

CAPE DORSET

A General

A.1 Location

Cape Dorset, located at 64°14' N and 76°32' W, is on Dorset Island, off the south-west coast of Baffin Island. It is approximately 400 air km west of Iqaluit and 1,891 air km north-east of Yellowknife.

A.2 Geology and Terrain

Most of the area consists of exposed bedrock. The soil consists of granular matter ranging from fine sand to gravel and rock fragments. The community occupies two minor coastal valleys. At each valley mouth extensive mud flats are found.

Permafrost is found at an average of 0.60 m - 0.75 m below the surface.

A.3 Vegetation

The area supports various species of tundra vegetation, with lichens being the most predominant.

A.4 Climate

Cape Dorset receives an average of 15.2 cm rainfall and 117.8 cm snowfall per year. Mean annual precipitation totals 26.7 cm.

July mean high and low temperatures are 7.2°C and 3.3°C. January mean high and low temperatures are -23.3°C and -28.9°C. Winds are generally west and annually average 18.5 km/h.

A.5 Community History and Economy

Cape Dorset was named by Captain Luke Foxe on September 24, 1631 for Edward Sackville, Earl of Dorset. In turn, Cape Dorset gave its name to the Inuit people who flourished in the area, circa 1000 A.D., now known simply as 'The Dorset'.

The Hudson Bay Company established a post in 1913. The Roman Catholic Church was open from 1938 until 1960. Between the late 1940's and early 1950's, the market for white fur collapsed. A gradual decline in the local standard of living of residents led to overcrowding. Epidemics to follow were slowed by the opening of the federal nursing station in the 1950's.

The Anglican Church was built in 1953 under the Inuit's own initiative. A second church was built in 1961. The West Baffin Co-op was established in 1959 and the RCMP established a post in 1965.

With its strong arts and crafts industry, Cape Dorset was named as the first community in the NWT to receive control over its own economic development, social services, housing and public works. Control was granted in May, 1994.

The market in arts and crafts began in 1953 when the Houston's, a southern couple versed in the arts world, arrived in Cape Dorset. They would find talented artists, encourage carving and handicraft production, and introduce print making. Since that time, carving and graphic art have been an economic mainstay. A number of residents are world-renowned artists. The arts community helps to support a thriving tourism industry.

Sealing is one of the community's major economic activities, although other marine mammals and game are hunted as well.

Cape Dorset gained Hamlet status on April 1, 1982. The Community's traditional name, "Kingnait", means 'mountains'.

A.6 General Demographic Information

The population of Cape Dorset, 961 (1991), is increasing at a rate of 2.18% per year. Projections estimate that the total population will reach 1,071 in 1996, 1,192 in 2001 and 1,331 in 2006. The population by ethnic distribution is 94% Inuit and 5% non-aboriginal. The population by age and sex distribution is as follows: 0-4 (17%), 5-14 (25%), 15-64 (55%), 65+ (3%); 52% male and 48% female.

A.7 Transportation and Access

The Hamlet of Cape Dorset and the GNWT jointly operate a 1219 m x 30 m certified Arctic 'C' gravel runway. Facilities and services include a passenger shelter, navigational aids, and weather/communications equipment. First Air flies to Cape Dorset via Iqaluit and Air Inuit flies there via Montreal. A privately licensed water aerodrome allows for float plane access between July 15 and November 15. Facilities for the aerodrome are limited to fuel supply and a passenger shelter.

Marine transportation is available from Eastern Arctic Sealift and Transport Canada (Montreal). Facilities include a beach landing, a small breakwater, and an offshore anchorage for bulk fuel.

There is no road access to Cape Dorset. The Hamlet has 18.8 km of gravel surface roads. Calcium chloride is applied annually to 5 km of road to act as a dust suppressant and surface stabilizing agent.

A.8 Housing

The number of occupied private dwellings increased 13.2% between 1986 and 1991. As of 1994, the Northwest Territories Housing

Corporation owned 214 housing units. The Housing Assistance Program, the Alternative Housing Program, and Government Lease-to-Own units have accounted for 29 new homes in the community.

A.9 Commercial Accommodation

The Kingait Inn accommodates seventeen people and Huit Huit Tours accommodates two.

B General Municipal Facilities and Services

B.1 Recreation and Culture

Cape Dorset has a large (2,375 m²) indoor arena/curling rink and large (436 m²) community hall, both built in 1988. Additional facilities include a school gymnasium, a playground, developed trails, a swimming pool a pool hall, and the community library. Various events are organized by a recreation committee.

B.2 Education

Pitseolak School teaches grades K-11. Fourteen teachers and five language specialists are employed. The Adult Education Centre has a resident adult educator on staff. The Arctic College Extension Program offers continuing education opportunities.

B.3 Health

Services include a seven-person medical staff. The health station (480 m²), built in 1983, contains three medical beds, two bassinets, and one crib.

B.4 Fire Protection

A 22-person volunteer fire brigade uses a 1981 International model S-1800 truck (4546 L capacity) to fight fires. A telephone and siren alarm system are in place for quickened response. The Community has a firehall (162 m²).

B.5 Other Services and Municipal Buildings

The RCMP detachment staffs three officers. Social services are under the jurisdiction of the Hamlet. The Roman Catholic Mission provides church services.

Mail delivery is twice per week. NorthwestTel local and long distance telephone service, CBC Radio and CBC Television are available through a link-up with the Anik satellite system. The Iqaluit NWTPC area-office provides 1350 kW of diesel-generated power to the Hamlet.

