

FINAL APPLICATION FOR CPA FUNDING – COVER SHEET

Applicant: Les Fox, Chair, Water Resources Committee

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Town Committee: Water Resources Committee

Project Name: Land acquisition for water resource

Estimated budget:

CPA funds requested: \$275,000

WRC appraisal funds: \$ 20,000 (ATM 2020, article 11. Consent agenda)

Estimated date of project commencement: July 2022

Estimated date of project completion: July 2023

Submittal date: Oct 28, 2021

Nov 30, 2021

Water source acquisition and protection

PROJECT SUMMARY

This CPA project requests \$275,000 to acquire and protect a tract of land containing the largest available groundwater aquifer resource in Boxborough. The land is currently owned by Harvard Sportsmen's Club. This significant resource was previously identified and proven through exploration carried out by the town from 2006 to 2008. Acquisition will ensure it remains available for the future benefit of a large segment of the Boxborough community. Ownership will give the town several options for potential development as a drinking water resource for residents and businesses in the western part of town. Acquisition and protection of the water resource is the first critical step.

CPA FUNDING REQUEST

The Water Resources Committee (WRC) seeks \$275,000 of CPA funds to acquire land for to protect a unique and important water supply and help preserve open space. The land consists of two contiguous parcels, 02-007 (12 acres) and 02-008 (6 acres) owned by Harvard Sportsmen's Club (HSC). These parcels lie in the Beaver Brook Aquifer. See Figure 1.

Both parcels are currently in Chapter 61 (forestry) with a total assessed value of \$35,061, providing about \$600 annual tax revenue to the town.

The town installed test wells on this land in 2006 and found it to be suitable for a municipal water supply system. Together, comprising about 18 acres, they could be used for constructing a water supply well and provide the majority of the protected space around the well required by the state drinking water regulations. It is intended that the open space area remain accessible to the public for passive recreation, subject to adjoining private land restrictions, and the drinking water regulations.

The cost of the land acquisition will include the property itself, and there may be legal and appraisal fees. The current appraised value of the two combined parcels is \$231,800, as shown on the property cards. An independent appraisal has not been done as of the time of this proposal submission. However, the acquisition cost for the land could be substantially greater due to the presence of a water source, and the owner's reluctance to sell. To be conservative and allow for the unknown outcome of negotiations or final appraisal, the WRC has assumed a total acquisition cost of \$275,000, including a provision of \$10,000 for legal expenses. The WRC has an additional budget of up to \$20,000 for land appraisals related to new source development, provided by Article 11 of the May 2020 ATM. These funds would be used to develop a jointly agreed fair appraisal price pursuant to a negotiated purchase and sale agreement or initial pro-tanto payment for an eminent domain taking, should that become necessary. It will not be necessary to use the requested CPA land acquisition funds for appraisals.

The WRC will initiate discussions with the HSC for acquisition by purchase and sale agreement. It is intended that a firm agreed acquisition cost be determined expeditiously, to be included in the final ATM 2022 warrant. The WRC will update the requested amount accordingly as we learn more.

In parallel, the WRC is evaluating an alternative source of funds for this land acquisition. There are several grants for which we can apply, which require local matching funds. Should we pursue this alternative, then we would use CPA funds to provide the local match and/or supplementary funding, if such is needed.

THE LAND AND MAPS

The map in Figure 3 shows two optional locations for a potential future high-yield public water supply well situated on the Beaver Brook aquifer on land of the Harvard Sportsmen's Club. The southwest locus (shown by the circle) was drilled and proven in the 2006 CDM study. The northeast locus may be more favorable for the Zone 1 protective zone. Both parcels together (02-007 and 02-008) would give the town flexibility for deciding the location of a future municipal well.

