Section 1
Introduction to the Recommended Plan

1.1 Background

The Town of Hingham, Massachusetts, through its Sewer Commission and Comprehensive Wastewater Management Planning Committee, has developed a Comprehensive Wastewater Management Plan (CWMP). The objective of the plan is to assess existing wastewater disposal practices in Hingham (Phase 1) and to identify and recommend a plan for future disposal needs in the future (Phase 2).

Phase 1 of this project presents needs analysis including an evaluation of the existing conditions in Hingham. Existing population and wastewater flows were developed to establish current baseline conditions. Population and wastewater projections were also developed for the 20 year planning period. A set of criteria were developed in order to evaluate the wastewater needs of individual areas of town. Criteria included lot size, soil and groundwater conditions, proximity to sensitive areas such as public water supplies, wetlands and areas of critical environmental concern. Metrics were developed under each of these criteria to permit a quantification of need. Nineteen individual study areas were evaluated based on the set of criteria. Areas with existing wastewater collection and disposal systems and areas with private on-site disposal systems were evaluated and ranked based on need. The Phase 1 Needs Analysis Report summary is included in Section 2 and a full copy of the report is bound under a separate cover as Appendix A.

This Phase 2 Report, the Recommended Plan, develops alternatives to address the wastewater disposal needs identified in Phase 1. Selected area alternatives include expansion of the existing collection and treatment facilities, use of de-centralized systems, and continued use of on-site disposal including enhanced management practices. Two baseline alternatives are also developed: construction of sewers to serve the entire town, and a no-action alternative. Over the course of completing this project, the needs and desires of the town have evolved. This evolution is also reflected in this report, specifically in Sections 3, 4 and 5, where evaluations were performed on several alternatives. The culmination of the process is presented in Section 5, the Recommended Plan, which presents the desire of the town to install sewers in the industrial needs area and connect to the MWRA system and allow the remainder of town in the presently unsewered areas to remain with onsite sewage disposal systems with enhanced management.

Section 2
Summary of Phase 1 Comprehensive Wastewater Management Plan

2.1 Introduction

The Phase 1 Comprehensive Wastewater Management Plan (Phase 1 CWMP) was prepared by CDM and submitted to the Sewer Commission in March 2007. A copy of that report was also submitted to the Massachusetts Department of Environmental Protection (DEP) for review and comment. This section summarizes the pertinent information presented in that report that is necessary for understanding the concepts and recommendations of Phase 2 of the CWMP. This summary includes a description of the existing and future conditions, an assessment of needs for wastewater disposal, and a ranking of the needs areas based on several environmental criteria. The full Phase 1 CWMP is included in Appendix A bound under a separate cover.

2.2 Assessment of Current and Future Conditions

2.2.1 General

The Town of Hingham is a suburban coastal community located approximately 15 miles southeast of Boston, MA and covers an area of approximately 22.5 square miles. Hingham is bordered by the communities of Weymouth, Rockland, Norwell, Hull, and Cohasset. An area map of Hingham is shown on Figure 2-1. Hingham is considered to be residential in nature but does have a vibrant commercial and economic zone centered around the downtown area and the harbor front. With 21 miles of coastal shoreline, the town actively maintains its seaside character and its proud history. Hingham's 2001 Master Plan was used as a source of information during the preparation of this portion of the report. The Master Plan was prepared by John Brown Associates Inc. and was presented to the Town in December, 2001. The Master Plan is a statement of public policy to guide decision-making for future development of the town, and represents a shared vision for the town's future.

2.2.2 Population

The 2000 census lists Hingham's population at 19,882. The official Hingham website shows that the population in 2004 was listed as 20,720 persons. Population growth is expected throughout the planning period of this study, and it is important to establish this baseline population as a starting point for comparison with later parts of this study.

2.2.3 Existing Wastewater Treatment and Disposal Methods

The Master Plan identifies wastewater disposal as an issue to be resolved especially in South Hingham. Northern Hingham, including much of the downtown area, is connected to wastewater collection systems operated by the Massachusetts Water Resources Authority (MWRA), or the Town of Hull. The MWRA connection serves the majority of properties within the North Sewer District (NSD) located in the northwest portion of Hingham. The wastewater from properties within the Weir River Sewer District (WRSD) is conveyed to Hull.

