

Environmental Impact Evaluation Franklin Sanitary Sewer & Water Main Extension Project

Prepared by

Connecticut Department of Energy and Environmental Protection

June 2017

TABLE OF CONTENTS

1	INTRODUCTION.....	1
2	PROPOSED ACTION	3
3	WASTEWATER & WATER SUPPLY ALTERNATIVES	5
3.1	WATER ALTERNATIVES EVALUATED.....	7
3.1.1	Option 1a - Take No Action	7
3.1.2	Option 2a – New Water Distribution System Supplied by Local Groundwater	7
3.1.3	Option 3a - New Water Distribution System with Interconnection to Norwich.	8
3.1.4	Water Supply Life Cycle Analysis	8
3.1.5	Selected Water Alternative.....	9
3.2	WASTEWATER ALTERNATIVES EVALUATED.....	9
3.2.1	Option 1b – Take No Action	9
3.2.2	Option 2b – New Sewer System with Interconnection to Norwich	10
3.2.3	Option 3b – New Sewer System with Interconnection to Sprague.....	10
3.2.4	Option 4b – New Sewer System and Treatment Plant.....	11
3.2.5	Wastewater Life Cycle Analysis.....	11
3.2.6	Selected Wastewater Alternative.....	12
4	PROJECT COST AND BENEFIT	13

TABLE OF CONTENTS

5	CERTIFICATIONS, PERMITS, & APPROVALS.....	14
6	CONNECTICUT ENVIRONMENTAL POLICY ACT	15
7	ENVIRONMENTAL IMPACTS.....	17
7.1	Environmental impact Identification	17
7.1.1	Air Quality	18
7.1.2	Noise.....	18
7.1.3	Water Quantity	23
7.1.4	Water Quality	24
7.1.5	Floodplains	28
7.1.6	Inland Wetlands.....	29
7.1.7	Coastal Resources.....	31
7.1.8	Wild & Scenic Rivers.....	31
7.1.9	Fish & Wildlife Habitat	31
7.1.10	Farmland.....	31
7.1.11	Critical & Endangered Species.....	35
7.1.12	Historical & Archeological.....	35
7.1.13	Cultural & Recreational Resources	35
7.1.14	Pesticides and Hazardous & Solid Wastes	35

TABLE OF CONTENTS

7.1.15	Aesthetics or Visual Effects	37
7.1.16	Traffic	38
7.1.17	Public Health & Safety	38
7.2	Irreversible Commitment of Resources.....	38
7.3	Mitigation Measures.....	38
7.3.1	Air Quality.....	38
7.3.2	Noise.....	39
7.3.3	Water Quality/Quality	39
7.3.4	Floodplains	40
7.3.5	Inland Wetlands.....	40
7.3.6	Farmland.....	41
7.3.7	Traffic	41
7.3.8	Public Health & Safety	42
8	IMPACTS TO LAND USE	43
8.1	STATE C&D PLAN GROWTH MANAGEMENT PRINCIPLES.....	43
8.2	Town of Franklin Plan of Conservation and Development.....	49
9	OTHER IMPACTS.....	51
9.1	Energy Conservation and Consumption.....	51

TABLE OF CONTENTS

9.2	SOCIOECONOMICS	51
-----	----------------------	----

List of Figures

Figure 1	PROJECT AREA MAP.....	2
Figure 2	SERVICE AREA MAP.....	6
Figure 3	WATER QUALITY & AQUIFER PROTECTION AREAS MAP.....	25
Figure 4	FLOOD ZONE & WETLANDS MAP.....	30
Figure 5A	EXISTING FARMLAND MAP.....	32
Figure 5	FARMLAND SOILS MAP	34
Figure 6	NATURAL DIVERSITY DATABASE AREAS.....	36
Figure 7	ZONING MAP.....	45
Figure 8	STATE CONSERVATION & DEVELOPMENT PLAN LOCATION GUIDE MAP.....	50

TABLE OF CONTENTS

List of Tables

Table 1	TOWN OF FRANKLIN POPULATION PROJECTION.....	3
Table 2	WATER LIFE CYCLE ANALYSIS.....	8
Table 3	WASTEWATER LIFE CYCLE ANALYSIS.....	11
Table 4	ESTIMATED PROJECT COSTS	13
Table 5	CERTIFICATES, PERMITS, & APPROVALS.....	14
Table 6	FRANKLIN SERVICE AREA PARCEL DATA.....	19
Table 7	GROWTH MANAGEMENT PRINCIPLE #1.....	44
Table 8	GROWTH MANAGEMENT PRINCIPLE #3.....	47
Table 9	GROWTH MANAGEMENT PRINCIPLE #4.....	47
Table 10	GROWTH MANAGEMENT PRINCIPLE #5.....	49

List of Appendices

Appendix A	WATER DEMAND CALCULATIONS
Appendix B	LIFE CYCLE COST ANALYSES FOR WATER DEMAND & WATERWATER ALTERNATIVES
Appendix C	DPH NOTICE OF SCOPING COMMENTS
Appendix D	DPH WATER MAIN DESIGN AND CONSTRUCTION GUIDELINES
Appendix E	DEEP LIST OF CONTAMINATED SITES
Appendix F	TOWN OF FRANKLIN PLAN OF CONSERVATION AND DEVELOPMENT

1 INTRODUCTION

This Environmental Impact Evaluation (“EIE”) will evaluate the proposed project to extend existing sanitary sewer and water mains through the commercial and industrial zoned section of Route 32 in the southeastern portion of the Franklin, which is shown in Figure 1.

Public Act 1979-607, Section 21(b)(6)(B) authorized a \$5 million grant-in-aid to the Town of Franklin for sanitary sewer infrastructure improvements and connection charges. This funding was approved by the Office of Policy & Management (“OPM”) to use for the construction of a sanitary sewer extension along Route 32. The Connecticut Department of Energy & Environmental Protection (“DEEP”) is administering this funding for the State. The construction of a parallel water main extension is being funded by the United States Department of Agriculture (“USDA”) and the United States Economic Development Administration (“EDA”).

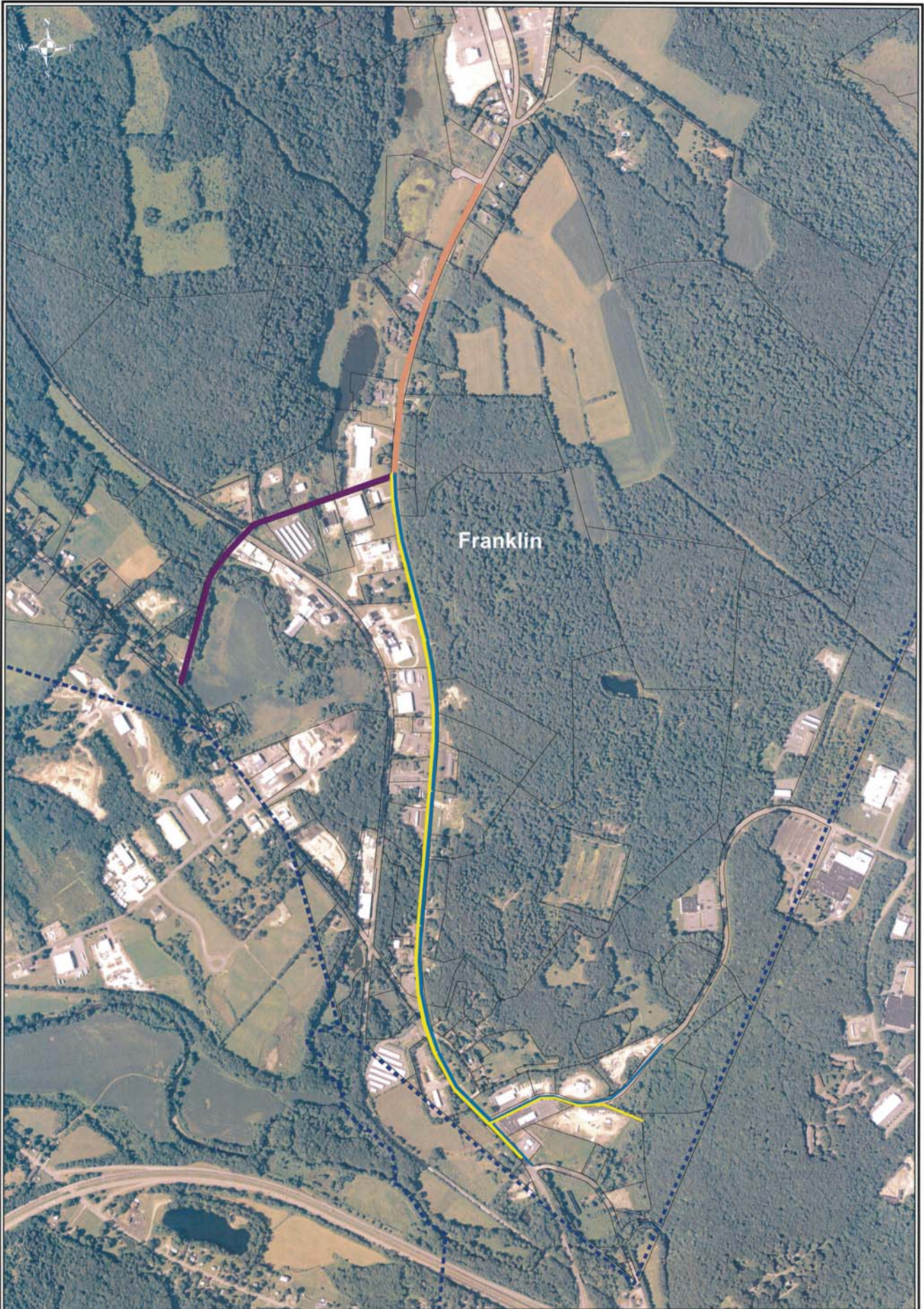
The Town of Franklin is located in the southeastern part of Connecticut in New London County and encompasses 19.6 square miles of land. With the exception of a small industrially zoned area on New Park Avenue, the vast majority of residents and businesses in the Town of Franklin are served by septic systems and private/public wells.

The Town of Franklin plans to enter into an intermunicipal agreement with Norwich Public Utilities (“NPU”) to discharge wastewater into the NPU collection system and receive water from the NPU distribution system. This project encourages development consistent with both the Town Plan of Conservation and Development and the State Plan of Conservation and Development.


In accordance with the regulations of the Connecticut Environmental Policy Act Sections 22a-1a-7, the findings of the environmental review are summarized below.

The state agency contact for this project is:

Ivonne Hall, P.E.
Connecticut Department of Energy & Environmental Protection
Bureau of Water Protection and Land Reuse
Water Planning & Management Division, Municipal Wastewater
79 Elm Street, Hartford, CT 06106-5127
860-424-3754
ivonne.hall@ct.gov



Franklin

<ul style="list-style-type: none"> — PROPOSED SEWER — PROPOSED WATER — PROPOSED FUTURE EXPANSION SEGMENT 3 & 4 — PROPOSED FUTURE EXPANSION SEGMENT 5 PARCEL BOUNDARY 	<ul style="list-style-type: none"> TOWN BOUNDARY 	<p>Town of Franklin ROUTE 32 PROPOSED SEWER AND WATER EXTENSION</p> <p> Lenard Engineering, Inc. Civil, Environmental and Hydrogeological Consultants</p> <p>1 inch = 0.15 miles</p>	<p>PROJECT AREA MAP FIGURE 1</p> <p>Date March 13, 2017</p>
---	---	--	--

2 PROPOSED ACTION

The proposed project consists of extending existing public sanitary sewer and water service through the commercial and industrial zoned Route 32 corridor in the southeastern portion of the Franklin. The “proposed action” being funded by the State of Connecticut is the extension of sanitary sewer service. The location of the currently proposed sanitary sewer and water mains are depicted in yellow and blue on Figure 1. According to the Town of Franklin, the locations of these sanitary sewer and water mains were approved by the citizens in a town-wide referendum.

Figure 1 also shows potential future expansions in orange and purple. The locations of these future utility expansions have not been approved in a town-wide referendum. The proposed sanitary sewer and water service areas are introduced in Section 3.

The majority of the Town Franklin relies on on-site septic systems for wastewater treatment. Most of these systems were built in the 1980s or earlier. Many of the septic systems in Franklin may not meet current code and are approaching the end of their design life.

Several businesses located along the Route 32 corridor are currently limited due to septic system requirements and cannot expand through either building additions or hiring of additional employees. The Town of Franklin’s population is expected to grow by 4.2% over the period of 2010 to 2025. A summary of the Town population projection is shown in Table 1.

TABLE 1 TOWN OF FRANKLIN POPULATION PROJECTION

Year	Town of Franklin	New London County	State of Connecticut
1990	1,810	254,957	3,287,116
2000	1,835	259,088	3,405,565
2010	1,922	274,055	3,574,097
2015	1,964	279,756	3,644,546
2020	1,988	283,666	3,702,472
2025	2,002	285,773	3,746,184

Franklin plans to enter into an intermunicipal agreement with Norwich Public Utilities (“NPU”) to treat wastewater and use water.

The proposed action includes constructing approximately 7,500 feet of gravity sanitary sewer, one wastewater pumping station, and approximately 1,000 feet of sanitary sewer force main in the Town of Franklin. The NPU system has the capacity to accept the proposed 100,000 gallons per day design flows from the proposed sanitary sewer service area (Green Area on Figure 2), which is discussed in Section 3.

In addition, the adjacent Town of Bozrah is beginning planning and design of a sanitary sewer expansion along their commercial and industrial zoned land on Stockhouse Road, as well as in the high-density housing area in Fitchville village, adjacent to Fitchville Pond. Construction of the Franklin sanitary sewer project will provide a possible discharge location for the Bozrah sanitary sewer expansion near the intersection of State Routes 32 and 87.

3 WASTEWATER & WATER SUPPLY ALTERNATIVES

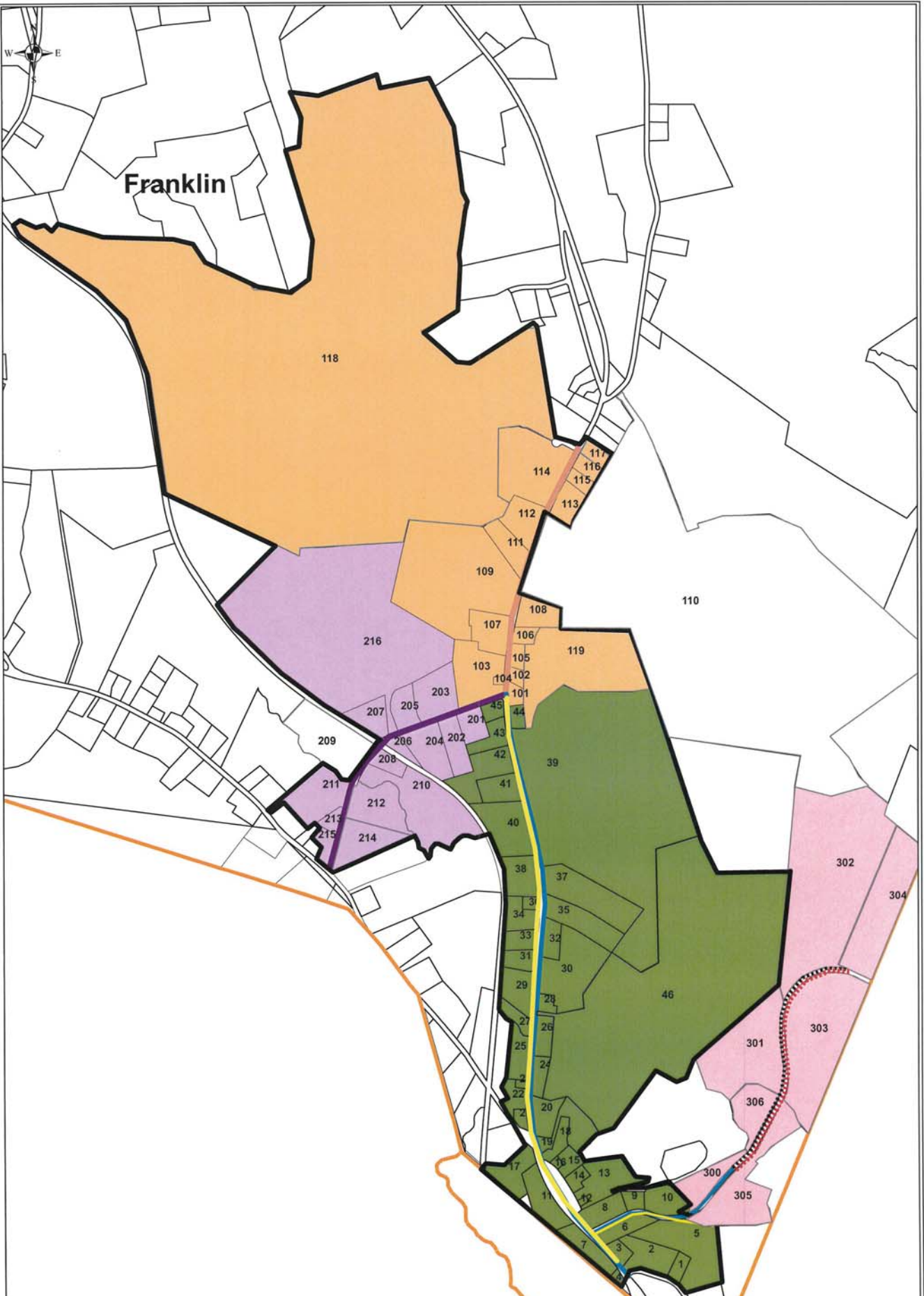
Figure 2 shows the proposed project, potential future extensions, and the sanitary sewer and water service areas associated with each extension. The existing sanitary sewer and water service area served by Norwich Public Utilities (“NPU”) is shaded in pink. The proposed sanitary sewer and water main extensions are shown as yellow and blue lines, respectively, and the associated service area is the “Green Service Area”. Potential future sanitary sewer and water extensions are shown as purple and orange lines, and the associated service areas are the “Purple Service Area” and the “Orange Service Area”.

There will be three major contributors to the proposed and future water service areas: the proposed Franklin Hills Golf Course (Parcel #118), which will include an inn and spa; Poppin Hills Estates (Parcel #110); and the Route 32 corridor. Since Poppin Hills Estates (Parcel #110) can connect to the Norwich Public Utilities system directly, those flows are excluded from the proposed service area impacted by this extension project (Green Service Area).

According to NPU, if everything were built all at once, the water demand for full build-out of the Green, Purple, and Orange Service Areas depicted on Figure 2 could reach over 800,000 gallons per day during the first two years that turf was being established for the Franklin Hills Golf Course on Parcel #118. This estimate would also include Phases 1 and 2 of the Poppin Hills Estates development (Parcel #110), which the Town of Franklin is not including in the future sewer and water service area at this time.

However, the Franklin Hill Golf Course developer has indicated to NPU that it intends to phase the work and obtain diversion permits for irrigation. Also, the Poppin Hills Estates developer has indicated to NPU that it may not pursue Phase 2. If these two assumptions were true, the water demand for full build-out of the Green, Purple, and Orange Service Areas and Parcel #110 would be approximately 340,000 gallons per day. Excluding Parcel #110, the water demand for full build-out of the Green, Purple, and Orange Service Areas would be approximately 260,000 gallons per day.

The water demand for full build-out of the sanitary sewer service area that would be served by the currently proposed sewer extension (Green Service Area) alone would be approximately 80,000 gallons per day. However, to be conservative in this analysis, the water demand for full build-out of the Green Service Area was rounded up to 100,000 gallons per day. The calculations used to determine this water demand are included in Appendix A.



- | | |
|--|---------------------------------------|
| PROPOSED PROJECT SEWER | EXISTING NPU SEWER |
| PROPOSED PROJECT WATER | EXISTING NPU WATER |
| POSSIBLE FUTURE EXPANSION SEGMENT 3 & 4 SERVICE AREA | EXISTING NPU WATER/SEWER SERVICE AREA |
| POSSIBLE FUTURE EXPANSION SEGMENT 5 SERVICE AREA | TOWN BOUNDARY |
| PROPOSED SERVICE AREA | |
| PROPOSED AND POSSIBLE FUTURE SERVICE AREA | |

Town of Franklin
ROUTE 32 PROPOSED SEWER AND WATER EXTENSION

Lenard Engineering, Inc. Civil, Environmental and Hydrogeological Consultants	SERVICE AREA MAP FIGURE 2
1 inch = 0.18 miles	Date March 13, 2017

3.1 WATER ALTERNATIVES EVALUATED

Three alternatives were considered to meet the Town of Franklin's water demands. Each alternative was evaluated based on the ability to meet the project purpose and need. The following alternatives were evaluated:

- Option 1a - Take No Action
- Option 2a – New Water Distribution System Supplied by Local Groundwater
- Option 3a – New Water Distribution System supplied by Norwich

3.1.1 Option 1a - Take No Action

The "Take No action" water option was determined to not be acceptable due to the large amount of parcels with private wells and several public water system parcels having historical water quality concerns. Taking no action would not allow this commercial/industrial zoned area to be fully developed with larger businesses that would generate tax revenue for the Town.

3.1.2 Option 2a – New Water Distribution System Supplied by Local Groundwater

There are two parcels of land within the vicinity of the proposed project area, 87 acres and 99 acres respectively, which are both large enough to support the estimated 10 bedrock wells needed for the project, and are presently undeveloped. These wells would pump into a 300,000 gallon storage tank, sized to meet the project demand of 100,000 gallons per day as well as a provision for fire protection storage. A new pumping station would meter, provide treatment, power and controls, as well as standby power for the station. Interconnecting piping would connect the tank to the common distribution system constructed in the project area.

The pipe layout and diameter would be required to be designed to provide adequate flow to meet peak demand. The new well system, including storage tank, pumping station and interconnecting piping between the parcel and distribution system would be sized to meet the 100,000 gallons per day domestic water demands, plus additional storage to provide a similar fire flow demand.

The environmental impacts of withdrawing 100,000 gallons per day from the bedrock aquifer are unknown at this time, and would have to be determined during well drilling, yield testing, and

the Connecticut Department of Public Health (“DPH”) and Department of Energy and Environmental Protection (“DEEP”) well permitting process. Withdrawal of this volume could have significant effects on adjacent properties, their well yield, and potential impacts to streamflows, wetlands, and endangered species. This impact would need to be determined during the permitting process.

3.1.3 Option 3a - New Water Distribution System with Interconnection to Norwich

This option requires connection to the existing NPU water distribution system in Franklin on New Park Avenue via 12-inch ductile iron pipe, terminating at the intersection of Murphy Road. The pipe layout and diameter will be designed to provide adequate flow to meet this peak demand.

According to NPU, its distribution system has sufficient quantity to serve Franklin’s project demands, both for domestic water supply and fire protection.

3.1.4 Water Supply Life Cycle Analysis

A detailed water life cycle cost analysis for performed for Options 2a and 3a, which calculated upfront capital costs and annual operation and maintenance (“O&M”) costs for a 50-year service life. The total life cycle costs and the annualized costs for 50 years were also determined. The results are listed below in Table 2.

TABLE 2 WATER LIFE CYCLE ANALYSIS

	Option 2a - Local Groundwater	Option 3a - Norwich
Capital Costs	\$5.6 million	\$2.8 million
Annualized Capital Cost	\$0.2 million/year	\$0.1 million/year
Annual O&M Costs	\$0.3 million/year	\$0
Total Life Cycle Costs, 50 years	\$25 million	\$6 million
Annualized Life Cycle Costs, 50 years	\$0.5 million/year	\$0.1 million/year

Option 3a has a lower capital cost and annual O&M costs. Detailed life cycle analysis calculations are located in Appendix B.

3.1.5 Selected Water Alternative

Option 3a, the construction of a new water distribution system connected to Norwich is the selected alternative. The NPU distribution system has sufficient quantity to serve Franklin's current and potential future needs. The NPU water service connection already exists in the Town of Franklin.

In addition, since NPU will operate the water system, there is no need for new operator training. All diversion permits are in place for the 100,000 gallons per day project demand, which is not the case with Option 2a. The selected water alternative (Option 3a) will have less environmental impacts than Option 2a.

3.2 WASTEWATER ALTERNATIVES EVALUATED

Four alternatives were considered to meet the Town of Franklin's wastewater demands. Each alternative was evaluated based on the ability to meet the project purpose and need. The following alternatives were evaluated:

- Option 1b – Take No Action
- Option 2b – New Sewer System with Interconnection to Norwich
- Option 3b – New Sewer System with Interconnection to Sprague
- Option 4b – New Sewer System and Treatment Plant

3.2.1 Option 1b – Take No Action

According to the Town, the "Take No Action" option was determined to not be acceptable because much of the septic systems in the Green, Purple, and Orange Service Areas are believed to be beyond their service life. Taking no action would not allow this commercial/industrial zoned area to be fully developed with larger businesses that would generate tax revenue for the

Town. In addition, many of these septic systems are constructed on undersized lots that would not support new septic systems built to modern sizing requirements.

There have been no officially documented septic system failures reported by the sanitarian in the Town of Franklin. However, areas of the Town may experience groundwater contamination in the event of septic system failures.

3.2.2 Option 2b – New Sewer System with Interconnection to Norwich

According to NPU, its sanitary sewer system and the Norwich Water Pollution Control Facility (“WPCF”) both have sufficient capacity to handle the projected flows from Franklin. In addition, NPU is in process of designing a major WPCF upgrade that will offer treatment capacity to neighboring communities. The fees associated with the Franklin connection will aid NPU in funding the WPCF upgrade.

The proposed sanitary sewer system would be connected to the NPU sewer system via gravity flow. An identical sanitary sewer system layout is proposed for both the Sprague and local treatment alternatives, with only the point of discharge differing. A total of approximately 7,500 feet of gravity sanitary sewer will be required for the Franklin system.

3.2.3 Option 3b – New Sewer System with Interconnection to Sprague

The Sprague option would construct a new sanitary sewer system as proposed in Option 2b, but discharge flow to the Sprague Water and Sewer Authority through two force mains and a section of 12-inch gravity sanitary sewer.

Two additional pump stations, approximately 23,100 feet of 8-inch force main, and 4,600 feet of 12-inch gravity sanitary sewer would be required to construct this alternative in addition to the infrastructure identified in Option 2b.

The Sprague WPCF is rated to handle approximately 400,000 gallons per day of wastewater, and currently utilizes 100,000 gallons per day of that capacity. This extension project would utilize an additional 100,000 gallons per day of capacity. The distance required to connect to the Sprague system is nearly four times that to connect to the existing NPU system in the southeast corner of Franklin.

3.2.4 Option 4b – New Sewer System and Treatment Plant

This option would construct a new sanitary sewer system as proposed in Options 2b and 3b, but would also construct a new wastewater treatment plant in Franklin.

This option was determined to be infeasible due to regulatory complexity, high operation and maintenance costs, and high capital costs. Permitting for discharge to the Yantic River was deemed unrealistic due to the volume of flows estimated and the small size of the receiving water body. The current DEEP Water Quality classifications for the Yantic River is Class B, which does not allow for the discharge of treated wastewater from a localized treatment facility.

3.2.5 Wastewater Life Cycle Analysis

A detailed wastewater life cycle cost analysis for performed for Options 2b and 3b, which calculated upfront capital costs and annual operation and maintenance (“O&M”) costs for a 50-year service life. The total life cycle costs and the annualized costs for 50 years were also determined. The results are listed below in Table 3.

TABLE 3 WASTEWATER LIFE CYCLE ANALYSIS

	Option 2b - Norwich	Option 3b - Sprague
Capital Costs	\$7.2 million	\$14.6 million
Annualized Capital Cost	\$0.3 million/year	\$0.6 million/year
Annual O&M Costs	\$0.3 million/year	\$0.3 million/year
Total Life Cycle Costs, 50 years	\$30 million	\$45 million
Annualized Life Cycle Costs, 50 years	\$0.6 million/year	\$0.9 million/year

Option 2b has a lower capital cost and annual O&M costs, and will require less wastewater pumping stations. Detailed life cycle analysis calculations are located in Appendix B.

3.2.6 Selected Wastewater Alternative

Option 2b, the construction of a sanitary sewer system that connects to the NPU system and discharges to the Norwich WPCF will provide a long-term, reliable system for wastewater management. The selected wastewater alternative will improve and protect the quality of groundwater in this area of Route 32 in Franklin. According to NPU, its sanitary sewer system has sufficient capacity to serve Franklin's current and potential future needs. A sanitary sewer service connection to NPU is already located in the Town of Franklin. Existing and future potential commercial businesses will likely increase with the installation of public sanitary sewers.

4 PROJECT COST AND BENEFIT

Originally, the overall proposed project was the construction of a complete sanitary sewer, water, and natural gas main extension in the Town of Franklin. However, the natural gas extension has been eliminated from the project.

The total sanitary sewer and water main extension project is estimated to cost \$10 million. The sanitary sewer portion of the project, or the “proposed action”, will cost approximately \$4.7 million. A State Urban Action Grant of \$5 million was approved by the Connecticut Office of Policy and Management for the sanitary sewer extension, which is being administered by the Department of Energy & Environmental Protection.

