

Groton

Comprehensive Plan

2007-2027

ACKNOWLEDGMENTS

This Comprehensive Plan is a compilation of effort by many governmental officials such as the Groton City Commission, Planning Commission, Aberdeen Planning Director, Brett Bill, and South Dakota State University graduate, David P. Olson. This document represents the strong community pride that exists in the City of Groton.

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I. INTRODUCTION

A. PURPOSE OF THE COMPREHENSIVE PLAN

There are five primary purposes of this comprehensive plan:

- (1) To provide a logical basis for the City of Groton and to provide a sound strategy in growth management.
- (2) To give the City of Groton some predictability for future land uses and development, so they can make informed decisions on real estate, industrial, and commercial businesses.
- (3) To provide the Planning Commission and City Council with a broad vision for future planning decisions to control land use through the zoning ordinance and other enforcement controls.
- (4) To identify strengths, weaknesses, and needs for the City of Groton.
- (5) Encourage annexation of adjacent land to municipality before development occurs.

B. STRENGTHS, WEAKNESSES, AND NEEDS OF GROTON

Strengths

- Productive farmland around Groton contributing to the economy
- An excellent area school, which is a focal point of the community
- Location close to a larger community which allows the opportunity for better jobs
- The small size of Groton, is a major factor in Groton's appeal
- Low crime rate
- Groton has competitive utilities, such as electric, gas, internet, water, and telephone
- Community leaders
- Businesses provide essential needs for citizens

- Located on the intersection of two major highways on a high traffic corridor and rail line

Weaknesses

- Lack of jobs available which forces residents to work in other communities
- Residents have limited shopping opportunities, because of availability of products
- Lack of universal curb and gutter inhibits street maintenance and drainage

Needs

- Planning process to develop a community vision for the future
- Continued emphasis on educational growth
- Commercial and Industrial growth within Groton
- New wastewater facility to keep up with Groton's future needs
- Establish a comprehensive plan to complete curb and gutter

II. DEMOGRAPHIC CONDITIONS

A. GENERAL DEMOGRAPHY

Table 1. Population History (Source: State Data Center)

<u>YEAR</u>	<u>POPULATION</u>	<u>% INCREASE</u>
1890	684	NA
1900	700	2.33 %
1910	1,108	58.2 %
1920	1,273	14.8 %
1930	1,009	-20.7 %
1940	946	- 6.24 %
1950	1,084	14.59 %
1960	1,063	-1.93 %
1970	1,021	-3.95 %
1980	1,230	20.47 %
1990	1,196	-2.76 %
2000	1,356	13.37 %
2005	1,365	0.66 %

Table 2. Current Demographic Statistics (Source: State Data Center)

	Groton	Brown County	South Dakota
1980 Population	1,230	36,962	690,768
1990 Population	1,196	35,580	696,004
2000 Population	1,356	35,460	754,844
2005 Population	1,365	34,706	775,933
% Change	10.97 %	-6.10 %	12.32 %
Median Age	38.6	39.8	32.5

Table 3. Population by Age: 2000 Census (Source: State Data Center)

	Under 18	18-44	45-64	65 & Over	Total
Male	192	177	140	127	636
Female	185	220	134	181	720
Total	377	397	274	308	1,356