COHASSET

NORWELL

HULL

WEYMOUTH

ROCKLAND

3A

228

228

228

53

3

Legend

- Limited Access Highway
- Numbered Routes
- Major Road - arterials and collectors
- Minor Street or Road

Town of Hingham
Comprehensive Wastewater Management Plan

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N W E S

0 2,000 4,000 8,000 12,000 Feet

Figure 2-1

Hingham Area Map

The developed areas within the remainder of Hingham rely on individual on-site sanitary disposal systems (SDSs) for wastewater treatment and disposal. A large portion of this area also serves as water recharge areas for Hingham and for neighboring communities of Weymouth, Abington, and Rockland.

The existing conditions for the Baseline flows are summarized in Table 2-1:

Table 2-1
Summary of Existing Conditions and Baseline Wastewater Flows

Component of Wastewater Flow	*Total Flow (gpd)*
Total North Sewer District flow (existing):	991,054
Total Weir River Sewer District flow (existing):	47,610
Total flow for unsewered Hingham (existing):	2,017,422
Total Town of Hingham flow (existing):	**3,056,087**

2.2.4 Existing Water Supply

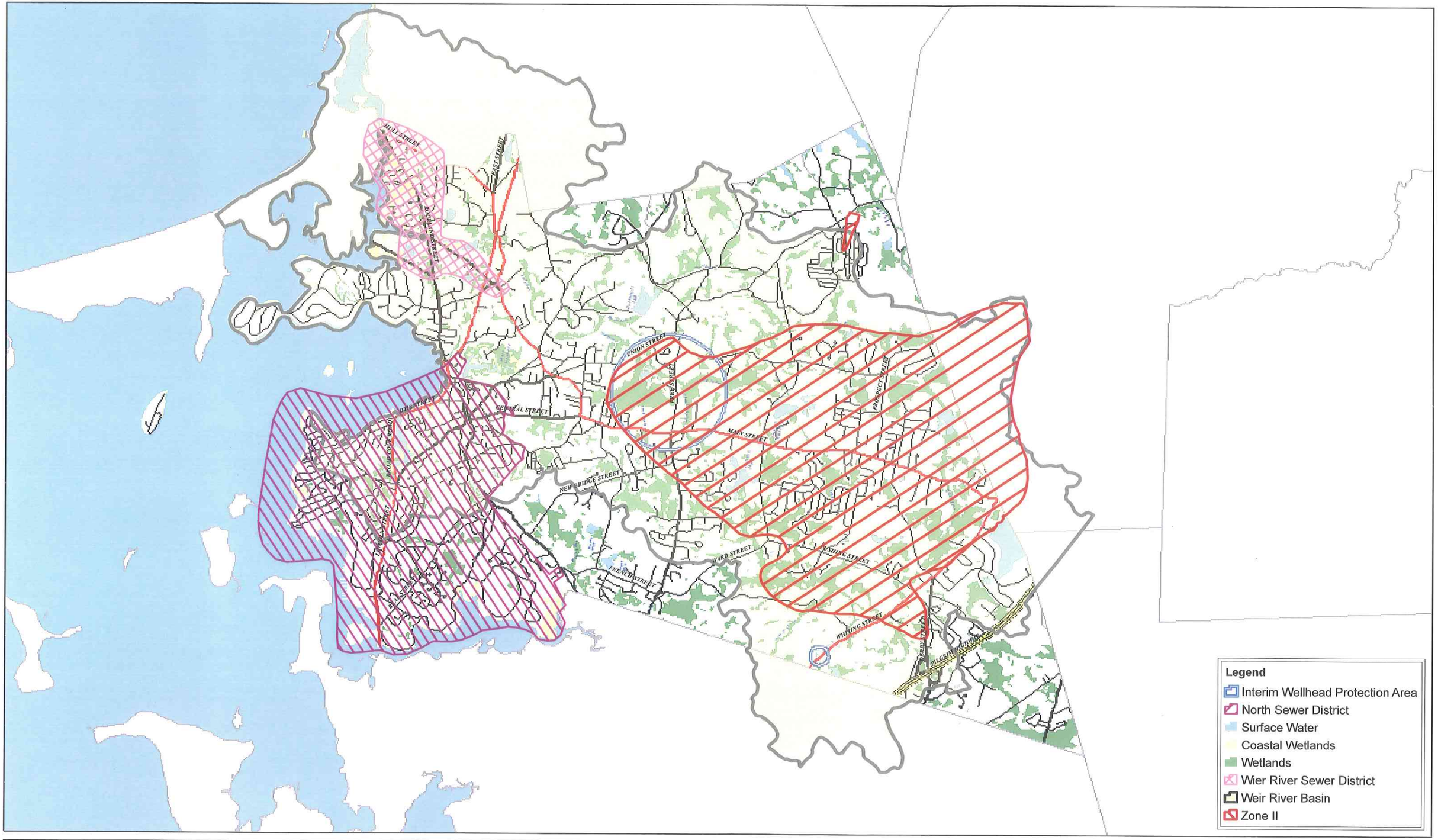
The Hingham public water supply comes from two major sources; groundwater wells and surface supplies. There are six groundwater wells identified as Free Street Wells #2 through #5, Scotland Street, Downing Street, and Prospect Street wells. The three surface water sources are the Accord Pond, Accord Brook, and Fulling Mill Basin.