Table 4 provides a breakdown of total project costs, including sanitary sewer and water system installation capital costs, which include construction, contingencies, design and contract administration, inflation, and legal/finance/short-term interest. Also included in the estimate was \$1.1 million for the NPU sanitary sewer connection fee.

TABLE 4 ESTIMATED PROJECT COSTS				
Segment	Location	Sanitary Sewer	Water	Water & Sewer
1	Old Rt. 32, Rt. 32 to Rt. 87	\$2,500,000	\$1,000,000	\$3,500,000
2	Rt. 32 from Rt. 87 to Murphy Road	\$1,100,000	\$1,100,000	\$2,200,000
Totals		\$3,600,000	\$2,100,000	\$5,700,000
Add 20 % Contingencies				\$1,140,000
Add 20 % Design / Construction Administration				\$1,140,000
Add 3.5 % Construction Inflation				\$199,500
Add NPU Connection Fee				\$1,100,000
Add Legal, Bond Council, other Town fees				\$250,000
Add Short Term Interest				\$500,000
ESTIMATED PROJECT COST				\$10,029,500
ESTIMATED SANITARY SEWER PROJECT COST				\$4,700,000

5 CERTIFICATIONS, PERMITS, & APPROVALS

The proposed project will require that the Town of Franklin acquire certificates, permits, and/or approval for the construction and operation of one pump station and the sanitary sewer and water mains. Table 5 presents some of the pertinent approvals that may be required for the proposed sanitary sewer and water extension project:

TABLE 5 CERTIFICATES, PERMITS, & APPROVALS

PERMITS/ APPROVAL	REVIEWER
Planning and Zoning Permit	Town of Franklin
Inland Wetlands Permit	Town of Franklin
Water Pollution Control Authority Review	Town of Franklin
Sanitary Sewer / Water Connection Fee	Norwich Public Utilities
Project Consultation	Eastern Water Utility Coordinating Committee
Drinking Water Section Review	Connecticut Department of Public Health
Municipal Wastewater Section Review	Connecticut Department of Energy & Environmental Protection
Flood Management Certification	Connecticut Department of Energy & Environmental Protection
Stormwater Construction Permit	Connecticut Department of Energy & Environmental Protection
Construction Dewatering Permit (as necessary)	Connecticut Department of Energy & Environmental Protection
Encroachment Permit	Connecticut Department of Transportation

6 CONNECTICUT ENVIRONMENTAL POLICY ACT

The purpose of the Connecticut Environmental Policy Act (“CEPA”) is to identify and evaluate the impacts of proposed state actions that may significantly affect the project area. The process also provides opportunity for public review and comment. A CEPA review is required for each state agency action that could have a major impact on the state's land, water, air or other environmental resources.

Impacts to the environment caused by the proposed project and proposed and future sanitary sewer and water service areas are evaluated in Section 7. Impacts to land use are discussed in Section 8, and other impacts (e.g., socioeconomic, energy) are discussed in Section 9.

If a potential exists for significant impact, an agency should solicit comments from the public and other state agencies to determine whether there are any special issues or concerns on the proposed action. This process is called the Notice of Scoping. This should be performed at an early point in project planning to help ensure that it considers relevant environmental concerns in an adequate and timely manner.

The Town of Franklin’s Notice of Scoping for Franklin Sanitary Sewer & Water Main Extension project was posted on the Council of Environmental Quality (“CEQ”) website on August 16, 2016 for public comment. Comments were received from the Connecticut Department of Public Health (“DPH”) Drinking Section. DPH comments stated the project will pass several existing public water systems on Route 32 in Franklin. Listed below are these systems:

- Franklin Mobil
- 96 Route 32
- Franklin Commons
- 107 Route 32
- DW Transport & Leasing, Inc.

The parcels containing these public water systems are discussed in Sections 7.1.3 and 7.1.4. The DPH Drinking Water Section encourages existing public water systems to connect to public water when available. The scoping notice comments for the proposed project can be found in Appendix C.

If after the notice of scoping and comments have been reviewed, the agency determines that the potential for significant environmental impact exists, an Environmental Impact Evaluation (“EIE”) is prepared. Once prepared, the EIE is distributed to the Connecticut Office of Policy and Management (“OPM”), the CEQ, historical commissions, and the Town Clerk where the project is to occur. The EIE is published to the CEQ website with a forty-five day public

comment period. A public hearing may be held if twenty-five or more people contact the sponsoring agency within the first ten days of the comment period.

Once the EIE is closed, the sponsoring agency will review all comments and prepare responses to any comments made during the EIE comment period. Once complete, OPM will review the documents and if project is found to be adequate, the project can continue and OPM will issue a record of decision.

7 ENVIRONMENTAL IMPACTS

This Section identifies environmental receptors that may be affected:

- Directly by the proposed sanitary sewer and water extension project, and
- Indirectly by allowing the parcels in the proposed and future service areas (Green, Purple, and Orange Service Areas) to connect to sanitary sewers and water mains.

Table 6 lists each parcel in these proposed and future sanitary service areas, along with information about existing use and environmental issues.

7.1 ENVIRONMENTAL IMPACT IDENTIFICATION

The following environmental impact categories were considered for direct and indirect impacts:

- Air Quality
- Noise
- Water Quantity & Quality
- Aquifer Protection Areas
- Floodplains
- Wetlands
- Coastal Resources
- Wild & Scenic Rivers
- Fish & Wildlife Habitat
- Farmland
- Critical & Endangered Species
- Historic & Archaeological
- Cultural & Recreational Resources
- Pesticides & Hazardous Materials
- Aesthetic or Visual Effects
- Traffic
- Public Health & Safety

Direct impacts were considered for the type of construction work required to install sanitary sewer and water pipes in the road (i.e., cutting into the roadway, soil excavation and backfilling, pavement restoration). Indirect impacts were considered for potential future development projects on land parcels in the sanitary sewer and water service areas (Green, Purple, and Orange Service Areas) that will result from the new potential to connect to these utilities.

7.1.1 Air Quality

The Clean Air Act (“CAA”) Amendments of 1990 authorized the U.S. Environmental Protection Agency (“EPA”) to establish standards, known as the National Ambient Air Quality Standards (“NAAQS”), which are considered harmful to the public and the environment. The CAA established two national air quality standards, including Primary and Secondary Standards. Primary Standards were established to set limits on harmful pollutants to protect the public and sensitive receptors (asthmatics, children and the elderly). Secondary Standards were set to protect the public welfare by accounting for the effects of air pollution on the public welfare, which includes protection against impaired visibility, damage to animals, soil, vegetation, crops, buildings, and other aspects of the general welfare.

The EPA has established NAAQS for the following six “criteria air pollutants” in order to protect the health and welfare of the general public. These pollutants are listed below:

- Ozone
- Carbon monoxide
- Particulates (PM_{2.5} and PM₁₀)
- Sulfur dioxide
- Nitrogen dioxide
- Lead

According to the Connecticut Department of Energy & Environmental Protection (“DEEP”), the entire state is currently in attainment for all criteria air pollutants with the exception of ozone.

The proposed action will not cause any long-term direct impacts to air quality and only a short-term direct impact during the anticipated nine-month construction period. Indirectly, the proposed action may result in future development projects that will also only have a short-term impact to air quality. Air quality impacts during construction would be limited to short-term increases in fugitive dust, particulates, and localized pollutant emissions from construction vehicles and equipment while excavating.

7.1.2 Noise

Section 22a-69 of the Connecticut General Statutes (“CGS”) gives the DEEP the authority to develop, adopt, maintain, and enforce a comprehensive statewide program of noise regulation, including the following:

- Controls on environmental noise through the regulation and restriction of the use and operation of any stationary noise source;

TABLE 6: FRANKLIN SERVICE AREA PARCEL DATA

No.	M-B-L	Location	Owner	PROPERTY ZONE	AREA (acres)	EXISTING FARMLAND (acres)	PRIME FARMLAND SOILS (acres)	STATEWIDE IMPORTANT FARMLAND SOILS (acres)	FLOOD ZONES	PARCEL DETAILS CURRENT USE / COMMENTS
Segment 1 and 2 CURRENT PROJECT										
1	53-45-26	23 NEW PARK AVENUE	ADELMAN FAMILY, IRREVOCABLE TRUST	Industrial	11.1				AE	undeveloped
2	53-45-23	8 OLD ROUTE 32	ADELMAN FAMILY, LP	Developed	3.5				0.2%, AE	vacant/parking lot
3	53-45-24	15 ROUTE 32	FRANKLIN PROPERTIES, INC	Commercial	0.9				0.2%	7 Eleven
4	53-45-12	14 ROUTE 32	KAREN SEMMELROCK	Residential	0.5				0.2%, AE	Modesto's Restaurant
5	53-45-26	23 NEW PARK AVENUE	ADELMAN FAMILY, IRREVOCABLE TRUST	Industrial	11.1				0.2%, AE	undeveloped/parking lot
6	53-45-25	3 NEW PARK AVENUE	THOMAS L. HOLMGREN, TRUSTEE	Commercial	2.2				NA	Holmgren Subaru
7	53-45-11	18 ROUTE 32	PAUL & DAVID SEMMELROCK, ETAL	Residential	2.3	2.3		1.4	0.2%, AE	residential house / hay lot
8	53-45-34	6 NEW PARK AVENUE	FRANKLIN FAMILY REALTY, LLC	Commercial	2.5				NA	Nutmeg International Trucks
9	53-45-33	6 NEW PARK AVENUE	FRANKLIN FAMILY REALTY, LLC	Commercial	0.9				NA	Nutmeg parking lot
10	53-45-32	20 NEW PARK AVENUE	CAM-CT PROPERTIES LLC	INDUSTRIAL	3.0				NA	Process Components
11	53-45-10	38 ROUTE 32	STATE OF CONNECTICUT	COMMERCIAL	3.0			2.9	NA	DOT Maintenance Garage
12	53-45-38	18 SODOM ROAD	STERRY KENNETH C JR & STERRY KEITH R & ETAL	Residential	0.2			0.2	NA	Developed, Single Family House
13	53-45-37	14 SODOM ROAD	KEITH R STERRY	COMMERCIAL	5.2	5.2		2.6	NA	partially developed/ connected to hay lot
14	53-45-39	10 SODOM ROAD	SEMMELROCK EDWARD R & RABIDEAU LYNN P	Residential	1.2			0.9	NA	Developed, Single Family House
15	53-45-40	8 SODOM ROAD	SEMMELROCK DAVID & SEMMELROCK PAUL F EST	Residential	2.0			0.7	NA	Developed, Single Family House
16	53-45-41	4 SODOM ROAD	PAGANO BARBARA & VICTOR E	Residential	0.2			0.2	NA	Developed, Single Family House
17	53-45-8	50 ROUTE 32	RWV SELF STORGE IV, LLC	Commercial	3.1		0.9	2.2	NA	Easy Does It Storage
18	53-45-42	2 SODOM ROAD	SCJ HOLDING, LLC	Residential	1.8			0.3	NA	Developed, Single Family House
19	53-45-43	75 ROUTE 32	GARY URBINATI & PATRICIA OSTEN	Residential	4.3				NA	Developed, Single Family House
20	53-45-44	63 ROUTE 32	BENJAMIN C. MIKULIEWICZ	Residential	1.4				NA	Developed, Single Family House
21	53-45-56	62 ROUTE 32	LEEMILTS PETROLEUM	Commercial	0.5				NA	bottled water usage in the past due to VOC contamination in wells
22	53-45-55	66 ROUTE 32	GUY PALAZZO, LLC	Commercial	1.4		0.3		0.2%, AE	Car Dealership
23	53-45-54	70 ROUTE 32	BETTYANN THORNTON	Commercial	0.1		0.0		NA	Franklin Wine & Spirit
24	53-45-45	67-69 ROUTE 32	DORA RYTMAN, EST	Multi-Residential	1.5				NA	Two Single Family Houses, 1 lot
25	53-45-53	72 ROUTE 32	PAM, LLC	Commercial	2.6		2.0		AE	Developed, Commercial
26	53-45-46	79 ROUTE 32	PATRICK D. & LISA M. LATOUR	Commercial	1.9				NA	Developed, Day Care Center
27	53-45-52	84 ROUTE 32	DATA DARBAR, LLC	Undeveloped	1.9		1.6		AE	Vacant, Wooded with Steep Slope, Future Sewer Pump Station Easement Area
28	53-45-49	89 ROUTE 32	RICARD P. CARR	Residential	0.8				NA	Developed, Single Family House
29	53-45-50+51	96 ROUTE 32	DATA DARBAR, LLC	Commercial	2.9		2.3		AE	Bestway Gas Station/ Convenience Store, Septic concern in the past problem correct with increased pumping of tank to protect leaching field from failure
30	53-44-24	99 ROUTE 32	DSD CEDAR HILL, LLC	Residential	5.4				NA	Developed, Single Family House

TABLE 6: FRANKLIN SERVICE AREA PARCEL DATA

No.	M-B-L	Location	Owner	PROPERTY ZONE	AREA (acres)	EXISTING FARMLAND (acres)	PRIME FARMLAND SOILS (acres)	STATEWIDE IMPORTANT FARMLAND SOILS (acres)	FLOOD ZONES	PARCEL DETAILS CURRENT USE / COMMENTS
31	53-44-23	102 ROUTE 32	FRANKLIN COMMONS REALTY, LLC	Commercial	1.4		1.0		NA	Eastern Connecticut Association of Realtors/failing septic. DPH Consent Order for Lead Exceedance.
32	53-44-25	107 ROUTE 32	DEMETRIOS, LLC	Commercial	1.7				NA	Developed, Strip Mall
33	53-44-22	106 ROUTE 32	FRANKLIN COMMONS REALTY, LLC	Commercial	1.5				NA	Comm. Offices, Failing Septic
34	53-44-21	114 ROUTE 32	EVD, LLC	Commercial	2.2				NA	Thrifty Car Sales
35	53-44-26	115 ROUTE 32	JASON G. DOUBLEDAY	Commercial	5.1				NA	Doubleday/commerical
36	53-44-20	118 ROUTE 32	D. W. HOLDING, LLC	Commercial	0.7				NA	office
37	53-44-27	123 ROUTE 32	NE JEPPESEN STONE SUPPLY, LLC	Commercial	8.0				NA	Rock Quarry, steep slopes
38	53-44-19	140 ROUTE 32	D. W. HOLDINGS, LLC	Commercial	3.4				NA	mixed commercial
39	53-44-28	135 ROUTE 32	ROUTE 32 ASSOCIATES, LLC	Industrial	87.0				NA	undeveloped, forested, steep slopes
40	53-44-18	140 ROUTE 32	D. W. HOLDINGS, LLC	Commercial	6.7				NA	DW Transport & Leasing
41	53-44-17	152 ROUTE 32	DAN AND SUSAN J. DOLLIVER	Residential	2.3			1.9	NA	Frank's Auto Tops & Seat
42	53-44-16	158 ROUTE 32	RALPH G. FARGO, JR	Commercial	4.7			1.9	NA	repair shop/commercial
43	53-44-15	164 ROUTE 32	FARGO FAMILY, LP	Residential	1.9				NA	repair shop/commercial
44	53-43-8	ROUTE 32	BARBARA D. O'HEARN	Residential	0.8				NA	undeveloped, forested
45	53-44-14	170 ROUTE 32	ABCO WELDING & INDUSTRIAL SUPPLY, INC	Commercial	1.0				NA	Airgas Store
46	53-45-47	ROUTE 32	RYTMAN DORA EST C/O	Industrial	99.0				NA	undeveloped-- former chicken farm
Segment 1 and 2		CURRENT PROJECT SUBOTOTALS			306.5	7.5	8.2	15.0		
Segment 3 and 4		PROPOSED FUTURE EXPANSION								
201	53-44-13	11 MURPHY ROAD	WILLIAM BACKUS	COMMERCIAL	2.1				NA	Developed, warehouse
202	53-44-12	15 MURPHY ROAD	ROUTE 32 REALTY	COMMERCIAL	2.8				NA	Vacant commercial
203	53-42-8	20 MURPHY ROAD	CHERIC DISTRIBUTORS LLC	COMMERCIAL	4.6			1.2	NA	Developed commercial
204	53-44-11	25 MURPHY ROAD	JD THAKRAL & ASSOCIATES	COMMERCIAL	5.5				NA	Murphy's Self Storage
205	53-42-9	26 MURPHY ROAD	VAGANGLES LLC	COMMERCIAL	2.8			0.7	NA	Developed, Fuel Oil Storage
206			JD THAKRAL & ASSOCIATES	COMMERCIAL					NA	Office, Parking Lot for Storage
207	53-42-10	32 MURPHY ROAD	PATRICK COLEMAN	COMMERCIAL	2.8			2.6	NA	developed
208	53-44-9	37 MURPHY ROAD	M&M POULTRY FARMS	COMMERCIAL	1.4		0.1		NA	developed
210	53-44-8	39 MURPHY ROAD	HILLANDALE FARMS CONN	COMMERCIAL	11.9	11.9	3.0		0.2%, AE	Existing field, corn grown
211	53-41-36	MURPHY ROAD	PATRICK COLEMAN	RESIDENTIAL	5.4		1.3	1.3	0.2%, AE	Conservation Area per State C&D Locational Guide Map/gravel pit
212	53-44-33	MURPHY ROAD	FRANKLIN BUSINESS PARK	COMMERCIAL	5.6	5.6	0.3		0.2%, AE	Existing farm use
213	53-31-32	58 MURPHY ROAD	ADAMS JEAN & LAMBERT	RESIDENTIAL	0.9			0.9	NA	Conservation Area per State C&D Locational Guide Map/residential developed
214	53-44-34	MURPHY ROAD	FRANKLIN BUSINESS PARK LLC	COMMERCIAL	5.4	5.4		0.5	0.2 %, AE	farm
215	53-41-31	71 LEBANON RAOD	ANDREW SEAGER	RESIDENTIAL	1.3			1.3	NA	Conservation Area per State C&D Locational Guide Map/developed
216	53-42-11	MURPHY ROAD	CHERIC DISTRIBUTORS LLC	RESIDENTIAL	46.4			7.0	NA	undeveloped
Segment 3 and 4		PROPOSED FUTURE EXPANSION SUBTOTALS			98.7	22.9	4.7	15.5		
Segment 5		PROPOSED FUTURE EXPANSION								
101	53-43-7	174 ROUTE 32	WILLIAM MOSLEY	RESIDENTIAL	0.7			0.1	NA	Developed, Single Family House
102	53-43-14	ROUTE 32	TIMOTHY OHEARN	RESIDENTIAL	0.6			0.6	NA	undeveloped

TABLE 6: FRANKLIN SERVICE AREA PARCEL DATA

No.	M-B-L	Location	Owner	PROPERTY ZONE	AREA (acres)	EXISTING FARMLAND (acres)	PRIME FARMLAND SOILS (acres)	STATEWIDE IMPORTANT FARMLAND SOILS (acres)	FLOOD ZONES	PARCEL DETAILS CURRENT USE / COMMENTS
103	53-42-7	182 ROUTE 32	182 ROUTE 32 LLC	COMMERCIAL	8.3			0.8	NA	undeveloped
104	53-42-6	178 ROUTE 32	LUCAS PROPOERTIES LLC	COMMERCIAL	0.2			0.0	NA	Developed, Single Family House
105	53-43-6	ROUTE 32	MICHAEL OHEARN	RESIDENTIAL	0.8			0.7	NA	undeveloped
106	53-43-5	189 ROUTE 32	STEPHEN AND KAREN OHEARN	RESIDENTIAL	1.0			0.2	NA	Developed, Single Family House
107	53-42-5	192 ROUTE 32	SUSAN KNOWLES	COMMERCIAL	2.3			0.7	NA	Developed, Commercial
108	53-43-4	193 ROUTE 32	PAUL AND JOAN DRISCOLL	RESIDENTIAL	2.8			1.4	NA	Developed, Single Family House
109	53-42-4	204 ROUTE 32	CORY ALVIN	COMMERCIAL	23.0			17.3	NA	Developed, Single Family House
111	53-42-3	210 ROUTE 32	210 ROUTE 32 LLC	COMMERCIAL	1.5			1.4	NA	Developed, existing office bldg.
112	53-42-2	214 ROUTE 32	ALGONQUIN GAS	COMMERCIAL	4.2			3.5	NA	Developed, existing gas co. bldgs
113	53-43-2	223 ROUTE 32	JOHN MASSENGILL	RESIDENTIAL	2.2			0.3	NA	Developed, Single Family House
114	53-42-1	ROUTE 32	SAMUAL PIOTRKOWSKI	COMMERCIAL	9.5			3.8	NA	Undeveloped, overflow parking
115	53-43-1	233 ROUTE 32	JOSEPH MEYER	RESIDENTIAL	0.9			0.0	NA	Developed, Single Family House
116	53-43-13	237 ROUTE 32	ROBERT KOPETZ	RESIDENTIAL	1.0			0.1	NA	Developed, Single Family House
117	53-38-17	241 ROUTE 32	GEORGE TRABAKOULOS	RESIDENTIAL	1.0			0.1	NA	Developed, Single Family House
118	53-37-1	248 ROUTE 32	FRANKLIN HILLS ESTATES AND COUNTRY CLUB	PRDD	324.7		28.0	4.0	NA	Approved Golf Course / Housing Uses, Golf Course Under construction
119	53-43-9	ROUTE 32	BARBARA D. O'HEARN	INDUSTRIAL	20.0				NA	Undeveloped, Forested
Segment 5 PROPOSED FUTURE EXPANSION SUBTOTALS					404.7		28.0	35.1		
TOTAL SEWER & WATER SERVICE AREA					809.9		40.8	65.7		

FLOOD ZONE AE - 100-YR FLOODPLAIN, OR AREA THAT HAS 1% PROBABILITY OF FLOODING EVERY YEAR, ESTABLISHED BY DETAILED METHODS.

FLOOD ZONE 0.2% - 500-YR FLOODPLAIN, OR AREA THAT HAS 0.2% PROBABILITY OF FLOODING EVERY YEAR.

NA-NOT APPLICABLE

This page is intended to be blank.

- Ambient noise standards for stationary noise sources that, in the commissioner's judgment, are major sources of noise when measured from beyond the property line of such source;
- Consultation with state and local governmental agencies when such agencies adopt and enforce codes, standards, and regulations dealing with noise insulation and abatement for any occupancy or class of occupancy; and
- Controls on airport and aircraft noise to the extent not preempted by federal law.

Sections 22a-69-1 to 22a-69-7.4 of the Regulations of the Connecticut State Agencies (“RCSA”) set forth the statewide program of noise regulation. Class A noise zones include residential areas where human beings sleep or areas where serenity and tranquility are essential to the intended use of the land. Class B includes retail trade, personal business and legal services, educational institutions, government services, agricultural activities, and lands intended for such commercial or institutional uses. It also includes transportation, communications, and utilities. Class C lands include manufacturing activities, transportation facilities, warehousing, military bases, mining, agriculture, and other lands associated with production uses.

Since the current extension project and associated service areas are located in a mixed-use area, the most stringent noise standards apply (Class A). The current extension project will not cause any long-term direct impact, but only a short-term direct impact to noise levels in the neighborhood during the anticipated nine-month construction period. Indirectly, the proposed action may result in future development projects that could have a short-term impact to noise levels in the neighborhood.

Mitigation of noise will be performed to Class A residential standards, which is discussed in Section 7.3.

7.1.3 Water Quantity

Currently, the parcels in the proposed sanitary sewer and water service areas use septic systems for wastewater disposal, and public and private wells to supply drinking water.

Conventional septic systems with a design flow of less than 2,000 gallons per day are regulated by the Franklin Health Department, which is run by the Town of Franklin. Conventional septic systems with a design flow of greater than 2,000 gallons per day, but less than 5,000 gallons per day, are regulated by the Connecticut Department of Public Health (“DPH”). Any septic system using alternative treatment, or conventional system with a design flow of greater than 5,000 gallons per day, is regulated by the DEEP.

Drinking water wells and public municipal water utilities are regulated by the DPH. Since the proposed project will also include the extension of water service, many of the parcels that are

currently served by on-site wells are expected to connect to public water service from Norwich Public Utilities (“NPU”) when it becomes available, thus abandoning their wells. The DPH commented on the Notice of Scoping that was posted for this project on August 16, 2016 in the Environmental Monitor, indicating that the project will pass several existing public water systems on Route 32 in Franklin. Listed below are the parcels containing these public water systems, which are marked on Figure 3:

- Franklin Mobil (aka Leemilts Petroleum) (Parcel # 21)
- 96 Route 32, Bestway Gas Station (Parcel #29)
- Franklin Commons (Parcels #31 and 33)
- 107 Route 32, Demetrios, LLC Strip Mall (Parcel #32)
- DW Transport & Leasing, Inc. (Parcel #40)

The DPH scoping notice comments for the proposed project can be found in Appendix C.

The water demand is estimated to be 100,000 gallons per day in the service area for the current extension project (Green Service Area on Figure 2). If other future sanitary sewer and water main extension projects further up Route 32 and along Murphy Road are also constructed, the water demand for the Green, Purple and Orange Service Areas, along with Parcel #110, would be approximately 340,000 gallons per day. This assumes that the Franklin Golf Course developer acquires diversion permits for irrigation, and that the project is phased.

NPU has indicated that it has adequate safe yield and permitted capacity to meet these water demands. See Appendix A for the calculations used to estimate water demand.

Assuming wastewater generation equal to the water demand required for full build-out of the current extension project service area (Green Area), the Town of Franklin is purchasing 100,000 gallons per day wastewater capacity in the NPU sanitary sewer system and the Norwich Water Pollution Control Facility.

NPU has confirmed that its sanitary sewer and water systems have adequate capacity to support these flows. Capacity for future extensions (Orange and Purple Areas) would require re-evaluation by NPU.

7.1.4 Water Quality

Water quality may be influenced by both point and nonpoint sources of pollution. Point sources are well-defined, discrete locations such as sewage treatment plant discharges or combined sewer overflows. Nonpoint sources of pollution include storm drainage, surface runoff, erosion, and leachate from broader areas and human activities.



- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED FUTURE EXPANSION SEGMENT 3 & 4
- PROPOSED FUTURE EXPANSION SEGMENT 5
- AQUIFER PROTECTION AREA
- PARCEL BOUNDARY
- TOWN BOUNDARY

Town of Franklin
ROUTE 32 PROPOSED SEWER AND WATER EXTENSION

Lenard Engineering, Inc.
 Civil, Environmental
 and Hydrogeological Consultants

**WATER QUALITY & AQUIFER
 PROTECTION AREAS MAP
 FIGURE 3**

Date March 13, 2017

The State of Connecticut has set forth a policy for the management of water quality through the Water Quality Standards (most recently updated November 2015), wherein criteria and a classification system are applied to all surface water and groundwater resources in the state. These standards act in concert with the principles of Connecticut's Clean Water Act. These classifications establish designated uses for surface and groundwater resources and identify the criteria necessary to support those uses. Criteria have been established with respect to desirable use, anti-degradation, allowable types of discharges, waste assimilation, and a variety of physical and chemical constituents.

Federal law prohibits a state from diminishing surface water quality classifications or standards in order to accommodate new or increased wastewater discharges or land use practices that impact a particular watercourse. Therefore, the state must attain and maintain the most sensitive existing and potential use for a respective water body.

Surface Water Quality

Susquetonscut Brook and Johnny Cake Brook are located within the proposed sanitary sewer and water service areas, as shown on Figure 3. The DEEP classifies types of larger surface waters along with respective uses. These brooks discharge ultimately to the Yantic River, a Class B waterbody. Class B waterbodies are not appropriate for drinking, but may be used for recreational purposes. Discharges from industrial and municipal wastewater treatment facilities and cooling waters are allowed into Class B waterbodies.

The extension of sanitary sewer and water mains is expected to have a long-term beneficial impact on local surface water quality through the reduction of untreated wastewater discharges from individual septic system failures and their associated bacterial and nutrient loadings. Connecting to the NPU sanitary sewer system will eliminate the risk of surface discharges due to septic system failures. Installation of the proposed sanitary sewer and water mains is not expected to impact water quality in the tributary to Susquetonscut Brook or Johnny Cake Brook, or the Yantic River. No in-water work will be conducted.

The current extension project and other future development projects could indirectly impact nearby surface water quality without proper mitigation measures, which are described in Section 7.3.

Groundwater Quality

The DEEP classifies types of groundwater along with respective uses. The groundwater quality classification for the currently proposed sanitary sewer and water service area is GA, but there is a small portion that does not meet current standards, and is “GA impaired” (see Figure 3). Wastewater discharges in a GA area are restricted to stringent treatment and discharge requirements, and other wastes of natural origin that easily biodegrade and present no threat to

groundwater. Groundwater within a GA area is presumed suitable for drinking without treatment.

Groundwater contamination is an existing concern within the proposed sanitary service area. There are three parcels within the proposed service area (Parcels #29, 31, and 33 in Green Service Area on Figure 2) that have experienced prior septic concerns. These concerns led to additional maintenance of the system to prevent leaching field failures. However, there are no officially documented septic system failures reported in the proposed or future sanitary sewer and water service areas. In addition, the DPH has an existing Consent Order for lead exceedances at Franklin Commons (both Parcels #31 and 33).

