

COOPERSTOWN

environmental

PHASE I ENVIRONMENTAL SITE ASSESSMENT

182 Parker Street
Maynard, Massachusetts 01754

Prepared for:
Avalon Bay Communities
600 Atlantic Ave, 20th Floor
Boston, MA 02210

Prepared by:
Cooperstown Environmental LLC
Andover, Massachusetts

February 2024

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	1
1.0 INTRODUCTION.....	2
1.1 Purpose	2
1.2 Scope of Services	3
1.3 Significant Assumptions	4
1.4 Limitations and Exceptions.....	4
1.5 Principles	4
1.6 Special Terms and Conditions.....	5
1.7 Exclusive Use	5
2.0 SUBJECT PROPERTY DESCRIPTION.....	6
2.1 Location and Legal Description.....	6
2.2 Current Property Use	6
2.3 Structures, Roads, & Other Improvements on the Subject Property	6
2.4 Current Use of Adjoining Properties	6
3.0 USER-PROVIDED INFORMATION	7
3.1 Title Records	7
3.2 Environmental Liens or Activity and Use Limitations.....	7
3.3 Specialized Knowledge.....	7
3.4 Commonly Known or Reasonably Ascertainable Information.....	7
3.5 Valuation Reduction for Environmental Issues.....	8
3.6 Owner, Property Manager, and Occupant Information	8
3.7 Reason for Performing Phase I	8
3.8 Previous Environmental Reports	8
4.0 RECORDS REVIEW.....	9
4.1 Environmental & Physical Setting.....	9
4.1.1 Subject Property Topography	9
4.1.2 Local Geology and Hydrogeology.....	9
4.2 Standard Environmental Record Sources	9
4.2.1 Database Results – Subject Property	10
4.2.2 Database Results – Surrounding Properties	10
4.2.3 Orphan Records	10
4.2.5 Evaluation of Potential of Vapor Encroachment onto Subject Property ...	10

4.3	Wetlands, Floodplains, Areas of Environmental Concern	11
4.4	Local Records Sources	11
4.4.1	Fire Department.....	12
4.4.2	Health Department Records	12
4.4.2	Conservation Records	12
4.4.3	Building Department.....	12
4.4.4	Assessing Department	13
4.4.5	Department of Public Works / Water and Sewer Commission.....	13
4.5	Historical Use Information	13
4.5.1	Sanborn Maps.....	13
4.5.2	City Directories.....	14
4.5.3	Historical Aerial Photographs	14
4.5.4	USGS Topographic Maps.....	14
4.5.5	Chain of Title.....	14
4.6	Previous Environmental Investigations.....	14
4.7	Summary of Subject Property Uses.....	15
4.8	Summary of Surrounding Land Uses	15
5.0	SITE RECONNAISSANCE.....	16
5.1	Methodology and Limiting Conditions	16
5.2	General Observations.....	16
5.2.1	Hazardous Substances and Petroleum Products with Identified Uses	16
5.2.1.1	Waste Oil.....	16
5.2.2	Hazardous Substances and Petroleum Products with Unidentified Uses	16
5.2.3	Hydraulic (or Other Oil-Containing) Equipment	16
5.2.4	Polychlorinated Biphenyls (PCBs)	16
5.2.5	Above Ground Storage Tanks (AST)	17
5.2.6	Underground Storage Tanks (UST).....	17
5.3	Interior Observations	17
5.3.1	Heating/Cooling	17
5.3.2	Stains, Corrosion or Odors	17
5.3.3	Drains, Sumps and Oil-Water Separators or Clarifiers	17
5.4	Exterior Observations	17
5.4.1	Pits, Ponds, Lagoons, Septic Systems.....	17
5.4.2	Stained Soil or Pavement.....	18
5.4.3	Stressed Vegetation	18
5.4.4	Solid Waste, Dumping or Suspect Fill Materials	18
5.4.5	Storm Water	18
5.4.6	Wells	18
5.5	Observations Outside the Scope of ASTM E 1527-21	18
5.5.1	Lead-Based Paint.....	18
5.5.2	Asbestos Containing Material (ACM).....	18
5.5.3	Radon	19
5.5.4	Natural Gas	19

6.0	INTERVIEWS.....	20
6.1	User Interview	20
6.2	Owner Representative Interview.....	20
6.3	Local Officials Interviews.....	20
7.0	DISCUSSION OF DATA GAPS AND UNCERTAINTIES	21
8.0	CONCLUSION.....	22
8.1	Findings and Opinions	22
8.2	Additional Investigation or Recommendations	23
9.0	DEVIATIONS	24
10.0	REFERENCES	25
11.0	SIGNATURE OF ENVIRONMENTAL PROFESSIONAL.....	26

PRIVILEGED AND CONFIDENTIAL

Environmental Site Assessment Report
182 Parker Street, Maynard, Massachusetts

iv

February 2024

APPENDICES

APPENDIX A FIGURES AND TABLES

FIGURE 1 SITE LOCUS
FIGURE 2 CURRENT AERIAL PHOTOGRAPH (2023)
FIGURE 3 PLOT PLAN
FIGURE 4 PRIORITY RESOURCE MAP
TABLE 1 LIST OF ABBREVIATIONS AND ACRONYMS
TABLE 2 DATABASE SEARCH SUMMARY

APPENDIX B ASSESSOR'S DEPARTMENT RECORDS

APPENDIX C USER COMPLETED ASTM 1527-21 QUESTIONNAIRE AND USER PROVIDED RECORDS

APPENDIX D ENVIRONMENTAL DATA RESOURCES REPORT

APPENDIX E VAPOR ENCROACHMENT SCREENING

APPENDIX F LOCAL RECORDS

APPENDIX G EDR SANBORN MAPS

APPENDIX H EDR CITY DIRECTORY REVIEW

APPENDIX I EDR AERIAL PHOTOGRAPHS

APPENDIX J EDR TOPOGRAPHIC MAPS

APPENDIX K SITE RECONNAISSANCE PHOTOGRAPHS

APPENDIX L SUPPORTING DOCUMENTS FOR ENVIRONMENTAL PROFESSIONAL

EXECUTIVE SUMMARY

Cooperstown Environmental LLC (Cooperstown) conducted a Phase I Environmental Site Assessment (ESA) at 182 Parker Street in Maynard, Massachusetts (the Subject Property). This ESA was performed in general accordance with the *ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (E1527-21) and 40 CFR 312 and the Environmental Protection Agency's "All Appropriate Inquiry" (AAI) Final Rule, as outlined in Cooperstown's proposal to Francis Yuen, representative of Avalon Bay Communities dated December 11, 2023. Any exceptions to, or deletions from, the ASTM E1527-21 protocol are described in **Section 9**.

The ESA investigated the history of the Subject Property and adjoining properties dating back to 1894. This assessment identified several findings, listed below, but did not identify evidence of recognized environmental conditions (REC) in connection with the Subject Property.

Findings

- The Subject Property residence is heated using heating oil stored one 275-gallon above ground storage tank (AST). No signs of rust or corrosion and no staining on the floor beneath the tank was observed during the site visit, so this AST is not considered to pose a threat of release of oil to the environment.
- Evidence of solid waste dumping, including two empty rusted 55-gallon drums and a boat trailer, were observed in the undeveloped portions of the Subject Property during the site reconnaissance. No evidence of a release of oil and/or hazardous material (OHM) was identified in relation to the dumped materials.
- The Subject Property residence is connected to an onsite septic system. Septic systems may serve as preferential pathways for a release of OHM to the subsurface if the site operations use. Since the Subject Property building is a single-family residence, and no evidence of OHM was found near the sinks or drains, the septic system is not expected to be a pathway of release.
- The Sudbury Conservation Department provided engineering plans from June 1999 that show a 50 foot wide "Tennessee Gas Pipeline Easement" laid north to south along/within the eastern property line of the Subject Property. Cooperstown accessed the National Pipeline Mapping System¹ Public Map Viewer, a Geographic Information Systems (GIS) based map viewer, on February 2, 2024 and confirmed that a natural gas line is shown on the map within this easement.

Data Gaps

- Snow cover precluded comprehensive visual examination of the ground surface in the landscaped areas adjacent to the residence and much of the undeveloped portions of the Subject Property. This is a data gap but is not considered a significant one because it did not prevent the Environmental Professional from determining RECs. No other evidence indicated that a release of OHM to the ground surface would be expected.

