# COMMUNITY PLAN AND ZONING BY-LAW

**BACKGROUND REPORT**

**HAMLET OF CHESTERFIELD INLET, NU**

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**APPENDIX ‘A’** Existing Land Use Survey  
**APPENDIX ‘B’** Potential Growth Areas
1.0 INTRODUCTION

1.1 Study Context

The Hamlet of Chesterfield Inlet, Nunavut has initiated a five-year review of its Land Use Plan, as mandated by the Territory under the provisions of Section 5 of the Nunavut Planning Act. The Hamlet of Chesterfield Inlet currently has a Land Use Plan that was approved by Resolution of Council in 2001. The Land Use Plan has been amended since its approval (2004). The Hamlet does not have a Zoning By-law. The Government of Nunavut, Department of Community and Government Services, retained the planning services of J.L. Richards & Associates Limited to undertake a new Community Plan and Zoning By-law for the Hamlet of Chesterfield Inlet, Nunavut.

The Nunavut Planning Act requires that Community Plans be prepared on the basis of surveys and studies of land use, population growth, the economic base of the Hamlet, the needs of the Hamlet relating to transportation, communication, public services and social services, and any other factors that are relevant to the preparation of the Plan.

According to the Nunavut Land Claims Agreement, the principles of Article 11 Part 2 of the Nunavut Land Claims Agreement shall be applied in the development of municipal plans. The development of municipal plans shall be the responsibility of the municipalities.

The Nunavut Land Claims Agreement lists the following principles to guide the development of planning policies, priorities and objectives:

(a) People are a functional part of a dynamic biophysical environment, and land use cannot be planned and managed without reference to the human community. Accordingly, social, cultural and economic endeavours of the human community must be central to land use planning and implementation.

(b) The primary purpose of land use planning in the Nunavut Settlement Area shall be to protect and promote the existing and future well-being of those persons ordinarily residing in communities of the Nunavut Settlement Area, taking into account the interests of all Canadians; special attention shall be devoted to protecting and promoting the existing and future well-being of Inuit and Inuit-Owned Lands.

(c) The planning process shall ensure land use plans reflect the priorities and values of the residents of the planning regions.

(d) The public planning process shall provide an opportunity for the active and informed participation and support of Inuit and other residents affected by the land use plans; such participation shall be promoted through various means, including ready access to all relevant materials, appropriate and realistic schedules, and recruitment and training of local residents to participate in comprehensive land use planning.
(e) Plans shall provide for the conservation, development and utilization of land.

(f) The Planning process shall be systematic and integrated with all other planning processes and operations, including the impact review process contained in the Agreement.

(g) An effective land use planning process requires the active participation of both Government and Inuit.

It is appropriate to create a new Community Plan and Zoning By-law at this time, in accordance with the Nunavut Planning Act and the Nunavut Land Claims Agreement, for the following reasons:

(a) The Nunavut Planning Act requires that Council of a Hamlet review a general plan at least every five years after its adoption.

(b) The Hamlet has a limited number of non-residential lots.

(c) The Plan will identify new subdivisions for future development, while taking into consideration the opportunities and constraints.

(d) The Plan will contribute to an Integrated Community Sustainable Plan that will enable the Hamlet to be eligible for Gas Tax Funding.

(e) The Hamlet requires legal planning tools to manage their land, which their current land use plan is not capable of providing.

1.2 Study Objectives

The objective of the new Community Plan is to assist Council in assessing land applications and development permits in accordance with the Planning Act and the Planning Principles of Article 11 Part 2 of the Nunavut Lands Claim Agreement. The Zoning By-law will provide up-to-date planning tools and direct growth within the community. Public input is crucial to ensure that the Community Plan reflects the aspirations of community residents with respect to future development of their community. The updated Community Plan shall:

(a) incorporate and have due regard for the underlying principles relating to the preparation, contents and enactment of general plans and Zoning By-laws, as detailed in the Nunavut Planning Act;

(b) be based on updated surveys of the existing economics and demographics of the community, together with projections for future trends, and any other factors relevant to the preparation of a Community Plan;

(c) be sufficiently detailed to provide clear policy guidance to Council to direct the use and development of various land uses over the next twenty years;

(d) document and incorporate all changes in the physical development of the community that have occurred since the 2001 Community Plan was approved;
(e) identify all existing and future land use designation in a general manner, and specifically identify sites for major public buildings and facilities that are planned or may reasonably be expected to be constructed within the next ten years;

(f) identify and create new subdivisions that will provide sufficient parcels of land where future housing units will be built, in a bid to alleviate the acute housing shortage.