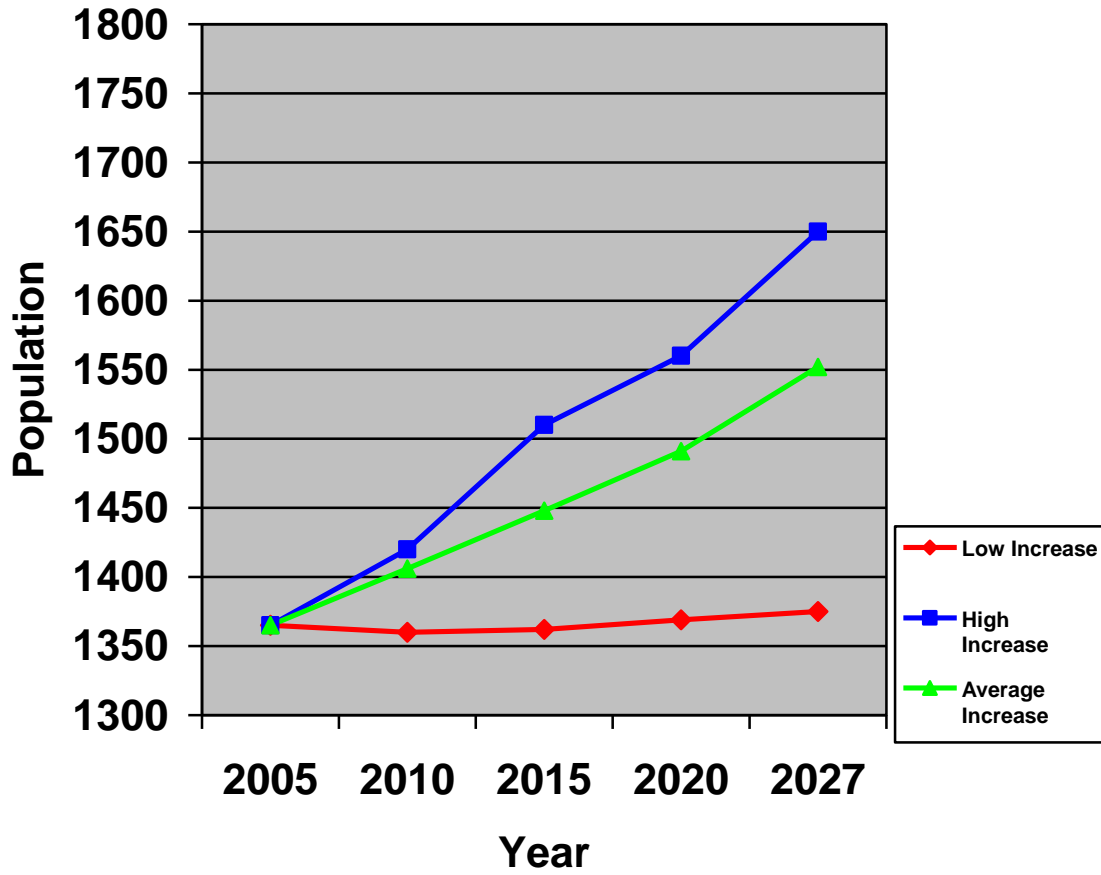
B. POPULATION PROJECTIONS

Based on interpretation of current trends, a population projection through the study period indicates that Groton will have a high population of 1,650 residents and a low of 1,350, with an anticipated population of 1,550 by the year 2027. The graph on the next page shows a high increase in population, a low increase in population and the average increase of population also known as the anticipated population.

Table 4. Anticipated Population Projections

CALCULATION OF PROJECTIONS	Numbers	Percentage Increase Or Decrease
1960 Census Population 1970 Census Population	1,063 <u>1,021</u> -42	-3.95 %
1970 Census Population 1980 Census Population	1,021 <u>1,230</u> 209	20.47 %
1980 Census Population 1990 Census Population	1,230 <u>1,196</u> -34	-2.76 %
1990 Census Population 2000 Census Population	1,196 <u>1,356</u> 160	13.37 %
2000 Census Population 2005 Census Population	1,356 <u>1,365</u> 9	0.66 %
2005 Census Population 2010 Projected Population	1,365 <u>1,406</u> 41	3.00 %
2010 Projected Population 2015 Projected Population	1,406 <u>1,448</u> 42	2.98 %
2015 Projected Population 2020 Projected Population	1,448 <u>1,491</u> 43	2.96 %
2020 Projected Population 2027 Projected Population	1,491 <u>1,552</u> 62	4.12 %

Groton: Population Projection Graph, 2007-2027



III. ENVIROMENTAL CONSTRAINTS

A. PHYSICAL GEOGRAPHY

Groton is located in northeastern South Dakota about 18 miles east of Aberdeen. The city lies on Hwy 12 about 54 miles west of Interstate 29 and is in the central lowland region of the United States. This region has numerous lakes and ponds. The city also lies within the Glacial Lake Basin ecoregion, which is what causes it to be flat and have an elevation around 1,350 ft. above sea level.

B. WETLANDS AND FLOODPLAINS

Groton's future growth is influenced greatly by floodplains and wetlands. The floodplains limit growth of the city to the east, southeast, and northwest. Areas that fall within the 100 year floodplain are prohibited from any new construction. The 100 year floodplain within the city limits of Groton is shown on **Map 1**.