There was one occurrence of Volatile Organic Compound (“VOC”) contamination at a local gas station (Parcel #21) along Route 32, and bottled water was necessary for a period of time. There are currently twenty contamination sites that have been identified in the Town of Franklin as contaminated or potentially contaminated as defined under Section 22a-134f of the Connecticut General Statutes. Several of these sites are located within the Route 32 area. The DEEP List of Contaminated or Potentially Contaminated Sites is attached (see Appendix E).

Once the sanitary sewer and water mains are installed, groundwater quality may improve for parcels who may currently have underperforming septic systems. There is an area within northern Franklin that contains a large area of stratified drift; however, there are currently no aquifer protection areas within the Town of Franklin. The closest aquifer protection area is located in the Town of Sprague (see Figure 3). Therefore, no large producing wells will be impacted by this construction activity in Route 32.

The construction of the current extension project and other future development projects could negatively impact groundwater without proper mitigation measures, which are described in Section 7.3.

Drinking Water Quality

Many of the parcels that are currently served by on-site wells are expected to connect to public water service when it becomes available, thus abandoning their wells. The DPH commented on the Notice of Scoping that was posted for this project on August 16, 2016 in the *Environmental Monitor*, indicating that the project will pass several existing public water systems on Route 32 in Franklin.

As indicated earlier, the DPH has an existing Consent Order for lead exceedances at Franklin Commons (Parcels #31 and 33), indicating that the water quality from this area is unsuitable for drinking. As Figure 3 shows, the proposed sanitary service area also includes an area that does not meet current GA standards.

Overall, the Route 32 area would benefit by connecting to a public sanitary sewer and water system.

7.1.5 Floodplains

CGS Chapter 476a Section 25-68 defines Connecticut Flood Management Act (FMA) requirements in the State of Connecticut. CGS Section 25-68d requires all state-funded projects to secure a certification or exemption if the projects is located within or affects floodplains or natural or man-made storm drainage facilities.

Sections 25-68h-1 through 25-68h-3 of the Regulations of the Connecticut State Agencies (“RCSA”) are the Connecticut floodplain management regulations. These regulations require that a state agency certify that the activity is consistent with all applicable standards. This process is completed through a Flood Management Certification process administered by DEEP. In general, these regulations require that:

- New construction be performed free from flooding;
- New buildings are elevated above the base flood elevation;
- No fill be placed in the floodplain that would raise the base flood elevation by 1 foot; and
- On-site stormwater management shall be prepared to minimize any adverse increases to the peak flow rate, the timing of runoff, and the volume of runoff.

Section 25-68 (b) (4) of the CGS requires that a proposed action promote long-term nonintensive floodplain uses and have its utilities located to discourage floodplain development. This policy invokes a higher standard than the engineering standards contained in either the federal or the municipal floodplain regulations.

The determination of whether a specific proposal is considered nonintensive requires examination of numerous factors, including the existing state of the floodplain and its natural resources, the types of uses proposed for the floodplain area, the design of the entire proposal and the extent of encroachment into the floodplain, and the availability of alternatives to siting within the floodplain. In order to ensure compliance with state policy, any proposed development must not result in more intensive uses of the floodplain than presently exist.

Intensive floodplain uses have been interpreted by DEEP to include:

- New residential uses within the floodplain
- Any increase in the square footage of office, retail, industrial, or business uses
- Conversion of nonresidential use(s) to residential use

The installation of underground utilities is generally considered a nonintensive activity if additional development will not be spurred within the floodplain. The creation of new pump houses or treatment buildings would not be considered intensive since such structures would be elevated above the base flood elevation.

The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRMs) that depict 100-year and 500-year floodplains in many areas throughout the country. A 100-year floodplain is an area that has a 1% chance of being flooded in any given year (Zone A). A 500-year floodplain is an area that has a 0.2% chance of being flooded in a given year (Zones B or X).

Figure 4 depicts FEMA flood zones in relation to the current sanitary sewer and water extension project (yellow line) and possible future extension projects (purple and orange lines) and parcels in the associated service areas. The sanitary sewer and water mains and wastewater pump station in the current extension project will be constructed outside of FEMA 100-year floodplain boundaries. A small portion of the sanitary sewer and water mains will cross-country through the 500-year floodplain that is part of Parcel #5. Construction work will remain largely within the existing Town and Connecticut Department of Transportation (“DOT”) rights-of-way. The mitigation of impacts to floodplains is discussed in Section 7.3.

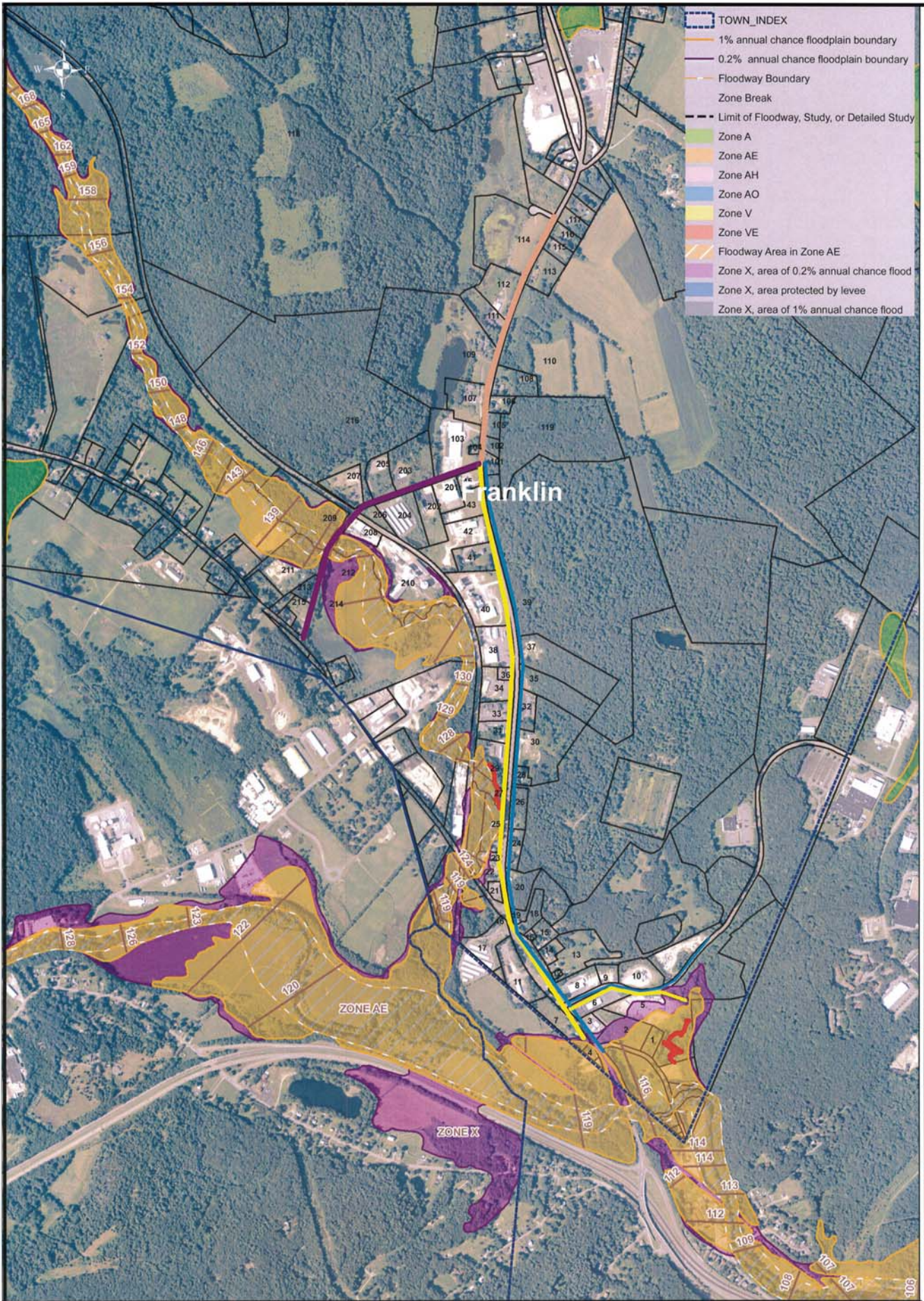
7.1.6 Inland Wetlands

The DEEP has general definitions of the types of wetland soils:

- Alluvial and Floodplain soils occur along watercourses occupying nearly all level areas subject to periodic flooding. Such material can be composed of clay, silt, sand, or gravel. These soils range from being excessively drained to very poorly drained and, as such, some floodplain soils can be dry most of the year.
- Poorly drained soils occur where the water table is at or just below the ground surface usually during the late fall through early spring. The nearby landscape is typically nearly level or gently sloping.
- Very poorly drained soils generally occur on level land or in depressions. The water table lies at or above the surface during most of the growing season. Most marshes and bogs are located above these soils.

Typically, roadway utility installation projects impacting less than 5,000 acres of wetlands do not require review by the United State Army Corps of Engineers. Smaller inland wetlands are regulated by the Franklin Inland Wetlands and Watercourses Commission.

Wetlands boundaries for the current extension project were flagged by a certified wetlands soils scientist. Portions of the proposed sanitary sewer and water mains will be installed adjacent to,



- TOWN_INDEX
- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway Boundary
- Zone Break
- Limit of Floodway, Study, or Detailed Study
- Zone A
- Zone AE
- Zone AH
- Zone AO
- Zone V
- Zone VE
- Floodway Area in Zone AE
- Zone X, area of 0.2% annual chance flood
- Zone X, area protected by levee
- Zone X, area of 1% annual chance flood

- PROPOSED SEWER
- PROPOSED WATER
- POSSIBLE FUTURE EXPANSION SEGMENT 3 & 4
- POSSIBLE FUTURE EXPANSION SEGMENT 5
- TOWN BOUNDARY
- WETLANDS

Town of Franklin
ROUTE 32 PROPOSED SEWER AND WATER EXTENSION

Lenard Engineering, Inc.
Civil, Environmental
and Hydrogeological Consultants

FLOOD ZONE & WETLANDS MAP
FIGURE 4

1 inch = 0.17 miles Date April 4, 2017

but not cross wetland boundaries. One sanitary sewer pumping station will be located on an easement at 84 Route 32, which is located within a wetlands upland review area, and was permitted by the Town of Franklin Inland Wetlands Commission. No state or federal wetlands permits will be required. The current sanitary sewer and water main extension project may result in future development projects in the service areas. Mapped wetlands areas within the proposed and future sanitary sewer and water service areas are depicted in red on Figure 4, but any future development projects would require wetlands flagging by a certified wetlands soils scientist.

The mitigation of impacts to wetland resources is discussed in Section 7.3.

7.1.7 Coastal Resources

The current extension project area and sanitary sewer and water service areas are not situated within a designated Coastal Zone, and therefore there will be no impact to coastal areas.

7.1.8 Wild & Scenic Rivers

No Wild & Scenic Rivers are located in the Town of Franklin or the surrounding area, and therefore there will be no impact.

7.1.9 Fish & Wildlife Habitat

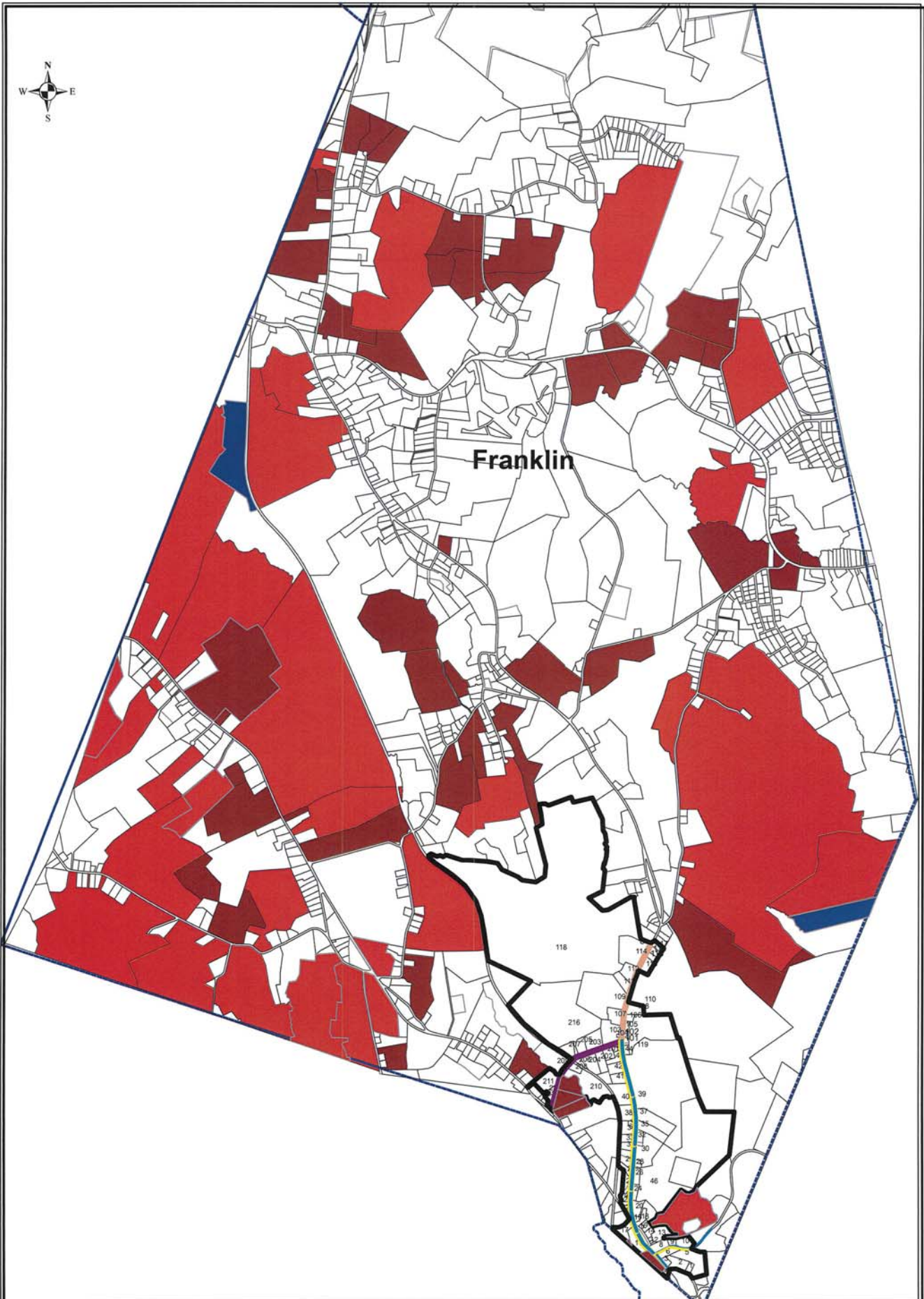
There is no fish and wildlife habitat located in the current extension project area and sanitary sewer and water service areas, and therefore there will be no impact.

7.1.10 Farmland

Farming and agriculture is a significant land use in the Town of Franklin. As shown in Figure 5A, approximately 70 existing parcels in the Town of Franklin have been identified by the Southeastern Connecticut Council of Governments as having either farms, farms and forest, or development rights sold.

Some of the major farms/agricultural parcels have the following uses:


- 112 acres with 1,000,000 + chickens
- 434 acres with 1,000 + dairy cows and hay fields
- 107 acres of hay fields
- 51 acres of Nursery
- 607 acres of hay fields, forest, pasture
- 179 acres with dairy cows, pasture, tillable, and forest
- 132 acres with horse farm, and pasture
- 129 acres is tillable



Franklin

-  PROPOSED WATER
-  PROPOSED SEWER
-  PROPOSED AND POSSIBLE FUTURE SERVICE AREA
-  DEVELOPMENT RIGHTS SOLD
-  FARMS AND FOREST
-  FARMS

Town of Franklin
ROUTE 32 SEWER AND WATER EXTENSION

 Lenard Engineering, Inc.
Civil, Environmental
and Hydrogeological Consultants

EXISTING FARMLAND MAP
FIGURE 5A

1 inch = 0.44 miles

Date April 4, 2017

- 261 acres is tillable and forest
- 83 acres of beef cows, pasture, tillable, forest

Note that the majority of these parcels are outside of proposed and future sanitary sewer and water service areas, and in residential zones (either R-80 or R-120 areas).

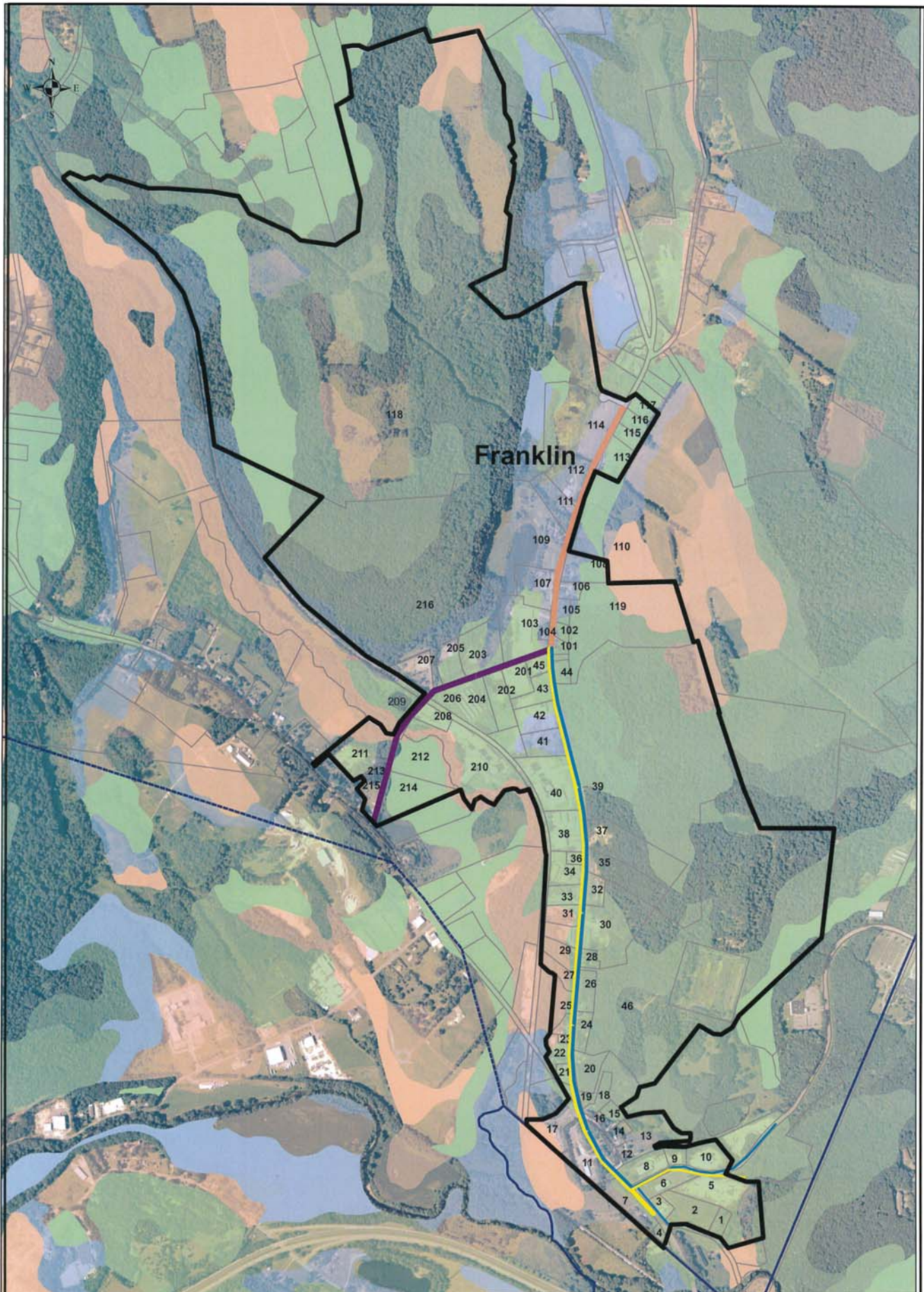
Figure 5 shows farmland soils (e.g., prime farmland soils and statewide important farmland soils) in relation to the current extension project area and sanitary sewer and water service areas. Table 6 tabulates how much significant farmland soils are mapped on each service area parcel, and how much existing farmland is located within the proposed and future sanitary sewer and water service areas. The current extension project area itself contains less than 25 acres of prime farmland soil or existing farmland, so there will be no direct impact from the extension of the sanitary sewer and water mains.

There will be a small indirect impact on existing and potential farmland located within the sanitary sewer and water service area associated with the current extension project. This service area shows approximately 8 acres of prime farmland soils and 15 acres of statewide important farmland soils, but they are not contiguous. Approximately 8 acres (Parcels #7 and 13) are currently used as a hay lot. There is one 99-acre parcel (Parcel #46) of undeveloped land that was formerly used as a chicken farm but is now vacant. The parcel contains steep slopes that would likely make it undesirable for any type of arable farming.

There is more potential for indirect impact to farmland from future utility extension along Murphy Road (purple line) and further north along Route 32 (orange line). The future service area along Murphy Road (Purple Area) contains approximately 5 acres of prime farmland soils and 16 acres of statewide important farmland soils, but the mapped farmland soils are not contiguous. However, there are also three contiguous parcels (approximately 23 acres combined) that function as corn farms: Parcels #210, 212, and 214.

Within the future service area further north on Route 32 (Orange Area), there is also potential for indirect impact on farmland soils (63 acres of agriculturally significant soils). Franklin Hills (Parcel #118) is a 325-acre parcel contains approximately 28 acres of prime farmland soils, and 4 acres of statewide important farmland soils, and has been used a farm previously. The parcel is in the early stages of conversion to a golf course, inn, and spa.

Section 7.3 discusses mitigation of this potential indirect impact.



PROPOSED WATER	Locally Important Farmland Soils
PROPOSED SEWER	Other
PROPOSED AND POSSIBLE FUTURE SERVICE AREA	Prime Farmland Soils
TOWN BOUNDARY	Statewide Important Farmland Soils

Town of Franklin
ROUTE 32 SEWER AND WATER EXTENSION

Lenard Engineering, Inc. Civil, Environmental and Hydrogeological Consultants	FARMLAND SOILS MAP FIGURE 5
	1 inch = 0.18 miles Date March 13, 2017

7.1.11 Critical & Endangered Species

The current extension project area and associated service areas do not overlap with any DEEP-mapped Natural Diversity Data Base (“NDDB”) areas.

Figure 6 shows the DEEP-mapped NDDB areas for the Franklin area.

7.1.12 Historical & Archeological

The current extension project area does not contain cultural or historical resources per records from the National Register of Historic Places and the State of Connecticut State Historic Preservation Office. One historic property is located in the Town of Franklin: the Asbel Woodward Museum at 387 Route 32, which is found further north, outside the project area or the proposed and future sanitary sewer and water service areas.

The area where construction activities are proposed has been disturbed by past development of paved roads and other utility installation. There is no immediately sensitivity to archeological resources.

7.1.13 Cultural & Recreational Resources

There are no identified cultural or recreational resources within the project area. Published information in both the National and State Register of Historic Places were reviewed, with no locations identified within the project area.

There are no identified town, state or federal recreational resources with the project area. The nearest location is the State of Connecticut Franklin Swamp Wildlife Management Area, located approximately two miles north of the project area limits on Route 32.








7.1.14 Pesticides and Hazardous & Solid Wastes


The United States Department of Transportation defines hazardous materials as:

"any substance which may pose an unreasonable risk to health and safety of operating or emergency personnel, the public, and/or the environment if not properly controlled during handling, storage, manufacture, processing, packaging, use, disposal, or transportation."

The use of hazardous and even nonhazardous materials can result in the generation of hazardous wastes that require proper disposal. Hazardous wastes are defined by the United States Environmental Protection Agency as having corrosive, reactive, ignitable, or toxic characteristics that can potentially harm human health or the environment when improperly managed.



	PROPOSED SEWER		POSSIBLE FUTURE EXPANSION SEGMENTS 5
	PROPOSED WATER		POSSIBLE FUTURE EXPANSION SEGMENT 3 & 4
	TOWN BOUNDARY		PROPOSED AND POSSIBLE FUTURE SERVICE AREA
	NATURAL_DIVERSITY_DATABASE		

Town of Franklin ROUTE 32 PROPOSED SEWER AND WATER	
 Lenard Engineering, Inc. Civil, Environmental and Hydrogeological Consultants	NATURAL DIVERSITY DATABASE FIGURE 6
1 inch = 0.36 miles	Date March 13, 2017

Hazardous waste generation, treatment, storage, and disposal are regulated by the federal Resource Conservation and Recovery Act.

The scope of this task consisted of a database review of the relevant State and Federal environmental regulatory agency records. Appendix E contains the DEEP List of Contaminated or Potentially Contaminated Sites.

There was one occurrence of volatile organic compounds contamination at a local gas station (Parcel #21) along Route 32, and bottled water was necessary for a period of time. There are currently twenty contamination sites that have been identified in the Town of Franklin as contaminated or potentially contaminated as defined under Section 22a-134f of the Connecticut General Statutes. Several of these sites are located within the Route 32 area.

During construction, there is the potential for human contact with contaminated soils. Section 7.3 discusses how this potential impact will be mitigated.

The current extension project and any resulting future development would result in increased generation of solid waste. Depending on the types of businesses, an increase in the amount of hazardous waste is also possible. Construction is expected to generate a small amount of solid waste from unrecyclable construction materials, asphalt scraps, and any leftover soil and rock that are replaced by bedding material within the trenches. Solid waste will be disposed of by the contractor in accordance with applicable laws and regulations.

7.1.15 Aesthetics or Visual Effects

The Town of Franklin has expressed its commitment to keep its rural character. The southern Route 32 area (where the proposed project is located) is characterized as a mixture of commercial, residential, and some agricultural, with undeveloped parcels zoned for industrial uses. The northern Route 32 area (which lies outside of the proposed project area and proposed and future sanitary sewer and water service areas) contain more farmland and open space land.

The construction of the current extension project and any resulting development in the proposed sanitary sewer and water service areas will not result in long-term impacts to the aesthetics of the southern Route 32 neighborhood. Construction vehicles and equipment will temporarily disturb the neighborhood.

Parcel #118 is under development as a golf course, inn, and spa. Any resulting development of parcels will be managed by zoning, and should be mitigated to the maximum possible extent.

7.1.16 Traffic

The current extension project and any resulting construction projects will not result in long-term impacts to traffic. Construction of the current sanitary sewer and water main extension project and any associated development projects in the service areas will temporarily increase traffic along Route 32. Short-term direct impact during the anticipated nine-month construction period will be mitigated as discussed in Section 7.3.

Any future development resulting from the current extension project, such as the completion of a golf course at 248 Route 32 (Parcel #118), will likely increase traffic along Route 32. Mitigation of this long-term traffic impact is discussed in Section 7.3.

7.1.17 Public Health & Safety

During construction, public health and safety must be a primary concern to avoid negative impacts. Mitigation to protect public health and safety is discussed in Section 7.3.

7.2 IRREVERSIBLE COMMITMENT OF RESOURCES

The implementation of this project will consume nonrenewable resources during the construction of the sanitary sewer and water mains (i.e., construction supplies, fuel, etc.). Since these resources cannot be reused, they are considered to be irreversibly and irretrievably committed. Additionally, the irreversible and irretrievable expenditure of approximately \$10 million is expected for the construction of the proposed sanitary sewer and water main extension project.

There will be no irreversible or irretrievable impacts to wild/scenic rivers, coastal zone management, endangered species, aesthetics, traffic, noise, air quality or water quality/quantity. The current extension project is located in a previously disturbed roadway or in the shoulders within the Connecticut DOT right-of-way. No historic places are located within the current extension project area or proposed and future sanitary sewer and water service areas.

7.3 MITIGATION MEASURES

The following mitigation measures will be taken to minimize the impacts discussed in Section 7.1:

7.3.1 Air Quality

All construction equipment should be properly maintained and outfitted with emission reducing exhaust equipment. Adherence to a Stormwater Pollution Prevention Plan (“SWPPP”), which will implement the use of erosion control devices such as silt fence, hay bales and catch basin silt sacks, will limit increases in fugitive dust.

7.3.2 Noise

Contractors will be required to make reasonable efforts to limit the impacts of construction noise to nearby properties, in order to adhere to Class A noise standards. Such efforts typically include restriction of work to daytime hours, proper maintenance of sound-muffling equipment, and advance notice of construction activities to nearby properties.

7.3.3 Water Quality/Quality

The current sanitary sewer and water main extension project requires a construction stormwater general permit from the DEEP, which will outline the specific best management practices to be utilized. Private wells located near the proposed sewer and water mains will be shown on the project construction plans. The plans and specifications must be submitted to the DEEP and DPH for review and approval prior to construction. In addition, the DPH should be consulted to determine whether the main extension would require NPU to review and revise its routine compliance monitoring locations for the Stage II Disinfectants and Disinfection Byproducts Rule. The construction of the sanitary sewer and water mains must meet the requirements of RCSA Section 19-13-B51 (d).