¹ <https://www.npms.phmsa.dot.gov/>

1.0 INTRODUCTION**1.1 Purpose**

Cooperstown Environmental LLC (Cooperstown) was retained by Avalon Bay Communities to conduct an Environmental Site Assessment (ESA) on multiple properties in Sudbury and Maynard, Massachusetts. The “Subject Property” as defined for the purposes of this report is comprised of four lots, two of which are in Maynard and two of which are in Sudbury. The lots as defined by the Maynard Assessor’s Office and the Sudbury Assessor’s Office are listed in the table below:

Assessors ID	Address	Parcel	Size (acres)	Description
Map 33, Lot 25	182 Parker St, Maynard	18.2		A lot which contains a single-family residence described as a conventional-style building.
Map 33, Lot 31	(0) Parker St, Maynard	8.4		Res-Dev-Land
Parcel ID D06-0501	Maynard Town Line, Sudbury	5.2		Undeveloped
Parcel ID D06-0001	Off Maynard Town Line, Sudbury	0.5		Undeveloped

This report uses many acronyms and abbreviations that are commonly used by the environmental due diligence industry, Massachusetts environmental regulations and the environmental industry in general. A list of commonly used acronyms and abbreviations is available in **Table 1, Appendix A**.

A site locus and current topographic map is shown on **Figure 1, Appendix A**. A current aerial photo of the Subject Property is shown in **Figure 2, Appendix A**. The plot plan of the property is shown in **Figure 3, Appendix A**.

The purpose of a Phase I ESA is to identify “recognized environmental conditions” on the Subject Property. The ASTM Standard Practice for ESAs (E1527-21) provides the following definition of “recognized environmental conditions”:

*The term **recognized environmental condition (REC)** means (1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment, (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment, or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment. A **de minimis condition** is not a recognized environmental condition (ASTM 2021).*

*A **controlled REC** is a recognized environmental condition affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous*

substances or petroleum products allowed to remain in place subject to implementation of required controls, for example, activity and use limitations or other property use limitations (ASTM 2021).

A historical REC is a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls, for example, activity and use limitations or other property use limitations. A historical REC is not a REC (ASTM 2021).

A de minimis condition is a condition related to a release that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. A condition determined to be a de minimis condition is not a REC nor a controlled REC. (ASTM 2021).

A finding identifies those features, activities, uses, and conditions that, in the judgement of the environmental professional, may indicate the presence or likely presence of hazardous substances or petroleum products at the Subject Property. A finding, but not necessarily all findings, may be indicative of the presence of recognized environmental conditions, controlled recognized environmental conditions, historical recognized environmental conditions, or de minimis conditions. (ASTM 2021)

Specifically, the purpose of this ESA was to:

- Evaluate the potential for environmental impact by hazardous substances or petroleum products on the Subject Property due to known site uses;
- Evaluate the potential for off-site, nearby sources of hazardous substances or petroleum products to impact the environmental quality of the Subject Property;
- Evaluate the potential for historical site contamination based on readily available information about prior use or development of the Subject Property;
- Identify existing or potential environmental conditions or circumstances on the site that could require clean-up, remedial action or other response;
- Identify existing or potential environmental conditions or circumstances on the site that may affect the value of the Subject Property; and
- Provide written documentation that the user has performed all appropriate inquiry into existing and previous ownership and uses of the Subject Property consistent with customary commercial practices.

1.2 Scope of Services

This ESA was performed in general accordance with the *ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (E1527-21)*, published in 2021, and 40 CFR 312, the Environmental Protection Agency's "All Appropriate Inquiry" (AAI) Final Rule, as outlined in Cooperstown's proposal to Francis Yuen for Avalon Bay Communities, dated December 11, 2023.

The Phase I ESA includes four primary tasks as set forth in the ASTM E1527-21 standard:

- Records Review;
- Site Reconnaissance;
- Interviews; and
- Evaluation and Report Preparation.

1.3 Significant Assumptions

No significant assumptions were made for the purposes of this ESA.

1.4 Limitations and Exceptions

Cooperstown reviewed information concerning potential RECs at the Subject Property and prepared the report in a professional manner using that degree of skill and care employed by other qualified environmental consultants and exercised for similar projects under similar conditions in the same geographic locale at the time the report was completed. This report, including its opinions and conclusions, is based on the information that was made available to Cooperstown during the investigation and upon the services described, which were performed within the approved time and budgetary requirements. Because the report is based upon available information, some of its conclusions could be different if the information upon which it is based is determined to be false, inaccurate, or contradicted by additional information.

Cooperstown makes no representation concerning the legal significance of its findings or the significance of its findings for the value of the property. Cooperstown has no contractual liability to third parties for the information or opinions in this report.

1.5 Principles

The ASTM E1527-21 standard recognizes several principles inherent in an ESA based on this standard, including:

Uncertainty Not Eliminated — No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a Subject Property. Completion of this ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a Subject Property, and this standard recognizes reasonable limits of time and cost.

Not Exhaustive — All appropriate inquiry does not mean an exhaustive assessment of a property. There is a point at which the cost of information obtained, or the time required to gather it outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of property transactions. One of the purposes of this standard is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing an environmental site assessment and the reduction of uncertainty about unknown conditions resulting from additional information.

Level of Inquiry is Variable — Not every property will warrant the same level of assessment. Consistent with good commercial or customary standards and practice, the appropriate level of environmental site assessment will be guided by the type of property subject to assessment, the expertise and risk tolerance of the user, future intended uses of the Subject Property disclosed to the environmental professional, and the information developed in the course of the inquiry.

Comparison with Subsequent Inquiry — It should not be concluded or assumed that an inquiry does not constitute “all appropriate inquiries” merely because the inquiry did not identify recognized environmental conditions in connection with a Subject Property. Environmental site assessments must be evaluated based on the reasonableness of judgments made at the time and under the circumstances in which they were made. Subsequent environmental site assessments should not be considered valid standards to judge the appropriateness of any prior assessment based on hindsight, new information, use of developing technology or analytical techniques, or other factors.

1.6 Special Terms and Conditions

There are no special terms or conditions in place for this ESA.

1.7 Exclusive Use

This ESA report has been prepared for the exclusive use of Avalon Bay Communities. Only Avalon Bay Communities, its affiliates, and successors or assigns are entitled to rely on this report. Any use or reliance on this report or its conclusions by any other party is strictly prohibited and if done, shall be solely at the user’s risk. Also, as described in the AAI regulations, this report should be considered to represent present conditions. As described in 40 CFR 312.20, Avalon Bay Communities may be able to use the findings and conclusions described herein within 180 days of the date of this report, or within one year of the date of this report if certain activities are updated. If certain activities are not updated, Cooperstown shall have no obligations and shall not be liable to Avalon Bay Communities whatsoever.

2.0 SUBJECT PROPERTY DESCRIPTION**2.1 Location and Legal Description**

The Subject Property is located at 182 Parker Street in Maynard, Middlesex County, Massachusetts. A site locus and current topographic map is shown on **Figure 1, Appendix A**. An aerial photograph of the Subject Property is shown on **Figure 2, Appendix A** and a plot plan is shown on **Figure 3, Appendix A**.

The Subject Property is comprised of 4 parcels totaling 32.3 acres containing one two-story building described as a single-family residence. The owner and zoning information according to the Sudbury and Maynard Assessor's Department is given below. The Assessor's record cards for 182 Parker Street are included in **Appendix B**.

Parcel ID	Owner	Zoning
Map 33, Lot 25	Maynard Sudbury Crossing LLC c/o William Cumming	R2, Single-Family-Residential
Map 33, Lot 31	Maynard Sudbury Crossing LLC c/o Ament Klauer LLP	R2, Res-Dev-Land
Parcel ID D06-0501	Cutting, Frank J & John C	Residential, undeveloped
Parcel ID D06-0001	North Maynard Corporation	Residential, undeveloped

The Subject Property's coordinates are latitude 42° 24' 36.90" N and longitude 71° 26' 34.76" W. Universal Transverse Mercator (UTM) coordinates are 298970.8 (East) and 4698004.5 (North), in Zone 19. The elevation of the property is approximately 219 feet above mean sea level (msl).

2.2 Current Property Use

The Subject Property is divided into four parcels listed in **Section 2.1**, and is currently comprised of one vacant single-family residence, densely vegetated, undeveloped wetlands, and a gravel driveway that connects the residence to Parker Street.

2.3 Structures, Roads, & Other Improvements on the Subject Property

According to the Assessor's record cards, the single-family residence on the Subject Property was built around 1900 and is heated with forced-hot air fueled by heating oil. The residence is located in the central, eastern portion of the Subject Property and is connected to Parker St with an approximately 800 ft long gravel driveway. Two small ponds are located on the Subject Property, one just north of the residence and one approximately 250 ft to the east of the residence. A stream flows from one of these ponds along the northern portion of the eastern property line. The majority of the Subject Property is comprised of undeveloped, densely vegetated wetlands.

2.4 Current Use of Adjoining Properties

Observations were made during the site reconnaissance of the adjoining and nearby properties. The adjoining properties include:

- North: Residences and vegetated land/ wetlands
- East: Residences and vegetated land/ wetlands
- South: Residences and vegetated land/ wetlands

- West: Residences

3.0 USER-PROVIDED INFORMATION

The user's representative, Francis Yuen, Director of Avalon Bay Communities, completed the ASTM E1527-21 Questionnaire for the Subject Property. The completed questionnaire is included in **Appendix C** and the user provided information is summarized below.