2.0 COMMUNITY INFORMATION

2.1 Location

Chesterfield Inlet, or Igluligaarjuk, is located on the western shore of Hudson Bay, Kivalliq Region, in Nunavut Canada at the mouth of Chesterfield Inlet. Located at 63° 20' N and 90° 42' W, it is 1,096 km west of Iqaluit and 1,200 km northeast of Yellowknife. Igluligaarjuk is the Inuktitut word for "place with few houses." It is the oldest community in Nunavut.

2.2 Geology and Terrain

Chesterfield Inlet is a narrow, fiord-like arm of the northwest coast of Hudson Bay that stretches 160 km inland to the Thelon River. It marks a physiographic divide along the Bay, separating a narrow, rocky coastal plain backing onto a plain and hilly area to the north, from an enormous area of low relief, with poorly developed drainage farther south.

2.3 Vegetation

The area is characterized by a discontinuous cover of tundra vegetation, consisting of dwarf birch, willow, northern Labrador tea, Dryas spp., and Vaccinium spp. Taller dwarf birch, willow and alder occur on warm sites; wet sites are dominated by willow and sedge. Lichen-covered rock outcroppings are prominent throughout the ecoregion, and towards the south the vegetation becomes a mix of tundra vegetation and open, dwarf coniferous forest.

2.4 Climate

Chesterfield Inlet’s climate is noteworthy for its windiness, since the inlet is aligned with prevailing winds from the northwest, which are remarkably strong in winter (mean velocity 8.7 m/s, reaching 36 m/s) and constant, blowing on average 20% of the time. The mean annual temperature is approximately -11°C, with a summer mean of 4.5°C and a winter mean of -26.5°C. The mean annual precipitation ranges between 200-300 mm.

Recent studies and reports have been prepared addressing the impacts of climate change and land use planning and development. Climate change has resulted in a reduction in the extent, duration and thickness of sea ice, which, amongst other things, affect the Inuit way of life (hunting and fishing). These changes in weather patterns have resulted in increasingly variable weather conditions; stronger winds have been reported to change the patterns of snow accumulation.
Changes in snow accumulation/snow loading on houses and roads have led to concerns for safety and access. Climate change has also been demonstrated to have an impact on the permafrost and has led to terrain instability. In certain areas, changes in the freeze/thaw cycle have been known to cause building foundations to sink and/or jacking.

### 2.5 Community History

Historically, Chesterfield Inlet began as a meeting place for Inuit seal hunters to carry out an annual hunt in the late spring and early summer. The area was first explored 1761-62 by Captain Christopher, an officer in the Hudson’s Bay Company. Europeans became interested in the area after the explorations of William Moor and Francis Smith in 1746-47. As a result of this voyage, Arthur Dobbs thought that the inlet was a possible location of the Northwest Passage. This hope was forgotten when the area was fully mapped in 1762. In this same year, a Hudson Bay Company sloop reached Baker Lake at the head of the inlet, but the company did not establish a post there until 1912. Before this date, trade with the local Inuit people was carried on by sloops and schooners coming along the coast.

After 1912, Chesterfield Inlet became an important religious, medical and educational centre for the region. The community's population grew when several groups of Netsilik Inuit migrated there from Foxe Basin, joining the Qairnilirmiut group who were the area's traditional inhabitants.

The economy of the Hamlet remains traditional and includes hunting, trapping and carving. Some commercial fishing and limited tourism are also carried out.
3.0 POPULATION GROWTH

3.1 Methodology

The determination of land requirements to accommodate growth must be justified on the basis of population and growth projections, including employment targets and residential and non-residential projections. The analysis needs to also consider growth through intensification and redevelopment opportunities, as well as infrastructure and public service facilities available for the Hamlet over the 20-year planning period.