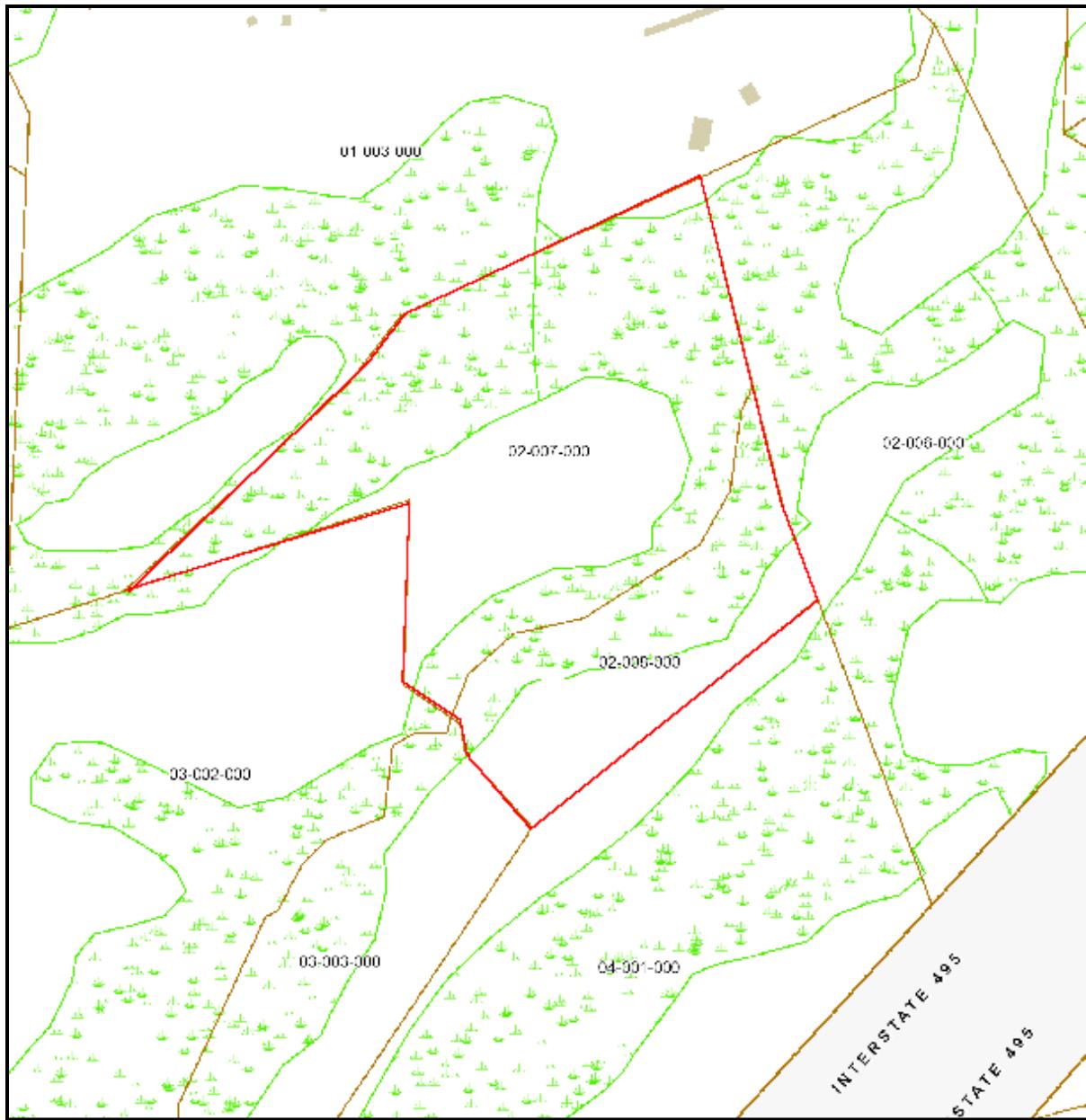


Figure 1. Target parcels 02-007, 02-008 – Harvard Sportsmen's Club

Justification and Support for the Project – Town Goals and Plans

Acquisition of these two properties will help the town to meet its goals for community preservation through acquisition of land for both open space and water supply protection. It is in line with several key elements of the Water Resources Committee Charter of Oct 29, 2018. It would support water resource protection goals called out in the town's strategic planning documents:

- Community Preservation Plan
- Open Space and Recreation Plan
- Boxborough2030 Master Plan
- Municipal Vulnerability Preparedness (MVP)

This proposed use of CPA funds satisfies multiple points of both the CPC General Selection Criteria and Specific Selection Criteria.