According to the DPH, pump stations, grinder pumps, sanitary sewer manholes and cleanouts are considered to be sources of pollution that require the maximum separating distance to public water supply wells pursuant to RCSA Section 19-13-B51(d). Sanitary sewer piping and joints may be allowed to be closer if it can be demonstrated to the DPH that the piping and joints are sound enough to prevent leakage. Separating distances are dependent on the withdrawal rate of the well; therefore, the noted public water systems should be contacted during the design phase to verify the withdrawal rate of their public drinking water supply wells in order to ensure that they are appropriately protected from sanitary encroachments.

The sanitary sewer must be designed and constructed to be protective of the accompanying public water supply main. The *Water Main Design and Construction Guidelines* included in Appendix D provide guidance on separating distances between sanitary sewers and public water supply mains. Specifically, Section (6) Separating Distances from Sources of Pollution, under the “Installation” subheading should be referenced when designing the system.

Adherence to a SWPPP, which will implement the use of erosion control devices such as silt fence, hay bales and catch basin silt sacks, will limit impact to water quality from construction. SWPPP mitigation measures will include the use of erosion control devices such as silt fence, hay bales, and catch basin silt sacks. All proposed water and sewer main construction is to take place within existing roadways, and within two cross-country easements with no wetland impacts. The one wastewater pumping station will be constructed within an easement area, with no wetland impacts.

The Town of Franklin will continue to require that proper best management practices be utilized to ensure protection of surface water and groundwater quality during the construction of private developments, which may result from the current sanitary sewer and water main extension project. New redevelopment projects will be subject to current stormwater management requirements. Redevelopment projects have the potential to improve stormwater hydraulics (i.e., peak runoff rates) as well as stormwater quality in comparison to the development standards when these sites were initially developed. For both development and redevelopment projects, the use of low impact development (“LID”) techniques should be encouraged by the Town of Franklin.

7.3.4 Floodplains

The full extent of the impacts of the current extension project to floodplains will be evaluated during the DEEP Flood Management Certification process. Mitigation measures will be required to minimize impacts.

Adherence to a SWPPP, which will implement the use of erosion control devices such as silt fence, hay bales and catch basin silt sacks, will limit impact to floodplains.

7.3.5 Inland Wetlands

The design of the current extension project is incorporating measures to minimize wetlands impacts. Portions of the proposed sanitary sewer and water mains will be installed adjacent to, but not cross wetland boundaries. Special construction techniques will be used to minimize potential impact to wetlands. Any impacts will be temporary and associated with construction from tie in of structure to sanitary sewer and water mains in roadway.

The only regulated activity in the project area was for the wastewater pumping station, located at 84 Route 32 in an easement, which was in the upland review area for wetlands adjacent to Susquetonscut Brook. This activity was approved by the Town’s Conservation Commission.

Adherence to a SWPPP, which will implement the use of erosion control devices such as silt fence, hay bales and catch basin silt sacks, will limit impact to wetlands. Impact to wetlands will also be mitigated by any other means deemed necessary by the Town of Franklin Conservation Commission.

Any resulting future development project in the future sanitary sewer and water service areas (shown as Purple and Orange Areas on Figure 2) should have wetlands flagged and obtain a permit through the Town of Franklin Conservation Commission.

7.3.6 Farmland

Please refer to Table 6 and Figures 5A and 5. As discussed earlier, there are three contiguous parcels (approximately 23 acres combined) that function as corn farms (Parcels #210, 212, and 214) that are included in a future service area (Purple Area in Figure 2). Since the farms comprise less than 25 acres, and because the 2013 - 2018 State of Connecticut Plan of Conservation and Development Locational Guide Map shows these parcels as Balanced Priority Funding Areas, it was determined that additional mitigation was not necessary.

Parcel #118, which previously functioned partially as a farm, is under construction to convert to a golf course, inn, and spa.

In the Town Plan of Conservation and Development (“Town POCD”), the Town of Franklin has expressed its commitment to “encouraging good agricultural practices to maintain Franklin’s farming heritage”. Historically, a significant portion of businesses in the Town were related to agriculture, including: three large feed mills, a mushroom farm, farm machinery and equipment dealers, and egg-producing and processing activities. The feed mills and mushroom farm have closed or relocated recently. Although the number of dairies has decreased, the four remaining dairies are strong and continue to invest into the future. There is also one goat farm and one sheep farm in Town, along with two registered beekeepers that manage 185 hives.

Figure 5A depicts the locations of existing farms in the Town of Franklin (in red). As Figure 5A illustrates, the vast majority of farmland in the Town of Franklin is located outside the proposed and future sanitary sewer and water service areas. These farms will be excluded from the service areas to preserve the farmland in the Town, while commercial development will be concentrated along the southern part of Route 32.

Parcel #110 is a 185-acre land parcel that is partially used for arable farming. The current owner is proposing to convert the parcel to a mixed use residential/commercial development, including time-share housing units, and indoor skiing facility, and music amphitheater. Parcel #110 would have frontage along one possible future sanitary sewer and water main extension (orange line on Figure 5). However, Parcel #110 already has access to existing NPU sanitary sewer and water mains on New Park Avenue. The current extension project along Route 32 will not likely impact whether a new residential/commercial development on Parcel #110 occurs.

7.3.7 Traffic

During construction of the current extension project and any future development projects, the contractor will be required to submit a traffic mitigation plan to the Town of Franklin. This plan should include the maintenance of one-way traffic at all times, displaying adequate signage to

warn approaching drivers, and the use of flaggers to route drivers around the construction equipment.

During design of the current extension project, the Town of Franklin should complete a traffic study to find ways to mitigate the impact that increased traffic will have to the Route 32 area if larger parcels are developed (e.g., the proposed golf course). Depending on the findings, recommendations could include the installation of additional traffic lights, roadway reconfiguration, and signage that could be implemented during the construction of this project.

7.3.8 Public Health & Safety

During construction, the contractor will require the use of personal protective equipment and other safety measures such as trench boxes during active excavation. During off-construction hours, trenches will be covered with metal plates.

8 IMPACTS TO LAND USE

Impacts to land use, and the consistency of the current sanitary sewer and water main extension project and its subsequent land use impacts to the 2013 - 2018 State of Connecticut Plan of Conservation and Development (“State C&D Plan”), are evaluated in this Section.

8.1 STATE C&D PLAN GROWTH MANAGEMENT PRINCIPLES

The State C&D Plan is defined as the text of such plan and any accompanying locational guide map in accordance with the Connecticut General Statutes (“CGS”) Section 16a - 30. State agencies must implement the State C&D Plan pursuant to requirement CGS Section 16a - 31 and Section 16a - 35d.

Section 16a - 31 requires state agencies to be consistent with the State C&D Plan whenever they undertake any of the following actions with state or federal funds:

- The acquisition of real property when the acquisition costs are in excess of two hundred thousand dollars;
- The development or improvement of real property when the development costs in excess of two hundred thousand dollars;
- The acquisition of public transportation equipment or facilities when the acquisition costs are in excess of two hundred thousand dollars; and
- The authorization of each state grant, any application for which is not pending on July 1, 1991, for an amount in excess of two hundred thousand dollars, for the acquisition or development or improvement of real property or for the acquisition of public transportation equipment or facilities.

CGS Section 16a-31 also requires the Office of Policy and Management (“OPM”) to:

- Provide an advisory statement, upon request by another state agency, on the extent to which a proposed action is consistent with the State C&D Plan;
- Review each Bond Commission agenda and issue an advisory statement on the extent to which the items on the agenda are consistent with the State C&D Plan; and
- Review certain draft plans prepared by state agencies under state or federal law, and provide the submitting agency with an advisory report commenting on the extent to which the proposed plan conforms to the State C&D Plan.

The State C&D Plan provides a policy and planning framework that will influence the future growth and development of Connecticut towns. There are six growth management principles that are the foundation of the State C&D Plan. Each principle is discussed below with regard to the current sanitary sewer and water main extension project, which is depicted as a yellow line on Figures 1 through 8, as well as potential future extensions shown as purple and orange lines on Figures 1 through 8. Associated sanitary sewer and water service areas (Green, Purple, and Orange Service Areas) are depicted on Figure 2:

1) Redevelop and Revitalize Regional Centers and Areas with Existing or Currently Planned Physical Infrastructure

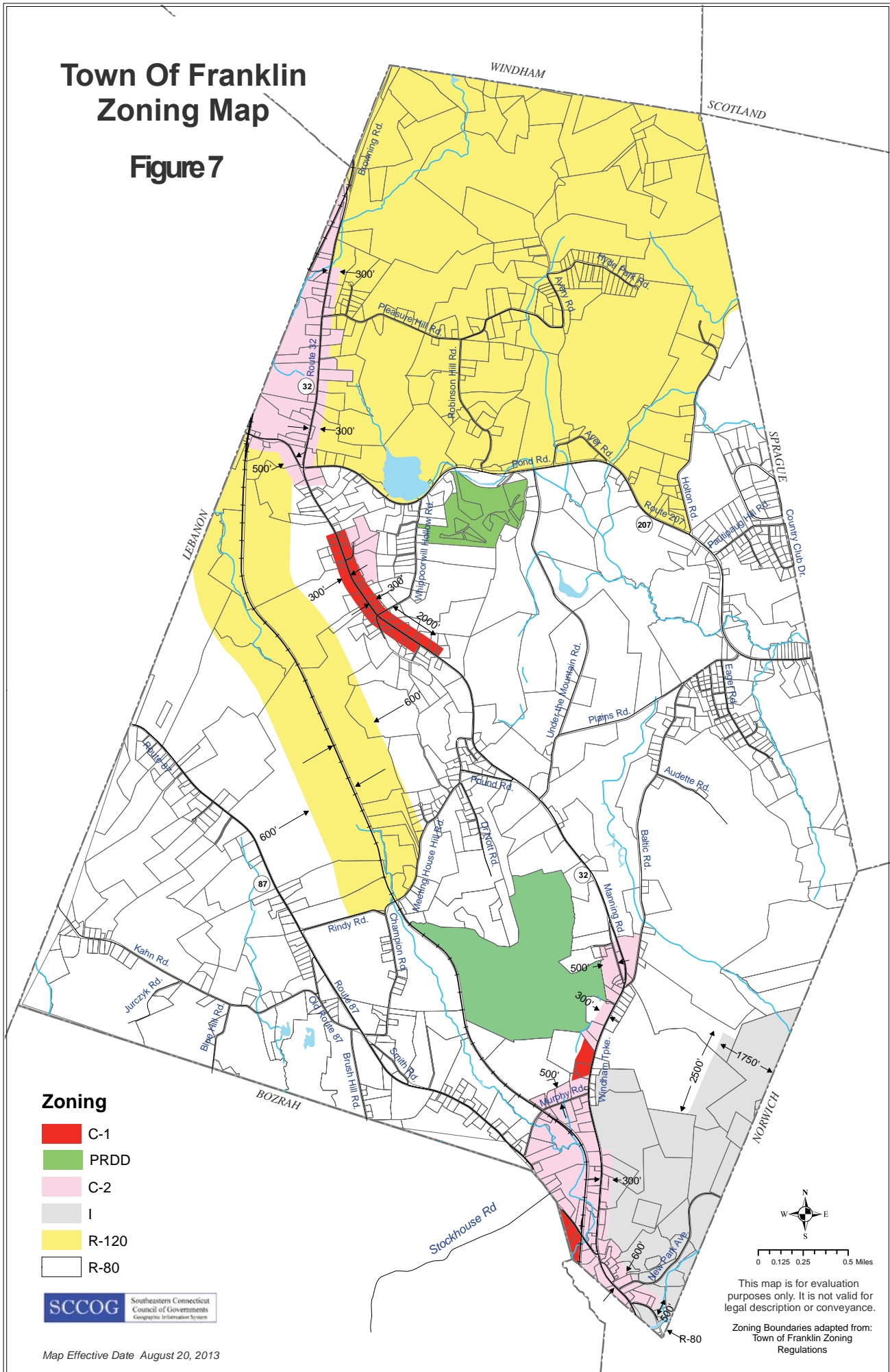
The current extension project will enable future development and revitalization for this section of Route 32 where there is currently mixed residential, commercial, industrial and vacant land use, with the Towns zoning allowing only future commercial and industrial land uses. A zoning map is depicted on Figure 7:

TABLE 7 GROWTH MANAGEMENT PRINCIPLE #1

Growth Management Principle #1	Project Consistency
Focus on infill development and redevelopment opportunities in areas with existing infrastructure, such as in city or town centers, which are at an appropriate scale and density for the particular area.	There are approximately 75 parcels within the proposed and future sanitary service areas. There are several undeveloped parcels for future development opportunities.
Coordinate the timing of any planned expansion of existing infrastructure to meet state and regional growth objectives.	Infrastructure growth will be planned to meet growth objectives.
Promote the continued use or adaptive reuse of existing facilities and developed property, including brownfields in strategic locations.	Having utilities available promotes existing use and reuse of existing facilities and developed properties.
Proactively identify and market available properties that are currently served by infrastructure and that could meet the needs of new or expanding businesses, especially those within close proximity to existing industry clusters.	The proposed and future sanitary sewer and water service areas are Residential / Commercial / Industrial, and any future development is zoned as Commercial / Industrial. The current sanitary sewer and water main extension project will increase the possible development or expansion of the Green, Purple, and Orange Service Areas.

Town Of Franklin Zoning Map

Figure 7



Promote supportive land uses around rail stations, airports and seaports, and discourage uses that are not dependent upon, or complimentary to, the available infrastructure.	There is currently a railroad siding within close proximity of the proposed and future service areas that serves selected commercial and industrial parcels.
Minimize the potential risks and impacts from natural hazards, such as flooding, high winds and wildfires, when siting infrastructure and developing property. Consider potential impacts of climate change on existing and future development.	The sanitary sewer and water mains will be installed below grade and not susceptible to natural hazards. The proposed pump station will not be located within flood zones. Mitigation of direct and indirect impacts to floodplains is discussed in Section 7.3.

2) Expand Housing Opportunities and Design Choice to Accommodate a Variety of Household Types and Needs

The current sanitary sewer and water main extension project along this section of Route 32 contains a mixed land use zones of residential, commercial and industrial, whereas current zoning will allow only commercial and industrial land uses. The Town of Franklin’s Plan of Conservation and Development (“Town POCD”) recommends zoning regulations to require larger residential development proposals and a review of zoning densities for areas served by public utilities.

By concentrating the commercial and industrial land uses where they are most suitable, with the presence of utilities, the remainder of the Town, which consists of approximately 90% of the total land area, can continue to be utilized for a variety of residential household types and needs, consistent with current zoning regulations.

3) Concentrate Development Around Transportation Nodes and Along Major Transportation Corridors to Support the Viability of Transportation Options

The current sanitary sewer and water main extension project is located along Route 32, which is a state primary highway and will support development around transportation nodes and viability of transportation options. Primary highways in the project vicinity are Route 2 and Route 395.

The installation of a sanitary sewer and water mains along Route 32 will concentrate commercial and industrial land uses adjacent to major state roadways, taking advantage of the strong existing transportation infrastructure already in place.

TABLE 8 GROWTH MANAGEMENT PRINCIPAL #3

Growth Management Principle #3	Project Consistency
Ensure that the planning, design, construction, and operation of state and local highways accommodate municipal plans and the needs of all users, to the extent possible.	The existing highway network is adequate to handle the commercial and industrial users within the service areas. Mitigation of direct and indirect impacts to traffic is discussed in Section 7.3.

4) *Conserve and Restore the Nature Environment, Cultural and Historical Resources, and Traditional Rural Lands*

All lands will be protected through the Town POCD. The town’s goals and objectives are to maintain and preserve the rural character of the town. The town will work with land owners to ensure conservation restrictions, maintain and enhance natural connections and wildlife corridors and support agriculture. The current extension project and associated service areas (Green, Purple, and Orange Service Areas) do not contain cultural or historical resources per records from the National Register of Historic Places and the State of Connecticut State Historic Preservation Office.

The installation of sanitary sewer and water mains along the commercial and industrial zoned areas along Route 32 in Franklin will concentrate that type of growth in the area where it was planned; allow the remaining 90% of the town to retain its rural nature; and better conserve and restore the natural environment, cultural and historic resources and traditional rural lands.

TABLE 9 GROWTH MANAGEMENT PRINCIPLE #4

Growth Management Principle #4	Project Consistency
Continue to protect permanently preserved open space areas and facilitate the expansion of the state's open space and greenway network through continued state funding and public-private partnerships for the acquisition and maintenance of important	Concentrating commercial and industrial development within the service areas will allow for potentially expanding open space in the Town of Franklin in the remaining rural and residential areas.

<p>multi- functional land and other priorities identified in the State's Open Space Plan (i.e., Green Plan).</p>	
<p>Seek to achieve no-net-loss of wetlands through development planning that: 1) avoids wetlands, whenever possible; 2) minimizes intrusions into wetlands when impacts are unavoidable; 3) mitigates any resulting impacts through wetland enhancement or creation; and 4) encourages ongoing maintenance of functional wetlands and buffer areas.</p>	<p>Mitigation of direct and indirect impacts to wetlands is discussed in Section 7.3.</p>
<p>Promote agricultural businesses and supportive industries that are vital to the local and regional economy, while simultaneously preserving prime farmland through the acquisition of development rights and, to the extent practical, the avoidance, minimization, and/or mitigation of the loss or conversion of agricultural lands associated with state- sponsored development actions.</p>	<p>Mitigation of direct and indirect impacts to farmland soils is discussed in Section 7.3.</p>

5) Protect and Ensure the Integrity of Environmental Assets Critical to Public Health and Safety

Protection and integrity of environmental assets will continue through the Town of Franklin local zoning and best management practice. Proper construction setbacks will be established for public and private wells to ensure public health and any safety concerns are addressed.

Eliminating existing older on-site septic systems in the service areas will eliminate the risk of groundwater contamination, and potential leaching into adjacent Susquetonscut Brook.

Property owners with private wells or with public non-community water systems will have the option to connect to the Norwich Public Utilities (“NPU”) water system, and eliminating any public health issues relating to bedrock well sources of supply adjacent to on-site septic systems.

TABLE 10 GROWTH MANAGEMENT PRINCIPLE #5

Growth Management Principle #5	Project Consistency
Identify water supply resources sufficient to meet existing demand, to mitigate water shortages during droughts, and to meet projected growth and economic development over at least the next 50 years.	The proposed action will provided sanitary sewer and water main extensions to the NPU system. This connection will allow sufficient water supply to meet demands, droughts, and growth and development.
Ensure that water conservation is a priority consideration in all water supply planning activities and regulatory decisions.	According to the Town, water conservation efforts exist. As all customers water use will be metered, there will be an additional economic incentive to conserve water.

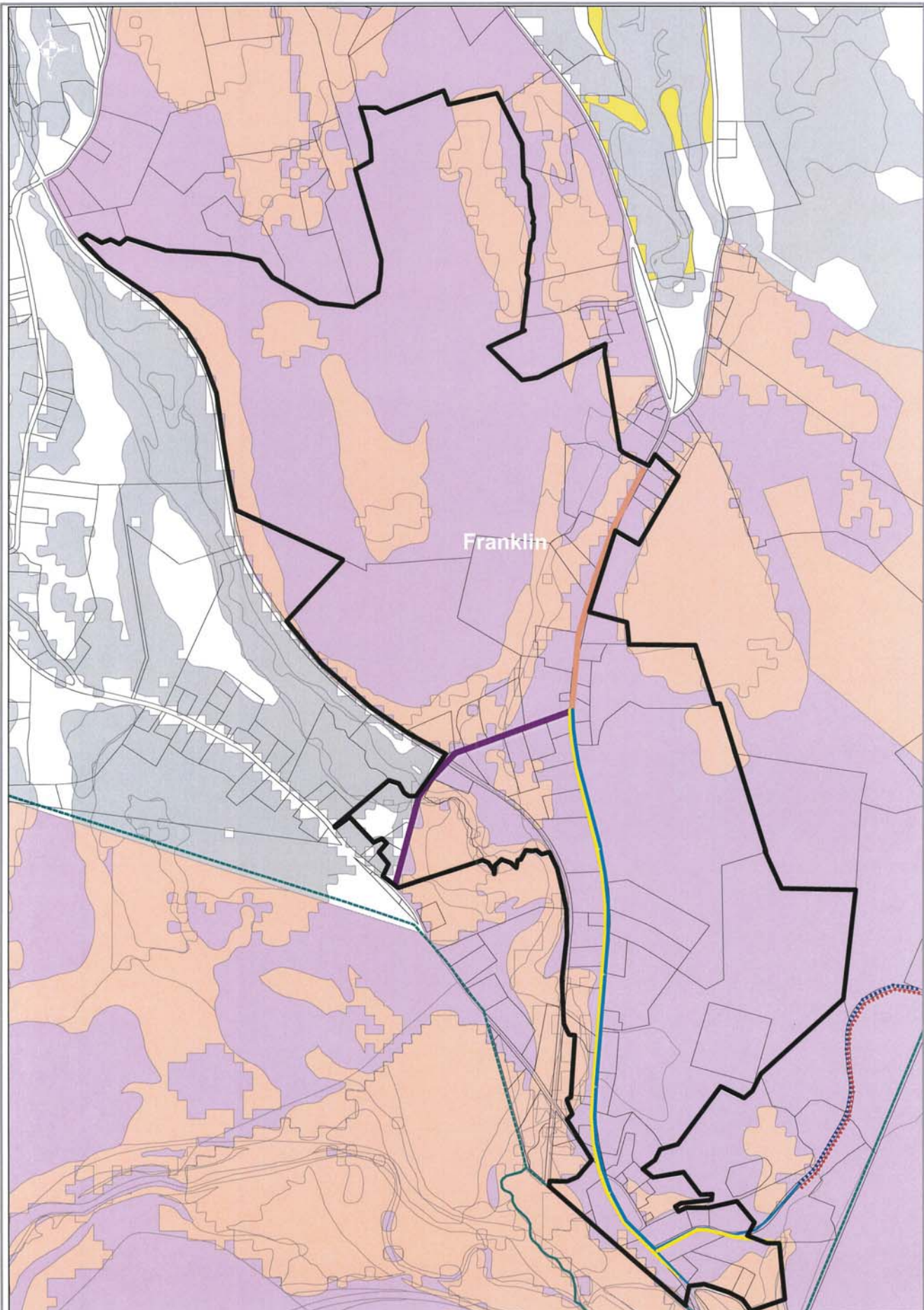
6) Promote Integrated Planning Across all Levels of Government to Address Issue on a Statewide Regional and Local Basis

The proposed action is a result of long-term local planning growth with the support from regional and state governments. This project has been identified in the long-range regional growth plan prepared for the Southeastern Connecticut region by the Southeastern Connecticut Economic Region (“SECTAR”).

8.2 TOWN OF FRANKLIN PLAN OF CONSERVATION AND DEVELOPMENT

The Town of Franklin completed a Town POCD effective June 1, 2013, which is included in Appendix F. The Town POCD serves as a guide for consistent decision making by Town of Franklin’s boards and commissions with regard to conservation and development. The Town of Franklin will support the following goals in this Town POCD: Agriculture, Balancing the Grand List, Protect Natural features, Housing Opportunities and Commercial /Industrial Development.

The 2013 – 2018 State C&D Plan Locational Guide Map was reviewed to determine if the proposed or future sanitary sewer and water service areas will be located in any areas of concern. Figure 8 shows that the proposed and future sanitary sewer and water service areas will be located within the priority and balanced funding areas, and will not impact undeveloped conservation areas.



	PROPOSED SEWER		EXISTING NPU WATER
	PROPOSED WATER		EXISTING NPU SEWER
	PROPOSED FUTURE EXPANSION SEGMENT 3 & 4		Balanced PFA
	PROPOSED FUTURE EXPANSION SEGMENT 5		Conservation Areas
	TOWN BOUNDARY		Priority Funding Areas
	PROPOSED SERVICE AREA		Protected Lands

<h3>Town of Franklin</h3> <p>ROUTE 32 PROPOSED SEWER AND WATER EXTENSION</p>		<p>STATE CONSERVATION & DEVELOPMENT PLAN LOCATIONAL GUIDE MAP FIGURE 8</p>
<p>Lenard Engineering, Inc. Civil, Environmental and Hydrogeological Consultants</p>	<p>1 inch = 0.18 miles</p> <p>Date March 13, 2017</p>	

9 OTHER IMPACTS

Other impacts caused by the proposed action are discussed in this Section:

9.1 ENERGY CONSERVATION AND CONSUMPTION

The proposed action is a sanitary sewer extension is being funded by the Connecticut Department of Energy & Environmental Protection. The proposed project will also include a water main extension. The proposed sanitary sewer and water main extension project will not result in significant impacts on existing utility lines. Secondary growth related to the project will likely result in increased demands for electrical service in the area related to the expanded population and commercial uses. Norwich Public Utilities is a major provider with the resources to meet the needs anticipated by this project.

During the construction activity, duration there will be use of fuel in construction equipment. Once project is complete, all fuel and equipment will be removed from the project area.

The proposed wastewater pumping station will be equipped with energy-efficient equipment, to reduce long-term operations and maintenance costs.

9.2 SOCIOECONOMICS

The addition of sanitary sewers and water mains to the area will likely positively impact the potential socioeconomic growth of Route 32. As depicted on Figure 7, the proposed and future sanitary sewer and water service areas are zoned commercial/industrial and can support additional potential growth populations. The current extension project will allow the Town of Franklin to fully develop their commercial and industrial zoned district adjacent to Route 32 in South Franklin.

The Town of Franklin believes that by providing favorable conditions in the already zoned commercial and industrial zoned areas for growth, it will allow the remainder of Franklin to keep its rural character, with a mixture of residential, farmland and open space land. The sanitary sewer and water main extension project will be consistent with both the Town Plan of Conservation and Development and the State Conservation and Development Plan.

According to the United States Environmental Protection Agency EJView mapping tool, the Town of Franklin is not considered minority or low income community. The proposed sanitary sewer and water main extension project will not pose any disproportionately high, adverse human health or environmental effects to minority and low-income populations. The proposed sanitary sewer and water main extension will benefit the users in the proposed and future service

areas by reducing the impact of septic systems on local groundwater, and the accompanying water main extension will eliminate the need for wells.

Appendix A

Water Demand Calculations

	gallons per day, estimated by NPU			
CURRENT DEMAND	water demand for new development	water 1st 2 yrs establishment, with higher Rt 32 estimate	turf project and acquires its own diversion permits for irrigation, and no Poppin Phase 2	if Franklin group phases project and acquires its own diversion permits for irrigation, and no Poppin Phases 1 or 2
Franklin Hills	56,000	150,000	183,000	183,000
Poppin Hills, Phase 1	76,500	76,500	76,500	NO POPPIN
Rt 32 corridor	77,900	77,900	77,900	77,900
total	210,400	360,400	337,400	260,900
Poppin Hill, Phase 2	450,000	450,000	no phase 2	no phase 2
FULL BUILD OUT	660,400	810,400	337,400	260,900
gpd safe yield	7,160,000			
gpd, average daily demand with new development	4,920,000	5,580,400	5,730,400	5,257,400
MARGIN OF SAFETY	1.46	1.28	1.25	1.36

Existing residential parcels have an average daily water demand of 225 gallons per day, and commercial parcels between 1,000 and 2,000 gallons per day.

Appendix B

Life Cycle Cost Analyses for
Water Demand & Wastewater Alternatives

LIFE CYCLE COST ANALYSIS
WATER SUPPLY ALTERNATIVES

The following two options were evaluated on both a first cost and life cycle cost basis, for the installation of water main (shown as blue line in Figure 1) along Route 32 in Franklin.

- 1) Option 2a – New Water Distribution System Supplied by Local Groundwater
- 2) Option 3a – New Water Distribution System with Interconnection to Norwich

The water supply demand design flow is 100,000 gallons per day, as determined in Appendix A.

Regardless of the final destination, the core water distribution system is common to both options. This consists of:

- a) Properties adjacent to Route 32, from Old Route 32 on the south, to Murphy Road on the north,
- b) Properties along New Park Avenue.

The estimated cost to sewer the core area is calculated as follows:

1) Estimated Construction Cost \$ 2,010,869

- 2) Option 2a – Additional Costs for New Groundwater Based Water System – The only other feasible option is to construct a groundwater based water supply system within the project area. We have assumed a large parcel would need to be purchased, in order to construct the estimated 10 bedrock wells necessary to supply a 100,000 gpd water demand. This also assumes that pumping of these wells would have minimal impact on the environment, and that the appropriate DPH and DEEP permits could be obtained. The estimated construction costs are as follows:

- Property Cost	= \$	500,000
- Site Clearing / Road Building	= \$	50,000
- Well Drilling, 10 wells @ \$ 25,000 ea.	= \$	250,000
- Yield and Water Quality Testing	= \$	100,000
- DPH and DEEP Permitting	= \$	100,000
- Water Storage Tank (300,000 gal)	= \$	500,000
- Water Pumping/Treatment	= \$	250,000
- Standby Power	= \$	50,000
- <u>Interconnecting Piping</u>	= \$	100,000
Estimated Construction Cost	= \$	1,900,000

3) Option 3a – Additional Costs for Norwich Water Connection – From the last water service on New Park Avenue, to the connection point with Norwich, there is approximately 900 LF of 12” water main. The estimated construction costs are as follows:

- **900 LF- 12” water main @ \$ 200/lf** = **\$180,000**

Table 1 below compares the construction costs of both options, as well as other related project costs:

TABLE 1- ESTIMATED PROJECT COSTS- WATER SUPPLY OPTIONS

ITEM	Option 3a - Norwich	Option 2a - Well System
Core Water System Cost	\$ 2,010,869	\$ 2,010,869
Option Specific Construction	\$180,000	\$ 1,900,000
SUB-TOTAL	\$ 2,190,869	\$ 3,910,869
Add Contingencies (20 %)	\$ 438,000	\$ 782,000
Add Design/ Inspection (20 %)	\$ 438,000	\$ 782,000
Add 3.5 % Inflation	\$ 77,000	\$ 137,000
Estimated Water Project Costs	\$ 2,749,869	\$ 5,611,869

The estimated operational and maintenance costs of each option are provided in **Table 2** below. As all customers will be charged for their own water under each option, there is no cost difference between these options, and thus those are not included in the table. Also, there is no cost of purchased water from Norwich.