The policies of the Municipal Plan will place a strong emphasis on growth management, phasing policies that ensure the orderly progression of development within designated growth areas, and the need to fully consider growth opportunities within currently designated areas.

It is a goal of this Plan to:

a) maintain at all times the ability to accommodate residential growth for a minimum of 10 years through residential intensification and redevelopment and, if necessary, lands that are designated and available for residential development; and

b) maintain at all times where development is to occur, land with servicing capacity sufficient to provide at least a three-year supply of residential units available through lands suitably zoned to facilitate residential intensification and redevelopment, and land in draft approved and registered plans.

The foundation of this Land Needs Analysis is the population, housing, employment and non-residential construction projections for the twenty-year planning period; projections have been made to the year 2029.

These forecasts were prepared using the best information and data available at the time of preparation and are only an informed estimation of the future. Such an estimation involves an understanding of past trends, growth patterns, established demographic and market constraints, and a knowledge of changes that are taking place, or likely to take place in the future. They are not, however, accurate predictions of the future.

3.2 Population History

The Inuit name for Chesterfield Inlet is *Igluligaarjuk* – “place with few houses.” For thousands of years, the Thule ancestors of modern Inuit lived around Chesterfield Inlet. Over time, they established large settlements of sod houses, one of which still stands just outside Chesterfield Inlet today.

From the mid 1800s to the beginning of this century, whalers visited the area regularly and often overwintered here. They counted on local Inuit to hunt for them and to man their whale boats.

During the first four decades of its existence, Chesterfield Inlet grew to be the major centre north of Churchill, serving as a trans shipment point for other Hudson's Bay Company posts that opened in the area, as a main barracks for the RCMP, as the largest Roman Catholic Mission in the area, and as a medical and educational centre.
With the opening of a nickel mine in Rankin Inlet in the mid 1950s, many people left the Hamlet for wage employment at this new mine, but when the mine closed in the early 1960s, some people returned to Chesterfield Inlet.

Today, the Hamlet of Chesterfield Inlet is a predominantly Inuit speaking Hamlet where approximately 93% (2006 Census of Population - Statistics Canada), of the population is Inuit. Only seven (7%) percent of the population claim English as their mother tongue.

3.3 Population Forecast

The starting point for the projection of housing needs and employment and the related land requirements is to obtain a population projection over the 20-year planning horizon. Predicted population values until the year 2020 were provided by the Nunavut Bureau of Statistics, March 2000. Population values beyond 2020 were also predicted using the growth rate approach. Under the growth rate approach, the Hamlet projects its future population based on its current population in accordance with historic growth rates. This method is appropriate for smaller, northern areas that are far removed from other municipalities.

According to community population projections provided by the Nunavut Bureau of Statistics, dated March 2000, the population was projected to increase from 372 in the year 2000 to 583 in the year 2020. This population increase represents approximately 11 persons per year (1.8% per year) between the period 2000 to 2020.

Community population estimates were prepared by the Nunavut Bureau of Statistics, May 30, 2008 using Statistics Canada data for the period 1991-2007. The population for Chesterfield Inlet was estimated to be 325 in 1991 and rising to 370 in the year 2007. According to the Hamlet’s population estimates over the past 15 years (1991-2006), the average growth rate was approximately three persons per year (1% per year).

The Hamlet’s population was projected through to the year 2029 using the Nunavut Bureau of Statistics estimated growth percentages as well as the Hamlet’s historical growth rate. The population is predicted to increase to 596 persons using GN predictions and projected through to 2029 using the same growth rate. Based on historical trends (1981-2006) with an average growth rate of three persons per year, the population was predicted to be 436 by the year 2029.