The parcels contain the primary area identified as a significant potential new water source in “Water Distribution System Feasibility Study” by CDM, April 2008.

Community Preservation Plan. Protection of water resources in the Community Preservation Plan arises from its reference to the Open Space and Recreation Plan (OSRP). The Needs Assessment in Boxborough's 2021 Community Preservation Plan (CPP) states:

“The intention of the needs assessment as specified by the CPA is to build on the OSRP. The Town of Boxborough has a well-researched and detailed Open Space and Recreation Plan (OSRP) that was updated in 2015.”

The OSRP has eight goals, including:

Protect and/or acquire additional lands for conservation, **water resource protection**, wildlife habitat, agricultural land preservation, recreation, trails, and wildlife corridors.

The parcels of interest are currently in Chapter 61 (Forestry). Acquisition will continue to protect open space and wildlife habitat, with a main goal of water resource protection.

Boxborough Open Space and Recreation Plan (2015-2022) specifically identifies these as priority parcels for acquisition, along with several others owned by the Harvard Sportsmen's Club (OSRP Table 29 and Map 10). The specific priorities for these properties are open space and agricultural opportunity (Agricultural Commission) and water supply (Board of Health).

The OSRP states that while the Water Resources Committee (the former WRC under Board of Health) was no longer active at the time,

“This Open Space and Recreation Plan includes provisions for protecting undeveloped sites identified with the potential to contribute to a municipal water supply.”

The town has since reinstated the Water Resources Committee (WRC), which is actively pursuing these goals, among others.

Master Plan. Boxborough2030, the town's current master plan, lists six Top Priorities, including:

Priority 2: Plan for long-term water resource management and protection.

It also includes the following Actions:

Action 1.1.4.1. Reinstate Water Resources Committee (WRC). Done - the Select Board did this in 2018.

Action 1.1.4.2. Plan for long-term water supply and wastewater management to support private and municipal goals. The WRC is actively pursuing this, including this CPA request.

Action 3.1.2.1. Identify priority areas for receiving a public water supply based on need and feasibility.

The WRC has identified the area west of I-495 as the highest priority for a public water system, based on the state's (DEP) concerns about water quality in this area and the proximity of new water sources. In this request the WRC seeks funds to acquire the land for water resource protection and to enable future development of public water system.

Municipal Vulnerability Preparedness (MVP) - Climate Resilience. The Boxborough Sustainability Committee completed a Municipal Vulnerability Preparedness (MVP) Project in 2021. The Summary of Findings identified alternative drinking water sources as a top priority. Having completed the MVP assessment, Boxborough is now qualified to apply for MVP Action Grant funds, which require a 25% local match. Grant funds may be used to acquire and protect land for water supply. If the action grant is successful, the CPA funds could be used to fund only the match contribution.

Recommendation:

The town should acquire and protect this major water resource now, to help ensure an adequate future supply of good drinking water for western Boxborough. Should the town choose in future to develop a municipal water system for this region this would enable us to do so. We should act now to acquire and protect this unique resource, even if it takes years more to develop a comprehensive solution with a water distribution system.

ADDITIONAL BACKGROUND – POTENTIAL LITTLETON WATER SYSTEM EXTENSION

Two issues are impacting many of the public water supply systems (PWS) in the commercial and residential condominium properties west of I-495. These systems are privately owned, but DEP regulates them as Public Water Systems (PWS) because of the number of people they serve. One issue is deteriorating water quality due to high sodium and chloride levels. The other issue is proximity of drinking water wells to groundwater discharges from wastewater treatment plants. This situation arose from past DEP permitting policies that are no longer sustainable or allowed. Figure 2 shows existing public water supply locations and selected wastewater system discharges in the western part of Boxborough in the area of concern.