TABLE 2- ESTIMATED O&M COSTS- WATER SUPPLY OPTIONS

ITEM	Option 3a - Norwich	Option 2a - Well System
Purchased Water Cost	\$ 0	0
Certified Operator	\$ 0	\$ 100,000
Purchased Power	\$ 0	\$ 50,000
Chemicals / Treatment	\$ 0	\$ 50,000
System Maintenance	\$ 0	\$ 50,000
Estimated Annual O&M Costs	\$ 0	\$250,000

The calculation below provides an Equivalent Annual Cost for both Option 3a - Norwich and Option 2a - Well System options. The initial estimated water project costs were annualized using an interest rate of 3.5 %, over a 50 year project life. Each option has the following equivalent annual cost:

$$\begin{aligned} \text{Option 2a - Well System Option , Equivalent Annual Cost} &= \$ 5,611,869 \times 0.04263 \\ &= \$ 239,000/\text{year} \end{aligned}$$

$$\begin{aligned} \text{Option 3a - Interconnection to Norwich, Equivalent Annual Cost} &= \$ 2,749,869 \times 0.04263 \\ &= \mathbf{\$ 117,000/\text{year}} \end{aligned}$$

The total life cycle costs for each option are the sum of the equivalent annual costs listed above, and the estimated O&M costs listed previously. These are as follows:

$$\begin{aligned} \text{Option 2a - Well System, Total Life Cycle Cost} &= \$ 239,000/\text{yr} + \$ 250,000/\text{yr} \\ &= \$ 489,000/\text{yr} \end{aligned}$$

$$\text{Or, } \$ 489,000 \times 50 = \$ 24,450,000 \text{ over 50 years.}$$

$$\begin{aligned} \text{Option 3a - Norwich, Total Life Cycle Cost} &= \$ 117,000/\text{yr} + \$ 0/\text{yr} \\ &= \mathbf{\$ 117,000/\text{yr}} \end{aligned}$$

$$\text{Or, } \$ 117,000 \times 50 = \mathbf{\$ 5,850,000 \text{ over 50 years.}}$$

Therefore, **Option 3a- New Water Distribution System with Interconnection to Norwich**, is both the least capital cost and least long term life cycle cost option.

LIFE CYCLE COST ANALYSIS
WASTEWATER MANAGEMENT ALTERNATIVES

The following two options were evaluated on both a capital cost and life cycle cost basis, for the extension of sanitary sewer along Route 32 in Franklin (shown as yellow line in Figure 1).

- 1) Option 2b –New Sewer System with Interconnection to Norwich
- 2) Option 3b –New Sewer System with Interconnection to Sprague

The wastewater design flow is estimated to be 100,000 gallons per day.

Regardless of the final destination, the core sewage collection system is common to both options. This consists of:

- a) Properties adjacent to Route 32, from Old Route 32 on the south, to Murphy Road on the north, and
- b) Properties along New Park Avenue.

The estimated cost to sewer the core area is calculated as follows:

- 1) Original gravity sewer design - \$ 3,258,421
- 2) New sewer pump station \$ 250,000
- 3) New 1000 LF Force Main* \$ 100,000 *Installed in same trench as gravity sewer

Estimated Construction Cost \$ 3,608,421

- 1) Option 2b – Additional Costs for Norwich Sewer Connection – From the last manhole serving the project on New Park Avenue, to the connection point with Norwich, there is approximately 400 LF of cross country piping. The estimated construction costs are as follows:

- 400 LF- 8” sewer @ \$ 200/LF	= \$ 80,000
- New Manhole at Interconnection	= \$ 10,000
- <u>Flow metering equipment at Interconnection</u>	= \$ 10,000
Estimated Construction Cost	= \$ 100,000

- 2) Option 3b – Additional Costs for Sprague Sewer Connection – Approximately 23,100 feet of 8” force main, two pumping stations and 4,600 feet of 12” gravity sewer would be required to connect the northern end of the proposed Franklin sewer service area to the Sprague collection system. The estimated construction costs are as follows:

- 4,600 LF – 12” sewer @ \$ 200/LF	= \$ 920,000
- Two sewer pump stations	= \$ 500,000
- 23,100 LF- 8” force main @ \$ 200/LF	= \$ 4,620,000
- <u>Flow metering at interconnection</u>	= \$ 10,000
Estimated Construction Cost	= \$ 6,050,000

Table 1 below compares the construction costs of both options, as well as other related project costs:

TABLE 1 ESTIMATED CAPITAL COSTS

ITEM	Option 2b - Norwich	Option 3b - Sprague
Core Sewer System Cost	\$ 3,608, 421	\$ 3,608,421
Option Specific Construction	\$100,000	\$ 6,050,000
SUB-TOTAL	\$ 3,708,421	\$ 9,658,421
Add Contingencies (20 %)	\$ 741,700	\$ 1,932,000
Add Design/ Inspection (20 %)	\$ 741,700	\$ 1,932,000
Add 3.5 % Inflation	\$ 130,000	\$ 338,000
Add NPU connection fee	\$ 1,100,000	0
Add legal, bond council, Town costs	\$ 250,000	\$ 250,000
Add Short Term Interest	\$ 500,000	\$ 500,000
Estimated Capital Costs	\$ 7,170,421	\$ 14,610,421

The estimated operational and maintenance costs of each option are provided in **Table 2** below, and include contract operations for pump station operation, pump station and pipe maintenance costs, as well as disposal.

TABLE 2 ESTIMATED ANNUAL O & M COSTS

ITEM	Option 2b - Norwich	Option 3b - Sprague
Contract Operations Cost	\$ 10,000	\$ 10,000
Pump Station O&M Costs (\$ 20K per station)	\$ 20,000	\$ 60,000
Norwich Disposal Cost (\$ 5.91/100 cu.ft) *	\$ 288,000	
Sprague Disposal Cost (\$ 5.17 / 1000 gal.) *		\$ 189,000
Estimated Annual O&M Costs	\$ 318,000/yr	\$ 259,000/yr

*costs for the estimated 100,000 gallon per day design flow.

The calculation below provides Equivalent Annual Costs for the capital costs of both **Option 2b - Norwich** and **Option 3b - Sprague**. The capital project costs were annualized using an interest rate of 3.5 %, over a 50 year project life. Each option has the following equivalent annual cost:

Option 2b - Norwich, Equivalent Annual Cost = \$ 7,170,421 x 0.04263
= **\$ 305,000/year**

Option 3b - Sprague, Equivalent Annual Cost = \$ 14,610,421 x 0.04263
= **\$ 622,000/year**

The total life cycle costs for each option are the sum of the equivalent annualized capital costs listed above, and the estimated O&M costs listed previously. These are as follows:

Option 2b - Norwich, Total Life Cycle Cost = \$ 318,000/yr. + \$ 305,000/yr
= **\$ 623,000/yr**

Or, \$ 623,000 x 50 = **\$ 31,150,000 over 50 years.**

Option 3b - Sprague, Total Life Cycle Cost = \$ 259,000/yr. + \$ 622,000/yr
= **\$ 881,000/yr**

Or, \$ 881,000 x 50 = **\$ 44,050,000 over 50 years.**

Therefore, **Option 2b - New Collection System with Interconnection to Norwich**, is lowest long term life cycle cost alternative.

Appendix C

DPH Notice of Scoping Comments

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner



Dannel P. Malloy
Governor
Nancy Wyman
Lt. Governor

Drinking Water Section

September 16, 2016

Ivonne Hall
Department of Energy and Environmental Protection
Bureau of Water Protection and Land Reuse
79 Elm Street
Hartford, CT 06106-5127

Re: Notice of Scoping for Franklin Sewer Extension

Dear Ms. Hall:

The Department of Public Health (DPH) Drinking Water Section (DWS) has reviewed the above referenced Notice of Scoping. Please see the attached report with our findings.

If you have any questions, you may contact Pat Bisacky of my staff at the number below.

Sincerely,

A handwritten signature in blue ink, appearing to read "Eric McPhee".

Eric McPhee
Supervising Environmental Analyst
Drinking Water Section

Cc: Johan Strandson, USDA
Diana Boisclair, Norwich Public Utilities
Richard Matters, Town of Franklin
Mark Decker, Eastern WUCC Tri-Chair, NPU
Bob Congdon, Eastern WUCC Tri-Chair, Town of Preston
Patrick Bernardo, Eastern WUCC Tri-Chair, Town of Putnam/Suez



Phone: (860) 509-7333 • Fax: (860) 509-7359 • VP: (860) 899-1611
410 Capitol Avenue, P.O. Box 340308, MS#51WAT
Hartford, Connecticut 06134-0308
www.ct.gov/dph/publicdrinkingwater

Affirmative Action/Equal Opportunity Employer

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH



Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor
Nancy Wyman
Lt. Governor

MEMORANDUM

TO: Eric McPhee, Supervising Environmental Analyst

FROM: Patricia Bisacky, Environmental Analyst *3/15*

DATE: September 16, 2016

SUBJECT: Notice of Scoping for Franklin Sewer Extension

DPH PROJECT: 2016-0188

TOWNS: Franklin and Norwich

The Source Assessment and Protection Unit of the Department of Public Health (DPH) Drinking Water Section (DWS) has reviewed the Notice of Scoping for the Franklin Sewer Extension. The project, funded by an Urban Action Grant, will consist of the design, permitting and construction of approximately 7,500 feet of 8" and 12" gravity sewers from a connection with the City of Norwich sewer system. At the same time, approximately 6,100 feet of gas main and related improvements and appurtenances will be installed in Route 32, and 8,000 feet of 12" water main will be installed from the interconnection with the City of Norwich Water system on New Park Avenue and along State Route 32 between the intersections of Old Route 32 and Murphy Road. Water and gas utilities will be funded by the U.S. Department of Agriculture and U.S. Economic Development Administration.

The proposed water and sewer extension will pass by the following public water systems that are served by individual wells:

Public Water System	PWSID#	Administrative Contact	Contact Address
10 Route 32-Franklin	CT0530294	Paula J. Brown, President	45 Woodland Dr. Norwich, CT 06360
Franklin Mobil	CT0530314	David B. Driscoll, President and CEO	Two Jericho Plaza, Suite 110 Jericho, NY 11753
260 Route 32	CT0530334	Samuel Piotrkowski	275 Route 32 North Franklin, CT 06254
96 Route 32	CT0530254	Asif Choudry, Manager/Owner	419 Salem Turnpike Bozrah, CT 06334



Phone: (860) 509-7333 • Fax: (860) 509-7359 • VP: (860) 899-1611
410 Capitol Avenue, P.O. Box 340308, MS#51WAT
Hartford, Connecticut 06134-0308
www.ct.gov/dph/publicdrinkingwater

Affirmative Action/Equal Opportunity Employer

Table 1. Public Water Systems Along Proposed Sewer Extension, Continued			
Public Water System	PWSID#	Administrative Contact	Contact Address
Franklin Commons	CT0530343	Diana C. Lindsay, Member	359 Susana Drive Freeland, WA 98249
107 Route 32	CT0530264	Mariana Dalardhas, LLC Member	PO Box 58N South Windham, CT 06266
DW Transport & Leasing, Inc.	CT0530274	Lenny Rochester, Operations Manager	140 Route 32 North Franklin, CT 06254

The new water main will provide an opportunity for the above named public water systems to connect to a central system and discontinue use of their public water supply wells. The DWS encourages consolidation of small public water systems by interconnecting to the new water main; however only those that were developed under the Connecticut General Statutes (CGS) section 16-262m are required to connect, therefore the sewer extension design should incorporate measures to protect the sources of water supply. The DWS considers pump stations, grinder pumps, sanitary sewer manholes and cleanouts to be sources of pollution that require the maximum separating distance to public water supply wells pursuant to the Regulations of Connecticut State Agencies (RCSA) Section 19-13-B51(d). Sanitary sewer piping and joints may be allowed to be closer if it can be demonstrated to the DPH that the piping and joints are sound enough to prevent leakage. Separating distances are dependent on the withdrawal rate of the well; therefore the noted public water systems should be contacted during the design phase to verify the withdrawal rate of their public drinking water supply wells in order to ensure that they are appropriately protected from sanitary encroachments.

The sewer should be designed and constructed to be protective of the proposed public water supply main. The attached "[Water Main Design and Construction Guidelines](#)" provides guidance on separating distances between sanitary sewers and public water supply mains. Specifically, Section (6) Separating Distances from Sources of Pollution, under the "Installation" subheading should be referenced when designing the system.

It is understood that the Notice of Scoping is specifically for the sewer extension; however the DWS offers these additional comments concerning the proposed water main for the Town's consideration:

The water main is proposed to interconnect with the Norwich Public Utilities (NPU) (PWSID# CT1040011) distribution system. The scoping notice does not indicate whether NPU or the Town of Franklin will own this water main. If the Town intends to own this water main, it should be aware that it may be creating a new consecutive public water system that will be regulated by the DPH. In either case, the Town of Franklin should consult with the [Eastern Water Utility Coordinating Committee](#) regarding the proposed water main extension.

CGS section 25-33(b) states that: *No system of water supply owned or used by a water company shall be constructed or expanded or a new additional source of water supply utilized until the plans therefor have been submitted to and reviewed and approved by the department, except that no such prior review or approval is required for distribution water main installations that are constructed in accordance with sound engineering standards and all applicable laws and regulations.* If it is anticipated that storage or pumping will be required as a part of this project, the plans and specification must be submitted to the DPH DWS for review and approval prior to construction. In addition, the DPH should be consulted to determine whether the main extension would require NPU to review and revise its routine compliance monitoring locations for the Stage II Disinfectants and Disinfection Byproducts Rule.

Appendix D

DPH Water Main Design and Construction Guidelines

WATER MAIN DESIGN AND CONSTRUCTION GUIDELINES

Effective Date: October 1, 2006

The following guidance is provided in the interest of facilitating the approval process for federally or state funded projects such as Drinking Water State Revolving Fund and STEAP grant projects that may include water main replacements or installations. Discretion in the application of these guidelines is allowable except as required by regulation. For routine distribution water main installations that do not require approval from the Department prior to construction, it is recommended that the following guidelines be utilized during design and construction except as required by regulation.

Sizing and Layout

(1) Section 19-13-B102(p) of the Regulations of Connecticut State Agencies (RCSA) requires transmission facilities to be sized to provide flows in excess of the maximum flows experienced in the community water system or service area. In addition, Section 19-13-B102(f)(1) of the RCSA requires that all service connections have a minimum water pressure at the main of 25 psi under normal operating conditions which in these guidelines includes normal peak demands but excludes fire flow demands. Whenever feasible, it is recommended that the minimum water pressure be 35 psi. Positive pressure (20 psi minimum recommended) should be maintained under all flow conditions, including fire flows if fire protection is provided, at all points in the distribution system. Pressure reducing devices should be installed where static pressures will exceed 100 psi. Pressure reducing devices conforming to section 604.7 of the current State of Connecticut Plumbing Code should be installed on individual service lines where static pressures entering the building are greater than 80 psi. If fire protection is to be provided, the system design should be such that fire flows, minimum fire flow pressures, hydrant spacing, etc. are in accordance with the requirements of the local fire protection regulatory authority.

(2) Water mains should be sized, whenever possible, to achieve a balance between hydraulic requirements and water quality maintenance. Excessive retention time (less than 5 to 7 days of retention time recommended) may result in low flow areas which may lead to water quality deterioration during normal operating conditions. If excess capacity is required for fire flow or future demands, flushing devices or equivalent should be installed in low flow areas and an operational plan should be implemented to routinely flush low flow areas. The use of smaller diameter parallel water mains in lieu of single larger mains should be considered whenever possible.

(3) Water mains should be looped and dead-end water mains avoided whenever possible. If dead-end mains are unavoidable, flushing devices should be installed at the termini of the dead-end water mains and an operational plan should be implemented to routinely flush the dead-end mains. If water mains will be separated by a closed valve thereby creating static conditions (as in the case of pressure zone boundaries for example), flushing devices should be installed on both sides of the closed valve.

Materials

(1) Pipes, fittings, valves, meters, fire hydrants, and other appurtenances should, at a minimum, conform to the most current applicable AWWA standards if available. In the absence of applicable

**STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH
DRINKING WATER SECTION**

WATER MAIN DESIGN AND CONSTRUCTION GUIDELINES

AWWA standards, materials and products should conform to other applicable recognized industry performance standards, if available, to ensure integrity and performance during service.

(2) Water service lines should conform to sections 603 and 605 of the current State of Connecticut Plumbing Code.

(3) Materials and products should not cause the water delivered to the customers to become non-potable, produce aesthetic problems such as taste and odors, or promote bacterial growth after being placed into active service. All pipe materials and products including, but not limited to, paints, linings, coatings, adhesives, and lubricants in direct contact with potable water should be certified to NSF/ANSI Standard 61. All materials and products in contact with potable water should be compatible with the water quality characteristics.

(4) Materials should be capable of withstanding internal and external forces to which they may be subjected while in service.

(5) Metallic materials should be protected against internal and external corrosion.

(6) The use of non-metallic buried water pipe should include a tracer wire, underground utility detection tape, or equivalent means for pipe location.

(7) Non-permeable materials, including joint gaskets, should be used in areas where organic contamination is reasonably known to exist or encountered during construction.

Appurtenances

(1) Shut-off valves should be installed at intervals and locations as determined by the public water system (PWS) to minimize interruptions of service to customers during repairs or maintenance.

(2) At high points in water mains where air may accumulate and cause pipe restrictions, provisions should be made to remove the air by air release valves or equivalent means. Air release valves should be located and installed to prevent the entry of rainwater and vermin and under no circumstance should they be subject to being submerged.

(3) Blow-offs or equivalent appurtenances should be installed at low points of the water main installation, depending on flow rate and pipe profile, where sediment may accumulate.

(4) Chambers, pits, or manholes containing distribution system appurtenances should be located, to the extent feasible, to prevent flooding or adequately drained to keep the structure dry. If gravity drainage is not practical and a sump pump or other mechanical means are employed to drain the water to a storm sewer or other drainage system, a check valve should be installed on the pump discharge line and the discharge should be located above the normal flow elevation in the receiving chamber or pipe. In no instance should a drain be connected directly to any sanitary or combined sewer.

**STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH
DRINKING WATER SECTION**

WATER MAIN DESIGN AND CONSTRUCTION GUIDELINES

- (5) Flushing devices should be installed at intervals and locations as determined by the PWS to allow for adequate flushing of the entire water main.
- (6) The drain ports for dry-barrel fire hydrants should be provided with a gravel pocket or equivalent for drainage and should not be connected to any sewer. Hydrant drains should be located at least 10 feet from sanitary sewer force mains and any part of a subsurface sewage disposal system. Hydrant drains should be located a minimum of 18 inches from gravity sanitary and storm sewers (10 feet recommended whenever possible). If the water table in the area is known to be high, the drain ports should be plugged watertight and an operational plan should be implemented to pump the hydrant barrels dry during freezing weather.
- (7) Fire hydrants should not be installed on water mains that are not sized for fire protection and should not be connected to a PWS which does not have adequate flows/capacity to meet fire flows.
- (8) Flushing devices should not be directly connected to any sewer.
- (9) Flushing devices should be capable of providing a minimum flushing velocity of 2.5 feet per second.
- (10) Appurtenances should be installed in accordance with the most current applicable AWWA standards/manuals if available. If manufacturer's instructions are more stringent than AWWA standards, appurtenances should be installed in accordance with manufacturer's instructions. In the absence of applicable AWWA standards, appurtenances should be installed in accordance with the more stringent of manufacturer's instructions or other applicable recognized industry standards if available. At a minimum, appurtenances should be firmly supported to prevent excessive settlement.

Service Connections

- (1) Domestic service pipes should have a minimum diameter of $\frac{3}{4}$ inch.
- (2) Domestic service pipes should be sufficiently flexible to prevent fracture from expansion, contraction, and differential settlement.
- (3) Domestic service pipes should be connected to a single-service corporation stop at the water main and should be installed with a shut-off valve and curb box.
- (4) Domestic service connections should be individually metered.
- (5) Means should be provided to flush dedicated fire service lines to remove stagnant water.

Installation

- (1) Installation of water pipe should be in accordance with the most current applicable AWWA standards/manuals if available. If manufacturer's instructions are more stringent than AWWA

**STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH
DRINKING WATER SECTION**

WATER MAIN DESIGN AND CONSTRUCTION GUIDELINES

standards, water pipe should be installed in accordance with manufacturer's instructions. In the absence of applicable AWWA standards, water pipe should be installed in accordance with the more stringent of manufacturer's instructions or other applicable recognized industry standards if available. At a minimum, continuous uniform and stable support, free of unsuitable materials, should be provided such that the water pipe is fully and firmly supported along its entire length. Proper embedment and backfill, free of unsuitable materials, should be provided and sufficiently compacted to ensure that the water pipe is adequately supported, stabilized, and protected. Special care should be taken when making pipe joints to ensure water tightness.

(2) All materials should be kept as clean as possible during construction. The use of plugs or equivalent on the open ends of the pipe is recommended to prevent contamination of pipe at the job site. Joints should be cleaned of any grit and other foreign material which may promote leakage.

(3) All buried water pipe should be placed at such a depth below finished ground level, four feet minimum, that will prevent freezing during the coldest weather experienced. Service connections that will not be used during freezing weather and will be drained during such time may be exempt from this recommendation. In special situations, excluding ledge, where it may not be feasible to bury the water pipe below the frost line, the use of adequate insulation or equal may be permissible to prevent freezing of the water pipe. Consideration should also be made for insulating water pipe that is installed four feet or greater below finished ground level but passes above or below a structure that may be a cold air source such as a culvert.

(4) Thrust blocks and/or restrained joints should be used on all tees, bends, caps, plugs, reducers, valves, hydrants, etc. to prevent joint separation. If a combined thrust block/restrained joint system is used, either the thrust block or restrained joint system should be designed to provide full thrust restraint independent of the other system.

(5) The water main should be adequately protected by the use of flexible joints, preferably ball and socket joints, or equivalent in critical areas of water main stress such as piping through rigid walls or structures and/or where differential settlement may occur.

(6) Separating Distances from Sources of Pollution:

(A) Parallel installations: water mains should be laid at least 10 feet horizontally, measured edge to edge, from any existing or proposed sewer (sanitary, building/house, and storm) whenever possible. If the 10-foot horizontal separating distance cannot be physically achieved, the water main may be installed closer provided that is located in a separate trench or on an undisturbed shelf and at least 12 inches horizontally (18 inches recommended), measured edge to edge, and 18 inches above the top of the sewer, measured from crown to invert. There should be no reduction in the 10-foot horizontal separating distance for a sanitary sewer force main. No water main should come in contact with any part of a sewer manhole.

(B) Crossings: at sewer crossings, a minimum vertical clearance of 18 inches, measured from crown to invert, should be maintained between the water main and sewer with the preferred location

**STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH
DRINKING WATER SECTION**

WATER MAIN DESIGN AND CONSTRUCTION GUIDELINES

of the water main above the sewer whenever possible. The water main should be centered at the sewer crossing such that the water main joints are spaced as far as possible from the sewer. If the water main will cross above the sewer and will be centered above the sewer such that the water main joints are spaced as far as possible from the sewer, the vertical separation distance may be reduced to 12 inches. There should be no reduction in the vertical separation distance of 18 inches for sanitary sewer force main crossings. If the water main will cross under a sewer, special consideration should be given to the structural support of the sewer to prevent settling or deflection of the sewer which may damage the water main.

(C) If the separating distance requirements stated in Sections (A) and (B) above cannot be achieved, the design engineer should evaluate alternatives so that the water main will be protected from potential contamination. The following alternatives may be considered acceptable:

(i) The sewer in conflict should be made of materials and have watertight joints equivalent to water main pipe, constructed in accordance with water main standards of construction, and pressure tested to ensure water tightness.

(ii) The use of pipe joint repair clamps or equivalent on the water main to ensure watertight pipe joints in addition to sufficient pipe wall thickness.

Additional alternatives not listed above may also be acceptable if adequately supported and documented.

(D) There should be a minimum separating distance of 10 feet between water mains/service lines and any part of a subsurface sewage disposal system.

(E) Separation of water service lines and building sewers should be in accordance with section 603.2 of the current State of Connecticut Plumbing Code.

(7) Bridge/Surface Water Crossings:

(A) For bridge crossings the water pipe should be adequately supported, protected from damage, and insulated to protect the pipe from freezing. Expansion or flexible joints should be installed as necessary. Shut-off valves should be installed on both sides of the bridge crossing.

(B) For underwater crossings shut-off valves should be installed on both sides of the crossing.

Cross Connections

(1) Section 19-13-B37 of the RCSA requires that no physical connection be made between the distribution system of a PWS and any customer with a private well or existing PWS well unless such well is physically disconnected from the customer's plumbing. In addition, if the well is known to be contaminated, the customer shall also install a reduced pressure principle backflow prevention device (RPD) on the service line from the PWS.

WATER MAIN DESIGN AND CONSTRUCTION GUIDELINES

Hydrostatic Testing and Disinfection

(1) After construction is completed all new water pipe and appurtenances should be subjected to hydrostatic pressure and leakage testing to ensure water tightness and integrity of construction in accordance with the most current applicable AWWA standards/manuals if available. If manufacturer's instructions are more stringent than AWWA standards, water pipe should be hydrostatic tested in accordance with manufacturer's instructions. In the absence of applicable AWWA standards, water pipe should be hydrostatic tested in accordance with the more stringent of manufacturer's instructions or other applicable recognized industry standards if available.

(2) Section 19-13-B47 of the RCSA requires that after construction is completed all new water pipe and appurtenances be disinfected and flushed. Disinfection should be done in accordance with the most current version of AWWA Standard C651. Chemicals used in the disinfection process should be certified to NSF/ANSI Standard 60.

(3) After disinfection and flushing but prior to placing the water main into active service, water sample(s) representative of the new construction should be collected in accordance with the most current version of AWWA Standard C651. Samples should be analyzed, at a minimum, for total coliform bacteria, HPC, total and free chlorine residual, and physical parameters. Test results, with the exception of chlorine, should meet the water quality standards shown in Table 1 prior to placing the water main into active service.