The Aquarion Water Company is the registered Public Water Supplier for the Hingham-Hull water district which includes all of Hingham and Hull and parts of Cohasset and Norwell. The aquifer that is the source of the public water supply is located largely within Hingham and within the Weir River Basin. Water that leaves the basin (through MWRA or Hull sewer systems) is not available to recharge the aquifer. A significant portion of Hingham is located within the Weir River Basin as defined in 310 CMR 4.00 Massachusetts Surface Water Quality Standards. The Weir River and Accord Brook are both included in this designation. The Weir River is classified as a High Stressed Basin by the Massachusetts Water Resources Commission.

Figure 2-2 shows the two sewer districts in Hingham, the aquifer and water supply sources and the boundary of the Weir River Basin.

2.2.4.1 Water Supply and Distribution Summary

Aquarion Water Company completed a Water Supply and Distribution Study in 2007. A summary of the report and recommendations has been provided by Aquarion and is included below.



Town of Hingham
Comprehensive Wastewater Management Plan

CDM

0 2,000 4,000 8,000 12,000 Feet

Figure 2-2

Water and Wastewater Divides

Adequacy of Existing Water Supply Sources

In 1987, the Water Management Act (WMA) program was implemented by MassDEP to regulate withdrawal of water from the state's watershed basins. Under this program, all new and existing sources withdrawing more than 100,000 gpd are required to obtain a withdrawal permit under the WMA. When the WMA was first implemented, existing water systems were allotted a "registered amount" they could withdraw. This amount was the average amount the water supplier had withdrawn during the 1980-1985 period. Any withdrawals above that "registered amount" would require a permit. The Hingham- Hull Water district's maximum DEP approved withdrawal rate is 6.71 mgd but it cannot withdraw more than its registered amount of 3.51 mgd without a separate permit. In 2007 Average Daily Demand (ADD) was 3.72 and Maximum Daily Demand was 5.96. Projected ADD and MDD for 2025 are 4.12 mgd and 7.25 mgd. Since that average would exceed the allowed registered amount, Aquarion would need to obtain a permit withdraw sufficient water to satisfy anticipated demand over its current Registered Amount of 3.51 mgd. In considering applications for permits, the WMA looks at both environmental impact and requirements for continued and sustainable economic development.

The current Hingham/Hull system is comprised of seven supply sources and one emergency source. The total allowable withdrawal rate from existing sources is approximately 6.71 mgd without the emergency source Free Street Well No. 4. The Average Day Demand (ADD) and Maximum Day Demand (MDD) in 2007 were 3.72 mgd and 5.96 mgd, respectively. The projected ADD and MDD for the year 2025 are 4.12 mgd and 7.25 mgd, respectively.