These problems were documented in a DEP-commissioned study carried out by Worcester Polytechnic Institute (WPI) and presented in a public forum in Boxborough. For several years DEP has been encouraging the owners to work with the town to address these problems and has convened several group meetings with the Water Resources Committee (WRC) and affected property owners. The WPI study concluded that an extension of the Littleton Water Department (LWD) system into Boxborough would be a good approach to address both issues. This solution was also recommended in the 2008 CDM report “Water Distribution System Feasibility Study.”

The requested CPA funds will be used to purchase private land to protect it as a town-owned water resource. See the map in Figure 1. Subsequently, the town would have the option to drill and install a new municipal well for a public water supply. The new well source could be integrated into an extension of the LWD system.

The WRC been working with the Littleton Water Department (LWD) to evaluate the feasibility of extending the LWD system into Boxborough to serve Boxborough residents and businesses in the portion of Boxborough west of I-495. A new municipal water supply created by extension of the Littleton Water Department system into Boxborough would address the issues in the western area. Figure 3 shows potential locations for a municipal well on the target parcels, together with possible water mains interconnecting with LWD.

The two parcels proposed for acquisition with CPA funds together provide the majority of the water supply protective Zone 1 required by DEP regulations. Zone I comprises a circular area around the well having a radius of 400 feet and totaling about 12 acres. Depending on actual well location, a portion of the Zone I area could fall on land that is currently owned by Campanelli and is not part of this CPA proposal. It would remain protected by the existing Conservation Restriction. Passive recreation is permitted in Zone I.

The affected area in the part of town west of I-495 has about 1,000 condominium residents and about the same number of people employed in the business properties. A new drinking water source and distribution system should provide a more cost-effective and sustainable solution than individual efforts of the affected PWS systems. It would also provide greater assurance of continued availability of water meeting state drinking water standards, which is of increasing concern state-wide with newly regulated contaminants such as PFAS.

The Littleton Water Department (LWD) has been providing input on the overall project and is supportive of a joint effort to develop a new drinking water source. The new LWD treatment plant on Whitcomb

Ave has been designed with sufficient capacity to accommodate Boxborough. The WRC has submitted an ARPA proposal for Boxborough's share of the design for a LWD system extension, to be coordinated with similar design efforts by LWD.

The operational advantages and economics of this approach appear attractive. The betterment fees assessed to the property owners, rather than taxpayer revenue, would fund most of the project cost. This is expected to be more attractive to the property owners than the ongoing costs and risks of maintaining and operating their individual PWSs. Average household income in the western condominiums is substantially less than in residences in the eastern part of town. Residents in the affected area have been identified by the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) as an Environmental Justice Population. Financial relief through grants and low-interest bonds may be available for this area. The WRC is developing a financing model to inform affected property owners and residents.

Town Counsel has advised the WRC that a water and cost-sharing agreement between Boxborough and Littleton can best be realized through an intermunicipal agreement and accompanying special legislation. Purchase and protection of a unique water resource is a small but essential step to protect the town's interests.

Revision History:

- Rev 1 – 10/29/21. Increase request amount from \$150,000 to \$275,000.
- Rev 2 – 11/17/21. Noted article 11, ATM 2020 was Consent Agenda, not CPA.
- Rev 3 – 11/29/21. Combined original CPA proposal and supplement.
- Rev 4 – 11/29/21. Reformatted rev 3.
- Rev 5 – 11/30/21. Final rev.