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Historical Trends of Population Projections (3 persons/year)</th>
<th>GN Bureau of Statistics Population Projections (11 persons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 (1)</td>
<td>376</td>
<td>376</td>
</tr>
<tr>
<td>2014</td>
<td>391</td>
<td>431</td>
</tr>
<tr>
<td>2019</td>
<td>406</td>
<td>486</td>
</tr>
<tr>
<td>2024</td>
<td>421</td>
<td>541</td>
</tr>
<tr>
<td>2029</td>
<td>436</td>
<td>596</td>
</tr>
</tbody>
</table>

(1) Estimated based on 2006 Census data
Another factor relevant to growth projections in Chesterfield Inlet is that the median age of the Inuit population is 24 and the largest age group is the 10 to 14 years of age, followed closely by newborns 0 to 4 years. This is 15.5 years below the median age of 39.5, the non-aboriginal population in Canada (Source: Statistics Canada 2006 Census Data).

3.4 Housing Requirements

According to the “Nunavut Housing Requirements, Needs and Demand to 2016” report, prepared for the Government of Nunavut and Nunavut Tunngavik Inc., dated March, 2005, there are three major demographic trends that determine housing requirements in Nunavut:

- Quite a number of young people across the territory are turning 15-24. They will want to form their own households if local circumstances permit. Otherwise, they will be tempted to move away in search of better opportunities.

- There are growing numbers of elderly households in Nunavut. In many cases, all the children have left home or one spouse has passed away or gone into a care facility. A proxy for such newly formed households is the additional numbers of those turning 65 and older. Based on Statistics Canada data, this age group is likely to increase in importance in the future.

- Households headed by those aged 25-65 are going to continue to increase because of in-migration of already-formed facilities from outside Nunavut, new marriages, marital breakdowns, and other factors.

The Nunavut Ten-Year Inuit Housing Action Plan has concluded that “3000 Public Housing units are needed immediately to bring overcrowding in Nunavut on a par with the rest of Canada.”

In Chesterfield Inlet, there is approximately 11% of the population with more than one person per room, in comparison to 18% for Nunavut. According to the Action Plan, Chesterfield Inlet ranks 22nd in terms of percentage of overcrowding conditions of Nunavut Communities.

In 2009, the estimated population based on Census data for Chesterfield Inlet was 376 and there were 102 private dwellings occupied by usual residents, according to the Hamlet (July 2009). This represents an average household size of 3.7 persons per household. In comparison, the average household size for Nunavut was estimated at 3.75 persons per household. Notwithstanding, there is still a need for dwelling units to meet the current overcrowding situation. For the purpose of estimating housing growth needed to support the projected population growth, the 2009 projected household size of 3.7 persons will be applied; however, if household size continues to decrease, housing demand will be higher than noted here. The housing needs projections in Table 2 are made based on the population projections.

Overcrowding aside, an additional 16 units would be required over the planning horizon, based on the average growth rate approach, and some 59 units based on GN growth projections. This represents a need of one to three units per year.
Table 2: Housing Projections

<table>
<thead>
<tr>
<th>Projected Population by 2029</th>
<th>Total Units Needed by 2029 (1)</th>
<th>Current Supply of Units*</th>
<th>Additional Units Needed by 2029 (Total −Current)</th>
<th>Average Units/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>436 (Historical Trend Population Projection)</td>
<td>118</td>
<td>102</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>596 (GN Bureau of Statistics Population Projections)</td>
<td>161</td>
<td>102</td>
<td>59</td>
<td>3</td>
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</tbody>
</table>

* as of July 2009 provided by the Hamlet of Chesterfield Inlet

(1) Based on 2009 average household size of 3.7 for Chesterfield Inlet

It should be noted that the Nunavut Housing Corporation (NHC) is not building single detached homes anymore, mostly duplex, triplexes and, in some cases, six-plex units. The funding is very limited for the more costly single-detached homes. The NHC is the primary builder in the Hamlet; however, there is also the newly established Chesterfield Inlet Development Corporation.

According to the Nunavut Ten-Year Inuit Housing Action Plan, a sustained ten-year plan would be to build 500-700 units a year across Nunavut to be in line with the Canadian average household size of 2.54. Taking overcrowding into account, in order for Chesterfield Inlet to be in line with the Canadian average, its share of the sustained ten-year plan would represent between 6-9 units a year for the next ten years.