3.1 Title Records

Title records were not provided by the user. The municipal property record cards are included in **Appendix B**.

3.2 Environmental Liens or Activity and Use Limitations

The AAI standard requires that the property be checked for environmental liens that may have been placed on the property's title and that the person who is seeking limited liability protections from the AAI process provide this data to the environmental professional. In Massachusetts, in addition to an environmental lien, a property may have a Notice of Activity and Use Limitation (AUL). The Massachusetts Department of Environmental Protection (MassDEP) maintains a database of AULs that have been filed for all properties in Massachusetts. Cooperstown checked this online database on January 3, 2024 and did not identify that AULs have been placed on 182 Parker Street.

The user of this report, Avalon Bay Communities (represented by Francis Yuen), stated that they have no knowledge of environmental liens or activity and use limitations on the Subject Property. The representative of the current property owner, Doug Azarian, also stated that they have no knowledge of environmental liens or activity and use limitations on the Subject Property.

3.3 Specialized Knowledge

The user did not report specialized knowledge.

3.4 Commonly Known or Reasonably Ascertainable Information

The user is not aware of any past releases or environmental cleanups that have occurred at the Subject Property. The user provided a draft version of an "Existing Conditions Plan", which is included in **Appendix C**. These site plans show topography, parcel locations, priority resources, and other information relevant for site redevelopment.

Additional information provided during the site reconnaissance and interview of the representative of the owner is presented in **Section 5**. No other commonly known or reasonably ascertainable information pertaining to the Subject Property was provided to Cooperstown by the user.

3.5 Valuation Reduction for Environmental Issues

Cooperstown does not have knowledge that the value of the Subject Property is significantly less than the value of comparable properties nor has such information been communicated to us during this assignment.

3.6 Owner, Property Manager, and Occupant Information

The Subject Property is divided into four parcels, as listed in **Section 2.1**, and is currently comprised of one single-family residence and vegetated, undeveloped wetlands.

3.7 Reason for Performing Phase I

Cooperstown understands that this Phase I report was requested in connection with a potential real estate transaction.

3.8 Previous Environmental Reports

The user provided a draft version of an “Existing Conditions Plan”, which is included in **Appendix C**. These site plans show some environmental information such as topography, parcel locations, priority resources. The user did not provide any other previous environmental reports.

4.0 RECORDS REVIEW

4.1 Environmental & Physical Setting

4.1.1 *Subject Property Topography*

Cooperstown Environmental LLC reviewed the current United States Geological Survey (USGS) Topographic Quadrangle Map for information on topography and elevation. The Subject Property is located approximately 219 feet above mean sea level (msl) and a slight downward slope starting from the southwest across the property.

4.1.2 *Local Geology and Hydrogeology*

The United States Department of Agriculture (USDA) soil classification maps provided with the Environmental Data Resources (EDR) package describe the Subject Property soil as Windsor, which consists mainly of loamy sand.

Based on area topography and proximity to surface water bodies, groundwater flow in the area would be expected to flow east towards the local topographic low point. Groundwater likely flows toward this low point although local groundwater flow may vary due to the presence of underground utilities such as pipelines and sewers, or due to more permeable subsurface soil conditions. The Subject Property is comprised of large sections of wetlands and also contains a small pond.

4.2 Standard Environmental Record Sources

Cooperstown retained the environmental data-search contractor Environmental Data Resources (EDR) to perform an AAI regulatory records search for the Subject Property and the area within a one-mile radius of the Subject Property, as specified in the ASTM-21 standard. EDR is a data management firm that specializes in computer research of federal and state databases. In addition to searches of federal and state databases, EDR maintains proprietary databases of higher-risk property uses such as dry-cleaning establishments and automotive service. A Search Summary report of database findings was developed by EDR and reviewed by Cooperstown. The EDR Report dated January 2, 2024 is contained in **Appendix D**.

The EDR Report includes a list of databases queried in the AAI search, as well as a description of the databases and descriptions of the properties within the ASTM-21 specified search distance from the Subject Property. Where deemed applicable, supplemental data resources (e.g the Massachusetts Energy and Environmental Affairs Data Portal (<https://eeaonline.eea.state.ma.us/portal>)) were reviewed. Sites subject to regulatory review often show up in multiple databases for the same cause.

The EDR Report findings are also utilized to evaluate the potential for vapor migration and intrusion, and to identify potential vapor encroachment conditions (VECs). A VEC is defined by the ASTM E2600-15 Vapor Encroachment Screening Standard as the presence or likely presence of contaminant of concern (COC) vapors in the vadose zone (soil zone above the water table) of the Subject Property caused by the release of vapors from contaminated soil and/or groundwater either on or near the Subject Property.

4.2.1 Database Results – Subject Property

The Subject Property under the address 182 Parker Street is not listed in any of the databases accessed and searched through by EDR.

4.2.2 Database Results – Surrounding Properties

Cooperstown screened the results of EDR's AAI search to identify entries that could be expected to affect the Subject Property. A tabulated summary, including details and the regulatory status of the properties within a ¼ mile of the Subject Property, is available in **Table 2 of Appendix A**.

The listed properties of highest concern are properties which abut the Subject Property, properties located within 500 ft of the Subject Property, and properties that are located hydraulically upgradient of the Subject Property. Based on the topography and location of surface water bodies, the groundwater flow direction in the vicinity of the Subject Property is presumed to be to the east.

Cooperstown also evaluated the status of properties issued release tracking numbers (RTNs) by MassDEP. An RTN is issued when there is a release of OHM significant enough to require notification to MassDEP and, based on the nature and extent of the release, certain performance standards set by the Massachusetts Contingency Plan (MCP) must be met. Information about RTNs and the database of reports on RTNs can be found on the Massachusetts Energy and Environmental Affairs Data Portal.

One entry identified in the AAI search had characteristics prompting further evaluation:

- The Maynard Antenna Test Site, located approximately 1240 ft west and upgradient of the Subject Property, is listed in the Formerly Used Defense Sites database. According to the listing, it has been operational for at least the past 50 years, and no environmental programs have been implemented at the site or are necessary to implement at this time. Cooperstown reviewed the entry and did not identify reported releases or violations that would be likely to have offsite impacts, so this site is not expected to impact the Subject Property.

None of the other entries identified in the AAI search are expected to impact the Subject Property based on the details of the listing and the specific nature of the oil or hazardous materials found at these locations; no reported releases or violations are associated with any of the sites identified by AAI search.

4.2.3 Orphan Records

Cooperstown reviewed EDR's records for orphan entries, which were not mapped by EDR due to insufficient geographical information. None of the orphan entries are expected to affect the Subject Property due to their location with respect to groundwater flow, their distance from the Subject Property, or their achievement of a level of No Significant Risk, as designated by a Permanent Solution filed under the MCP.

4.2.5 Evaluation of Potential of Vapor Encroachment onto Subject Property

An evaluation of the potential of vapor encroachment onto the Subject Property was completed using the findings of the EDR Report and other sources reviewed in this ESA. This included a review of each site within the Area of

Concern, as defined by ASTM E2600-15 *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*, in light of Subject Property conditions, such as groundwater flow directions, presence of preferential pathways, and soil characteristics, to determine whether a VEC would be likely to be present.

Cooperstown reviewed the findings of the EDR report, conducted a Vapor Encroachment screening, and concluded that a VEC is not likely to exist at the Subject Property. Documentation of this screening is provided in **Appendix E**.

4.3 Wetlands, Floodplains, Areas of Environmental Concern

Priority resources identified by the MassDEP Phase 1 Site Assessment map are summarized below. A copy of this priority resource map is included as **Figure 4, Appendix A**.

Priority Resource	Distance from Subject Property	Comments
Aquifers	On Subject Property	Medium Yield Aquifer
Non-Potential Drinking Water Source Area	Greater than a ½ mile	-
Public Water Supply (PWS) Protection Area	On Subject Property	Zone II PWS Protection Area
Public Water Supply Source	Greater than 500 ft, within a ½ mile	Two protected water sources to the north: community and groundwater
Hydrography	On Subject Property	Small pond and streams likely associated with surrounding wetlands
Wetlands	On Subject Property	Associated with Vose Pond and Taylor Brook, also present north and south of the Subject Property
FEMA 100 yr Floodplain	Greater than a ½ mile	-
Est. Rare Wetland Wildlife Habitat	Greater than 500 ft, within a ½ mile	Located northeast and southwest of the Subject Property
Solid Waste Landfill	Greater than a ½ mile	-
Protected Open Space	Within 500 ft	Surrounds the Subject Property to the north and east.
Schools, Hospitals, Long Term Care, Correctional Facilities	Greater than 500 ft, within a ½ mile	My Playschool Family Daycare located approximately 0.4 miles south

4.4 Local Records Sources

Cooperstown submitted a public records request to the Sudbury Records Access Officer and the Maynard Town Clerk and Assistant Town Clerk to review pertinent files from the Sudbury and Maynard Assessor's Offices, Fire Departments, Boards of Health, Conservation Commissions, Building Departments, Departments of Public Works, and the Sudbury Water District. The information gathered through this process is summarized below. Documentation from the local record sources is contained in **Appendix F**.