According to Ten State Standards, suppliers must be capable of meeting two components in order to be considered adequate; the maximum pumping rate of the active sources must be greater than or equal to (1) the projected MDD and (2) the projected ADD with the largest source off-line. The system's total combined yield of the active supply sources is approximately 6.33 mgd, compared to the projected MDD in 2025, a deficit of 0.92 mgd is estimated. Free Street No. 2 is the largest source based on sustainable yield, therefore, the available pumping rate while the largest source is off-line is 4.53 mgd. Compared to the projected ADD, a surplus of 0.41 mgd is estimated.

In order to eliminate this predicted deficit, the 2007 Water Supply and Distribution System Study recommended a phased approach to maximize production of existing supply sources and augment the current supply with new sources or water purchase. The first phase, to maximize production at several wells to satisfy current demands, has been completed. The second and third phase will improve source management and augment the current supply through potential new source development and water purchase.

Phase I
Several higher capacity supply wells within the system have experienced a gradual reduction in pumping capacity over the years. In an effort to restore capacity to these wells, Aquarion recently installed replacement wells at the Scotland Street Well, Free Street No. 2 Well and the Fulling Mill Well. As a result, each well site capacity was restored to the MassDEP approved withdrawal rate. Prior to the installation of the replacement wells, the total available capacity of the existing sources was approximately 3.85 mgd. The current total available yield was increased to 6.33 mgd with the additional of the replacement wells.

Phase II
Following the maximization of existing sources, additional supply must be obtained to satisfy the projected demands in 2025. The goal of Phase II consists of exchanging production between Free Street No. 2 and Free Street No. 4. MA DEP approved this exchange in November 2008.

Free Street No. 4 has an approved safe yield of 0.81 mgd for emergency production only. Historical records indicate better water quality at Free Street No. 4 than Free Street No. 2. This may be due to Free Street No. 4 being constructed to a greater depth than Free Street No. 2. Aquarion is now utilizing Free Street No 4 and the new Free Street 2A as permanent sources and has increased the yield to 1.3 mgd. Free Street #2 has been made an emergency source. This approach does not increase the withdrawal rate from the sub-basin, only changes the point of withdrawal to Free Street No. 4 and 2A, rather than Free Street No. 2 and 2A. However, changes to the existing infrastructure, installation of new pumps and completion of various permits would be required to complete this portion of Phase II.

Phase III
Phase III incorporates longer term alternatives to supplement current system capacity. The following alternatives include the development of a new source and water purchase from adjacent and nearby water wholesale sellers. Each water purchase alternative would require an agreement between Aquarion and another utility or private entity to meet the projected system demands. Further, new infrastructure and potentially water treatment would be required to transport and treat purchased water to the Hingham-Hull system.

New Source Development
In accordance with MassDEP guidelines, the development of a new source consists of four stages. The exploratory stage is for review of existing available information, evaluation of potential sites and installation of test wells. The second stage includes preparation and submittal of the request for site exam, alternatives analysis, land use survey and pumping test proposal. After approval by the MassDEP, the third stage is to complete a five-day pump test and accompanying pump test report to be submitted to the MassDEP for review. The final stage consists of the design of the pump and associated water main from the source well to the system. A Water Management Act permit is required when the total withdrawal volume is greater than 100,000 gpd. In

addition, all new sources will require the completion of an Environmental Notification Form (ENF) to be submitted to the Massachusetts Environmental Policy Act Office for review and public comment.

Permitting for new source development is a time consuming and costly process depending on the location and potential impact on the environment. In addition, the process does not guarantee that sufficient yield and quality will be found or that Aquarion can obtain ownership of the Zone I radius. In general, the permitting and development process could take up to five years to complete. In addition, water treatment may be required, which will increase the time and cost of the project.

The United States Geological Survey (USGS) potential aquifer yield potential maps were reviewed to identify potential well site locations within town boundaries. The areas of reasonable yield currently host one or more active supply wells. Additional gravel packed wells in these subbasins could strain these areas. Therefore, a fracture trace analysis was conducted to identify potential bedrock well locations. This type of well would withdraw water from a deeper aquifer, not immediately connected to the shallower aquifer supplying current gravel packed wells. A new bedrock supply well is permitted in the same manner as sand and gravel sources, and is constrained by the results of pump testing and MassDEP approval.