Table 1 – Water Quality Standards

Parameter	Standard
Total Coliform Bacteria	0 or absent
HPC	< 100 organisms/mL
Color	< 15 CU
Turbidity	< 5 NTU
Odor	< 2
PH	range 6.4 – 10

Appendix E

DEEP List of Contaminated Sites

List of Contaminated or Potentially Contaminated Sites

“Hazardous Waste Facilities” as defined by Section 22a-134f of the Connecticut General Statutes

TOWN OF: FRANKLIN

<u>Name</u>	<u>Address</u>	<u>Site Definition</u>	<u>Investigation Started</u>	<u>Remediation Started</u>	<u>Post Remedial Monitoring Started</u>	<u>Remediation Completed</u>	<u>ELUR</u>	<u>ELUR Type</u>
7-eleven # 32517	15 Route 32	Leaking Underground Storage Tanks – Rem. Started						
Agway Facility	557 Pond Road	Property Transfer – Form III Investigation started	5/28/2005					
Arico Engineering	170 Route 32	Property Transfer – Form III Remediation Started	1/20/2011	5/3/2012				
Arico Engineering Facility (former)	170 Route 32	Property Transfer – Form III Investigation started	8/17/2011	8/17/2011				
Arico Engineering Facility (former)	170 Route 32	Property Transfer – Form III Remediation Started	8/17/2011	8/17/2011				
Best Way Express Lane Foods	96 Route 32	Leaking Underground Storage Tanks – Completed						
Colchester Egg Farm	182 Rt 32	Leaking Underground Storage Tanks – Pending						
Connecticut Carting Corp.	Route 32	Leaking Underground Storage Tanks – Completed						
Connecticut Country Club (Franklin Hills Estate And Country Club)	248 Windham Turnpike (route 32)	Leaking Underground Storage Tanks – Rem. Started						
Corn Field	Under The Mountain Road	Leaking Underground Storage Tanks – Pending						
Franklin Agway	Rte. 207	Leaking Underground Storage Tanks – Completed						
Franklin Maintenance Garage	Route 32 (38 Route 32)	Leaking Underground Storage Tanks – Investigation						
Franklin Mushroom Farms	931 Route 32	Property Transfer – Form III						

List of Contaminated or Potentially Contaminated Sites

“Hazardous Waste Facilities” as defined by Section 22a-134f of the Connecticut General Statutes

TOWN OF: FRANKLIN

<u>Name</u>	<u>Address</u>	<u>Site Definition</u>	<u>Investigation Started</u>	<u>Remediation Started</u>	<u>Post Remedial Monitoring Started</u>	<u>Remediation Completed</u>	<u>ELUR</u>	<u>ELUR Type</u>
Kahn Tractor & Equipment, Inc.	520 Pond Road	Voluntary Remediation: CGS 22a-133v Investigation started	4/8/2008					
Koffkoff Egg Farm	39 Murphy Road	Leaking Underground Storage Tanks – Completed						
Lebanon Station (former Agway) Earthgro Facility	557 Pond Road (route 207)	Leaking Underground Storage Tanks – Rem. Started						
Mobil Station 06-f9v	106 Route 32	Leaking Underground Storage Tanks – Completed						
Normean Beaudoin	488 Lebanon Road	Leaking Underground Storage Tanks – Completed						
Pakulis Equipment Company	275 Route 32	Property Transfer – Form III Investigation started	7/28/1996					
Petrovsky Auctioneers	275 Route 32	Leaking Underground Storage Tanks – Pending						
R. E. Lyman / Masti-kure Co., Inc	5 Tyler Road	Property Transfer - Form IV Post Remedial Monitoring Started	8/8/1996	8/8/1996	8/8/1996		NO	
R. E. Lyman, Inc.	5 Tyler Road (Franklin Commercial Park Lot 5)	Property Transfer – Form III						
Town Of Franklin Public Works (town Garage)	171 Pond Road - 197 Pond Road	Leaking Underground Storage Tanks – Completed						
Zeller Irving Tire Center	15 Murphy	Leaking Underground Storage Tanks – Completed						

List of Significant Environmental Hazards Reported to the DEEP

Period covering 10/01/1998 through 6/30/2016

Franklin

<i>Site/location</i>	<i>Date Notified</i>	<i>Type of Hazard</i>	<i>Response</i>	<i>Action</i>
7-Eleven 15 Route 32	8/1/2008	Pollution detected in groundwater above standards may threaten a drinking water well.	DEP required additional sampling of onsite and two nearby identified wells for pollutants detected at the site.	On-site well and two nearby wells sampled and were not impacted by groundwater plume. Ongoing monitoring of groundwater being conducted at the site.
7-Eleven 15 Route 32	4/12/2006	Pollution detected in groundwater above standards may threaten a drinking water well.	DEP directed the property owner to identify and sample potable water supply wells up to 500 feet away from the site for pollutants detected at the site.	Two wells identified and sampled, pollution either not detected or detected but below standards.
Getty Service Station #587 Routes 32 & 87	10/19/1998	Pollution detected in a drinking water well is below standards, but pollution detected in groundwater above standards may threaten supply wells. Pollution in groundwater may discharge to a surface water body and pose a risk to aquatic life.	DEP directed the property owner to evaluate polluted groundwater emanating from the site for impact to drinking water wells within 500 ft. DEP determined that the reported threat to surface water is not defined as a hazard under the law.	Monitoring reports indicate that all the compounds tested for were below standards. Two wells identified and two wells sampled, pollution not detected. No further abatement action necessary.
Kahn Tractor & Equipment 520 Pond Road	11/6/2007	Pollution was detected in a drinking water well above standards.	DEP directed the property owner to identify potable water supply wells up to 500 feet away from the site and to sample downgradient wells pursuant to a plan previously approved by the Department.	All wells sampled. On-site well has pollutants present, but filter system installed and maintained by owner. Off-site wells were non-detect. Long-term monitoring of area wells and maintenance of filter being conducted under approved plan.
Residential Property 32 Murphy Road	1/28/2002	Pollution was detected in a drinking water well but is below standards.	DEP determined the contamination to be significantly below standards, and recommended that the property owner continue to sample periodically.	DEEP re-sampled November 2015; pollution not detected. No further hazard abatement action necessary.

Glastonbury

<i>Site/location</i>	<i>Date Notified</i>	<i>Type of Hazard</i>	<i>Response</i>	<i>Action</i>
Arbor Acres Farms, Inc. 439 Marlborough Road	10/21/1998	Pollution detected in groundwater above standards may threaten a drinking water well.	DEP required no action required at the time of notification because actions were being conducted under the Property Transfer Program.	Underground tank and impacted soil removed. Landfill capped with ongoing groundwater monitoring under landfill permit. No further abatement action necessary under the Significant Hazard program.
Best Cleaners 2759 Main Street	2/6/2006	Pollution detected in groundwater above standards may threaten a drinking water well.	DEP directed the operator to implement their proposed actions, including an inventory and sampling of nearby potable water supply wells, and also evaluate the potential for vapor migration into buildings.	Wells identified by investigation were sampled with no detection of pollution. Site is undergoing investigation and remediation under Property Transfer Program.

Appendix F

Town of Franklin Plan of Conservation and Development

**TOWN OF FRANKLIN
PLAN OF CONSERVATION AND DEVELOPMENT**

**EFFECTIVE
JUNE 1, 2013**



Prepared by

*Franklin Planning and Zoning Commission
in cooperation with
Franklin Conservation Commission
Franklin Town Planner
Franklin Board of Selectmen
Southeastern Connecticut Council of Governments*



PLAN OF CONSERVATION AND DEVELOPMENT TOWN OF FRANKLIN

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1.0 Introduction.....	1
1.1 Statement of Purpose and Goals	1
1.2 POCD Update Process	2
1.3 History of Franklin.....	2
2.0 Economic Development.....	2
2.1 Goal and Objectives.....	3
2.2 Business and Industry	3
2.2.1 Agricultural Industries and Producers	4
2.3 Recommendations.....	5
3.0 Natural Resources	6
3.1 Goal and Objectives.....	6
3.2 Land Characteristics	6
3.3 Hydrologic Characteristics	6
3.4 Wetlands and Water Bodies.....	7
3.5 Agriculture	7
3.6 Preserved Open Space and Woodland	8
3.7 Recommendations.....	8
4.0 Housing and Population.....	9
4.1 Goal and Objectives.....	9
4.2 Population	9
4.3 Employment Characteristics	11
4.4 Housing.....	13
4.4.1 Affordable Housing Development.....	14
4.5 Recommendations.....	14
5.0 Municipal Facilities and Services.....	14
5.1 Goals and Objectives	14
5.2 Education	15
5.3 Municipal Complex at Tyler Drive.....	16
5.4 Town Garage.....	16
5.5 Town Hall	17
5.6 Recreation	17
5.7 Municipal Water and Sewer	18
5.8 Recommendations.....	18
6.0 Transportation and Circulation	18
6.1 Goals and Objectives	18
6.2 Existing Conditions.....	19
6.3 Recommendations.....	20
7.0 Future Land Use Plan	21



**PLAN OF CONSERVATION AND DEVELOPMENT
TOWN OF FRANKLIN**

TABLE OF CONTENTS Continued

<u>SECTION</u>	<u>PAGE</u>
7.1 Residential	21
7.1.1 Rural Agricultural (R-80)	21
7.1.2 Low Density (R-120)	22
7.2 Commercial and Industrial.....	22
7.2.1 Retail Commercial (C-1).....	22
7.2.2 Highway-Commercial Industrial (C-2).....	22
7.2.3 Industrial Park District (I).....	23
7.3 Planned Recreation District Development (PRDD)	23
7.4 Open Space	23
8.0 Recommendations for Action	23

FIGURES

FOLLOWING TEXT

- FIGURE 1. ZONING MAP
- FIGURE 2. NATURAL RESOURCE CONSTRAINTS
- FIGURE 3. FARMLAND SOILS
- FIGURE 4. PROTECTED PROPERTY
- FIGURE 5. COMMUNITY FACILITIES
- FIGURE 6. ROADS

APPENDICES

FOLLOWING TEXT

- APPENDIX A SUMMARY OF 2008 RESIDENT SURVEY



1.0 INTRODUCTION

This Plan of Conservation and Development (POCD) will serve as a guide for consistent decision making by Franklin's boards and commissions and residents with regard to conservation and development activities for the next ten years and beyond. Franklin's first Plan of Development was prepared in 1972, and a subsequently in 1987 and 2000.

The Planning and Zoning Commission is required by Chapter 126, Section 8-23 of the Connecticut General Statutes to "prepare, adopt and amend a plan of development for the municipality. Such plans shall show the Commission's recommendation for the most desirable use of land within the municipality for residential, recreational, commercial, industrial and other purposes, and for the most desirable density of population within the municipality...." The plan provides the basis for the long term vision for the Town and also provides assistance for near term decisions that face the Commission when administering the zoning and subdivision regulations.

It is the aim of this POCD to identify common goals for the Town's future. With a broad vision in mind, this POCD will outline actionable steps for Franklin to maintain that positive future.

1.1 STATEMENT OF PURPOSE AND GOALS

The basic purpose of the planning process is to provide an environment for Franklin's residents that is healthy, attractive, and socially and economically sound. A fundamental objective is to preserve the Town's natural attractiveness and rural character. The following goals will support this objective:

- **Agriculture** Preserve the Town's natural attractiveness by encouraging good agriculture practices to maintain Franklin's farming heritage.
- **Balancing the Grand List** Add strength and variety to the local tax base by encouraging new commercial and industrial activities in areas that will not negatively affect the health, safety and general welfare of the residents.
- **Protect Natural Features**, Preserve lands for habitat, groundwater supplies, and low impact recreational opportunities.
- **Housing Opportunities** Provide a variety of residential densities that are environmentally sound and will meet the needs of all of Franklin's residents.
- **Commercial/Industrial Development** Encourage commercial/industrial development in appropriate areas, with regulatory safeguards to eliminate adverse impacts on other land uses.



1.2 POCD UPDATE PROCESS

The Town of Franklin designated the tasks of updating the POCD to the Planning and Zoning Commission (PZC). In late 2008, the PZC dedicated a portion of subsequent meetings to discuss the update to the POCD. Extensive input was sought from almost every Board, Commission, and residents. A survey was developed and mailed to each residence in Franklin to assess the condition of the town and provide feedback of key priorities. The Planning and Zoning Commission received a total of 83 responses. The results of this survey will be referred to as the “2008 Residents Survey” throughout this POCD. A summary of the responses from the 2008 Residents Survey is presented in Appendix A.

1.3 HISTORY OF FRANKLIN

The West Farms of Norwich was once known for its lush forests and seven hills. These were Hearthstone, Meetinghouse, Center, Pleasure, Pautipaug, Little Lebanon (or Mason Hill) and Blue Hill. This area was the northern area of Norwich's 9 mile square along the western side of the Shetucket River.

The first settler was John Ayer, a trapper, from Haverhill, Massachusetts in 1665. He eventually bought 300 acres from the Native Americans that have remained in the Ayer family to the present day. Later, settlers from the Norwich's First Society moved here. In 1716, they petitioned the Connecticut General Assembly for their own meeting house to worship. This was granted in 1718 as the Second Ecclesiastical Society. The meeting house was both for worship and the society's business and located in the exact center of the society on Meetinghouse Hill. The need for educating the children resulted in the first school built on Meetinghouse Hill in 1727. Part of the cost came from the state and the rest was contributed freely by society members. Disgruntled settlers on the western side separated to form New Concord, now Bozrah in 1734.

In 1786, the town was incorporated as Franklin. The first single town meeting house was built in 1861 near the location of the present day Franklin Congregational Church, which was built in 1863. The eastern side of Franklin along the Shetucket River was given by the Connecticut General Assembly to form the town of Sprague in 1861 along with additional land from Lisbon.

2.0 ECONOMIC DEVELOPMENT

Balancing the residential and commercial land uses with the desire to maintain the rural characteristics is a tricky endeavor. Business retention and new business development are keys to healthy economy. The Economic Development Commission was disbanded in early 2000s. The work of the former Economic Development Commission is performed by the office of the First Selectman. A copy of the Zoning Map is included as Figure 1.



2.1 GOAL AND OBJECTIVES

Franklin is strategically situated to attract small to medium scale commercial activity. The proximity to major highways and railroads is attractive to future commercial and industrial development. Many of Franklin's businesses either cater to agriculture or are a type of agriculture business. The survey in 2008 Residents Survey indicated that Franklin should continue to promote agricultural businesses.

2.2 BUSINESS AND INDUSTRY

According to the Town of Franklin Assessor, there is currently 1,279.71 acres presently zoned commercial or commercial/industrial. These uses range in type from small, retail stores, to business offices, to the extensive structures and grounds used by the Town's several agri-businesses.

Frontage along Route 32 has the highest concentration of Franklin's businesses and commercial enterprises. This busy highway not only offers easy access for customers and employees, but it also provides visual exposure to thousands of potential customers in passing vehicles each day.

Historically, a significant proportion of the businesses in Franklin were related to agriculture. These included three large feed mills, the mushroom farm, farm machinery and equipment dealers, and the egg-producing and processing activities. Recently, the feed mills and the mushroom farm have either closed or relocated. These businesses supported (either directly or indirectly) the extensive dairy and beef farming business in Franklin and neighboring towns, particularly Lebanon. The farmers use the poultry manure as fertilizer on fields that produce additional feed for their herds. These complementary relationships and the close proximity of the agri-businesses should support a continuation of such uses in Franklin and may even attract additional related uses.

Land uses in Franklin also have been influenced by the Central Vermont Railroad, in terms of both location and type. No less than four rail sidings have been constructed, serving five individual businesses. The full potential of rail service as it relates to economic development has not been realized in Franklin. Additional sidings could be constructed to serve commercial and industrially zoned vacant land in both the southern and northern ends of the Town. This mode of transportation is unavailable to most municipalities in eastern Connecticut and should be carefully considered and pursued as a key ingredient in any economic development effort.

New businesses and expansions of existing businesses have occurred throughout the Town in recent years, but no area compares with the southeast corner of the Town in terms of the number of new activities. Good highway access, rail access, visual exposure to a large amount of traffic on Route 32, access to municipal sewer and water, and proximity to a large consumer market in Norwich have combined to draw new uses to this area.



2.2.1 Agricultural Industries and Producers

The economic benefits of having diverse and healthy agriculture are significant. Farms in Franklin are important businesses that support the existence of food manufacturers and processors, garden centers, veterinarians, farm equipment wholesalers, farm supply stores, machinery repair shops, and wholesale fuel suppliers. Farmland places little or no demand on town services. It generates more tax revenue than it requires in community services, even when it is assessed at its current agricultural use value under Public Act 490.

The Town of Franklin recognizes that change and growth are inevitable and in many instances necessary. Knowing that change and growth can be either positive or negative, it is imperative that residents and officials plan and promote positive changes. The challenge before the town is to maintain Franklin's rural character, charm, tradition and values while providing opportunities for culture, recreation, housing, education, commerce and employment. Good planning can ensure that scenic views, open space, farmland and historic structures are preserved, while supporting housing and commercial services that benefit the community.

Although the number of dairies in Franklin has decreased from years past, the four remaining ones are strong, and the farmers are invested in continuing into the future. In 2009, the four major dairy farms had a total of 1,045 cows and 900 heifers and breeding stock. Young animals are kept on farms to replace dairy cows that are sold for beef. The four dairies had a total of 22 full-time employees and 17 part-time employees. These farms also sell corn, compost, provide sawmill services, and livestock trucking. There are also farmers in town that keep beef cows, some as their business, and others as their hobby. There are 80 head of beef cattle in town. There are also a few area farms with milking cows for personal use.

There is one goat farm in town, with 100 goats and one part-time employee. In addition, there is one commercial sheep farm in Franklin. This farm has approximately 85 sheep and 3 full-time employees. Other livestock are kept in Franklin by hobby farmers.

Currently Franklin has two registered beekeepers in town. Combined, they have 185 hives and two full-time employees. Almost 95% of their business is wholesale, but they also do some retail sales and breeding. There are some hobby beekeepers with a few hives for personal use.

The formation of local farmers' markets in surrounding towns has spawned a number of vegetable farms producing both organic and conventionally grown produce in Franklin. Produce farmers market their products at various weekly markets in surrounding towns. There are also four seasonal farm stands and several smaller home stands operating in Franklin that sell fresh, locally grown produce and plants. Labor numbers vary with the season, with the crops mandating manpower requirements. During the peak of the season,



there are 20 employees. Presently, there are 75 acres used in vegetable production, and yearly gross sales are \$150,000.00.

There are four nursery/landscaping operations in Franklin. Combined, there are 100,000 square feet of greenhouse space and 35 acres of irrigated land utilized in these operations. Three nurseries, one wholesale and two retail, have a combined \$7,000,000.00 in annual gross sales, with 100 employees during the growing season. Products include annual, perennial, and vegetable plants. One service-oriented landscaping company provides lawn maintenance and landscape planning, with \$900,000.00 in annual gross sales, and eight seasonal employees. Products include annuals, perennials, shrubs, trees, and mulch.

Franklin currently ranks second in the Southeastern Connecticut Planning Region in poultry farming with 800,000 birds. Bozrah is first with 1,000,000 birds. Lebanon, although not in the Planning Region, has the highest number of birds of any town in New London County with 1,100,000. In Franklin, the only large commercial poultry farm remaining in Town (Southern New England Egg with 50 employees) makes up the vast majority of those birds. More recently, the area has seen an increase in small flock production of birds including layers, broilers as well as turkeys and game birds. The National Agricultural Statistics Service's Agricultural Census of 2007 reported for New London County an increase from 109 farms in 2002 reporting poultry, to 175 in 2007, an example of the increasing interest in small flock production.

Horse farms are an agricultural business on the rise in Franklin with 500 acres devoted to the equine activities. Combined, horse farms have approximately 98 horses and two part-time employees.

Additional agriculture related industries include: Handfield's Dairy Equipment; Kahn Tractor & Equipment; and Ken's Repair; combined, they have just over \$13,000,000.00 in sales and 32 employees.

2.3 RECOMMENDATIONS

1. Promote appropriate commercial/industrial development in existing approved zones.
2. Continue to streamline the permitting process for commercial/industrial developments with pre-application meetings.
3. Adjust the Commercial C-1 and C-2 areas along Route 32 between Thompson Road and south of Route 207 so that zone boundaries and parcel boundaries match.
4. Consider adoption of tax abatement ordinance that would provide tax incentives for new or expanded businesses in the industrial zones.
5. Enact ordinances and zoning regulations to support farm friendliness.
6. Review available tax exemptions and property tax abatements fee schedules to improve incentives for farming/agriculture.
7. Support appropriate Tax and Fee Policies for Farmland



8. Encourage the use of properties (private or town-owned) viable for agriculture production.
9. Ensure that agricultural businesses are incorporated into Franklin's Economic Development Strategy

3.0 NATURAL RESOURCES

The characteristics and distribution of the natural resources has a large effect on the quality of life for a community. Balancing the protection of the communities' natural resources and quality life are key factors for a Plan of Conservation and Development.

3.1 GOAL AND OBJECTIVES

Most of the respondents to the 2008 Resident Survey indicated that maintaining the rural and agricultural character of the Town of Franklin was a key priority. Maintaining and preserving the rural character of Town also can be accomplished by preventing the degradation of water and wetland resources, protecting potential groundwater aquifers from pollution, and minimizing habitat fragmentation from development, forestry practices, or infrastructure changes. See Figure 2 Natural Resource Constraints.

3.2 LAND CHARACTERISTICS

Franklin's terrain is dominated by hills or drumlins that were formed thousands of years ago by glaciers. Glaciation also helps to form stream valleys or floodplains, wetlands, bedrock outcrops. The two main categories of glacial deposits are stratified drift, which typically consist of well sorted fine to coarse deposits that are layered or stratified and till which consists of a heterogeneous mixture of unstratified material ranging from clay to boulders. Stratified drift deposits occur in stream valleys and lowlands. Coarse stratified drift deposits make the most productive aquifers.

The largest area of stratified drift in Franklin is located in the north part of the Town. The potential of this aquifer is not known, but may be explored in the future. The Town of Franklin recently passed Aquifer Protection Ordinance as the first step in the process of protecting this potential resource.

3.3 HYDROLOGIC CHARACTERISTICS

The Connecticut Department of Energy and Environmental Protection (CTDEEP) Water Quality Classification Map indicates that groundwater throughout the Town is classified as "GA" with the exception of two areas. The two areas are located along Route 32 and are classified as "GA impaired"; one located at Murphy Road and Route 32 and the second located at Whippoorwill Hollow Road and Route 32. According to the CTDEP's Water Quality Standards, the GA classification describes groundwater that is within the area of existing private water supply wells or an area with the potential to provide water to public



or private water supply wells. GA groundwater is presumed to be, at a minimum, suitable for drinking or other domestic uses without treatment. Designated uses include existing private and potential public or private supplies of water and baseflow for hydraulically-connected surface water bodies.

Underlying the glacial deposits is bedrock. According to the Bedrock Geology Map of Connecticut (Rodgers, 1985), most of the bedrock beneath Franklin is mapped as one of three formations: Scotland Schist, Hebron Gneiss, or Canterbury Gneiss. According to some informal Franklin historians, Hearthstone Hill is so named because of how the breaks to form a potential “hearth stone”. The bedrock aquifer is the source of water for the majority of the Franklin residents via individual bedrock wells.

3.4 WETLANDS AND WATER BODIES

Wetlands are defined by soil type and are typically described as poorly drained. The Connecticut Inland Wetland and Watercourses (CGS 22a-36 to 22a-45) adopted in 1972 requires the regulation of activities affecting wetlands and watercourses in Towns. Wetland regulations are the responsibility of the Franklin Inland Wetland and Watercourses Commission. According to the University of Connecticut Center for Land Use Education and Research, Franklin has approximately 621 acres of forested and non-forested wetlands and 79 acres of water bodies (as of 2006). Figure 2 Land Cover map includes the wetlands and water bodies within the Town of Franklin.

3.5 AGRICULTURE

Agriculture remains the most extensive land use in Franklin. A total of 1,986 acres were delineated agriculture in 1980. In 1999, this increased to 2,285 acres. In 2009, a total of 2,647 acres was farmed, which is more than twice the amount of land presently used for residential, commercial, and industrial uses, and it equals the amount of land in all other land use categories combined, except for undeveloped woodlands. See Figure 3 Farmland Soils for a depiction of the Agricultural Lands. In October 2009, an ad hoc Agriculture Committee surveyed agricultural producers to gain an understanding of state of this business in Franklin.

Although the farming has declined over the years, the farms that continue to operate today are an asset to the area and a contributing factor to why many people call Franklin their home. Farming encompasses large tracts of land, and it is important the citizens of Franklin that these parcels remain in an undeveloped state. The 2008 Resident Survey showed that residents value the rural character of Franklin. The farms and open spaces in Franklin are what distinguish our town from the suburban areas in the rest of Connecticut. Seeing livestock, smelling manure, experiencing the changing crops along with the seasons is a privilege, and one that shouldn't be allowed to disappear.

Agricultural producers and landowners depend on the land they steward. Agriculture in Franklin has many environmental benefits including improving surface and ground water



by filtering, maintaining or increasing biodiversity, and reducing carbon emissions by reducing the reliance on food shipped from long distances.

3.6 PRESERVED OPEN SPACE AND WOODLAND

Open space such as Giddings Park, the Franklin Wildlife Management Area (WMA), farmland, forestland, and other land use mentioned in this Plan accounts for 7.252 square miles, or 37% of the total land in Town. The state-owned Franklin WMA is the largest separate land holding in Franklin. Occupying 665.71 acres, the WMA extends for a distance of almost two and one-half miles in a north-south direction through the center of the Town. Most of the WMA is wooded, although a large area north of Plains Road is used for growing crops. The Town Franklin Assessor records indicate that 2,970.35 acres are considered Public Act (PA) 490 land or forest land.

Other open space in Franklin includes parts of the Pautipaug Country Club golf course (68 acres) off Holton Road and along the Sprague town line; 20 acres of the Pease Brook WMA in the extreme southwest corner of the Town, 24 acres of the 4-H Camp on Kahn Road, 79 acres of the Nature Conservancy's Bailey's Ravine and Giddings Park, a 72-acre parcel of Town-owned land across from the school on Route 207. The latter parcel provides facilities for organized sports, and it is the site of the Town garage. It borders on the WMA and contains considerable acreage for additional Town recreation facilities in the future. Future open space will consist of the Mukluk and the Watson properties. See Figure 4 Protected Property.

Franklin recently created a Conservation Commission and its mission will include the following:

1. Maintain an inventory of open space
2. Educate the public with regard to managing conservation easements
3. Help protect natural resources
4. Preserve additional open space

3.7 RECOMMENDATIONS

1. Promote allocation of funds through a fee-in lieu of open space unless the open space donation will rate high in natural resource value or it is of significant size.
2. Monitor existing Town held easements and work with owners as necessary to ensure conservation restrictions are honored.
3. Protect uplands and riparian areas around significant wetlands through dedication, acquisition, or adoption of overlay zones and buffer zones.
4. Maintain or enhance natural connections or wildlife corridors for developments that might affect such areas.
5. Encourage and support sustainable agricultural practices for the protection of farmland soils.
6. Ensure stormwater management practices in new developments will not degrade receiving waters by siltation, point source pollution, or contamination.



7. Support Farm and Forest Land Preservation.
8. Investigate establishing a fund to purchase development rights and agricultural land for permanent preservation.

4.0 HOUSING AND POPULATION

Franklin is primarily a rural town, comprised of single family homes on approximately two acres lots or larger. Franklin lacks a town center and the only high density residential area, the Eager Road/Birch Heights Area, was created in the 1970s.

4.1 GOAL AND OBJECTIVES

The goal of the POCD is to ensure that residents have reasonable access to housing, while maintaining the rural character of the town. Based on the feedback from the 2008 Resident Survey, it appears that residents support the status quo for housing developments.

4.2 POPULATION

Year	Population	Decade Change	Percentage Change	Region Percentage Change
2010	1922	87	4.7	5.8
2000	1835	25	1.4	1.0
1990	1810	218	13.7	6.5
1980	1592	236	17.4	2.4
1970	1356	382	39.2	22.9
1960	974	247	34.0	27.7
1950	727			

U.S. Census Bureau data indicate that Franklin's rate of population growth for the most recent decade of 2000 to 2010 was 4.7 %, slightly less than that of the Southeastern Connecticut Region which grew 5.8 %, and nearly identical to Connecticut which grew 4.9%. For the second half of the twentieth century Franklin's growth rates exceeded those of the Region. From 1950 to 1960, Franklin experienced a 34% increase, compared to a 28% increase for the Region. During the 1960s, Franklin's rate of growth was 39%, versus a 23% rate for the Region, while in the 1970s, the Town grew at a rate of 17.4% and the Region only achieved a 2.4% increase.

Most of Franklin's population growth during the first part of the twentieth century was from natural increase, or the excess of births over deaths. However, in the 1960s, this situation changed, when more than 70% of the net population increase was from new residents moving into the community, while in the decade of the 1970s the comparable figure was 81%. This trend continued for the rest of the twentieth century, except for the



1990-2000 time period when there was net out- migration. However, for the most recent decade of 2000 to 2010 net in- migration again accounted for most of the growth.

The accompanying table below shows Franklin’s 2000 to 2010 population change for five age categories. The mature workers (ages 45-64), retired (65 and over), and student-young workers (15-24) accounted for Franklin’s growth while the prime workers (ages 25-44) and children (14 and under) decreased in size. Most growth occurred in the 45 to 64 category which grew 27.4 % and the 65 and over category which grew 23.1 %.

Table 2				
Population Growth 2000-2010				
Age	2010	2000	Change	% Change
14 and Under	326	350	-24	-6.9
15 to 24	215	202	13	6.4
25 to 44	452	546	-94	-17.2
45 to 64	641	503	138	27.4
65 and over	288	234	54	23.1
Total	1922	1835	87	4.7

Determining future municipal service needs requires some idea of the size of the population in future years. The Connecticut Department of Transportation has compiled population projections for Connecticut municipalities which show Franklin’s projected year 2020 population to be 2,050 and year 2030 to be 2,230. Population growth reflects several constantly changing variables such as economic conditions and employment opportunities, both internal and external to Franklin, housing costs, and household size. Due to the unpredictability or instability of these factors, population projections are merely estimates to be used to guide future planning and development decisions. The Connecticut Department of Transportation is in the process of revising these projections using the results of the 2010 Census.

It is worth noting that Franklin's land area is 19.6 square miles, giving a population density figure of 98 persons per square mile in 2010. This compares with 459 persons per square mile for the Region and 738 persons for Connecticut, making Franklin a desirable low density community in which to reside.

Beginning with the 2000 Census, individuals could select one or more racial categories when completing the census. In Franklin one percent of the population chose this option in 2010, about the same percentage as in 2000. Because of this significant change, racial data after 2000 is not directly comparable with earlier censuses. In 2010 the Franklin racial distribution was 95.8 % white and 4.2 % non-white for those selecting one or more racial categories, compared to 98 % white and 2 % non- white in 2000. Franklin’s population was 2.2 % Hispanic compared to 1.2 percent in 2000. People of Hispanic origin may be of any race.



