With westerly winds the flow deflects eastward along the south shore at a maximum rate of 0.5 knot. During east winds, a clockwise gyre forms east of the river mouth while most of the flow heads directly across the lake in the general direction of Toronto.

5-9

**Caution**. — In northerly winds, **eddies** form close off the east entrance point. The current also causes **rips** in two locations north of Mississauga Point. The rips can be dangerous for small craft.

**Niagara** River **range lights** are in line bearing  $149\frac{1}{2}^{\circ}$ . The front light (549), on the SE corner of *Niagara-on-the-Lake Sailing Club (43°15'N, 79°04'W)*, is shown from a white tower, 34 feet (10.4 m) high, with a red upper part. The rear light (550) is shown from a white tower, 45 feet (13.7 m) high, with a red upper part. The lights are visible only on the line of the range. The towers are pyramid-shaped wooden structures.

117 The Niagara River range leads over Niagara Bar in a least depth of 13 feet (4 m). This range also leads across depths of 16 feet (4.9 m) near *Fort Niagara Lighted Bell Buoy 3 (U.S. 2495)*. The **current** may make it difficult to keep the leading lights in line when entering the river.

118 **Fort Mississauga**, with its earthworks and the blockhouse in the middle of the low ground inside the fort, is near the shore at Mississauga Point. The structures are visible from offshore.

119 **Niagara-on-the-Lake**, with a population of 12,945 (1991), is on the west side of the river mouth. The town is hidden by trees; only a few buildings can be seen from the lake. The town of Niagara-on-the-Lake has a general hospital and all the facilities of a vigorous resort town. This is also noted as being the home of the *Shaw Festival*.

120 Niagara-on-the-Lake is a **Customs** vessel reporting station for pleasure craft.

121 A water tower in the SW part of Niagara-on-the-Lake is prominent. Brock's Monument (43°10'N, 79°03'W), a tall circular column on high land 6 miles south of the river mouth, is visible on the skyline and can be seen from a considerable distance on Lake Ontario. Two observation towers near the monument are prominent.

122 The former customs **wharf**, 0.6 mile SE of Mississauga Point, extends 20 feet (6.1 m) into the river; the outer face, 52 feet (15.8 m) long, is parallel to shore. In 1994 this wharf was leased to jet boat charters. South of the former customs wharf is the yacht basin of *Niagara-onthe-Lake Sailing Club*.

123 Niagara-on-the-Lake Sailing Club had depths of 1 to 4 feet (0.3 to 1.2 m) in 1994 and offered dockage with power and water, pump out, hull repairs, 13.7 tonne hoist, boat hardware, picnic area, pay phone, laundromat, showers, ice, gasoline and diesel fuel.

124 **Caution**. — The current in the mouth of Niagara River tends to dampen the swell; during gales the surge is not felt at the wharves inside the entrance but strong winds may raise or lower the water level by as much as 2 feet (0.6 m) in the yacht basin.

125 On the west bank, 0.2 mile south of the yacht basin, are the earthworks and fortifications of **Fort George**. This handsome reconstruction of the fort built by the British between 1796 and 1799 occupies the high ground above the river and is surrounded by sweeping lawns.

**Historical note**. — In 1781 Colonel Guy Johnson and the chiefs of the Chippewa and Mississauga Indians signed a deed whereby the land on the west side of Niagara River was sold to the British Crown. This deed opened up the land for settlement by Loyalists fleeing from persecution in the newly formed United States, thus marking an important moment in the history of Canada. Settlers soon moved from the crowded communities on the east side of the river, and by August of 1782 the new settlement had a population of 84 people.

127 In the spring of 1792 John Graves Simcoe, the first Governor of the new province of Upper Canada, arrived from Britain and chose this as his capital. He named the community *Newark*. The first governing assembly convened here later that same year and established English common law and the jury trial as the basis of their legal system. The provincial parliament continued to meet here until 1797 when it was moved to York (Toronto) so as to be more central and less vulnerable to sudden attack.

The United States declared war on Great Britain in June 1812, and a local militia force was raised at Newark to help the small garrison of British soldiers defend the village. The first invasion was beaten off at the Battle of Queenston Heights in October 1812, but in May 1813 the invading forces captured Fort George and the village of Newark and remained there until forced to retreat in December 1813. Before leaving, however, they burned all the buildings and reduced the little village to ashes, leaving the hapless villagers destitute.

129 After the final defeat of the United States forces in 1814, the people of Newark rebuilt their village and enjoyed a period of prosperity as a seaport for goods being shipped inland to Lake Erie. During this period many fine homes were built, some of which can still be seen today. In 1829 most of the shipping trade moved away with the opening of the Welland Canal at Port Dalhousie, but in 1854 the town enjoyed the beginning of a new lease on life with the arrival of the railroad and the birth of a thriving tourist industry.