Several sites were identified during the fracture trace analysis as potential supply well locations, however, a pumping test would be required to determine the yield. The sites are located within the South Coastal Basin and the property is owned by the Massachusetts Department of Conservation and Recreation (DCR). Obtaining access to these areas may prove extremely difficult as DCR does not favor development on agency owned land. Additional evaluation will be conducted on potential sand and gravel sources and bedrock wells at existing well sites as well as appropriate locations within the service area.

MWRA Connection

The MWRA currently provides wholesale water to approximately 50 communities throughout Massachusetts. The closest area for Aquarion to connect to the MWRA system is the City of Quincy, Massachusetts. This would require the construction of approximately two miles of water main along Route 3A and a new pump station.

Interconnection to Cohasset

All current supply sources should be maximized and potential sites investigated prior to seeking water sources across town boundaries. The Town of Cohasset currently operates and maintains the Aaron Reservoir as a water supply source. Currently, system demands only require the Town to utilize a portion of the permitted withdrawal rate. In addition, preliminary estimates indicate that a surplus of approximately 1.0 mgd may exist through 2025 based on projected demands in Cohasset.

Desalination Plants
Currently, the Town of Hull is conducting a feasibility study regarding the construction and operation of a desalination plant. This improvement would reduce the demands on Aquarion system and offer a potential long-term option for supplement supply. However, this option is still in the planning and discussion phase.

A desalination plant is also proposed by Aquaria Corporation and Bluestone Energy Services in the Town of Dighton, Massachusetts. In order for Aquarion to obtain water from this plant, approximately one mile of new 20-inch diameter water main would need to be constructed from Dighton to Brockton. Brockton would then transmit the water through existing infrastructure to Hingham.

2.2.5 Surficial Geology

Subsurface areas with sands and gravels exist in central and southern Hingham within the Weir River basin. These subsoils allow the aquifer to recharge quickly. A significant portion of the remainder of Hingham is underlain by till and bedrock. Till and bedrock deposits are poor soils that limit long-term use of on-site disposal systems.

The November 2002 Massachusetts Department of Environmental Protection (DEP) Source Water Assessment and Protection Report (SWAP) indicates the water supply aquifer has a high vulnerability to contamination due to the absence of a hydrogeologic barrier. Although glacial till and bedrock are common subsoils in Hingham, existing subsoils in the Weir River basin are mostly sand and gravel that allow for rapid contaminant migration.

2.2.6 Future Conditions

2.2.6.1 Population Projections

The population growth rate for Hingham, as estimated by the Metropolitan Area Planning Council (MAPC), averages approximately 0.8% per year. Table 2-2 shows the population projections for Hingham up to year 2025.

Table 2-2
Residential Population Projection to the Year 2025

Residential Population Projections						
Year	1990[1]	2000[1]	2004[2]	2010[3]	2020[3]	2025[4]
Population	19,821	19,882	20,720	24,692	25,228	25,432
Increase % (from previous)		0.3	4.2	19.2	2.2	0.8

1. Source: 1990 and 2000 data from US Census.
2. Source: 2004 data from Town of Hingham Website
3. Source: 2010 and 2020 data from MAPC projection data released Jan. 31, 2006
4. Source: 2025 data derived from MAPC projections of 2020 and 2030.

