Corridor Planning Study

US Route 1

Hampton Falls, New Hampshire

PREPARED FOR

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Executive Summary

This study has been prepared for the purpose of identifying potential transportation solutions aimed at addressing congestion and safety concerns along an approximately 1.5-mile segment of US Route 1 in Hampton Falls, New Hampshire. This Executive Summary describes the public outreach effort, the problem statement, the alternatives considered, and the study findings.

Public Outreach

As a planning study, in addition to considering the physical and operational elements of the corridor, it is important to consider the needs and desires of the Hampton Falls community and therefore the study was driven by an open and active public-participation process. The public was provided the opportunity to share comments and ideas at three public informational meetings including one interactive public workshop, as well as through the NHDOT's project website and an on-line public input survey provided by the Rockingham Planning Commission. Additionally, a Study Advisory Committee consisting of community officials, business leaders, and residents provided invaluable insight concerning the needs and desires of the community and served as a sounding board in the development and evaluation of potential solutions.

The Problem

Based on the results of an existing conditions operational analysis, field observations, and input from the public, the predominant corridor problem is the congestion and long vehicle queues that extend back in both directions along US Route 1 from the traffic signal-controlled intersections at Lincoln Avenue and Depot Road, and at Exeter Road (Route 88). The single through lanes on US Route 1 at the signalized intersections do not have sufficient capacity to accommodate the volume of traffic that travels the corridor through much of the weekdays and weekends particularly in the summer months. The northbound vehicle queue at the Exeter Road intersection extends back and beyond the

unsignalized Kensington Road (Route 84) intersection making it particularly difficult for motorists to turn left onto US Route 1 from Kensington Road. Motorists entering the corridor from driveways and other side streets also experience substantial delay.

Alternatives

Having identified the existing and potential future year operational and safety concerns and having solicited input from the public and the Advisory Committee to better understand the issues, constraints, and potential solutions, a practicable range of alternatives were developed. The types of actions considered include a No Build, Transportation Demand Management (TDM), Transportation Systems Management (TSM), various Build or physical roadway modifications aimed at increasing the capacity of the corridor, and access management.

The No Build alternative (do nothing) will not meet the study purpose as the results of the operational analyses show that as one might expect, doing nothing would not only fail to address the existing queuing problem but the congestion and vehicle queuing problem will continue to worsen in the future. Nevertheless, given the concern with any potential impact to the Town Common, the Town of Hampton Falls prefers the No Build alternative to any of the Build alternatives, which would involve the widening of US Route 1.

Transportation Demand Management (TDM), encompassing a range of strategies designed to change personal travel behavior, can result in a reduction in the demand for automobile use and/or shift the demand to other roadways and thereby lessening the need to construct additional roadway capacity. The community favors actions that could potentially reduce the volume of traffic on US Route 1 such as increasing regional transit and/or the use of dynamic message boards to direct traffic to other routes such as I-95. A preliminary evaluation of these types of actions suggests that although there could be some benefit, these actions alone are unlikely to reduce the volume of traffic on US Route 1 to a level that would meet the project purpose. Additionally, both the benefits and impacts of these types of actions would be experienced at a regional level and therefore a more detailed evaluation and regional study would be needed before any of these actions could be recommended.

Transportation Systems Management (TSM) strategies are generally low cost, easy to implement actions aimed at optimizing the performance of the existing transportation system. Relevant TSM actions for the US Route 1 corridor in Hampton Falls would be traffic signal system upgrades to the existing traffic signals at Lincoln Avenue and at Exeter Road (Route 88), and improved access management for driveways located along the corridor. The Town has asked the NHDOT to consider enhancements to the existing traffic signals that would not involve the widening of US Route 1. The results of the operational analyses show that signal enhancements alone would provide only marginal benefits and would not meet the study purpose.

All of the Build alternatives focused on the middle segment of the corridor extending from just south of the Kensington Road (Route 84) intersection to just north of the Lincoln Avenue intersection. This is the area where additional lane capacity is needed. The existing 3-lane section (a through lane in each direction and a two-way center turn lane) is sufficient along the southern and northern segments of the study corridor. From a throughput capacity perspective, a single through lane is not

sufficient at traffic signal-controlled intersections where through traffic is stopped to allow side street traffic to enter the corridor.