130 Today Niagara-on-the-Lake is a quiet but lively resort town happily hosting the annual visit of vacationers and boaters. The town carefully nurtures its historic heritage and has some of the finest tourist attractions in Ontario.

Points of interest. — The Shaw Festival, held at Niagara-on-the-Lake each summer since 1962, stages a variety of performances at the Court House Theatre and the Royal George Theatre as well as in its own Shaw Festival Theatre.
Niagara Historical Society Museum, established in 1907, is the oldest museum in Ontario. It is housed in the

old *Niagara High School*, built in the early nineteenth century. Displays cover the history of the area from earliest Indian and Pioneer times.

133 *Fort George* and *Fort Mississauga*, overlooking the river mouth, are early defensive installations built to guard against invasion.

134 Brock's Monument, 10 km south of Lake Ontario at Queenston, marks the site of the 1812 Battle of Queenston Heights and is also the burial place of Major General Brock and Lieutenant Colonel Macdonell, who both died in the battle.

[from U.S. Coast Pilot 6, Chapter 5, partial]

135 **Youngstown, NY**, is on the *E* side of the river about 1 [0.9] mile above the mouth.

136 A special anchorage is on the E side of the river at Youngstown. (See 33 CFR 110.1 and 110.85, chapter 2 [of U.S. Coast Pilot 6], for limits and regulations.)

137 Youngstown is a customs port of entry.

138 Quarantine, customs, immigration, and agricultural quarantine.—(See chapter 3 [of U.S. Coast Pilot 6], Vessel Arrival Inspections, and appendix [of U.S. Coast Pilot 6] for addresses.)

139 **Quarantine** is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1 [of U.S. Coast Pilot 6].)

140 Several marinas at Youngstown provide transient berthage, gasoline, diesel fuel, water, ice, electricity, sewage pump-out, marine supplies, a launching ramp, mobile lifts to 20 tons [18 tonnes], and hull and engine repairs. In 1977, depths of 6 to 14 feet [1.8 to 4.3 m] were reported alongside the berths.

141 *Lewiston, NY,* on the *E* side of the river about 7 [6.1] miles above the mouth, is the head of navigation on the lower Niagara River. In 2000, the town landing had a large 300-foot [91-m] dock with a reported depth of 8 feet [2.4 m] alongside. A launch area and transient slip area was also available at the landing.

142 *Smugglers Cove Boat Club* (formerly *St. Catharines Boat Club*), a private organization on the west shore 2 miles from the river entrance, had a depth of 26 feet (7.9 m) in 1994.

143 There is an **anchorage area** near the *Smugglers Cove Boat Club*. The NE and SE corners of the anchorage area are marked by privately maintained **light buoys**.

A **submerged pipeline** crosses Niagara River 4 miles south of its mouth. A **submerged water intake** on the east shore 300 feet (91 m) farther south extends 400 feet (122 m) into the river; there is a depth of 27 feet (8.2 m) over the crib at the outer end.

145 **Queenston**, an urban community forming part of Niagara-on-the-Lake, is on the west side of the river, 0.5 mile SW of Lewiston, N.Y.

146 The *D. G. Bawtinheimer* wharf at Queenston is 300 feet (91 m) long; it was in disrepair in 1994. *D.G. Bawtinheimer Limited* is a company engaged in dredging and selling sand and gravel.

147 There is a gravel launching **ramp** 0.1 mile north of the Bawtinheimer wharf; the approach road to this ramp is very steep. There is a *Niagara Parks* ramp 0.1 mile south of the Bawtinheimer wharf; a steep winding road, called *Queenston Boat Ramp*, leads to this ramp, which is concrete and 20 feet (6.1 m) wide. A **wharf** along the river here is a concrete structure 130 feet (39.6 m) long. Strong river **currents** and eddies make this ramp difficult to approach at times.

148 **Caution**. — The river is not navigable above Queenston because of a 4-mile section of **rapids**. Above the rapids, the river extends another 2 miles, passing west of the base of the American Falls to the Horseshoe Falls. In this reach of the river there are four bridges and three aerial cables. In 1994, jet boats took passengers from Niagara-onthe-Lake for tours as far upstream as Whirlpool rapids.