4.4.1 *Fire Department*

According to the Maynard Assistant Town Clerk, the Maynard Fire Department did not find records regarding tank permits for installation or removal of tanks, flammable or hazardous material storage, or fire incidents pertaining to the Subject Property.

According to the Sudbury Fire Department, there are no records of flammable or hazardous material storage, tank storage or removal, or fires for the Subject Property.

4.4.2 *Health Department Records*

Cooperstown submitted an online request to the Sudbury Public Records webpage for records from the Sudbury Health Department on January 3, 2024. No response was received regarding records. The records request form and request receipt are included in **Appendix F**.

Cooperstown emailed a request to the Maynard Assistant Town Clerk for records from the Maynard Board of Health on January 10, 2024. The email responses received from the Assistant Town Clerk did not indicate whether records were available regarding the Subject Property. A request receipt is included in **Appendix F**.

4.4.2 *Conservation Records*

Complaints to the local Conservation Department regarding certain properties sometimes can provide information about the history of a property (fill being used, illegal dumping, etc.).

Cooperstown submitted an online request for records from the Sudbury Conservation Department through the Sudbury Public Records webpage on January 3, 2024. The Sudbury Conservation Department provided engineering plans from June 1999 for stormwater management plans for Ironworks Road, which is laid north to south approximately 400 ft from the Subject Property. A 50 ft wide easement laid north to south along/within the eastern property line of the Subject Property is labeled “Tennessee Gas Pipeline Easement”. The National Pipeline Mapping System Public Map Viewer, a Geographic Information Systems (GIS) based tool, which shows the locations of natural gas lines across the United States, was accessed on February 2, 2024, and showed that a natural gas pipeline is present through this easement and likely is within the boundaries of the Subject Property.

Cooperstown emailed a request to the Maynard Assistant Town Clerk for records from the Maynard Conservation Commission on January 10, 2024. The email responses received from the Assistant Town Clerk did not indicate whether records were available regarding the Subject Property. A request receipt is included in **Appendix F**.

4.4.3 *Building Department*

The Sudbury Building Department stated that there are no records available for the Subject Property. The department also stated that 100% of the properties in the Town of Sudbury have a septic system, and that there is not a municipal sewer system available.

Cooperstown emailed a request to the Maynard Assistant Town Clerk for records from the Maynard Building Department on January 10, 2024. The email responses received from the Assistant Town Clerk did not indicate whether records were available regarding the Subject Property. A request receipt is included in **Appendix F**.

4.4.4 Assessing Department

The Sudbury Assessor's Department provided copies of the property record cards for Parcel IDs D06-0501 and D06-000, and the Maynard Assessor's Department provided copies of the property record cards for Map 33, Lot 25 and Map 33, Lot 31. Relevant information from the property cards is summarized in the table below, and copies of the property cards are provided in **Appendix B**. According to these cards, all parcels except for Maynard Map 33 Lot 25 are undeveloped. Map 33 Lot 25 contains a building described as a single-family residence built around 1900 that is heated with forced-air fueled by oil.

Parcel ID	Owner	Parcel Size (acres)	Zoning
Map 33, Lot 25	Maynard Sudbury Crossing LLC c/o William Cumming	18.2	R2, Single-Family-Residential
Map 33, Lot 31	Maynard Sudbury Crossing LLC c/o Ament Klauer LLP	8.4	R2, Res-Dev-Land
Parcel ID D06-0501	Cutting, Frank J & John C	5.2	Residential, undeveloped
Parcel ID D06-0001	North Maynard Corporation	0.5	Residential, undeveloped

4.4.5 Department of Public Works / Water and Sewer Commission

According to the Maynard Assistant Town Clerk, the Department of Public Works stated that the Subject Property is not a developed piece of property, but the town does have water and sewer at the property. This email is included in **Appendix F**. Since the representative of the owner stated that the Subject Property building is connected to an onsite septic system, discussed in **Section 5.4.1**, the Maynard response may mean that there are water and sewer connections available if the property was developed.

Cooperstown emailed a request for records from the Sudbury Water District on January 2, 2024. No response was received before the publication of this report.

4.5 Historical Use Information

4.5.1 Sanborn Maps

EDR conducted a search of Sanborn Maps and determined that fire insurance maps are not available for the Subject Property. A report of the search is included in **Appendix G**.

4.5.2 City Directories

A city directory review is a service provided by EDR. The review identifies historical city directory coverage or tenant information on the Subject Property and in the surrounding areas. The information included in the search is collected from various public entities. The city directory review for the Subject Property is included in **Appendix H**.

City directories provided by EDR for Parker Street covered various years between 1975 and 2020. Listings for the Subject Property are included in the table below and indicate that the Subject Property has been used for residential purposes since at least 1984.

182 Parker Street

Year	Listing	Potential Impact
1975	Not listed	NA
1984, 1989	Individual first name(s) and surname(s) (likely residential)	Negligible
1992	Not listed	NA
1995, 2000, 2005	Individual first name(s) and surname(s) (likely residential)	Negligible
2010	Not listed	NA
2014	Individual first name(s) and surname(s) (likely residential)	Negligible
2020	Not listed	NA

The surrounding properties on Parker Street are mostly residential with some commercial listings, including fitness clubs, a lumber company, retail stores, a coffee shop, and office buildings.

4.5.3 Historical Aerial Photographs

Historical aerial photos of the Subject Property and vicinity were obtained from EDR for various years between 1957 and 2018 and are included as **Appendix I**. The historical aerials indicate that the footprint of the current building has existed since at least 1957. The aerials also reveal that the majority of the Subject Property has been covered with dense vegetation and wetlands since at least 1957.

4.5.4 USGS Topographic Maps

Topographic maps of the Subject Property and vicinity were obtained from EDR for various years between 1894 and 2021. The maps show that Park Street (also known as Route 27), Old Marlboro Road, and Puffer Road have been the present since at least 1894. Structures are shown in the vicinity in the 1915 map and the structure on the Subject Property is first shown in the 1943 map. Copies of the maps are provided in **Appendix J**.

4.5.5 Chain of Title

A Chain of Title search was not performed as part of this assessment.

4.6 Previous Environmental Investigations

No environmental investigation reports were identified during the records review.

4.7 Summary of Subject Property Uses

Municipal records, historical references including historical aerial photographs, Sanborn maps, city directories, and information provided by the user and the representative of the owner establish property usage for the Subject Property back to 1894. According to the Assessor's records, the Subject Property residence was constructed around 1900, and the structure is visible on the 1943 topographic map and the 1957 aerial photograph, which shows the residence and the gravel driveway laid east to west through the center of the Subject Property. Aerial photos from 1957 to 2018 do not display a significant change in the Subject Property's appearance compared to the current day. Town records indicate that an easement for a natural gas line has been present along/within the eastern property line since at least 1999.

4.8 Summary of Surrounding Land Uses

According to the municipal records, city directories, Sanborn maps, aerial photographs, and information provided by the user and/or owner, this area of Maynard and Sudbury was developed primarily for residential and commercial use beginning before 1894. Currently the surrounding property uses include residences and commercial establishments. The Maynard Antennae Test Site, a military installation located approximately 1100 ft to the west of the Subject Property, has been in use for at least 50 years. Past uses of surrounding properties indicate residential and commercial uses.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

On January 29, 2024, staff from Cooperstown conducted a site reconnaissance of the Subject Property and the immediate surrounding area. The periphery of the Subject Property and the structure on the Subject Property were observed while on foot. Common areas and areas made readily accessible inside the structure were also observed. Unimproved portions of the Subject Property were observed along the perimeter and in a general grid pattern when the area was safely accessible. At the time of the survey, the weather was overcast with snow showers with temperatures in the 30's Fahrenheit. The snow cover precluded comprehensive visual examination of the ground surface over much of the undeveloped portions of the Subject Property, this is a data gap but not considered a significant one since it did not prevent the Environmental Professional from determining RECs. There were no other significant portions of the Subject Property that were inaccessible or excluded from this survey.

Mr. Doug Azarian, the real estate broker representing the owner, was present for the site reconnaissance. Mr. Azarian provided access to the Subject Property residence and responded to questions about the Subject Property. Answers provided by the representative of the owner are given below. Photographs of the Subject Property and vicinity are provided in **Appendix K**.

5.2 General Observations

5.2.1 *Hazardous Substances and Petroleum Products with Identified Uses*

No notable hazardous substances or petroleum products in connection with identified uses were observed at the Subject Property. One 275-gallon heating oil above ground storage tank (AST) was observed in the basement of the residence, there was no gauge to indicate whether the tank still contained heating oil.

5.2.1.1 *Waste Oil*

No waste oil was observed at the Subject Property.

5.2.2 *Hazardous Substances and Petroleum Products with Unidentified Uses*

No notable hazardous substances or petroleum products with unidentified uses were observed at the Subject Property.