Table 3: Ten Year Action Plan - Overcrowding

<table>
<thead>
<tr>
<th>Projected Population By 2019</th>
<th>Canadian Average of 2.54</th>
<th>Current Supply of Units*</th>
<th>Add to 2019 Ten-Year Action Pa</th>
<th>Average Units/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>406</td>
<td>160</td>
<td>102</td>
<td>58</td>
<td>6</td>
</tr>
<tr>
<td>486</td>
<td>191</td>
<td>102</td>
<td>89</td>
<td>9</td>
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</table>

* as of July 2009 provided by the Hamlet of Chesterfield Inlet

When an overall look at the housing stock in Chesterfield Inlet was conducted, the results indicated that approximately 45% (46 units) (Source: Statistics Canada 2006 Census Data) of the existing units required major repairs.

Examples of existing units requiring major repairs

Considering the GN Bureau of Statistics had greatly over estimated the population projections for this Hamlet, we recommend using the growth rate approach to determine housing needs. Demand should also take into account the current overcrowding...
situation and the state of current housing units. To this end, the target number of housing units in the community should be 176 dwelling units by 2029, with more weight given to the first 10 years to meet the ten-Year Inuit Housing Action Plan for overcrowding. Therefore, sufficient land should be identified and reserved for an estimated 62 additional housing units to meet the needs of the 20-year planning horizon.

4.0 EXISTING CONDITIONS, ISSUES AND NEEDS ASSESSMENT

4.1 Existing Land Uses

The map in Appendix ‘A’ indicates the existing land use in the community for all surveyed lots. A number of observations are made:

• Commercial uses are focused on the north side of the Hamlet with the Co-op Hotel, the Co-op Store, the Northern Store and the daycare. Other commercial uses include the Chesterfield Inlet Development Corporation office and warehouses.

• Community uses are anchored by the Hamlet Office, the Nursing Station and the Old Hospital, which face each other across the Hamlet’s main intersection on the North side. This intersection is an opportunity to create a Hamlet square, anchored by a feature/sculpture. A number of other community uses are located throughout and include the arena, school, church properties, assisted housing, RCMP buildings, and Community Freezer all within close proximity.
Two industrial uses have been identified and are located on opposite ends of the Hamlet. An industrial subdivision needs to be identified. There are a number of industrial uses in the developed Hamlet that should be relocated over time to an industrial subdivision. These uses include the Hamlet garages, the Co-op and church warehouses and the Fish Plant. Proposed locations for these uses are identified on the Draft Community Plan and Zoning By-law.

There are two primary residential areas – the newer south part of the Hamlet (“New Town”) around the School and the Arena, and the north part of the Hamlet between the Old Hospital, the Hamlet Garages and the Hamlet Offices.
• There are 14 vacant lots designated for residential development located in the newly built subdivision south of the water reservoir. The lots have a 25 m frontage and a 30 m depth.

• There are approximately 23 vacant lots scattered around the existing built up area that are not developed:
  o six lots are encumbered by roads
  o two are too small or have difficult terrain, making development difficult
  o three small lots that are undeveloped and designated for residential development could be redeveloped with detached housing; however, the lots are too small for duplexes or multiplexes. The NHC is mostly building duplexes and multiplexes and, therefore, larger lots are needed.

4.2 Community Facilities and Services

4.2.1 Community Hall & Recreation

The Community Hall (in the Hamlet Office) is too small for the community. It can only accommodate 150 people. The community has identified a need for a community hall and there may be an opportunity to combine a new community hall with a swimming pool facility. The GN Department of Community and Government Services has standards and criteria for community halls. Communities with a population between 400 to 799 are eligible for a medium-size community hall.

There are three playgrounds in the Hamlet (near the Hamlet Garages, at the Victor Sammurtok School and at the Daycare), and a basketball court beside the Hamlet Office and ball field on the west side of the Hamlet near the Tank Farm.

The need for a Youth Drop-in Centre was identified in the Community Development Plan. Potential locations for a new Community Home/Youth Drop-In Centre/Daycare should be identified through the Community Plan.