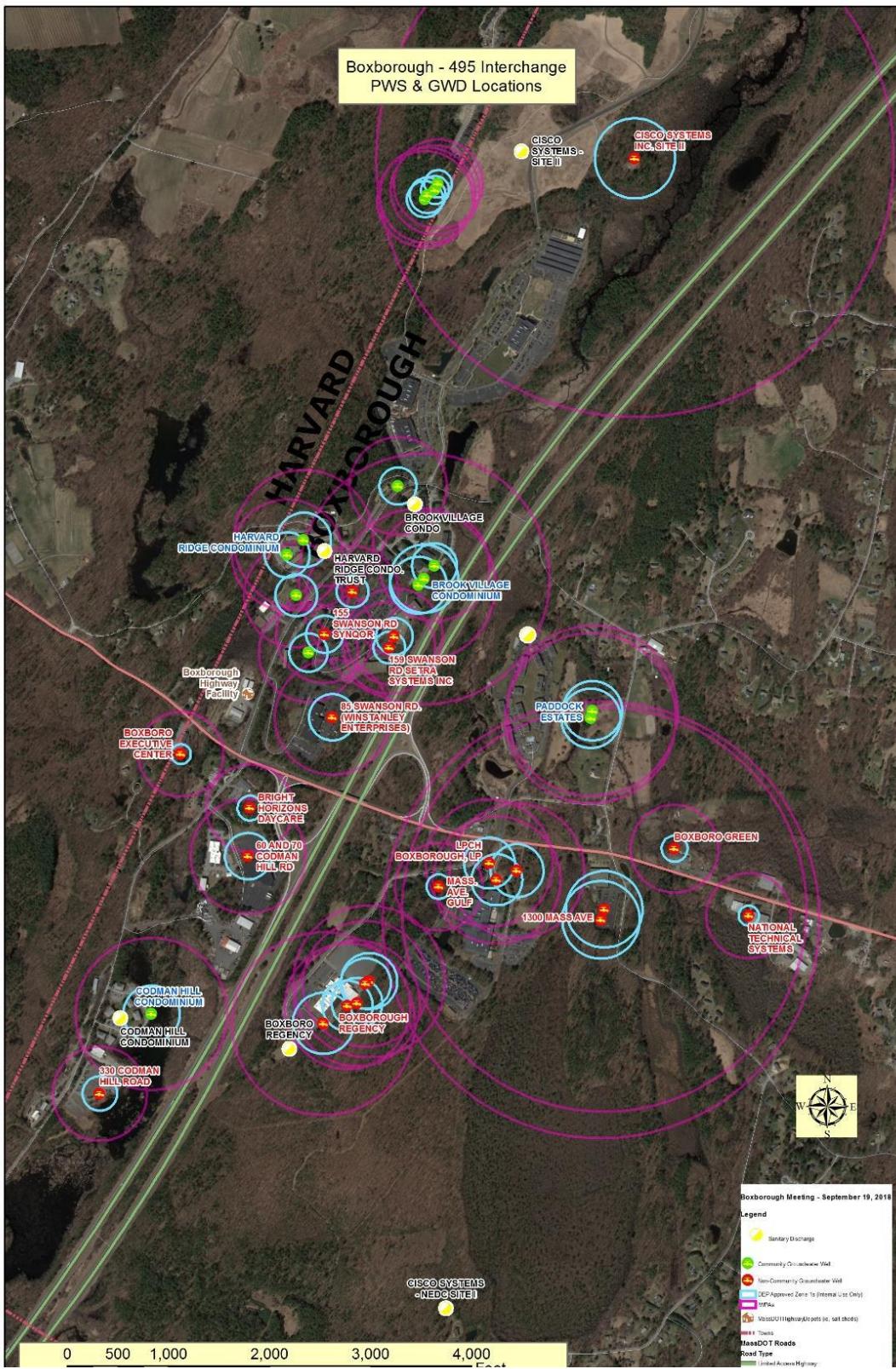


Figure 2. PWS along I-495. Initial focus is on PWS west of I-495.