5.2.3 *Hydraulic (or Other Oil-Containing) Equipment*

One small engine and pieces of machinery with unidentified uses was observed inside the basement of the residence. No oil was observed inside the engine or machine parts.

5.2.4 *Polychlorinated Biphenyls (PCBs)*

PCBs are typically associated with electrical transformers and/or old lighting ballasts. PCBs were also used in paints, caulk, and other building materials are primarily found in buildings constructed during the 1940s through the

1970s. The production of PCBs was banned in 1977 and their use was banned in 1979. The Subject Property residence was initially constructed in the early 1900's.

No PCB-type transformers were observed on the Subject Property and a survey of lighting ballasts is beyond the scope of this investigation. One pole mounted transformer was observed on the Subject Property.

5.2.5 *Above Ground Storage Tanks (AST)*

One 275-gallon heating oil AST was observed inside the basement of the residence. Fill pipes connect with a fill port and vent on the exterior of the residence. The tank appeared to be in good condition and there were no stains or obvious leaks observed around or under the tank. The representative of the owner is not aware of the volume of the contents of the AST.

5.2.6 *Underground Storage Tanks (UST)*

No evidence of existing USTs was observed at the Subject Property. The owner's representative reported no knowledge of present or historical USTs.

5.3 Interior Observations

5.3.1 *Heating/Cooling*

The Subject Property residence, if occupied, would be heated by an oil- fired forced hot air furnace located in the basement. According to the representative of the owner, there are no cooling systems in the residence, and heat is not currently provided in the residence.

5.3.2 *Stains, Corrosion or Odors*

The concrete basement floor was generally clean with no observable stains. No obvious corrosion was observed on the exterior of the 275-gallon AST or its associated piping. No significant odors were observed.

5.3.3 *Drains, Sumps and Oil-Water Separators or Clarifiers*

No sumps, floor drains, oil-water separators, or clarifiers were observed in the residence.

5.4 Exterior Observations

5.4.1 *Pits, Ponds, Lagoons, Septic Systems*

Two small ponds are located on the Subject Property; one just north of the residence and one approximately 250 ft to the east of the residence. A stream flows along the northern portion of the eastern property line. The majority of the Subject Property is comprised of densely vegetated wetlands. According to the representative of the owner, the residence is connected to a septic system located to the south of the residence.

On industrial properties and commercial properties in particular, septic systems may serve as pathways for OHM to be released into the subsurface via the leaching field if the onsite operations involve the use of OHM. Since the

Subject Property building is a single-family residence, and no evidence of OHM was found near the sinks or drains, the septic system is not expected to be a pathway of release and is considered a finding.

5.4.2 *Stained Soil or Pavement*

Snow cover precluded comprehensive visual examination of the ground surface in the landscaped areas adjacent to the residence and much of the undeveloped portions of the Subject Property. This is a data gap but is not considered a significant one because it did not prevent the Environmental Professional from determining RECs. No other evidence indicated that a release of OHM to the ground surface would be expected. A gravel driveway laid east to west connects the residence to Parker Street

5.4.3 *Stressed Vegetation*

There was no apparent stressed vegetation on the Subject Property. Snow cover precluded comprehensive visual examination of the landscaped areas adjacent to the residence and the undeveloped portions of the Subject Property.

5.4.4 *Solid Waste, Dumping or Suspect Fill Materials*

Two empty, rusty 55-gallon drums covered with tree branches were observed at the southeastern corner of the Subjects Property. An abandoned boat trailer was observed on the shoreline of the eastern side of the wetlands. No evidence of a release of OHM to the environment from the drums or the trailer was observed during the visit. No records indicating that filling has been conducted at the Subject Property were found during the records review.

5.4.5 *Storm Water*

Stormwater drains into the landscaped areas and wetlands around the residence.

5.4.6 *Wells*

No monitoring wells were observed on the Subject Property.

5.5 *Observations Outside the Scope of ASTM E 1527-21*

5.5.1 *Lead-Based Paint*

The owner's representative is not aware of any lead paint surveys that have been conducted at the Subject Property. There was no lead paint survey conducted as part of this ESA.

5.5.2 *Asbestos Containing Material (ACM)*

There was no ACM survey conducted as part of this ESA, as asbestos is excluded from the ASTM assessment protocol. The owner is not aware of ACM on the Subject Property.

5.5.3 *Radon*

The current owner's representative does not have knowledge that a radon survey has been performed at the Subject Property. A radon survey was not conducted as part of this ESA. Radon is excluded from the ASTM assessment protocol.

5.5.4 *Natural Gas*

A metal post indicating the presence of a natural gas pipeline was observed amongst dense vegetation in the eastern section of the Subject Property.

6.0 INTERVIEWS

6.1 User Interview

Francis Yuen of Avalon Bay Communities completed the ASTM E 1527-21 Questionnaire regarding their knowledge of the presence of oil and/or hazardous materials (OHM). The questionnaire form asks numerous questions regarding potential RECs that may be present on the Subject Property. The completed form is contained in **Appendix C**. Results are summarized in **Section 3**.

6.2 Owner Representative Interview

The owner's representative, Doug Azarian, was interviewed on January 29, 2024. Information provided during the interview is included with the site reconnaissance information in **Section 5**.

6.3 Local Officials Interviews

Local officials were contacted as described in **Section 4.4** to discuss municipal records that pertain to the Subject Property.

7.0 DISCUSSION OF DATA GAPS AND UNCERTAINTIES

EPA's All Appropriate Inquiries (AAI) regulations require that the report discuss data gaps, or requirements of AAI that were not completed for any reason, and a requirement to comment on the steps taken to address these data gaps, document the sources consulted, and to comment on their significance. "Significant" data gaps are those that affect the ability of the environmental professional to identify RECs (ASTM 2021).

The requirements of AAI include:

- Work must be conducted by an environmental professional (§312.21)
- Work must be conducted within 180 days (1 year for certain requirements) of purchase or transaction date

The environmental professional:

- Must interview current owner & occupant, and may need to interview past owners, operators, and occupants and/or neighbors (§312.23);
- Must review historical sources of information (§312.24);
- Must search for recorded environmental cleanup liens on the property; (§312.25) ;
- Must review databases of governmental records (§312.26);
- Must conduct visual inspection of facility (§312.27); and
- Must seek to determine any specialized knowledge (§312.28), the relationship of the purchase price to value of property (§312.29), commonly known information about the property (§312.30), and the degree of obviousness of the presence of contamination (§312.31).

Based on the AAI requirements, we do not believe that there are any significant data gaps after completing this work. Specifically, in performing this project, the AAI requirements were met in the following manner:

- The work was conducted by an environmental professional;
- It is assumed that any real estate transaction will occur within 1 year (180 days for certain requirements) of this report; otherwise, the report would need to be updated to comply with this requirement of AAI;
- Cooperstown interviewed the current owner of the property. Past owners and operators of the property were not available for interview. However, background resources were available to determine a timeline of Site history since approximately 1894;
- Cooperstown reviewed historical sources of information (Section 4);
- No title search has been provided to Cooperstown; however, neither the property owner, nor the User of this report, Avalon Bay Communities (represented by Francis Yuen), has knowledge of any environmental liens against the Subject Property that have been filed under federal, state, or local laws;
- Cooperstown reviewed databases of governmental records (Section 4);
- Cooperstown conducted a visual inspection of the facility (Section 5); and
- Cooperstown determined that the final four requirements of AAI (specialized knowledge (§312.28), relationship of the purchase price to value (§312.29), commonly known information (§312.30), and the degree of obviousness of contamination (§312.31)) were met.

8.0 CONCLUSION

Cooperstown has performed this Phase I Environmental Site Assessment of 182 Parker Street in Maynard, Massachusetts (the Site or Subject Property) in conformance with the scope and limitations of the ASTM International “Standard Practice for Phase I Environmental Site Assessment” (E-1527-21), as outlined in the proposal submitted to Avalon Bay Communities, dated December 11, 2023. The purpose of the Phase I ESA was to identify “recognized environmental conditions” (RECs) in connection with the Subject Property. The Phase I ESA included a review of regulatory and historical records, site reconnaissance, and interviews with persons having knowledge of the property. Any exceptions to, or deletions from, this practice are described in **Section 9** of this report.

The site reconnaissance, owner interview, and review of regulatory and historical records provide a history of the Subject Property back to 1894. Historical aerial photos, city directories, and local sources provide a record of the past uses of the Subject Property and surrounding properties. The established timeline of the historical record indicates there are no significant data gaps in meeting the standard for Phase I investigations (E-1527-21).

8.1 Findings and Opinions

The findings and opinions section identifies those features, activities, uses, and conditions that, in the judgment of the environmental professional, may indicate the presence or likely presence of hazardous substances or petroleum products at the Subject Property. Some findings, but not necessarily all findings, may be indicative of the presence of RECs, CRECs, HRECs or de minimis conditions, the environmental professional’s rationale for each finding is also provided.