IV. INFRASTRUCTURE ASSESSMENT

A. TRANSPORTATION

Transportation and land use have always had a collective relationship and because of this street and highway improvements are a major planning consideration. Many different land uses such as residential, commercial, and industrial choose their locations based on access to these major streets and highways. Capacity and maintenance of these streets and highways must be taken into consideration so the transportation system can support development.

Arterial streets are often the lifeblood of the city. These streets are designed to carry large amounts of traffic at higher speeds. The function of these streets is to promote the movement of people and goods with few obstructions. Arterial streets most commonly are located near commercial uses.

Collector streets are designed to connect the residential streets with arterial routes. These streets allow local traffic quick access to arterial streets. Collector streets are usually two lanes with turn lanes at major intersections to accommodate the local traffic load. These collector streets are usually located adjacent to commercial, industrial, and residential land uses.

Local streets provide access from low-density residential areas to collector or arterial streets. These streets operate at low speeds with few traffic signals and are usually located in residential neighborhoods.

The major street plan for the city of Groton includes current streets and also future major streets. This plan was developed as part of the comprehensive plan (see **Map 2**). This map shows the major roads of Groton. Highway 12 and Highway 37 are arterial streets, which are outlined in red, and the streets outlined in blue are known as collector streets. With Groton's growth, future collector streets will be needed, these streets are outlined with a dotted blue line. The streets not outlined are local streets providing access to the collectors and arterial streets.

B. WATER FACILITIES

The city of Groton's water supply is a rural water system provided by WEB. The capacity is .53 million gallons of water per day with an average usage of .17 million gallons of water per day. The peak demand is .15 million gallons of water per day.

C. WASTEWATER FACILITIES

Groton has a wastewater facility that consists of a lagoon and collection system. The maximum capacity is .11 million gallons per day with an average daily usage of .08 million gallons per day. The peak demand for this facility is .15 million gallons per day.

D. ELECTRIC FACILITIES

Groton has an electric distribution facility for electric power purchased from Western Area Power Administration and Heartland Consumer Power District. The system is a 2400/4160. Continuing updates provide load capacity for any future growth.

V. CURRENT LAND USE

A. RURAL LAND USE OF GROTON

The rural area located around Groton is dominated by agricultural uses and also various creeks and other water sources.

B. URBAN LAND USE OF GROTON

A land use study was completed for the city of Groton in March of 2007. The land uses of Groton were grouped into seven categories.

(1) Residential - includes single-family homes, duplexes, manufactured homes, and also apartments.

(2) Highway Commercial – includes retail businesses, offices, etc., located on a major highway or other arterial street.

(3) Downtown Commercial District – includes retail businesses, offices, etc., located in the downtown of the city.

(4) Industrial – includes light manufacturing, warehouses, grain elevators, farm equipment sales and services, and other similar uses.

(5) Public – includes any public uses such as schools, government offices, utilities, and water towers.

(6) Parks – includes city parks and golf courses.

(7) Vacant land or Agriculture land – includes vacant land not developed or land that provides farming or agricultural use.

A land use map was prepared using the above seven categories (**See Map 3**). Residential areas are represented in red, the highway commercial district is represented in blue, the downtown commercial district is represented in purple, industrial is represented in yellow, public uses are represented in black, parks are represented in green, and agriculture and vacant land are represented in grey.

VI. FUTURE LAND USE

A. FUTURE LAND USE ESTIMATES

This table shows Groton's current number of households and projected demand for households in the future assuming the number of people per household remains constant at 2.58.

Table 1. Groton's Household Projections

Year	Population	Persons per Household	Households
1980	1,230	NA	NA
1990	1,196	NA	NA
2000	1,356	2.58	524 (actual)
2005	1,365	2.58	529 (projected)
2010	1,406	2.58	545 (projected)
2015	1,448	2.58	561 (projected)
2020	1,491	2.58	578 (projected)
2027	1,552	2.58	602 (projected)

By the year 2027, 78 new households are projected to be built in the city of Groton.