149 An arch **bridge** spans the river south of Queenston,0.6 mile above the limit of navigation.

South of the arch bridge are **rapids** and swift water for the full length of the gorge. **Whirlpool Rapids** are 2.5 miles above the bridge, in a bend of the gorge. Upstream, 1 mile south of Whirlpool Rapids, are the **bridges** which connect the two cities of Niagara Falls, Ontario, and Niagara Falls, N.Y.; 2.5 miles above these bridges are the Niagara Falls.

5-11

# Sail Plan

Adapted from Transport Canada Publication TP 511E.

Fill out a sail plan for every boating trip you take and file it with a responsible person. Upon arrival at your destination, be sure to close (or deactivate) the sail plan. Forgetting to do so can result in an unwarranted search for you.

Sail Pla								
Owner Info	rmation							
Name:								
		_ Emergency Contact Number:						
Boat Inforn	nation							
Boat Name:		Licence or						
		Registration Number:						
		_ Length:Type:						
Colour	Hull:	_ Deck:Cabin:						
Engine Type:_		_ Distinguishing Features:						
Communic								
Radio Channe MMSI (Maritim	els Monitored: ne Mobile Service Identity) N							
Radio Channe MMSI (Maritim Satellite or Ce	els Monitored: ne Mobile Service Identity) N							
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The responsible person should contact the nearest Joint Rescue Coordination Centre (JRCC) or Maritime Rescue Sub-Centre (MRSC) if the vessel becomes overdue.

Act smart and call early in case of emergency. The sooner you call, the sooner help will arrive.

## JRCC Victoria (British Columbia and Yukon) 1-800-567-5111

+1-250-413-8933 (Satellite, Local or out of area) # 727 (Cellular) +1-250-413-8932 (fax) jrccvictoria@sarnet.dnd.ca (Email)

## JRCC Trenton (Great Lakes and Arctic) 1-800-267-7270

+1-613-965-3870 (Satellite, Local or Out of Area) +1-613-965-7279 (fax) jrcctrenton@sarnet.dnd.ca (Email)

## MRSC Québec (Quebec Region) 1-800-463-4393

+1-418-648-3599 (Satellite, Local or out of area) +1-418-648-3614 (fax) <u>mrscqbc@dfo-mpo.gc.ca</u> (Email)

## JRCC Halifax (Maritimes Region) 1-800-565-1582

+1-902-427-8200 (Satellite, Local or out of area) +1-902-427-2114 (fax) jrcchalifax@sarnet.dnd.ca (Email)

MRSC St. John's (Newfoundland and Labrador Region) 1-800-563-2444 +1-709-772-5151 (Satellite, Local or out of area) +1-709-772-2224 (fax) mrscsj@sarnet.dnd.ca (Email)

## **MCTS Sail Plan Service**

Marine Communications and Traffic Services Centres provide a sail plan processing and alerting service. Mariners are encouraged to file Sail Plans with a responsible person. In circumstances where this is not possible, Sail Plans may be filed with any MCTS Centre by telephone or marine radio only. Should a vessel on a Sail Plan fail to arrive at its destination as expected, procedures will be initiated which may escalate to a full search and rescue effort. Participation in this program is voluntary. *See Canadian Radio Aids to Marine Navigation*.

## Distances in nautical miles: Lake Ontario

	Cape	Vincen	t, NY		_													
Oswego, NY	wego, NY 43 Oswe																	
Rochester, NY	77	51	Roche	Rochester, NY														
Kingston	21	48	48 78 Kingston					_										
Picton	39	57	85	32	Pictor	1												
Deseronto	44	62	77	38 11 Deseror			onto			_								
Belleville	58	76	63	63 52 25 <sup>-</sup>		15	Bellevi	lle			_							
Trenton	68	71	56	62	35	24	10	Trento	n									
Cobourg	88 79		50	88	69	58	43	36	Cobo	urg								
Oshawa	115	104	67	116	100	72*	62*	56*	29	Osha	wa							
Toronto	139	126	83	139	123	112*	97*	7* 90*		29	Toror	nto						
Hamilton	nilton 162 14		102	161	147	136*	122*	114*	82	57	26	Hami	lton			_		
Port Weller	140	123	77	138	127	116*	102*	93*	63	42	24 28		Port	Weller				
Lewiston, NY	139	121	77	139	128	116*	102*	94*	63	43	31	39 15 Lewis		ton, NY				
Niagara-on-the-Lake	134	116	72	134	123	111*	96*	89*	57	38	26	26 34 10		5	Niaga	ra-on-the-Lake		_
Olcott, NY	116	98	55	116	105	95*	80*	72*	44	32	33	48	24	24	19	Olcott	, NY	
Port Colborne	162	146	102	162	150	139*	125*	117*	87	63	48	50	23	39	34	48	Port Colbor	ne

\* Via Murray Canal.

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