This assessment identified several findings, listed below, but did not identify evidence of recognized environmental conditions (REC) in connection with the Subject Property.

Findings

- The Subject Property residence is heated using heating oil stored one 275-gallon above ground storage tank (AST). No signs of rust or corrosion and no staining on the floor beneath the tank was observed during the site visit, so this AST is not considered to pose a threat of release of oil to the environment.
- Evidence of solid waste dumping, including two empty rusted 55-gallon drums and a boat trailer, were observed in the undeveloped portions of the Subject Property during the site reconnaissance. No evidence of a release of oil and/or hazardous material (OHM) was identified in relation to the dumped materials.
- The Subject Property residence is connected to an onsite septic system. Septic systems may serve as preferential pathways for a release of OHM to the subsurface if the site operations use. Since the Subject Property building is a single-family residence, and no evidence of OHM was found near the sinks or drains, the septic system is not expected to be a pathway of release.
- The Sudbury Conservation Department provided engineering plans from June 1999 that show a 50 foot wide “Tennessee Gas Pipeline Easement” laid north to south along/within the eastern property line of the

Subject Property. Cooperstown accessed the National Pipeline Mapping System² Public Map Viewer, a Geographic Information Systems (GIS) based map viewer, on February 2, 2024 and confirmed that a natural gas line is shown on the map within this easement.

Data Gaps

- Snow cover precluded comprehensive visual examination of the ground surface in the landscaped areas adjacent to the residence and much of the undeveloped portions of the Subject Property. This is a data gap but is not considered a significant one because it did not prevent the Environmental Professional from determining RECs. No other evidence indicated that a release of OHM to the ground surface would be expected.

8.2 Additional Investigation or Recommendations

Based on the identified findings, Cooperstown has no recommendations for additional investigation of the subsurface at this time.

² <https://www.npms.phmsa.dot.gov/>

PRIVILEGED AND CONFIDENTIAL

Environmental Site Assessment Report
182 Parker Street, Maynard, Massachusetts

24
February 2024

9.0 DEVIATIONS

The ASTM Standard Practice requires the disclosure of all limiting conditions, deletions and deviations from this practice (if any) which shall be listed individually and in detail, including user-imposed constraints, and all additions should be listed. No deletions or deviations from the ASTM Standard Practice have been implemented for this report.

10.0 REFERENCES

Cooperstown relied on or reviewed the following sources of information to complete this ESA:

- Property Reconnaissance conducted on January 29, 2024
- Owner Representative Interview conducted on January 29, 2024
- Environmental Data Resource Reports – 182 Parker Street, Maynard, Massachusetts, dated January 2, 2024
 - EDR Radius Report
 - City Directory Review
 - Sanborn Fire Insurance Map Report
 - Historical Aerial Photographs
 - USGS Topographic Map
- Maynard and Sudbury Fire Department Records
- Maynard and Sudbury Assessor's Department Records
- Sudbury Conservation Commission Records
- Sudbury Building Department Records
- ASTM (E 1527-21) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process

11.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

This report was prepared in accordance with the American Society for Testing and Materials (ASTM) E1527-21 standard for Phase I Environmental Site Assessments (ESAs) and Environmental Protection Agency's (EPA's) "All Appropriate Inquiry" (AAI) Final Rule (40 CFR 312). The material and data in this report were prepared by the staff member(s) listed below under the direction of an "environmental professional" as defined in 40 CFR 312. Supporting documents are included in **Appendix M**.

Site Visit Conducted By: John Crowley, Mark Maggiore
Interviews Conducted By: John Crowley

Date: 1/29/2024
Date: 1/29/2024

Prepared by:



Kristina Washer
Environmental Scientist
Cooperstown Environmental LLC

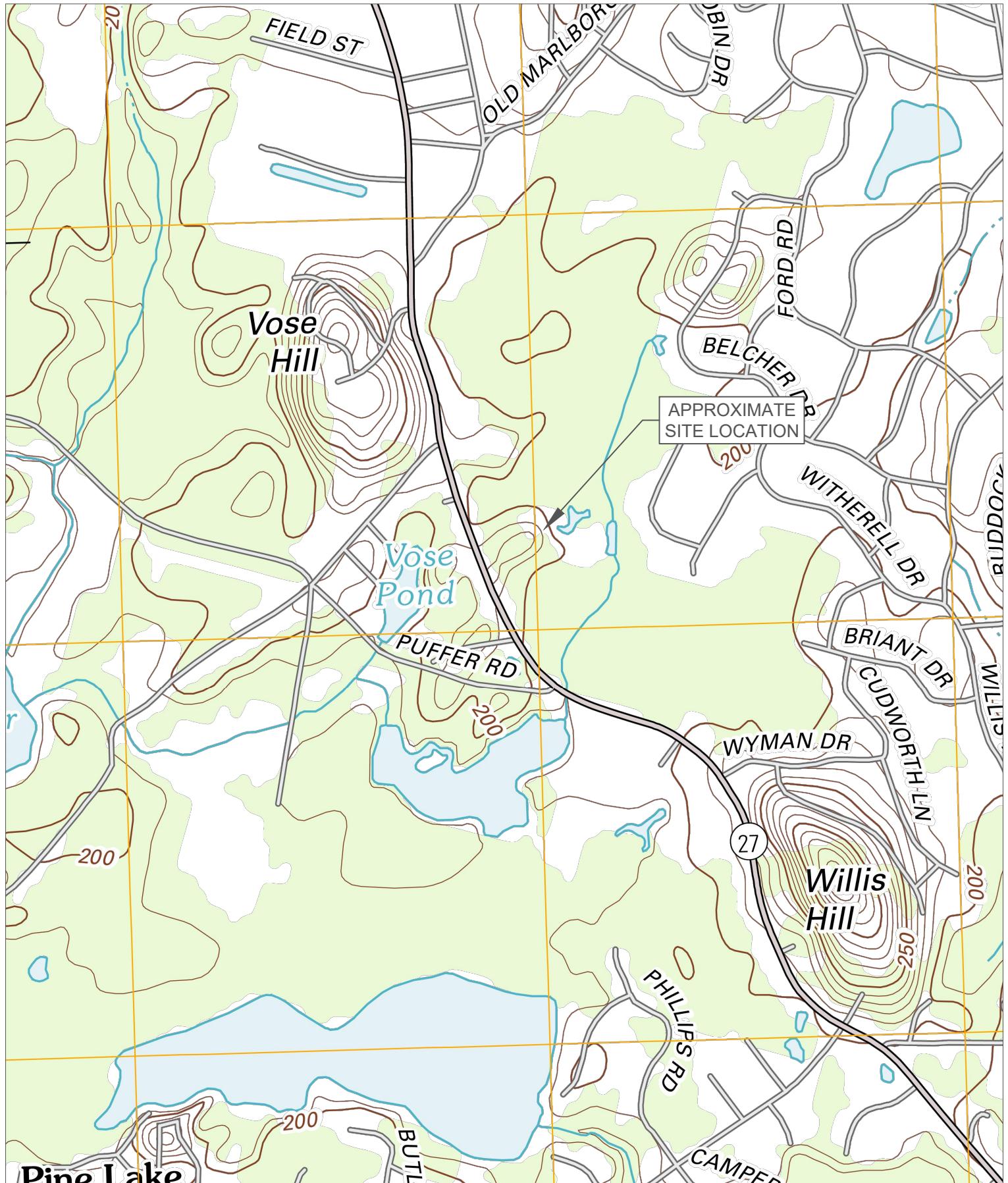
"I declare that, to the best of my professional knowledge and belief, I meet the definition of environmental professional as defined in §312.10 of 40 CFR 312" and "I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

Prepared by:



Lauren Brown
Project Engineer
Cooperstown Environmental LLC

APPENDIX A
FIGURES AND TABLES



COOPERSTOWN
environmental
23 Main Street • Andover, MA • 01810
Phone (978) 470-4755 • Fax (978) 470-4756
www.cooperstownenv.com

23 Main Street • Andover, MA • 01810
Phone (978) 470-4755 • Fax (978) 470-4756
www.cooperstownenv.com

Site Locus

182 Parker Street
Maynard, Massachusetts 01754

FIGURE 1



SOURCE: USGS

SCALE: 1"=1000'

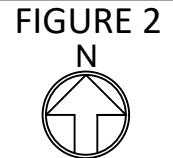
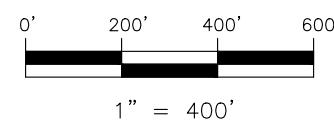