Other infrastructure funded by Municipal and Community Affairs programs includes staff housing, a Hamlet office (250 m²), a maintenance garage (421 m²), and three parking garages [three-bay,

(280 m²), two-bay (144 m²), and two-bay (133 m²)].

C Water and Sanitation

C.1 Water Supply and Treatment

The source for water is Tee Lake, located 1 km south-east of the community. In general, Cape Dorset's water supply is of good to excellent chemical quality for domestic use. The water is clear, very soft, poorly buffered, slightly acidic, low in dissolved solids and greatly undersaturated with respect to calcium carbonate.

Water is treated by an in-line chlorination system and provisions have been made for the future installation of fluoridation equipment.

Microbiological analysis of the raw water supply indicates the presence of corrosion-causing and corrosion-intensifying bacteria. However, once treated, further analysis shows batch chlorination as having successfully eliminated these microorganisms for the location sampled. Cape Dorset's water supply has also shown to be potentially corrosive when used in contact with metallic materials. However, chemical analysis of the raw and treated water samples showed those parameters tested as below the recommended maximum limits.

C.2 Water Storage and Distribution

The water supply system has been in operation since 1973. In 1991/92, new facilities were constructed in conjunction with a subdivision expansion. These included a new pumphouse/truckfill building at a location outside the limit of the new subdivision, a new water storage tank adjacent to the new pumphouse/truckfill, and new mechanical piping, electrical, and control features.

Intake facilities pump from the source at the south end of Tee Lake to a preheating system which is located near the lake at a high point above the community. From the heater house, water discharges from a 1300 L head tank, flowing 1000 m by gravity to the new truckfill. At the truckfill station, the water discharges into a 543,000 L storage tank. The insulated tank is adjacent to the pumphouse/truckfill building. Water is released to the water trucks via an overhead truckfill arm equipped with a metering device.

Water is distributed five days per week by three trucks, a 1987 model (5455 L), a 1988 model (5455 L) and a 1994 model (6819 L). Self-contained pumps pump water from the truck tank to the holding tanks in each building. Individual holding tanks vary from 900 L, to the largest tank 317,000 L, located at the school. Adequate garage and maintenance facilities are available.

C.3 Sewage Collection and Disposal

Sewage waste is collected by two 4546 L capacity sewage trucks and taken to a holding pond west of the Community. Service is as required. The trucks are capable of meeting the demand by working eight-hour shifts, five days per week. One-percent of the community has bagged sewage service, but this system is planned to be phased out. Bagged sewage is collected by the same 9.2 m³ capacity truck as is used for solid waste collection.

Both bagged and pumpout liquid sewage are treated at adjacent sites approximately 1 km from the centre of the Community, 400-450 m west of the most westerly houses. The municipal sewage lagoon is 2500 m² in area. Discharge from the west end of the pond follows a shallow drainage ditch to the sea. Bagged sewage is disposed of in a separate landfill (450 m²).

C.4 Solid Waste Collection and Disposal

Garbage is collected twice per week with the 9.2 m³ capacity garbage compactor.

Solid waste is taken to a management site (500 m²) 1 km west of the community. Bulky and metal waste is taken to a separate site (60,000 m²). Periodically, the wastes are burned, covered and compacted.

Bibliography

Department of Local Government, Hamlet of Cape Dorset. Cape Dorset Community Development Plan Data Base. 1985

Education, Culture and Employment, Government of the Northwest Territories "Official and Traditional Names for Northwest Territories Communities". November, 1995.

Health and Social Services, Government of the Northwest Territories "Health Services - Health Centres and Stations Report." January 19, 1994.

Municipal and Community Affairs, Government of the Northwest Territories "Community Works Programs and Sport and Rec Programs."

Municipal and Community Affairs, Government of the Northwest Territories "Fort Smith Region Community Inventory." May, 1995.

Municipal and Community Affairs, Government of the Northwest Territories, Sport and Recreation Division "Historical Facility Costs Report." Updated January 18, 1995.

Municipal and Community Affairs, Government of the Northwest Territories "North Slave Infrastructure Inventory." March, 1995.

Northwest Territories Bureau of Statistics "Census Population: Estimates by Ethnic Group." Statistics Quarterly(1995), Vol.17, No.1, p.4.

Northwest Territories Bureau of Statistics "Population by 5 Year Age Group and Sex." Census(1991), pp.1-7.

Northwest Territories Bureau of Statistics "Population and Occupied Private Dwellings, by Region and Community: Northwest Territories, June 1991 and June 1986." Census(1991), pp.2-3.

Northwest Territories Bureau of Statistics "Population Projections, by Region and Community: Northwest Territories, 1991 to 2006." January, 1993.

Northwest Territories Housing Corporation "Capital Asset Unit Inventory District/Community/Program Summary Report." April, 1994.

Northwest Territories Housing Corporation "Delivery of Homeownership Units: Homeownership Assistance Program, Lease to Purchase/Owner Build, Alternative Housing Program." March, 1995.

Nunavut Community Technical Profiles, July 1994.

Outcrop Ltd. NWT Data Book 1990-1991. May, 1990.

Reid Crowther and Partners Ltd. Proposal for Engineering Services - Cape Dorset Water Supply Improvements. November, 1990.

"Road Maintenance File" Reports.

UMA Engineering Ltd. Proposal for Water Supply Improvements - Cape Dorset. November, 1990.

Various, sources from earlier research: J. Burr, L. McMahon.

Vista Engineering. Environmental Costs and Liabilities of Municipal Facilities in the NWT. March, 1995.