4.2.2 Health

The existing Health Centre was built in 2005. No immediate priorities have been identified by the GN Department of Health and Social Services. In 2004, Naja Isabelle Home was completed by the Government of Nunavut to replace the Ste. Theresa Home, which operated since the 1940s.
4.2.3 Educational

Victor Sammurtok School is a relatively new school building offering grades K-12. The school has a gymnasium located on site, as well as home economics and shop rooms available for cultural lessons.

An Arctic College campus is also located in the community.

4.2.4 Other Community Facilities and Services

The RCMP detachment staffs two officers. The Post Office is located at the Northern Store. Northwestel provides local and long distance telephone service. The community has a local radio station, which has music programmed for much of the day. The local line is opened up in the morning and over the lunch hour, when notices and announcements can be called in or read over the air.

The Hamlet office was built in 1980 and appears to be an adequate size, there are however, issues with water quality due to the pipe reservoir conditions. The Hamlet Fire Hall is relatively new and a volunteer fire brigade uses a pumper fire truck to fight fires.

The Hamlet operates two three-bay parking areas in the existing community. It has been proposed that these industrial uses could perhaps be relocated to an industrial subdivision to make space for residential redevelopment.

4.3 Economic Growth

This section presents economic growth for the Hamlet of Chesterfield Inlet through to 2029 and for identifying related land requirements.

The following policies are particularly relevant:

- providing for an appropriate mix and range of employment (including industrial, commercial, and institutional) uses to meet long-term needs;
- providing for opportunities for a diversified economic base, including maintaining a range and choice of suitable sites for employment uses that support a wide range of economic activities and ancillary uses, and take into account the needs of existing and future businesses;
• planning for, protecting and preserving employment areas for current and future uses; and

• ensuring the necessary infrastructure is provided to support current and projected needs.

According to the Nunavut Economic Development Strategy, there are three main sectors that offer excellent opportunities for economic growth: minerals, fishing, and tourism. All three offer possibilities to build community assets in the form of training, jobs, and business opportunities. Another significant sector will be the small and Inuit business sector, such as work from its artisans.

The Community Plan will need to identify areas for future employment uses, including industrial, commercial, and institutional. Telecommunications and broadband infrastructure are essential to building the knowledge base in Nunavut communities. This infrastructure is available in Chesterfield Inlet.

4.4 Transportation Infrastructure

Transportation is vital to the health and well-being of residents, as well as to future economic growth. Air and marine transportation systems are used to move goods and people between communities and over longer distances. Within communities, snowmobiles and all-terrain vehicles are the most popular means of transport, although cars and trucks are becoming more numerous. Community supplies normally come from Churchill by barge or from Montreal by ship in the summer months. People normally travel by air between communities and outside the region.

4.4.1 Roads

There is no direct road access to Chesterfield Inlet, however, the Hamlet is lobbying for a road to connect with Rankin Inlet. The Hamlet is in the process of building a road to the Josephine Lake Mine, which is a combined effort between the Mine owner, Rankin Inlet and Chesterfield Inlet. There are issues with the roads being built outside the surveyed areas. In order the make sufficient use of the surveyed lots within the existing community, this practice needs to be rectified and stopped.

4.4.2 Marine

Marine transportation is provided by barge. Facilities include a beach landing for shallow craft only. The community has a dock, a Sealift site, and a breakwater to assist with sealift and other marine activities.

Sealift/Community Dock
4.4.3 Air

The GN operates a 1,097 m certified gravel runway. Between 2007 and 2008 the Airport received approximately $3,000,000 in runway upgrades. The Airport Terminal Building is over 20 years old, with a Calm Air and Kivalliq Air office and a part time CARS station available for CALL OUTS. There are no plans for future expansion at this time. Scheduled flight service is available. An unlicensed water aerodrome (Mission Lake) provides floatplane access.

4.5 Hamlet Services and Infrastructure

In addition to housing and employment opportunities, water and sewage treatment systems and waste management, schools, childcare, and health facilities are also essential infrastructure to allow the community and its economy to grow.