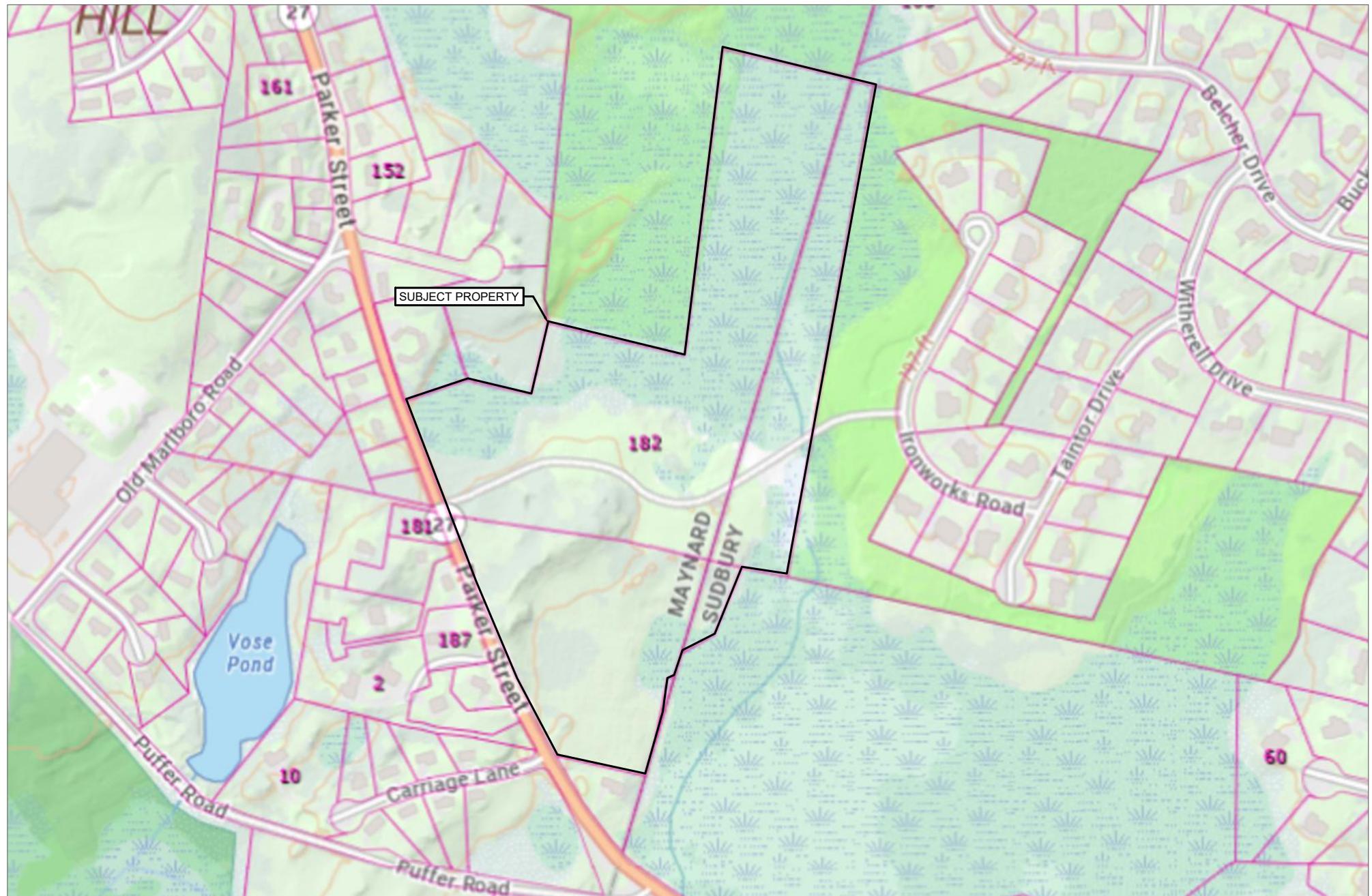
Current Aerial Photograph

COOPERSTOWN
environmental
23 Main Street • Andover, MA • 01810
Phone (978) 470-4755 • Fax (978) 470-4756
www.cooperstownenv.com

182 Parker Street
Maynard, Massachusetts 01754

Aerial Source: Microsoft Bing





COOPERSTOWN
environmental
23 Main Street • Andover, MA • 01810
Phone (978) 470-4755 • Fax (978) 470-4756
www.cooperstownenv.com

Plot Plan

182 Parker Street
Maynard, Massachusetts 01754

Basemap Source: MassGIS

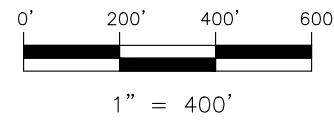
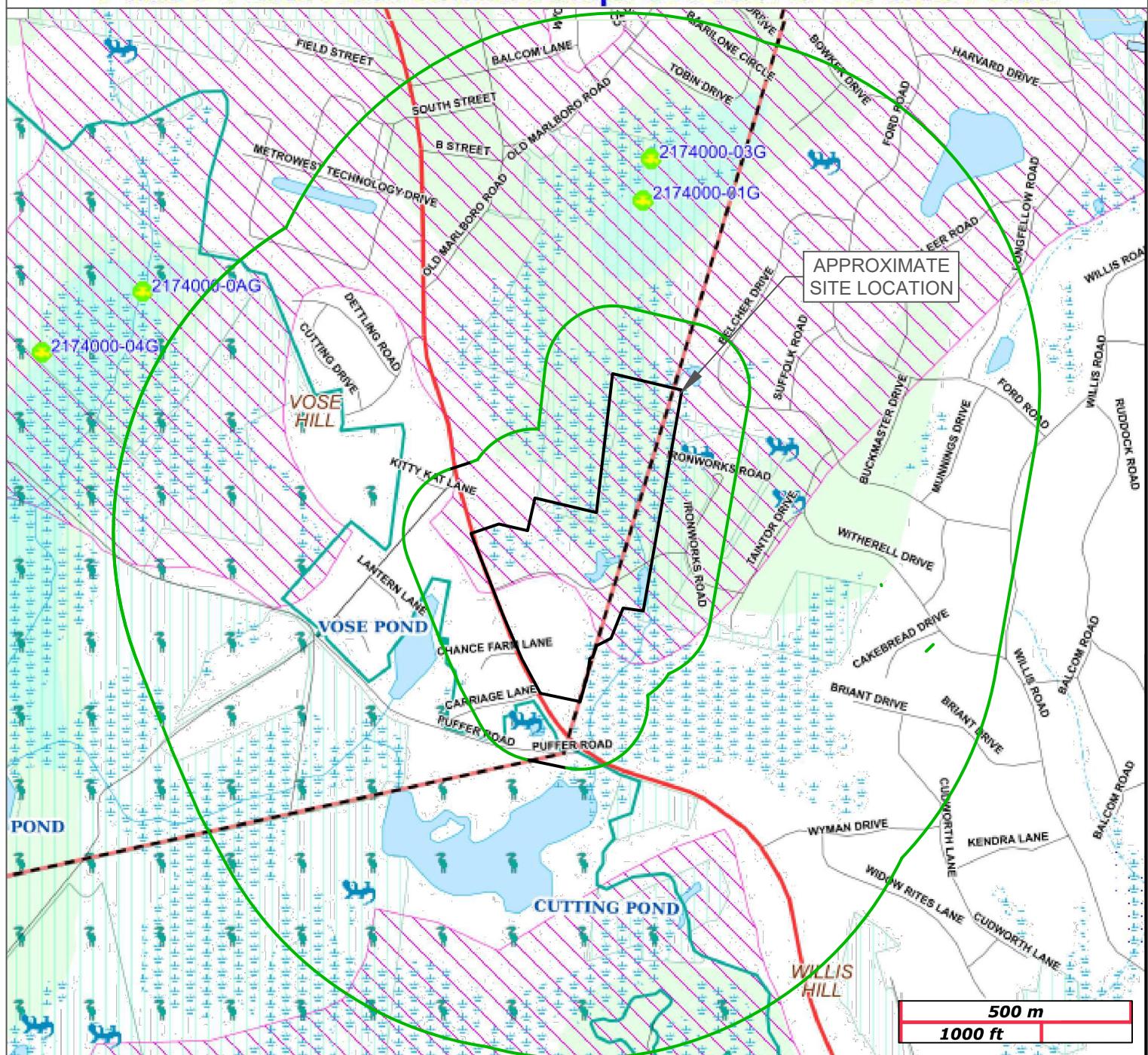


FIGURE 3
N

MassDEP - Bureau of Waste Site Cleanup

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

PWS Protection Areas: Zone II, IWPA, Zone A

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Hydrology: Open Water, PWS Reservoir, Tidal Flat

Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam

Wetlands: Freshwater, Saltwater, Cranberry Bog

Aquifers: Medium Yield, High Yield, EPA Sole Source

FEMA 100yr Floodplain; Protected Open Space; ACEC

Non Potential Drinking Water Source Area: Medium, High (Yield)

Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential

COOPERSTOWN
environmental
23 Main Street • Andover, MA • 01810
Phone (978) 470-4755 • Fax (978) 470-4756
www.cooperstownenv.com