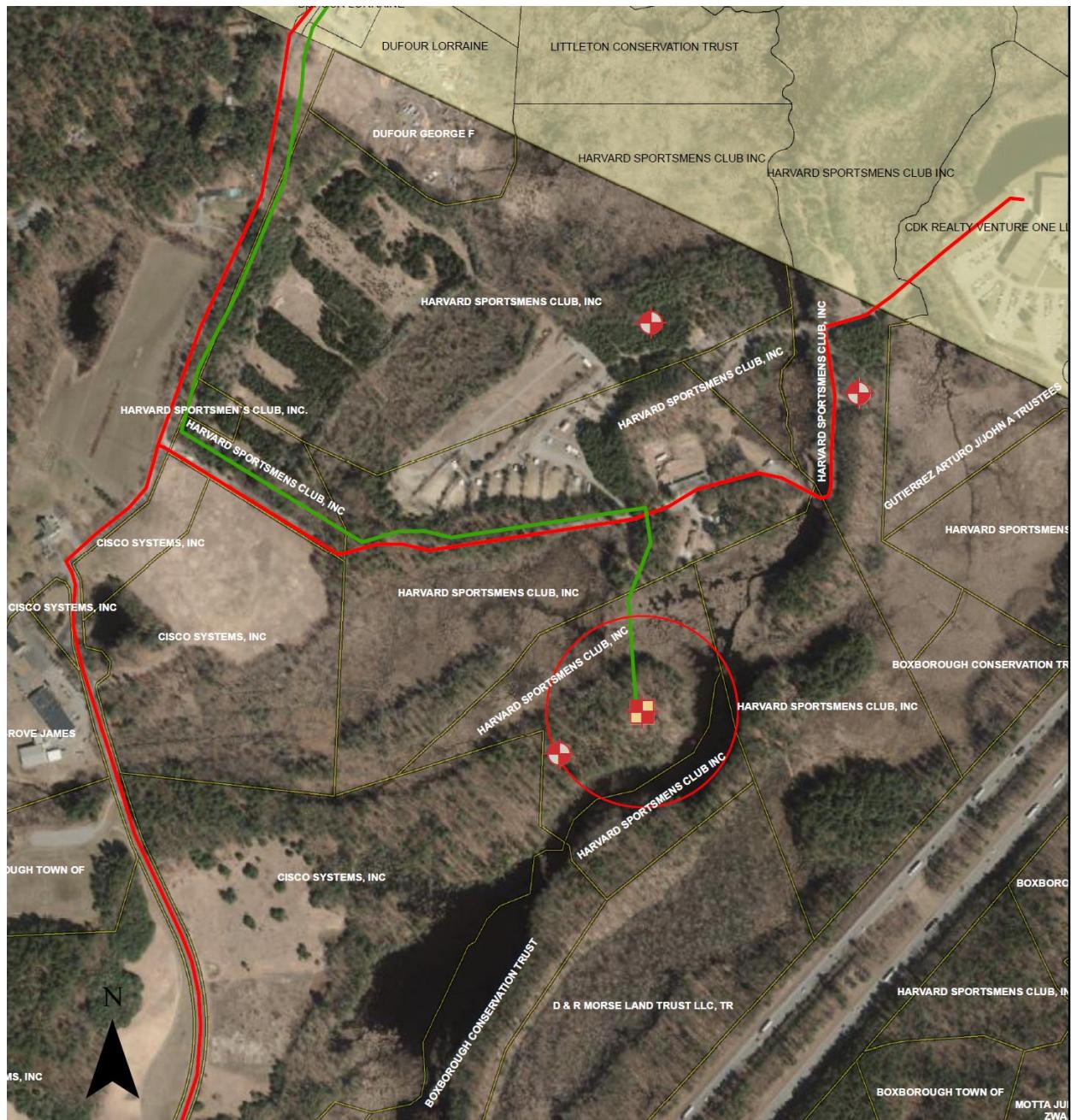


Figure 3. Likely well locations and possible routes of water mains for potential future municipal system extension from Littleton Water Department.

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