During the most recent decade of 2000-2010, Franklin's population continued to age. The accompanying table shows that the town's median age is 44.1, a number which has been increasing since the mid twentieth century. This has also been occurring in New London County where the 2010 median age is 40.4.

This increase in median age is reflected in the index of aging as presented in the accompanying table. This index is defined as the number of persons 65 and older per 100 children less than 15 years of age. For each decade since 1960, when the index was 26.6, Franklin's index has increased to 88.3 older persons per 100 children, a substantial 232 percent increase over the last 50 years. The comparative 2010 figure for the southeast region was 79.3, which has undergone a similar change.

Children and retired age categories may also be examined in terms of the population ages 15 to 64. In general terms, this latter category may be regarded as the economic producers who support the dependent young children under age 15 and the dependent old ages 65 and over. One measure of this dependency is referred to as the dependency ratio and is defined as the number of persons 65 and over and the number of persons under age 15 per 100 persons ages 15 to 64. This is a broad measure of economic dependency, and one must recognize that some persons in the dependent age categories are producers and that some persons in the economically productive category are dependent. Childhood, elderly, and total dependency ratios are displayed in the table.

Overall the total dependency ratio decreased 28 percent from 65.4 elderly and children per 100 adults in 1960 to 46.9 in 2010. However, the two components of the ratio changed differently during this time period. The childhood ratio decreased over 50 percent from 51.6 children per 100 adults in 1960 to 24.9 children in 2010. The elderly portion of the ratio increased nearly 60 percent from 13.8 seniors per 100 adults in 1960 to 22 seniors in 2010. This long term trend of a decreasing childhood ratio and increasing elderly ratio has also been occurring in southeastern Connecticut.

There are numerous implications of the increase in Franklin's median age, index of aging and the elderly dependency ratio, not the least of which suggests that there will be increased demands for services and programs to serve this age group. Also, in 2010 Franklin had 281 persons ages 55 to 64 that, barring any substantial changes in migration, will be included in the senior category over the next ten years.

4.3 EMPLOYMENT CHARACTERISTICS

Detailed data on income, housing, employment, education, journey to work and other characteristics that were once integrated with the decennial census program is no longer included. One must now turn to the American Community Survey for this type of information. Data from the 2005-2009 American Community Survey indicate that for the employed population 16 years and older (by place of residence, not place of employment) the leading industries is presented in Table 3.



Table 3 Employment by Industry	
Industry	Percentage of Workforce
Educational services, health care and social assistance	25
Retail trade	15
Construction	12
Arts, entertainment, recreation, accommodation and food services	10
Manufacturing	8
Other	30

Table 4 presents the types of occupations in Franklin.

Table 4 Occupations of Franklin Residents	
Occupations	Percentage of Workforce
Management, professional, and related occupations	35
Sales and office occupations	22
Service occupations	18
Construction, maintenance, and repair occupations	16
Production, transportation, and material moving occupations	10

Seventy-nine percent of persons employed were private wage and salary workers; 15 percent was federal, state, or local government workers; and seven percent was self-employed.

The annual average 2010 Connecticut Department of Labor data indicates that of the 1,203 people in the labor force in the Town, 1,112, or about 92.4 percent, were employed.

The 2005-2009 American Community Survey data indicate that Franklin had a per capita income of \$31,102, a median household income of \$73,393, and a median family income of \$85,543. In 2005-2009, two percent of Franklin people were in poverty. Two percent of related children under 18 were below the poverty level, compared with 8 percent of people 65 years and over. One percent of all families and nine percent of families with a female householder and no husband present had incomes below the poverty level.



4.4 HOUSING

The 2010 Census identified a total of 771 housing units in Franklin of which 729 were occupied and 42 were vacant. This represents an overall growth rate of 8.4% from the 711 total units in 2000. Occupied units increased by 42 from 687 in 2000 to 729 in 2010 for a 6.1 % growth rate. Vacant units increased by 18 from 24 in 2000 to 42 in 2010. The homes built have located on lots fronting on existing Town roads or State highways. This existing road system clearly remains the dominant influence on residential locations.

It is interesting to note that as described previously in this report, the Town's population increased by 4.7 % during the period between 2000 and 2010. Thus, the new units have, on the average, been occupied by smaller households, with the single-family houses being the predominant housing type in the Town. In addition, the number of vacant units has increased to 5.4 % of all housing units. In 2010 Franklin had an average household size of 2.62 persons. This compares with 2.66 in 2000, 2.79 in 1990, 3.01 in 1980, and 3.3 in 1970, reflecting an overall decrease in household size of 21 percent from 1970 to 2010.

Eleven percent of the Town's 729 occupied units, representing 81 housing units, were renter-occupied. 182 persons resided in these units. The balance of 648 units was owner-occupied in which 1,725 persons lived. Thus, Franklin residents are predominantly homeowners.

The 2005-2009 American Community Survey indicates that the median monthly housing costs for mortgaged owners was \$1,687, non-mortgaged owners \$555, and renters \$975. Thirty-eight percent of owners with mortgages, 18 percent of owners without mortgages and 25 percent of renters in Franklin spent 30 percent or more of household income on housing. The median value reported for owner-occupied units was \$269,000.

Of the 729 occupied units, 539 represented family households and 190 nonfamily households. Family households are composed of husband-wife (451), male householder, no wife present (37) and female householder, no husband present households (51). Nonfamily households are composed of individuals living alone (139) and households which do not have any members related to the householder (51).

In 2005-2009 the American Community Survey indicated that 94 percent of the people at least one year old living in Franklin were living in the same residence one year earlier; 4.6 percent had moved from another residence in New London County, 0.8 percent from another county in Connecticut, 0.3 percent from another state, and 0.3 percent from another country.



4.4.1 Affordable Housing Development

According to 2008 CERC, less than two percent (1.97 percent or 15 units) of Franklin's housing stock is considered affordable under Connecticut General Statute (CGS) section 8-30g. CGS Sec. 8-30g requires that an affordable dwelling unit be

1. Government assisted housing;
2. Currently financed by Connect Housing Finance Authority mortgages or;
3. Subject to binding recorded deeds containing covenants or restrictions which require that such dwelling units be sold or rented at or below prices which will preserve the unit as housing for which persons and families pay 30 percent or less of income, where such income is less than or equal to 80 percent of the median income

Because Franklin does not have an affordable housing stock of 10 percent, it is not exempt from affordable housing appeals procedures which can shift the burden of proof to a municipality to show that public safety or health concerns outweigh affordable housing need.

During the summer of 2011 Elisha Brook Access Senior Housing, a twenty-seven unit age restricted, income restricted development, opened on New Park Avenue. This is Franklin's first multi-family housing development.

4.5 RECOMMENDATIONS

1. Consider zoning regulations that require larger residential development proposals provide at least ten percent of the proposed units meet affordability requirements as defined by CGS Sec. 8-30g.
2. Review housing zoning densities for areas served by public utilities and consider regulation modifications accordingly.
3. Consider zoning regulations that require applicants to submit information regarding the potential natural, cultural, and historic resource impact of proposed developments.

5.0 MUNICIPAL FACILITIES AND SERVICES

A principal of local government is providing community services, facilities, and infrastructures to meet the town's needs. A map of the locations of many of the Town's facilities is included as Figure 5.

5.1 GOALS AND OBJECTIVES

The Town of Franklin provides a full range of municipal services. These facilities provide for the health and welfare, and convenience of the residents and a key constituent of the Town's quality of life. Maintaining these facilities in good condition is an important aspect of local government.



5.2 EDUCATION

The Franklin Elementary School is sited on sixteen acres with two baseball fields, one soccer field, one exterior basketball court and one playground. The school building was expanded in 1990 to 67,000 square feet in size on two floors. The school comprises of 25 classrooms plus one art room and a science room on each floor, one computer laboratory, one library, a kitchen, a cafeteria and a 7,500 square foot indoor gymnasium with a stage, men's and women's restrooms and boys' and girls' locker rooms. Three boys', three girls' and four staff bathrooms are on the first floor and one each boys', girls' and staff bathrooms on the second floor. In addition there are 103 parking spaces and one elevator.

The 2011-12 enrollment of the Franklin Elementary School is 202 students in pre-kindergarten to grade eight. On graduation, students attend Norwich Free Academy; the District's designated high school.



Currently 84 students are enrolled at the Academy. Students with other specific career goals or needs are enrolled in the Lyman Vocational Agricultural Program (7), Windham Regional Vocational Technical School (2), and Norwich Regional Technical School (17). These secondary programs and schools appear to have adequate capacity to continue to serve the needs of Franklin's secondary school students for many years to come. Total District elementary and secondary enrollment as of October 1, 2011 is 312. Table 4 includes the historical enrollment number for Franklin.

Year	School Enrollment
1961	175
1971	358
1987	326
2000	295
2012	312

The Franklin Board of Education has a policy that states that 20 students is a desirable figure of students per classroom teacher. Adherence to the Board of Education policy would suggest that the school would be operating at or near full capacity with 560 students. Conceivably a drastic increase of students in two or three grade levels would make it impossible to adhere to Board of Education policy yet the total enrollment figure could be below the "acceptable" capacity figure of 560. With the population

holding somewhat steady, the School will be capable to meet additional enrollments.

The single largest expenditure in the Town's budget is the education budget. In 2000, the education budget was \$3.1 million dollars and in 2011 the education budget is \$3.8 million dollars.



5.3 MUNICIPAL COMPLEX AT TYLER DRIVE

The Town purchased 5 Tyler Drive, a 12-acre parcel of land with a 40,000 square foot building in 2000. The Building was formerly a commercial multi-tenant building that now houses the Fire Department, the Janet Carlson Calvert Library, the Senior Center, and one commercial tenant.



The Volunteer Fire Department uses approximately 16,500 square feet of space for apparatus and equipment storage, a kitchen, meeting rooms, and a hall. The hall provides additional space for Town functions and a polling place if needed.

The Janet Carlson Calvert Library is the only public library in Franklin. The library was constructed in 2006 and consists of approximately 3,500 square feet of space. The library has a collection of over 7,000 books, magazines, DVDs, and other resources. The library offers high speed internet access to the public and several programs throughout the year for kids and adults.

The Franklin Senior Center provides programs and services to Franklin's seniors. The programs include lunches, health screenings, computers, exercise, and social events. The Senior Center was constructed in 2008 and consists of approximately 3,000 square feet. Franklin's Commission on Aging operates the facility.

A cellular tower and emergency communication tower is also located on the grounds. The cellular tower provides a source of revenue for the Town.

5.4 TOWN GARAGE

The Franklin town garage is located at 167 Pond Road. It is 40 feet by 106 feet in size, and contains five bays. The addition of other bays on the garage may be needed in the future as additional services are needed. A protected storage area for salt and sand has been installed to prevent groundwater contamination.

The Town garage also serves as the Town's transfer station where residents bring bulky wastes to be hauled off to State approved facilities. The operation is general self sufficient and should be able to continue for the foreseeable future barring any new State mandates. The Town contracts with a private contractor to provide household waste and recyclable material pick up on a weekly basis.



5.5 TOWN HALL

The Town Hall is located at 7 Meeting House Hill Road. The Town Hall has offices for the First Selectman, the Town Clerk, the Tax Collector, the Treasurer, the Assessor, the Registrars of Voters, the Wetlands Enforcement Officer, Zoning Enforcement Officer, the Building Official, the Sanitarian, the Director of Civil Preparedness, and the Municipal Agent for the Elderly, and others. After the Fire Department relocated to 5 Tyler Drive in 2004, the Town Hall was renovated to address its deficiencies pertaining to O.S.H.A., vault size, and handicapped accessibility. The recent improvements to the Town Hall should serve the Town's needs for quite some time.



5.6 RECREATION

Franklin's recreation facilities are concentrated in Giddings Park and the adjacent elementary school property. These Town-owned properties are located near each other on opposite sides of Route 207. Vehicular access to them is thus very good from all parts of the Town. The Town's Recreation Commission oversees the operations at Giddings Park and the school maintains their recreation fields.

Giddings Park is approximately 72 acres in size. It contains an equestrian ring, a five-acre cleared area which can be used for camping by such groups as boy scouts, a regulation-size senior league baseball field, a regulation-size little league field, a regulation-size softball field, two doubles tennis courts, a paved basketball area, a volleyball court, jogging/walking trails, and a small play area for young children. In addition, there is undeveloped land still available which could be used for future expansion of active recreation facilities should the need arise. In the meantime, this undeveloped land serves an important function as an open space area.

At the elementary school property, there is a regulation softball field for use by either men or women, and also the Kahn Memorial Field, a regulation little league baseball field, jogging/walking track, and a soccer field.

It would seem that for a town of its size, Franklin has an excellent recreation program. Should the need arise for additional facilities; there is adequate land in Giddings Park to construct them. Any additional development of the park should first provide sufficient on-site parking plans in the future to enlarge and grade school side parking lot for projected park uses, with safe access to and from Route 207.



5.7 MUNICIPAL WATER AND SEWER

Franklin's infrastructure consists of sewer service and water service limited to the Industrial Park. Most of Franklin utilizes on-site septic systems and individual wells.

The Franklin portion of the Norwich Industrial Park located near Route 32 and New Park Avenue is served by the Norwich Public Utility (NPU) sewer system. Currently, only the properties developed along New Park Avenue would have access to municipal sewer connections. However, recent development project approvals near Route 32 and Baltic Road have made developers interested in extending NPU's system. NPU also has water service available near the intersection of Route 87 and Stockhouse Road; however, no connections to the water service are located in Franklin.

The Sprague Water and Sewer Authority has a sewer interceptor extends westward from Baltic along Route 207 to within a mile of the Franklin town line. The Sprague sewer inceptor was built with additional capacity; however, there are no current plans to extend this interceptor into Franklin.

5.8 RECOMMENDATIONS

1. Continue to maintain the Town facilities in the highest degree possible to fulfill the town's needs for the foreseeable future.
2. Continue to provide facilities for recycling and general bulky waste disposal.
3. Investigate the need to expand the Public Works garage.
4. Investigate the need to connect properties to municipal water and sewer where warranted and when available.

6.0 TRANSPORTATION AND CIRCULATION

6.1 GOALS AND OBJECTIVES

With only minor additions or realignments, the network of roads serving Franklin is the same as it was thirty years ago. There is a total of 39.96 miles of roads, of which 17.2 miles are state highways and 22.76 miles are Town Roads. The systematic surface maintenance program presently in force will continue and minor drainage problems will be addressed as they occur on Town roads. See Figure 6 for a map of the roads.

Franklin roads fall into three basic functional categories: arterial highways, collector roads, and local access roads. The arterial highways are all state numbered highways, including Route 32, 87, 207 and 610. Although their primary purpose is the movement of traffic through the Town, arterials have an important secondary function, namely, providing access to abutting properties.



The second category of roads in Franklin is the collector. These roads channel traffic from significant development areas toward the arterial highways. They also serve as connecting links between the arterials. Like the arterials, collector roads also provide access to abutting properties. The collector roads in Franklin include, Blue Hill Road, Rindy Road, Under the Mountain Road, Whipoorwill Hollow Road, Robinson Hill Road, Brush Hill, Pound Hill Road, Pautipaug Hill Road, Plains Road, New Park Avenue, Meeting House Hill Road, Champion Road, Kahn Road and Murphy Road. These roads should be brought up to Town road ordinance standards to ensure safe traffic flow and provide access for emergency vehicles.

Local access roads are primarily intended to provide access to property, regardless of the particular use. These are most frequently streets in residential subdivisions, and their traffic volumes are lower than those occurring on collector or arterial roads.

In Franklin, the functional classification can be considered a general indicator of traffic volumes and speeds. The state highways, (the arterials), with their better construction, accommodate the largest volumes at the fastest speeds. At the other end of the scale, the local access roads, with their relatively short lengths and frequent driveways, require slower speeds and handle lower volumes. The collectors fall somewhere in-between, although they are often more poorly constructed than the local access roads.

The road classification can also be a guide for preparing and applying standards for development of abutting property. Higher standards would apply for sight lines, separations of driveways, and drainage improvements, on arterial roads than would be required for collector or local access roads. The classification may also indicate priorities for road maintenance and snowplowing.

In addition to roads, the New England Central Railroad line goes thru Franklin. The New England Central Railroad extends from New London all the way to Montreal Canada. Several commercial properties abut the railroad and provide an opportunity for commercial development along the railroad.

6.2 EXISTING CONDITIONS

Route 32 is by far the busiest road in Franklin. As an arterial, it serves a heavy volume of through traffic while, at the same time, affording access to the Town's collector roads and to abutting properties. Traffic moves at a fast pace for its entire length of 7.1 miles through the Town. This is the main route of travel between the cities of Norwich and Willimantic, both of which are regional centers for employment, shopping, education and governmental services.

At the present time, Route 32 has the capacity to accommodate its heavy traffic load. Recent improvements, particularly in the southern part of the Town, enable these volumes to move smoothly and in relative safety. However, a continued rate of traffic increase will require additional improvements. Those needed improvements will depend in large



measure on the extent and quality of development that will occur not only in Franklin but in other towns served by Route 32.

Route 87 is a good two-lane highway with light development along its frontage, and which has no major urban center throughout its length. The dominant development along Route 87 road frontage is single family homes. Land immediately behind the frontage development is farmland or woodland.

Major realignment work was done on Route 87 about 45 years ago, eliminating several dangerous curves between the intersection with Rindy Road and a point about 2,000 feet west of the intersection with Murphy Road. Poor sight lines and narrow shoulders characterize much of the remaining length of the road between the improvement and Route 32.

Route 207, the only road which passes through the full width of Franklin, measures at about 4.1 miles. Like Route 87, it passes through no major urban centers in its total length from Baltic to Hebron. For the most part, Route 207 within Franklin is in excellent condition, having two 11-foot travel lanes with six-foot shoulders. In 2001, Route 207 in Franklin was named the Paul Henry Bienvenue Memorial Highway.

Route 610 (Baltic Road) is the shortest state highway in Franklin, extending for only 2.2 miles. It is contained entirely within the Town, linking Routes 207 and 32. The condition of the road is generally poor, with the total two-lane pavement width reduced to only sixteen feet in some areas and not exceeding twenty feet throughout its length. There are no shoulders and sightlines are inadequate in many locations.

Route 610 is a convenient route of travel between the employment and shopping attractions in the Norwichtown and Yantic sections of Norwich and the growing residential areas near the Franklin/Sprague town line and the Pautipaug Country Club. In all likelihood, these areas will continue to grow and generate increasing volumes of traffic, much of which will use Route 610. Additional major improvements will be required if this road is to accommodate future traffic volumes in a safe manner. A traffic signal is planned for the intersection of Route 610 and Route 32 in the summer of 2013.

In general, Town roads in Franklin have paved widths ranging from 16 to 20 feet, and most have little or no shoulders. Bringing the rights-of-way, pavement widths, and road drainage up to current standards should be primary considerations before approval of any development proposals along these roads.

6.3 RECOMMENDATIONS

1. **Murphy Road** This important collector road connects Routes 32 and 87, providing a shortcut that avoids the busy, growing commercial area near the intersection of the two state highways. It serves a growing number of businesses located on, or accessible from, Murphy Road itself. The Murphy Road Bridge over



Susquetonscut Brook was reconstructed to provide greater width and to allow for heavier loads in 2001. The road should be realigned and widened throughout to accommodate increased traffic. Reconstruction of the intersection with Route 87 should also be a major priority as well as correcting drainage problems. Future development plans in the area of Murphy Road such as the commercial subdivision and sewer and water project would be the best time to address all these issues.

2. **Hyde Park Road/ Holton Road** The dead ends of these two roads are separated by a distance of only 2,000 feet, and connecting them would significantly improve local traffic circulation in the northern part of Franklin. However, the intervening area consists of the steep eastern slope of Pleasure Hill. This plan makes no recommendation about how such an interconnection might be made.
3. **Road Standards** Continue to have developments along road frontage bring the pavement widths, rights-of-way, and drainage up to current standards.
4. **Railroad** Continue to promote the access to rail service from commercial properties in Franklin.

7.0 FUTURE LAND USE PLAN

The current zoning map for the town of Franklin has not changed much since the last edition of the POCD, with the exception of expanding the Industrial Park District at the southern end of Town and Commercial Zone C-2 adjustments to match existing lot line. The various land use categories, or plan elements, are discussed below.

7.1 RESIDENTIAL

Two residential land use categories are shown on the plan map: Rural Residential-Agricultural (R-80) and Low Density (R-120). These provide a variety of housing settings, as indicated by the plan goals. Since no public sewer or water supply facilities are contemplated in the Town for the foreseeable future, both of these types of areas will have to employ on-site systems. In keeping with the Town's rural character, it is contemplated that most, if not all, housing will be of the single-family type.

It will be the responsibility of the Planning and Zoning Commission to carefully review proposed subdivisions and determine if the land is suitable for housing without endangering the public health, and without causing adverse impacts on neighboring properties. In this regard, erosion and sediment controls are important.

7.1.1 Rural Agricultural (R-80)

This category includes most of the good building land in the Town, and much of the current farmland. Minimum lot size should be approximately two acres. But, nevertheless, the Planning and Zoning Commission must carefully review proposed subdivisions to evaluate their impact on public health and on neighboring properties.

In addition to subdivision activity, agriculture should be encouraged in every possible way. It is difficult for towns to take specific actions since the problem of agricultural



preservation is principally one of economics. However, there is a state-mandated municipal tax abatement program for farmland and the state's program for the purchase of development rights. In addition, there now exists state legislation, which authorizes municipalities to establish agricultural land preservation funds. These monies may also be used for the acquisition of development rights or for other expenditures incurred for the preservation of agricultural land. Such fund would give the Town flexibility in accomplishing this objective.

7.1.2 Low Density (R-120)

In these areas, building and development will be limited by natural resource constraints. These include steep slopes, wetlands, and areas of rock outcrops and shallow-to-bedrock soils. These limitations are reflected in existing conditions, since most of the land in these areas is undeveloped at the present time. Areas of stratified drift, or aquifers are also included in the Low Density category because of the need to preserve them. However, it should be recognized that some aquifers do occur in areas of good buildable land.

However, in all of the Low density areas, the potential exists for individual dwellings. In order to prevent over-building in locations where building is difficult, lots should be large, on the order of three or four acres.

Recreational and other low-intensity uses would also be appropriate in these areas. As will be discussed in subsequent sections of this plan, Franklin already contains large areas dedicated to public open space. However, the possibility should not be discounted of acquiring property indicated on the map as in the Low Density category for open space, especially for the protection of some specific natural features or promoting non-fragmented open space areas.

7.2 COMMERCIAL AND INDUSTRIAL

Three commercial and industrial land use categories are suggested: Retail Commercial, Highway Commercial-Industrial, and Industrial Park.

7.2.1 Retail Commercial (C-1)

It is suggested that these areas would take in all of the existing C-1 commercial areas along Route 32. The purposes here are to minimize traffic congestion and to maintain the Town's rural character, as mentioned in the proposed Statement of Planning Goals. It is felt that the commercial permitted uses and special permitted uses would remain substantially the same as those currently listed for the C-1 District in the Zoning Regulations.

7.2.2 Highway-Commercial Industrial (C-2)

These areas are proposed to follow very closely the present C-2 District regulations, and the C-2 district locations shown on the current Zoning Map. Uses proposed in this district are larger in scale than those that would be located in the Neighborhood Commercial and



Retail Commercial areas. Examples are automotive sales and service, warehousing, indoor storage and truck terminals, and light manufacturing activities.

The Commercial-Industrial areas are located to take advantage of the Central Vermont railway as well as of Route 32.

7.2.3 Industrial Park District (I)

To quote from the current Zoning Regulations, the purpose of this district is to take advantage of the availability of the public utilities and reserve the land for uses that will return the greatest benefit to the Town. This area adjoins the Norwich Industrial Park and should be developed in harmony with the park. Development is intended to take place in a park-like setting with subtle landscaping and preservation of natural features.

7.3 PLANNED RECREATION DISTRICT DEVELOPMENT (PRDD)

The intent of this district is to allow for mixed residential/recreational districts within the Town while protecting the natural resource base and rural character of the community. This district is a floating zone. The applicant must apply to the Planning and Zoning Commission for a zone change to have a specific tract of land designated as being in a PRDD and shall demonstrate the suitability of the site for the uses in the zone. We have two of these areas presently, one off the south side of Whippoorwill Hollow Road near Route 207 and the other off the West Side of Route 32 near Route 610.

7.4 OPEN SPACE

There are Federal and State grants funds available for purchase of open space. The Town should consider acquiring land for open space or watershed protection if it becomes available. The land use commissions should also establish policies to limit impact of non-agricultural development on productive farmland.

8.0 RECOMMENDATIONS FOR ACTION

The purpose of this plan is to provide a guide for the future conservation and development of the Town. Each section outlined several recommendations that should be taken to further the goals and objectives. Furthermore to keep these concepts alive, the land use commissions need to consider the following:

1. Biannually review building, zoning, and subdivision regulations to consider the needs that were outlined in this document.
2. Annually review the Plan of Conservation and Development to assess the progress.
3. Conduct more frequent joint commission meeting to ensure goals are aligned.

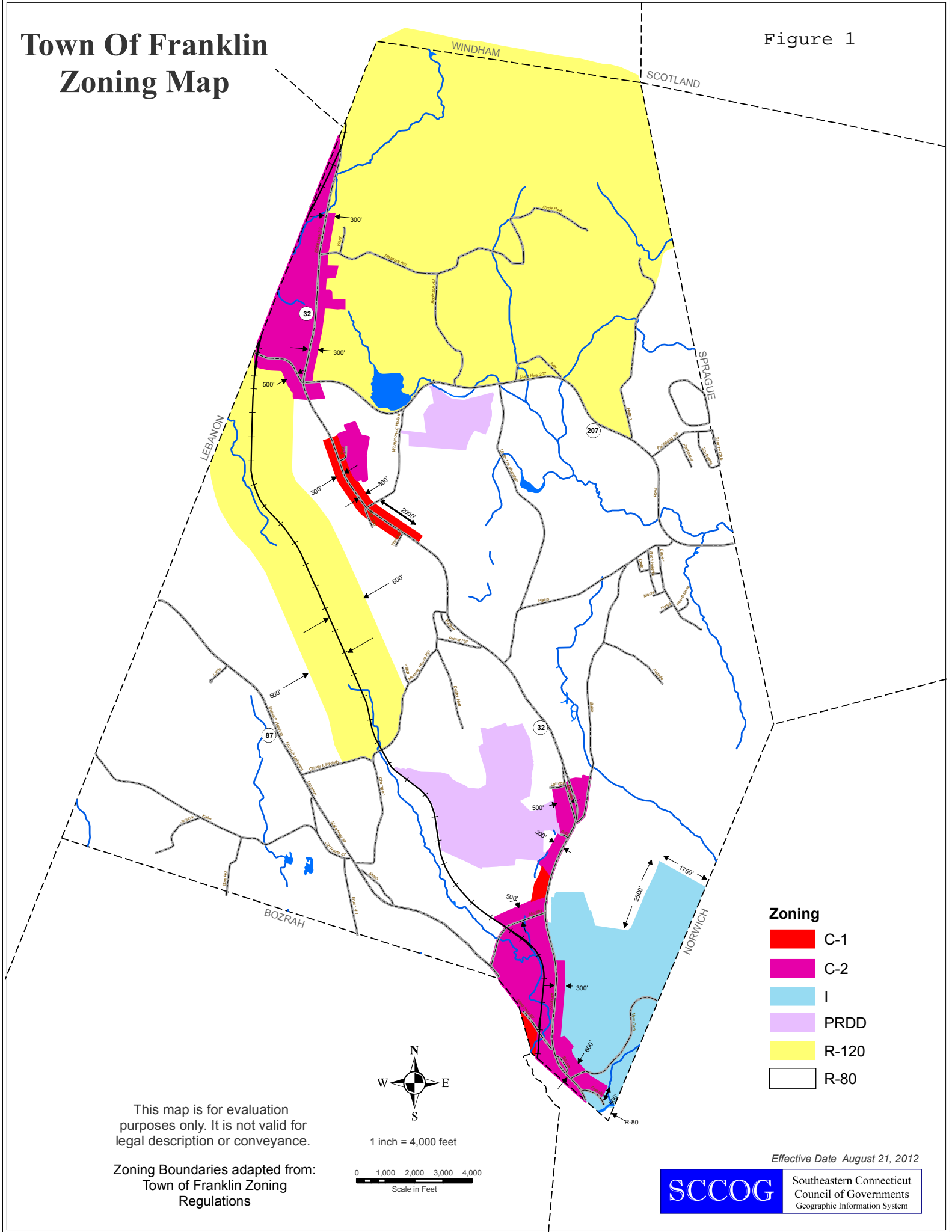
A pleasant living environment cannot be maintained without public expenditures of effort, time and money. If the objectives of this plan are to be achieved, the residents of the Town must become familiar with it and give the elected officials support in all actions proposed by the plan.