Priority Resources

182 Parker Street
Maynard, Massachusetts 01754

FIGURE 4



Source: MassGIS
Date Accessed: January 2, 2024

Table #1-Common Abbreviations and Acronyms in Environmental Site Assessments

AAI	All Appropriate Inquiry
AC	Air Conditioning
ACOP	Administrative Consent Order with Penalty
ACBM	Asbestos Containing Building Material
ACM	Asbestos Containing Material
AOC	Area of Concern
AS/SVE	Air Sparge / Soil Vapor Extraction
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
ASTM 13	ASTM E1527-13 Standard Practice for Environmental Site Assessments: Phase I
AUL	Activity Use Limitation (Massachusetts)
BGS	Below Ground Surface
BOH	Board of Health
BOL	Bill of Lading
BWSC	Bureau of Waste Site Cleanup
CAA	Clean Air Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESQG	Conditionally Exempt Small Quantity Generator
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
Cis-1,2-DCE	Cis-1,2-Dichloroethene
CMR	Code of Massachusetts Regulations
COC	Contaminant of Concern
CORRACTS	Corrective Action Tracking System
COVID-19	Corona Virus Disease 2019
CSA	Comprehensive Site Assessment
CT DEEP	Connecticut Department of Energy and Environmental Protection
CT ECO	Connecticut Environmental Conditions Online
cVOC	Chlorinated Volatile Organic Compound
cy	Cubic yards (Unit of Measurement)
DAP	Di-ammonium phosphate
DEC	Direct Exposure Critieria
DEPNDS	Not a Disposal Site (DEP Determined)
DEPNFA	No Further Action (DEP Determined)
DPW	Department of Public Works
DPS	Downgradient Property Status
DSB	Disposal Site Boundary
E	East
ECHO	Enforcement & Compliance History Online
EIA/EIS	Environmental Impact Assessment/Statement
ELUR	Environmental Land Use Restriction (Connecticut)
EPH	Extractable Petroleum Hydrocarbons
ESA	Environmental Site Assessment
ETPH	Extractable Total Petroleum Hydrocarbons
FINDS	Federal Index System

FONSI	Finding of No Significant Impact
Ft	Feet (Unit of Measurement)
GW	Groundwater
HREC	Historical Recognized Environmental Condition
IPaC	Information for Planning and Consultation
IRA	Immediate Response Action
ISB	In-Situ Bioremediation
ISCO	In-Situ Chemical Oxidation
IWPA	Interim Wellhead Protection Area
Kg	Kilograms
LBP	Lead-Based Paint
LEL	Lower Explosive Limit
LQG	Large Quantity Generator
LRA	Limited Removal Action
LSP	Licensed Site Professional
LTBI	Location to Be Investigated
LP	Liquid Propane
LUST	Leaking Underground Storage Tank
MassDEP/MADEP	Massachusetts Department of Environmental Protection
MassGIS	Massachusetts Geographic Information System
MCP	Massachusetts Contingency Plan
MDL	Method Detection Limit
MESA	Massachusetts Endangered Species Act
M.G.L.c. 21E	Massachusetts General Law, chapter 21E
MHC	Mass Historical Commission
MODF	Mineral Oil Dielectric Fluid
MSDS	Material Safety Data Sheet
N	North
NAAQS	National Ambient Air Quality Standards
NAPL	Non-Aqueous Phase Liquid
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Association
ng/l	Nanogram/liter
ng/g	Nanogram/g
NIOSH	National Institute of Occupational Safety and Health
NRHP	National Register of Historic Places
NOI	Notice of Intent
NON	Notice of Noncompliance
NOR	Notice of Responsibility
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List
NSR	No Significant Risk
OHM	Oil and Hazardous Materials
OSHA	Occupational Safety and Health Administration
OWS	Oil and Water Separator
PAH	Polynuclear Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyl

PCE	Tetrachloroethylene
PENNDS	Pending Not a Disposal Site
PENNFA	Pending No Further Action
PFAS	Perfluoroalkyl and Polyfluoroalkyl Substances
PMC	Pollutant Mobility Criteria
PID	Photoionization Detector
pCi/L	picocuries per liter
ppb	Parts-per-billion
ppm	Parts-per-million
ppm(v)	Parts-per-million(by volume)
ppt	Parts-per-trillion
PRP	Potentially Responsible Party
PSS	Permanent Solution Statement
PSC	Permanent Solution with Conditions
PSNC	Permanent Solution No Conditions
PVC	Polyvinyl Chloride
RAM	Release Abatement Measure
RAO	Response Action Outcome
RAONR	Response Action Outcome Not Required
RC	Reportable Concentrations
RCRA	Resource Conservation and Recovery Act
RD	Rural Development
REC	Recognized Environmental Condition
REAP	Renewable Energy for America Program
ROS	Remedy Operation Status
RPS	Renewable Energy Portfolio Standard
RL	Reporting Limit
RSR	Remediation Standard Regulations (Connecticut)
RTN	Release Tracking Number
RUS	Rural Utilities Service
S	South
SHWS	State Hazardous Waste Sites
SMART	Solar Massachusetts Renewable Target
Sqft	Square feet/square foot
SQG	Small Quantity Generator
SSDS	Sub-slab Depressurization System
SVE	Soil Vapor Extraction
SVOC	Semi Volatile Organic Compound
TCE	Trichloroethylene
TCLASS	Tier Classification
TCLP	Toxicity Characteristic Leaching Procedure
TOC	Total Organic Carbon
TPH	Total Petroleum Hydrocarbons
TSCA	Toxic Substances Control Act
TSD	Treatment, Storage and Disposal
TSS	Temporary Solution statement
UCL	Upper Concentration Limit
UEL	Upper Explosive Limit

USEPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
ug/g	micrograms per gram
ug/Kg	micrograms per kilogram
ug/L	micrograms per liter
ug/m ³	micrograms per meter cubed
USC	United States Code
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	Underground Storage Tank
VC	Vinyl Chloride
VIP	Vapor Intrusion Pathway
VEC	Vapor Encroachment Condition
VES	Vapor Encroachment Condition
VOC	Volatile Organic Compound
VPH	Volatile Petroleum Hydrocarbons
VRP	Voluntary Remediation Program (Connecticut)
W	West

Companies

Alpha	Alpha Analytical Laboratories
EDR	Environmental Data Resources, LLC.
NETLab	New England Testing Laboratories

Table #2 Reportable Sites

185 Parker St

Maynard, MA

MAP	FACILITY	STREET	DIST	MILES	DIRECTION	DB NAME	NOTES	EXPECTED IMPACT	RATIONALE
1		66 OLD MARLBORO RD	500	0.095	Upgradient	FEMA UST		Negligible	No reported releases or violations
A2	FEDERAL EMERGENCY MANAGEMENT AGENCY	63-65 OLD MARLBORO RD	764	0.145		HW GEN	EPA IdMAC300011723		
A2	FEDERAL EMERGENCY MANAGEMENT AGENCY	63-65 OLD MARLBORO RD	764	0.145		HW GEN	State Generator StatusVQG-MA		
A3	FEDERAL EMERGENCY MANAGEMENT AGENCY	63-65 OLD MARLBORO RD	764	0.145		RCRA-VSQG	EPA IdMAC300011723		
A3	FEDERAL EMERGENCY MANAGEMENT AGENCY	63-65 OLD MARLBORO RD	764	0.145		MANIFEST	EPA ID MAC300011723		
A4		63-65 OLD MARLBORO RD	764	0.145		FEMA UST			
A5		63-65 OLD MARLBORO RD	764	0.145		FEMA UST			
A6		63-65 OLD MARLBORO RD	764	0.145		FEMA UST			
A7	FEDERAL REGIONAL CENTER	63-65 OLD MARLBORO RD	764	0.145	Upgradient	UST	Tank StatusTank Removed	Negligible	No reported releases or violations
A7	FEDERAL REGIONAL CENTER	63-65 OLD MARLBORO RD	764	0.145		UST	Tank StatusIn Use		
A7	FEDERAL REGIONAL CENTER	63-65 OLD MARLBORO RD	764	0.145		UST	Facility Id40600		
A7	FEDERAL REGIONAL CENTER	63-65 OLD MARLBORO RD	764	0.145		Financial Assurance			
A7	FEDERAL REGIONAL CENTER	63-65 OLD MARLBORO RD	764	0.145		TIER 2	Facility IdFATR20139532Y3005JZN		
A8	FEDERAL EMERGENCY MANAGEMENT AGENCY	63-65 OLD MARLBORO RD	774	0.147		RCRA-VSQG	EPA IdMAR000618082		
A9	FEDERAL EMERGENCY MANAGEMENT AGENCY	63-65 OLD MARLBORO RD	774	0.147		HW GEN	EPA IdMAR000618082		
A9	FEDERAL EMERGENCY MANAGEMENT AGENCY	63-65 OLD MARLBORO RD	774	0.147		HW GEN	State Generator StatusVQG-MA		
A9	FEDERAL EMERGENCY MANAGEMENT AGENCY	63-65 OLD MARLBORO RD	774	0.147		ASBESTOS			
10	MAYNARD ANT TEST SITE		1236	0.234	Upgradient	FUDS		Negligible	No reported releases or violations