2.2.6.2 Projected Wastewater Flow

CDM has projected town-wide wastewater flow volume for the year 2025. The total volume determined below represents wastewater flow from all sources, including development, projected to the year 2025. The summary of Town-wide wastewater flows (3.72 mgd) at the end of the planning period is shown in Tables 2-3 and 2-4 below:

Table 2-3
Town-wide Projected Wastewater Flow (2025)

Study Year Projection Entire Town of Hingham	*Source*	*SF*	*Housing Units*	*Population*	*Flow Factor (gpd)*	*Total Flow (gpd)*
Residential (Single-family)	MAPC Population		7,586	22,455	330 per h.u.	2,503,429
Residential (Multi-family)	Master Plan		1,488	2,977	220 per h.u.	327,426
Institutional	Master Plan			5,900	varies	92,326
Industrial	Master Plan	4,230,948			36 per 1,000 sf	152,314
Commercial	Master Plan	8,593,691			75 per 1,000 sf	644,527
TOTAL ESTIMATED TOWN OF HINGHAM WASTEWATER FLOW PROJECTION (2025)						**3,720,022**

1. Residential growth based on MAPC population projections and 2.96 people per housing unit.
2. Multi-family residential projected at 10 percent increase due to limited appropriately zoned land.
3. Institutional includes schools and municipal structures. School growth based on 15 percent increase in school aged children. Allowance made for municipal structures with 24 percent growth.
4. Industrial and Commercial growth based on 1 percent per year for 24 years.
5. Entire town of Hingham included in this flow projection summary.

Table 2-4
Summary of Future Wastewater Flows

Component of Wastewater Flow	*Total Flow (gpd)*
Total North Sewer District wastewater flow projection (year 2025)	1,230,959
Total Weir River Sewer District wastewater flow projection (year 2025)	101,280
Total wastewater flow for remainder of Hingham (year 2025)	2,387,783
Total Town of Hingham wastewater flow projection (Year 2025)	**3,720,022**

2.3 Needs Analysis

2.3.1 Introduction

The purpose of this section is to identify and prioritize areas of need in the Town of Hingham for wastewater management solutions. The analysis divided Hingham into smaller study areas based on geography, topography, soil characteristics, groundwater conditions and other criteria An evaluation and ranking of each study area was then performed based on a set of criteria developed to assess the need for wastewater management. The results of this needs analysis will be used to develop recommendations to address these wastewater management needs in Phase II of this study.

2.3.2 Study Areas

Delineation of the Study Areas was intended to create manageable sections of Hingham, with relatively homogenous characteristics, to be assessed against criteria for determining wastewater management need. The Study Area boundaries follow property boundaries or include developed portions of lots so these areas may be analyzed with the goal of formulating a long-term wastewater solution for those properties. In this way, roadways generally do not form study area boundaries. The division into study areas was the result of visual review of information already accumulated, and no detailed analysis was used to complete this step. The North Sewer District, Weir River Sewer District, and Wompatuck State Park were assigned their own Study Areas for consistency with the remainder of the community as part of a comprehensive wastewater management solution. Table 2-5 shows the list of Study Areas, and Figure 2-3 shows the boundaries of the Study Areas in Hingham.

Table 2-5
Hingham Study Areas

Study Area #	*Study Area Name*
1	North Sewer District
2	Summer Street
3	Weir River Sewer District
4	Brewer Pond
5	Hingham Center
6	Foundry Pond
7	Accord Brook
8	Bouve Pond
9	Cushing Pond
10	Fulling Mill Brook
11	Plymouth River
12	Liberty Pole
13	Prospect Street
14	Whiting Street
15	Gardner Street
16	McKenna Marsh
17	Industrial
18	Accord Pond
19	Wompatuck State Park

2.3.3 Needs Analysis Criteria

Specific criterion was developed to evaluate individual study areas within the town. The assessment included the preparation of a "Needs Evaluation Matrix" including a score for each criterion. The fourteen criterion chosen to evaluate each study area are presented below:

- Distribution and prevalence of small lot size
- Nitrogen Loading
- Zone I of public water supply
- Zone II/Aquifer Protection Zone of public water supply
- Interim Wellhead Protection Areas (IWPA)
- Within 200' Buffer zone of surface water supply
- Prevalence of wetlands