Water is pumped to a storage pond. Improvements to the site’s facility to ensure safe, potable drinking water will need to be assessed as the community continues to grow.

The sewage system is considered to be a wetland sewage system. The solid waste facilities are located to the northwest of the community and appear to be functioning properly. The site consists of a solid waste landfill, and a bulk metal/hazardous waste storage area. The facility’s condition will need to be assessed and addressed as the community continues to grow. Burning occurs to control the waste disposal site, reducing potential for airborne debris, odours, quantity control, etc.

The bulky metal/hazardous waste storage area is located adjacent the landfill site. This area stores a variety of metal waste from old metal fuel drums to all-terrain vehicle / snowmobile parts. It is clear that the Hamlet does not have proper facilities for recycling and reuse of this material. A cleanup plan will need to be developed and implemented.

As part of the background research to undertake a new Community Plan and Zoning By-law for the Hamlet of Chesterfield Inlet, NU, the GN has commissioned a "snow study". A "snow study" is helpful in determining growth areas, staging of growth areas, orientation of streets, etc.

The scope of work included the following:

- Review of meteorological data for Chesterfield Inlet, NU.
- Guidance on street orientation to help reduce significant snow drift impacts.
- Guidelines on building mass and orientation with specific focus on upWind row of buildings in the subdivision.
- Recommendation for construction or development phase along the street.
- Location of entrances and building services.
- Identify approximate areas where the use of engineered devices (e.g. snowfences) can be considered as a means of reducing snow accumulation and sequencing the development, to use subdivision planning as a method of controlling snow accumulation.
The result of the study concluded that an additional snow fence be added just west of the hamlet near the water reserve and that one of the existing fences be extended to accommodate the new proposed residential subdivision west of Mission Lake and north of the existing built-up area.

4.6 Summary of Needs

4.6.1 Short-term Needs (0 to 2 years)
- New snow fence

4.6.2 Near-term Needs (4 to 9 years)
- New land for development
- New Community Centre
- Youth Drop-in Centre relocation
- Swimming pool
- New Daycare

4.6.3 Long-term Needs (10+ years)
- New land for development
- Water filtration plant
- New Fish Processing Plant

5.0 DEVELOPMENT CONSTRAINTS

The map on the following page indicates the existing opportunities and constraints for Development in Chesterfield Inlet. A summary of each of the constraints is listed below:

- **Airport zone** – A 4 km radius from the airport is identified as a development setback to protect airport operations from incompatible development. This includes the approach and takeoff zones for the runway. Any development in this zone would require the approval of Nunavut Airports and Hamlet Council.

- **Navigation Beacon site** – A 1 km radius from the Navigation Beacon site is identified as a development setback to protect the site from potential interference. Any development in this zone would require the approval of Nunavut Airports and Hamlet Council.

- **Physical features** – The community has many lakes, ponds and wet areas, which presents some challenges for development. Some of the waterbodies may be considered significant and will need to be protected from filling if they contain fish habitat.

- **Waste disposal site** – Existing and former waste disposal sites are identified. The former waste disposal site by the Tank Farm has been identified. The existing waste disposal site consists of the landfill site and the sewage wetlands treatment area. All existing and former waste disposal sites are subject to the 450 m Public Health Act...
(General Sanitation Regulations) development setback for residential development and any use involving food preparation or storage. The General Sanitation Regulations of the Public Health Act define “waste disposal ground” as “any place used for the disposal of garbage, refuse, excreta or other waste material.” The 450 m setbacks from these sites are identified on the map. Development within 450 m of these sites can only occur once the sites have been fully remediated and given clearance by the appropriate authorities.

- **Watercourse/Waterbody setbacks** – A development setback of 30 m is generally applied to all waterbodies, unless it is demonstrated that the waterbody is sufficiently shallow (typically less than 2 m) that it would not permit fish habitat. Many of the waterbodies in the community are less than two metres in depth. However, some waterbodies may be retained for aesthetic or drainage reasons.

- **Sewage treatment** – The community uses a natural wetlands method for treatment of sewage. The 450 m development setback is also applied to this plume.