FIGURES

Town Of Franklin Zoning Map

Figure 1



- Zoning**
- C-1
 - C-2
 - I
 - PRDD
 - R-120
 - R-80

This map is for evaluation purposes only. It is not valid for legal description or conveyance.



1 inch = 4,000 feet



Zoning Boundaries adapted from:
Town of Franklin Zoning
Regulations

Effective Date August 21, 2012

SCCOG Southeastern Connecticut
Council of Governments
Geographic Information System

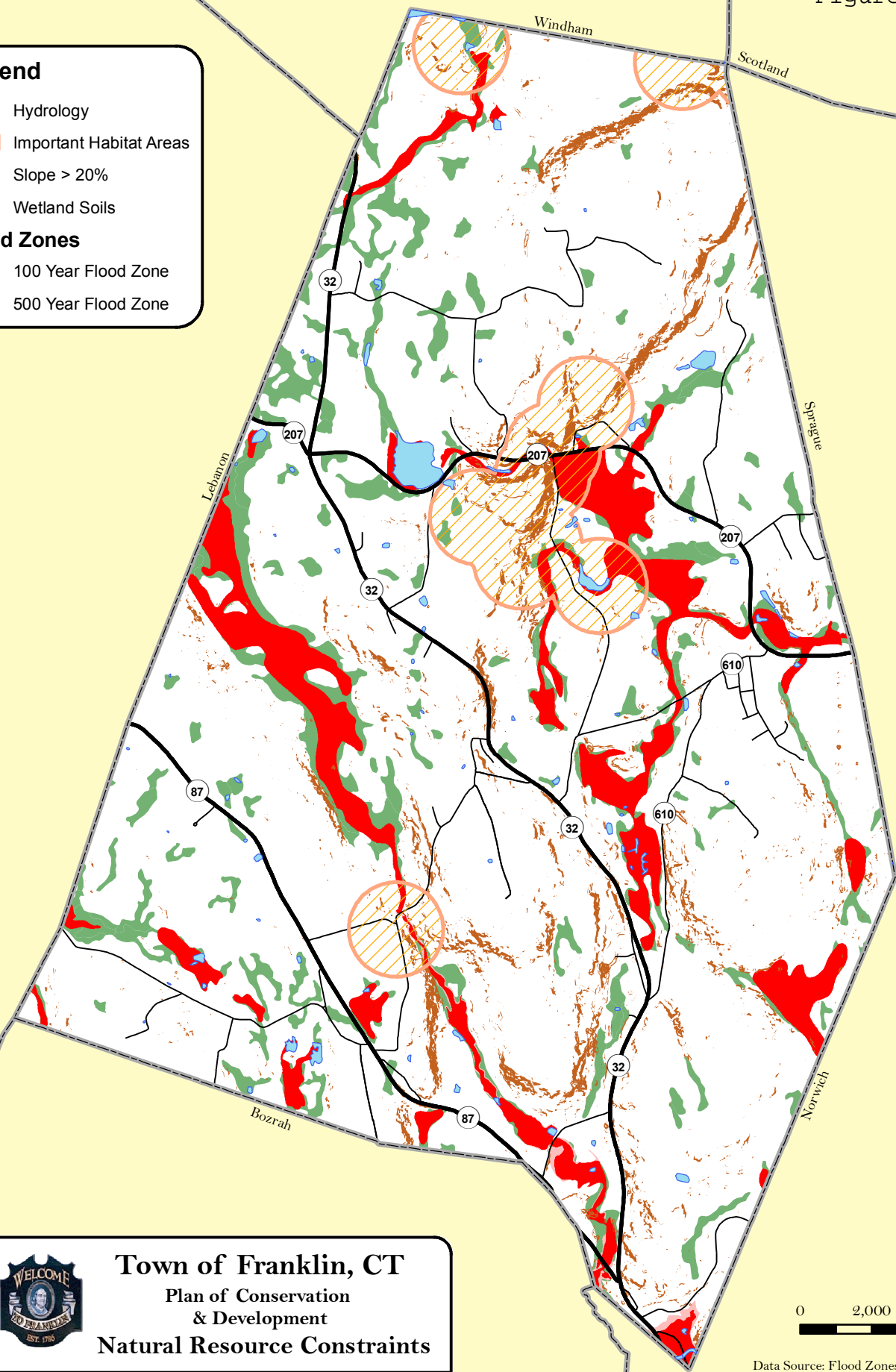
Figure 2


Legend

- Hydrology
- Important Habitat Areas
- Slope > 20%
- Wetland Soils

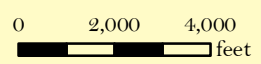
Flood Zones

- 100 Year Flood Zone
- 500 Year Flood Zone



 **Town of Franklin, CT**
Plan of Conservation
& Development
Natural Resource Constraints






Date: February 2010 Scale: 1 inch = 4,000 feet



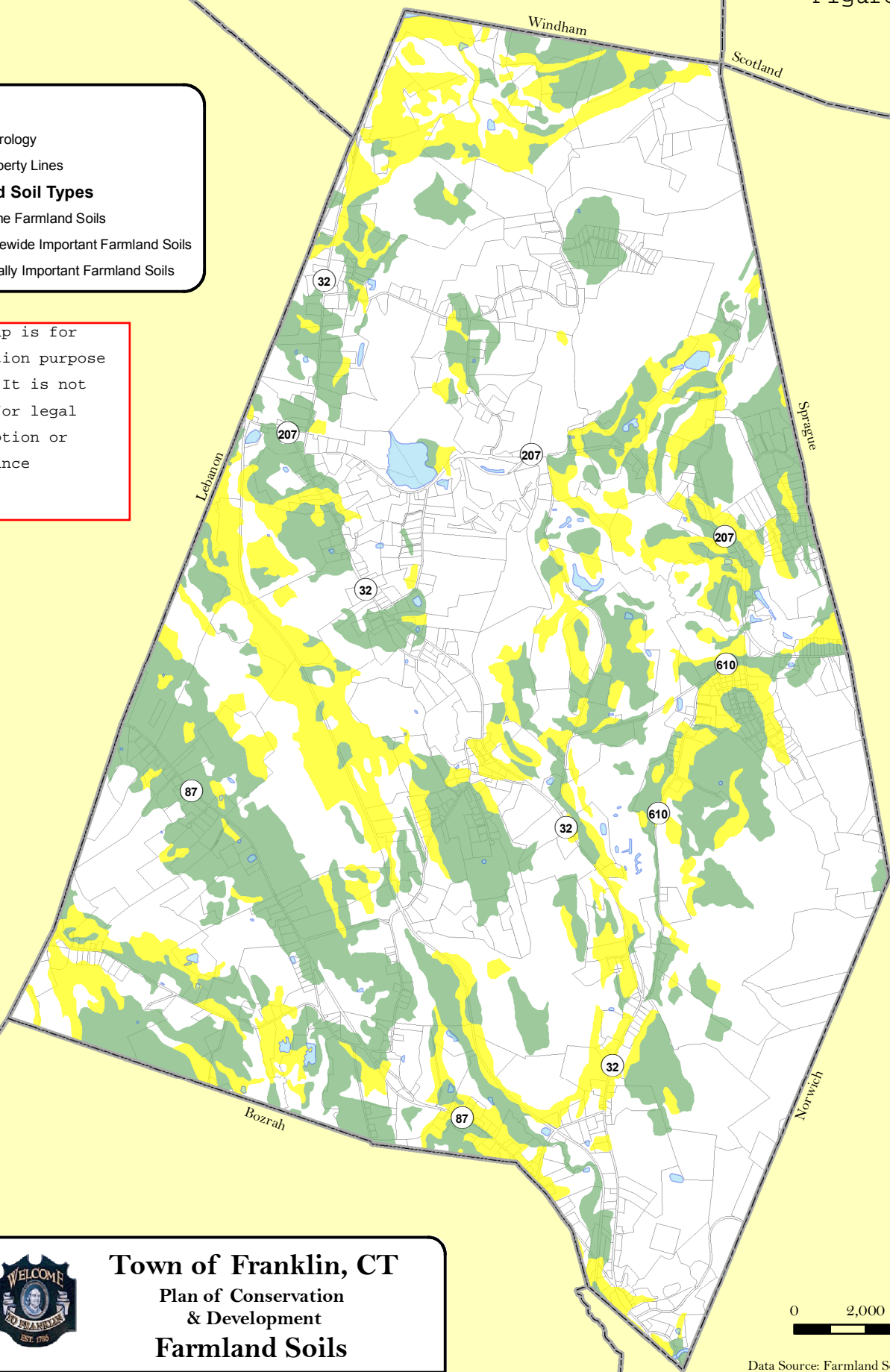
Data Source: Flood Zones shown are from FEMA's 1999 Flood Insurance Rate Maps. Habitat Areas and Wetland Soils downloaded from the CT DEP website.

Figure 3

Legend

-  Hydrology
-  Property Lines
- Farmland Soil Types**
-  Prime Farmland Soils
-  Statewide Important Farmland Soils
-  Locally Important Farmland Soils

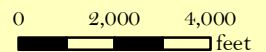
This map is for evaluation purpose only. It is not valid for legal description or conveyance



Town of Franklin, CT
Plan of Conservation
& Development
Farmland Soils

Date: February 2010

Scale: 1 inch = 4,000 feet



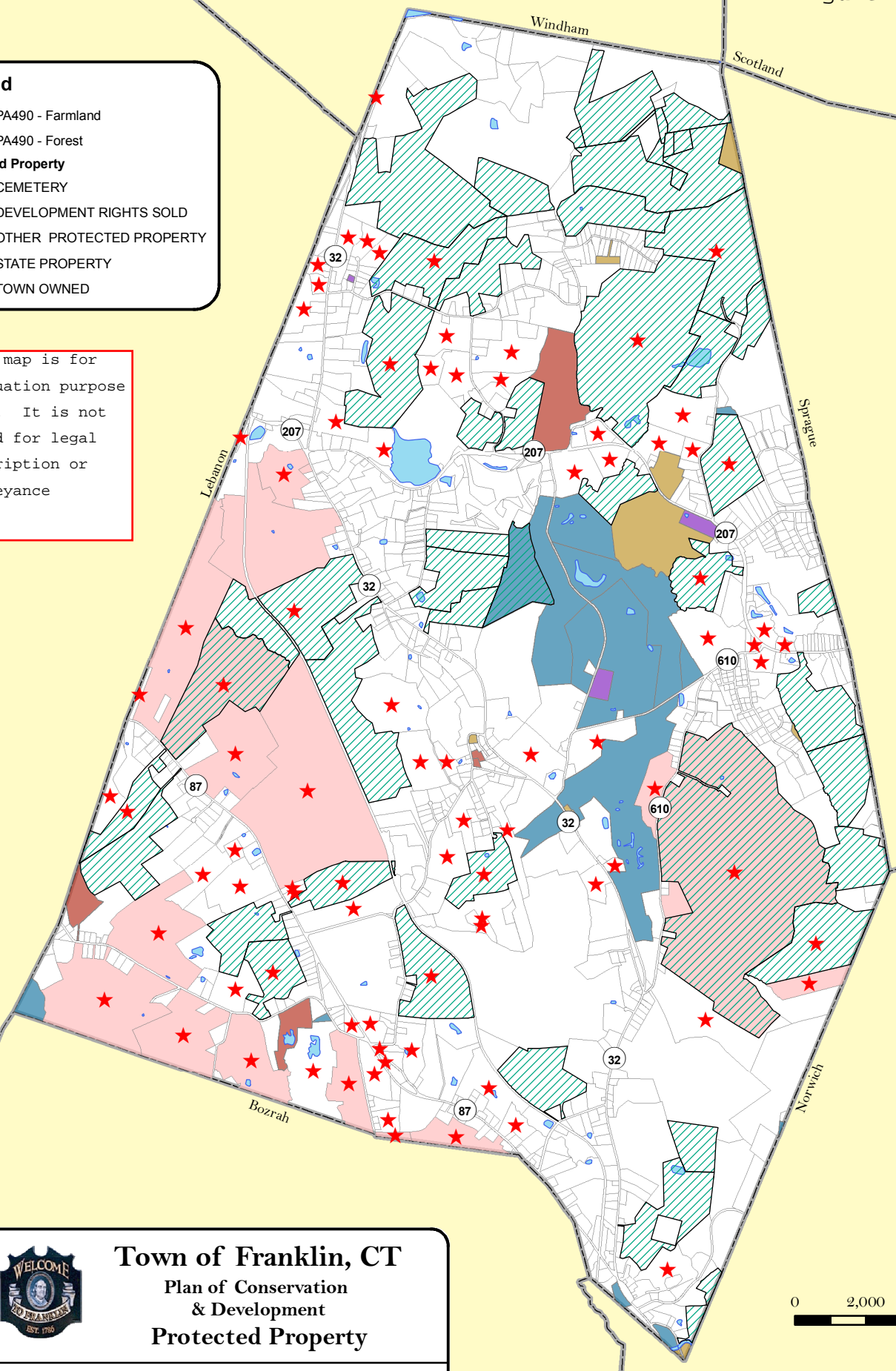
Data Source: Farmland Soils downloaded from (http://www.ct.gov/dep/cwp/view.asp?a=2698&q=322898&depNav_GID=1707)


Figure 4

Legend

- ★ PA490 - Farmland
- ▨ PA490 - Forest
- Protected Property**
- CEMETERY
- DEVELOPMENT RIGHTS SOLD
- OTHER PROTECTED PROPERTY
- STATE PROPERTY
- TOWN OWNED

This map is for evaluation purpose only. It is not valid for legal description or conveyance



 **Town of Franklin, CT**
Plan of Conservation & Development
Protected Property

Date: February 2010 Scale: 1 inch = 4,000 feet

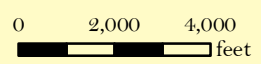
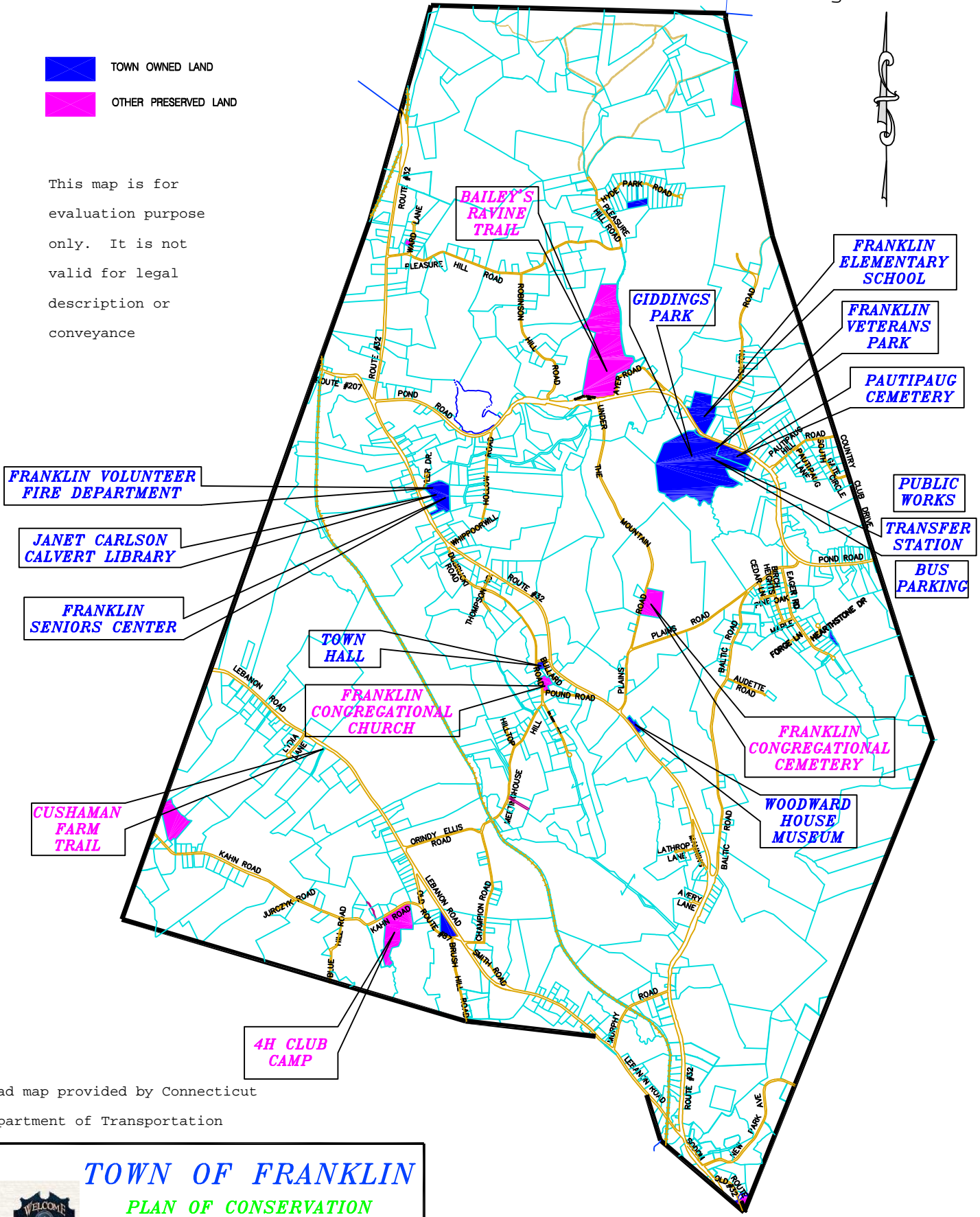


Figure 5

- TOWN OWNED LAND
- OTHER PRESERVED LAND

This map is for evaluation purpose only. It is not valid for legal description or conveyance



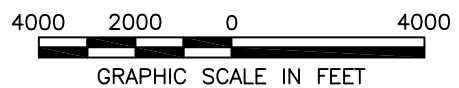
Road map provided by Connecticut Department of Transportation



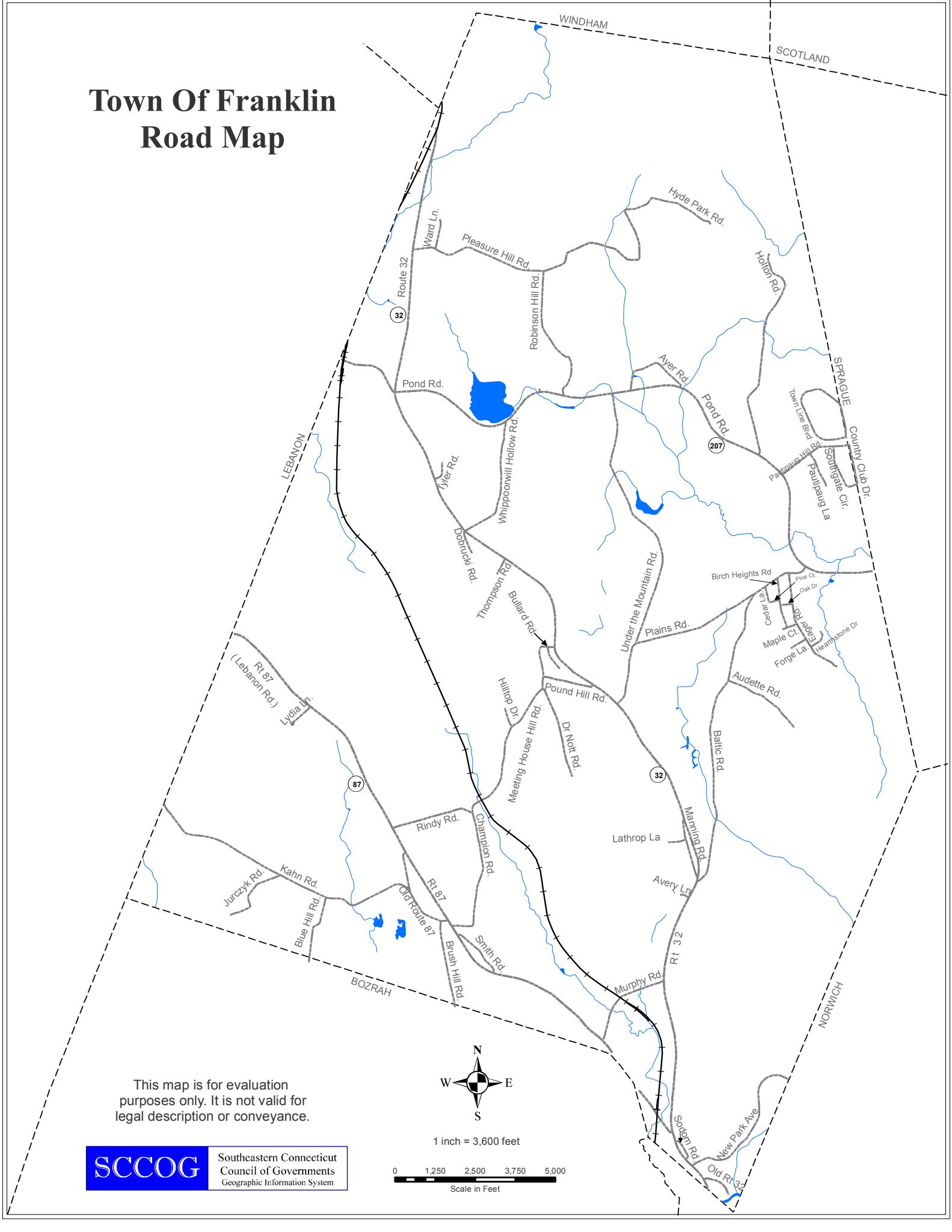
TOWN OF FRANKLIN
PLAN OF CONSERVATION & DEVELOPMENT
COMMUNITY FACILITIES

DATE: APRIL 2009

SCALE: 1" = 4000'

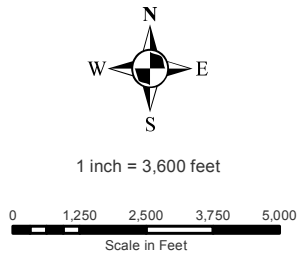


Town Of Franklin Road Map



This map is for evaluation purposes only. It is not valid for legal description or conveyance.

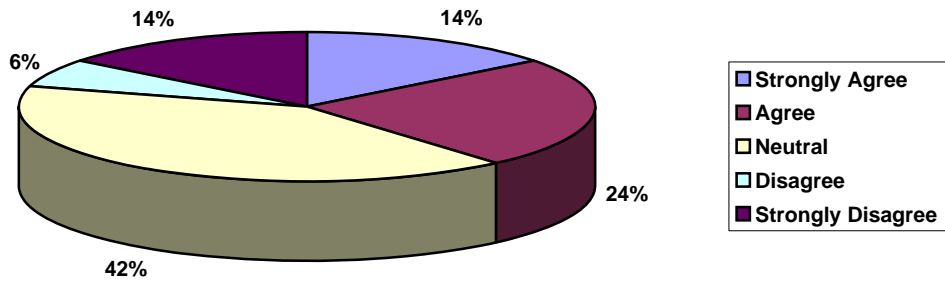
SCCOG Southeastern Connecticut Council of Governments Geographic Information System



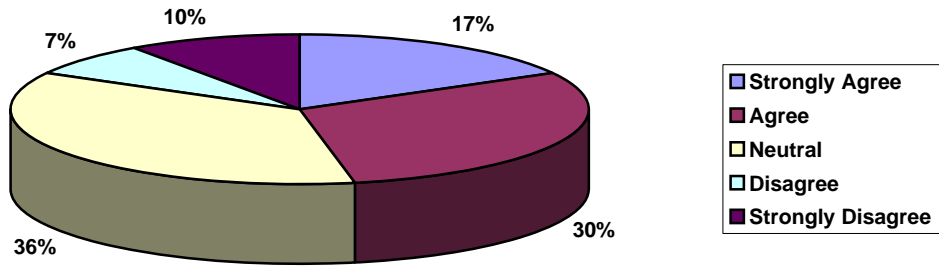


APPENDIX A
Results from 2008 Residents Survey

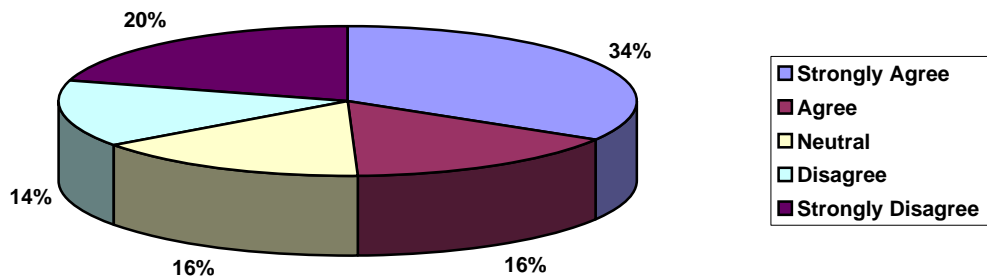
Regulations are enforced adequately



Zoning Regulations are effective



Should be more Commercial Development



1 Strongly Agree

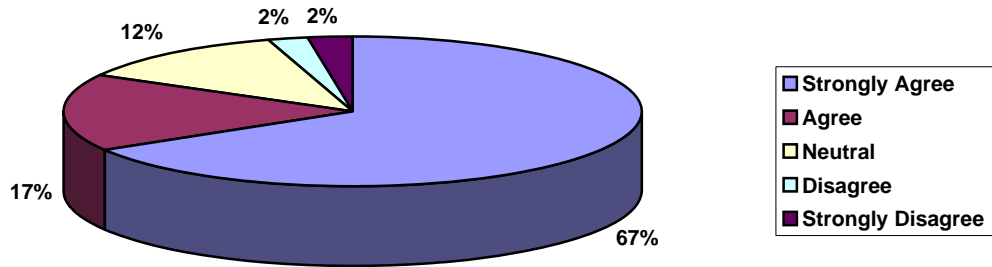
2 Agree

3 Neutral

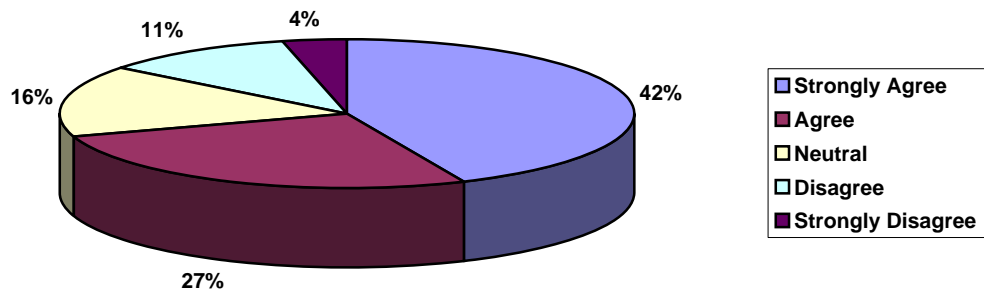
4 Disagree

5 Strongly Disagree

Concerned about preserving Agricultural Land



Concerned About Creating Open Space



1
Strongly Agree

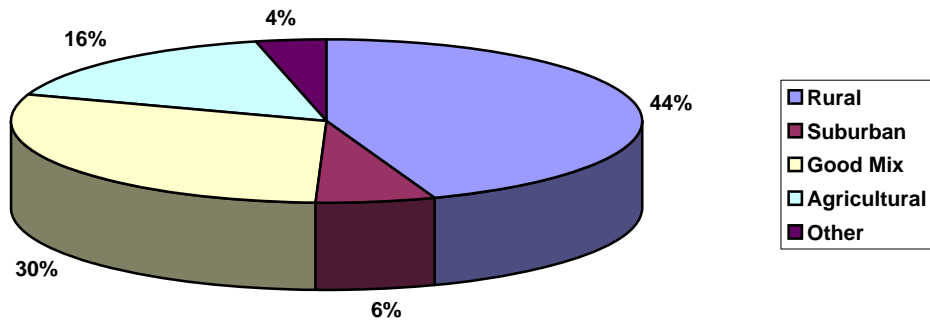
2
Agree

3
Neutral

4
Disagree

5
Strongly Disagree

I consider Franklin's character as



1
Rural

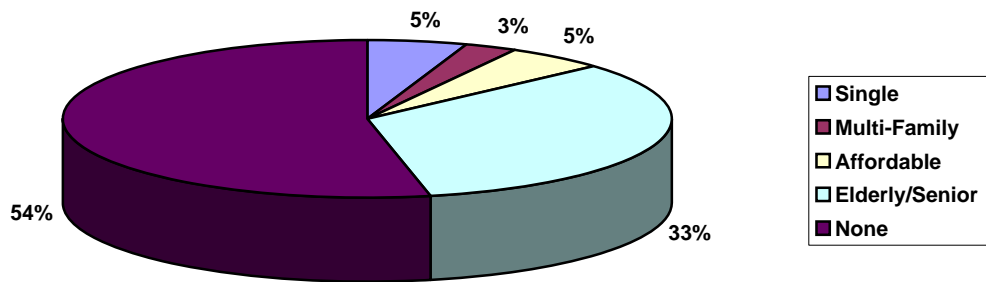
2
Suburban

3
Good Mix
of Uses

4
Agricultur.

5
Other

Franklin needs more of the following types of Housing



1
Single
Family

2
Multi-Family
Family

3
Affordable

4
Elderly/Se
Senior

5
None