COHASSET

NORWELL

HULL

1
North Sewer District

2
Summer Street

3
Weir River
Sewer District

4
Brewer Pond

5
Hingham Center

6
Foundry Pond

7
Accord Brook

8
Bouve Pond

9
Cushing Pond

10
Fulling Mill Brook

11
Plymouth River

12
Liberty Pole

13
Prospect Street

14
Whiting Street

15
Gardner Street

16
McKenna Marsh

17
Industrial

18
Accord Pond

19
Wompatuck Park

WEYMOUTH

ROCKLAND

Legend
- Study Areas
- Parcels
- Water Bodies

Town of Hingham
Comprehensive Wastewater Management Plan

CDM

N W E S

0 2,000 4,000 8,000 12,000 Feet

Figure 2-3
Study Area Map

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- Prevalence of 100-Year Floodplain
- Area of Critical Environmental Concern (ACEC)
- Stressed Basin
- Prevalence of Sand & Gravel
- Prevalence of Fine Silty Material
- Prevalence of Till/Bedrock
- Prevalence of Title 5 repairs/inspection failures

Small lot size and nitrogen loading were chosen from review as small lot size can restrict or limit the ability of a parcel to allow design and construction (or repair) of an on-site system in full compliance with state and local regulations. Further, the density of development is also a function of lot size. Densely developed areas, with large numbers of on-site systems, are a potential threat to groundwater supplies. Even when performing correctly, increased nitrogen loads from on-site systems in densely developed areas can degrade groundwater quality. High nitrate levels in drinking water can have serious health affects in infants less than 6 months of age if they ingest the water. Therefore, extra protections are built into regulations governing areas surrounding drinking water wells and aquifer protection zones.

Using the Hingham Zoning By-Law as a starting point, five lot size ranges were selected for this part of the needs analysis.

Conditions for Grouping Existing Lots by Size

Study Area Condition
Up to and including 10,000 sf
Between 10,001 sf and 20,000 sf
Between 20,001 sf and 30,000 sf
Between 30,001 sf and 40,000 sf
40,001 sf or greater

A goal of this CWMP is to protect and preserve environmental resources and public health. Degradation of these resources can be minimized by protecting the following areas related to public water supply:

- Public water supply Zone I Areas
- Public water supply Zone II Areas

- Interim Wellhead Protection Areas
- Private Well Areas
- Town Aquifer Protection Zones

Prevalence of these environmental resources within each of the study areas can serve to measure the relative importance of these areas to the protection of the water supply.

- Other sensitive environmental receptors are categorized as follows:
- Surface Waters
- Wetlands and Swamps
- Floodplains
- Areas of Critical Environmental Concern (ACEC)
- Stressed Basins

Each resource and associated protective buffer zones have been mapped town-wide and overlaid with Study Area boundaries. The prevalence of these receptors will indicate higher levels of protection needed through the use of an overall wastewater management program.

Determination of wastewater needs cannot be made without understanding the subsurface conditions within those Study Areas. Subsurface conditions that were assessed include general soil permeability and depth to groundwater based on soil type; and prevalence of On-Site system repairs. After mapping the subsurface conditions in Hingham that limit the successful long-term function of an on-site disposal system, the percentage distribution coverage of each condition was scored for each Study Area. Higher scores for these criteria indicate higher limitations due to subsurface conditions.

The assessment of on-site systems with poor performance is also a measurable criterion. While many repairs to on-site systems are driven by property sales and some neighborhoods experience this transition faster than others, this criteria is an indicator of subsurface conditions. Conversely, areas lacking significant numbers of repairs cannot be assumed to possess favorable conditions for continued reliance on on-site systems. Property owners may be simply unaware of the condition of their system.

To categorize the Study Areas for the prevalence of system repairs, Board of Health records were used to determine the type and location of on-site system repairs. Poor system performance was measured by dividing the number of reported repairs by the total number of systems (or existing developed properties).

2.3.4 Needs Assessment Matrix

The total point score for each Study Area is the sum of the Category Scores and will determine the "priority of need" for wastewater management in Hingham. Determination of wastewater disposal need is assessed by assigning a point value to the individual criteria in each of the Study Areas. Points are assigned based on the applicability of the criteria on a scale from one (1) to four (4). A score of one indicates a slight limitation or problem. A score of four indicates severe limitations or problems. A score of zero (0) is used to indicate no problems in a particular category.