### 6.0 PUBLIC CONSULTATION PROCESS

The Public consultation components to this project are key to ensuring that the vision and spirit of the community are represented in the overall growth plan for the Hamlet. The consultation process for this Community Plan and Zoning By-law was designed to draw upon existing local knowledge and to explore the needs and concerns of the varied stakeholders. Open and participatory consultation allows residents to dictate how their community will grow. Consultation also brings people into a process of shared learning where diverse and sometimes opposing views come into focus.

In this project, the following consultations were used:

- one-on-one interviews
- small group meetings
- workshops
- walking tours
- open house
- public meeting

### 6.1 Key Stakeholders

The following stakeholders have been identified:

- Hamlet Council
- Hamlet Staff
- Elders
- Hunters and Trappers Association
- Chesterfield Inlet Development Corporation
- Nunavut Housing Corporation
- District Education Authority
- Hamlet Residents
- Nunavut Airports
6.2 Consultation Results

6.2.1 First Community Visit (July 20 – July 22, 2009)

a) Hamlet tour with Hamlet Foreman

b) Meeting with Hamlet Council

Only attendees were Mayor and one Councillor

c) Meeting with Members of Hamlet Council and Community Open House

Notice of Public meeting was posted at the Northern Store, Co-op Store, and Hamlet Office. Radio announcements were also made prior to and on the day of the meeting. Token gifts were advertised in an effort to attract a larger crowd.

Attendees

Mayor
Two Councillors
Lands Administrator
Economic Development Officer
Elders
Members of the Community

- Introduction by JLR and background information about the project and process.
- Presentation of work plan and key team members

Discussion on future Growth Areas

- Potential Growth Areas presented (see attached Appendix B).
- Potential Growth Area 1 was ruled out due to the proximity to the Flight Path.
- Potential Growth Area 2 was ruled out due to proximity to the water reserve; there is a potential for 1 row of lots backing onto existing lots.
- Potential Growth Areas 4 and 5 were ruled out due to the fact that they are low lying and drainage would be an issue.
- Potential Growth Area 6 has room for 4-5 lots.
- Potential Growth Area 3 is the preferred location for the long term growth of the Hamlet.
- There are some opportunities within the existing Hamlet to free up some lots for commercial and residential development. The Hamlet garages could be moved to an industrial park and some of the decommissioned housing could be torn down and new ones erected in their place.
d) Next Steps

- Lands needs assessment and background report
- Draft options for Potential Growth Area 3
- Cursory review of possible snow fence location
- September: Open House and Public Meeting to present Background Report (first reading) and development options for discussion
- January: Formal Public Meeting for second reading.

7.0 CONCLUSION

Based on the analysis set out in this Report, there are:

- sufficient lands either through intensification, or redevelopment and designated growth areas to accommodate 0-3 years of residential growth;

- sufficient lands with servicing capacity (where development is to occur) to provide at least a three-year supply of residential units available through lands suitably zoned to facilitate residential intensification and redevelopment, and land in sketch or surveyed lots;

- insufficient areas to accommodate residential growth for a minimum of 10 years (2018) through residential intensification, and redevelopment and lands designated for residential use;

- insufficient designated areas for a range and mix of employment opportunities (commercial, industrial) and residential uses over the planning horizon (2009-2029).

The Community needs to identify future building lots. The Community is somewhat split by the airport and is built along Chesterfield Inlet (east to west) low lying wetlands, the water reservoir, wetland sewage, waste disposal site cut off expansion to the southwest. The logical growth area, and further confirmed by Hamlet residents, is towards the north on the west side of Mission Lake.

Furthermore, there are several opportunities for residential intensification and redevelopment within the built-up area, which should be prioritized to reduce the costs associated with expansion.

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Hamlet of Chesterfield Inlet, NU

Community Plan and Zoning By-law
Background Report

JLR 23748  J.L. Richards & Associates Limited
September 2009

Appendix ‘A’

Existing Land Use Survey

RESIDENTIAL
COMMERCIAL
OPEN SPACE
COMMUNITY USE
INDUSTRIAL
VACANT
AIRPORT
Potential Growth Areas

Appendix 'B'