B. FUTURE GROWTH AREA ANALYSIS

Groton's growth area is limited in certain directions. Floodplains and floodways limit growth to the east and southeast, to the south and also to the north and northwest. These floodplains are restricted from new construction. The future growth areas are represented on **Map 4**.

Growth Area A

- Specific serviceability plans for this area have not been specified, but utilities such as sewer, water and new streets will have to be installed to meet future needs.

- Development patterns for this area will mainly be single-family homes with the occasional multi-family dwelling or commercial property. This area will be Groton's most significant growth for residential, because of the limitations of other areas do to the floodplain.

Growth Area B

- Future services such as water and sewer will not be needed in this area because it is located in the floodplain and floodway.
- Development patterns for this area are non existent. This area is in the floodplain which doesn't allow for new construction. This area will remain unused in the future.

Growth Area C

- Future services such as water and sewer will not be needed in this area because it is located in the floodplain and floodway.
- Development patterns for this area are non existent. This area is in the floodplain which doesn't allow for new construction. This area will remain unused in the future.

Growth Area D

- Future services such as water and sewer will not be needed in this area in the near future.
- Developmental patterns for this area in the near future will be agricultural land. In the distant future industrial will begin to develop in this area.

Growth Area E

- Future services of this area will be an upgrade of the sanitary sewer.
- Development patterns of this area will be an upgrade of their current sanitary sewer lagoon which has almost reached capacity.

Growth Area F

- Specific serviceability plans for this area have not been specified, but utilities such as water, sewer, and streets need to be upgraded and installed before growth can occur.

- Development patterns for this area will be highway commercial because of its location on HWY 37. This area will develop into Groton's commercial area on the south side of town.

Growth Area G

- Specific serviceability plans for this area have not been specified, but utilities such as water, sewer, and streets need to be upgraded and installed before growth can occur.
- Development patterns for this area will be residential except for the small amount of floodplain. Area G will be the major residential development in southwest Groton.

Growth Area H

- This area's water and sewer will easily be installed because of its close proximity to other areas with water and sewer already installed.
- Development patterns for this area will be industrial but the close proximity to residential on the other side of the railroad tracks may change along the western boundary.

Growth Area I

- Future services such as water and sewer will not be needed in this area because it is located in the floodplain and floodway.
- Development patterns for this area are non-existent. This area is in the floodplain which doesn't allow for new construction. This area will remain unused in the future.

Growth Area J

- Specific serviceability plans for this area have not been specified, but utilities such as water, sewer, and streets need to be upgraded and installed before growth can occur.
- Development patterns for area J will be residential. This area is adjacent to residential and is just south of Hwy 12 and a future commercial area. Area J also has easy access to arterial and collector streets.

Growth Area K

- Services such as water and sewer will easily be installed because of this areas location next to water and sewer on the east. Area K doesn't need street improvements or new street construction because it is located on Hwy 12.
- Development patterns for this area will be highway commercial. This area will be Groton's most significant commercial growth because of its location on Hwy 12 and being adjacent to other highway commercial areas.

Growth Area L

- Future services such as water and sewer will not be needed in this area because it is located in the floodplain and floodway.
- Development patterns for this area are non existent. This area is in the floodplain which doesn't allow for new construction. This area will remain unused in the future.

VII. PLANNING IN THE FUTURE

Planning is a continuous process. Completion of this comprehensive plan does not mean the work is completely finished. A comprehensive plan must constantly be looked at so its goals and objectives continue to reflect the needs of a changing community. This plan should provide direction and recommendations for the city of Groton.

A. THE CONTINUOUS PLANNING PROCESS

Circumstances will continue to change in the future, and this comprehensive plan for Groton will require modifications and changes to keep the plan up-to-date and current. Changes that are needed should be carefully noted and considered as a part of the annual plan update. This plan's importance lies within the commitment of city officials and citizens to agree on Groton's purpose in the future.

Major updating of this comprehensive plan should happen every five years. These updates will ensure that the plan is still representing the city of Groton's future. Any corrections should be made to ensure the plan is still accurate.

B. CITIZEN PARTICIPATION IN CONTINUING PLANNING

All of Groton's community members have an interest in maintaining a high quality of life within the city. Citizens should be involved in maintaining this comprehensive plan. Planning Commission, town meetings, newsletters are a great way to get the citizens of Groton involved in the planning process.

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