The individual criterion scores from this needs evaluation are entered into the Needs Assessment Matrix, Table 2-6, and these scores have been tabulated to obtain a sum for each Study Area.

These Study Area scores are then evaluated in the matrix to determine the areas with the greatest need for wastewater management by overall score and ranking. It is also useful to review the criteria scores individually to identify the regulatory and environmental conditions requiring wastewater management protections. The overall Study Area scores and their corresponding priority ranking are shown in Table 2-7.

These Study Area scores and the priority ranking will be used in subsequent evaluations and assessments of alternatives to formulate an overall wastewater management program for the Town of Hingham. (A "T" in the needs ranking indicates a tie in priority).

Table 2-6
Needs Assessment Matrix

Hingham Comprehensive Wastewater Management Plan

Study Area #	Study Area Name	Lot Size Score	Nitrogen Loading Score	IWPA Score	Zone I Score	Zone II/ Town Aquifer Protection Zone Score	Surface Water Supplies (200' buffer) Score	Wetlands (100' buffer) Score	100- Year Flood Plains Score	ACEC Score	Stressed Basins Score	Prevalence of Sand & Gravel Score	Prevalence of Fine/Silty Material Score	Prevalence of Till/Bedrock Score	Prevalence of System Repairs Score	Total Score
1	North Sewer District	4	3	0	0	0	2	1	2	2	2	2	1	2	2	**23**
2	Summer Street	2	2	0	0	0	1	2	3	1	4	2	1	2	2	**22**
3	Weir River Sewer District	3	3	0	0	0	4	4	4	4	4	4	0	4	1	**35**
4	Brewer Pond	2	1	0	0	0	3	2	2	4	2	0	1	0	1	**18**
5	Home Meadows	4	3	1	1	1	4	2	3	0	4	2	4	0	2	**31**
6	Foundry Pond	2	2	0	0	0	3	1	2	1	4	4	1	4	1	**25**
7	Accord Brook	1	1	0	0	0	1	2	2	0	4	4	1	3	2	**21**
8	Bouve Pond	3	2	0	0	1	2	2	3	1	2	0	1	0	2	**19**
9	Cushing Pond	2	4	1	0	3	3	2	4	0	4	0	1	0	2	**26**
10	Fulling Mill Brook	2	4	4	4	4	3	1	4	0	4	2	1	2	1	**36**
11	Plymouth River	2	1	1	1	2	2	4	4	0	3	0	1	0	1	**22**
12	Liberty Pole	3	4	0	0	4	1	2	3	0	4	0	1	0	2	**24**
13	Prospect Street	2	4	0	3	4	2	1	2	0	4	2	1	2	2	**29**
14	Whiting Street	2	1	1	2	2	3	1	1	0	4	3	0	2	3	**25**
15	Gardner Street	2	4	0	0	4	4	2	4	0	4	3	1	3	1	**32**
16	McKenna Marsh	2	3	0	4	4	2	3	4	0	4	0	1	0	2	**29**
17	Industrial	2	1	0	0	2	1	1	3	0	2	4	1	3	4	**24**
18	Accord Pond	2	2	0	3	1	3	2	4	0	4	4	1	3	2	**31**
19	Wompatuck State Park	0	0	0	1	1	1	2	1	0	3	4	1	4	0	**18**

Table 2-7
Study Area Score and Priority Ranking

Study Area Name	*Final Score*	*Priority Ranking*
Fulling Mill Brook	**36**	**1**
Weir River Sewer District	**35**	**2**
Gardner Street	**32**	**3**
Hingham Center	**31**	**T4**
Accord Pond	**31**	**T4**
Prospect Street	**29**	**T5**
McKenna Marsh	**29**	**T5**
Cushing Pond	**26**	**6**
Whiting Street	**25**	**T7**
Foundry Pond	**25**	**T7**
Industrial	**24**	**T8**
Liberty Pole	**24**	**T8**
North Sewer District	**23**	**9**
Summer Street	**22**	**T10**
Plymouth River	**22**	**T10**
Accord Brook	**21**	**11**
Bouve Pond	**19**	**12**
Brewer Pond	**18**	**13**
Wompatuck State Park	**18**	**14**