One of the Build alternatives for this middle segment of the corridor involved the widening of US Route 1 to a 5-lane section (a left-turn lane and two through lanes in each direction) while a second alternative consider a limited widening option that provided an additional through lane in the northbound direction only. Additionally, each of these alternatives were considered with or without the installation of traffic signal control at the US Route 1/Kensington Road (Route 84) intersection.

Other Build alternatives included eliminating the Exeter Road traffic signal by discontinuing Exeter Road at US Route 1 and converting Lincoln Avenue to two-way flow. These alternatives considered maintaining traffic signal control at the Lincoln Avenue/Depot Road intersection as well as converting the intersection into a modern roundabout.

Key Findings

The results of the operational analyses show that widening the middle segment of the corridor (again from Kensington Road to Lincoln Avenue) to provide a 5-lane section consisting of a left-turn lane and two through lanes in each direction would meet the study purpose and address the congestion and vehicle queuing problem caused by the capacity constraint at the Exeter Road and Lincoln Avenue traffic signal-controlled intersections. The 4-lane alternative, which involves providing an additional through lane in the northbound direction only, would partially meet the study purpose by addressing the northbound queuing problem, but would not address the queuing problem in the southbound direction. Note that providing an additional through lane in the southbound direction rather than the northbound direction would have similar results only in the opposite direction.

There is little support by the community for the widening of US Route 1 particularly if the widening has an impact on the Town Common. In a letter signed by the Hampton Falls Board of Selectmen, the Selectmen state that "*the Board of Selectmen, on behalf of the citizens of the Town of Hampton Falls, is opposed to any proposed change(s) to the Town Common or change that would affect the Town Common in anyway*." The letter is provided in the appendix. The 5-lane alternative would have a substantial impact on the Town Common as it would require property acquisition and potentially the removal of mature trees. The 4-lane alternative would likely avoid the need to acquire any significant portion of the Common by widening within the state right-of-way. Nevertheless, this limited widening could potentially damage the mature trees. For these reasons, the Town prefers the No Build option or enhancements to the existing traffic signals (without any widening of US Route 1) over the alternatives that add through lanes to US Route 1.

Similarly, the alternatives that discontinue Exeter Road and convert Lincoln Avenue to two-way flow were also found to be unacceptable, despite the possibility of increasing the size of the Town Common because the necessary widening along Lincoln Avenue could encroach on the Common.

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Introduction

The New Hampshire Department of Transportation (NHDOT) has retained VHB to conduct a Corridor Planning Study of US Route 1 in Hampton Falls, New Hampshire. The study area extends approximately 1.5 miles along US Route 1 from the Seabrook town line in the south to the Hampton town line in the north. The purpose of the study is to identify potential transportation solutions aimed at addressing congestion and safety concerns along the corridor.

The study was driven by an open and consensus-driven public participation process that engaged the community in the development and evaluation of potential solutions. A key component of the community based public participation process was the establishment of a Study Advisory Committee consisting of community officials, business leaders, and residents. This Committee was not a decision-making body but provided invaluable insight into the needs and desires of the community. The Committee served as an important sounding board in the development and evaluation of potential solutions. Advisory Committee members included: Shawn Hanson, Mark Lane, Beverly Mutrie, Greg Parish, Todd Santora, Bill Savage, and Keith Webster.

In addition to Advisory Committee meetings, three public informational meetings were held for the purpose of sharing information with and soliciting input from the public. The first meeting included a discussion on the study purpose, existing traffic volume conditions, and the results of operational analyses conducted for the existing and future No Build year (2042) conditions. The second public meeting used an informal workshop-type format where attendees had an opportunity to interact one-on-one with the Study Team. Attendees were asked to share their thoughts and ideas on the problem areas as well as potential solutions. Attendees also had an opportunity to participate in an informal poll as to their level of support for a range of potential solutions. The results of the informal poll are provided in the appendix. The study findings were presented and discussed at the third and final public meeting.

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Base Conditions

This chapter describes the existing or baseline conditions along the study corridor. Existing roadway, traffic volume and traffic operating conditions are described.

US Route 1

The US Route 1 study corridor extends approximately 1.5 miles from the Seabrook town line in the south to the Hampton Town line in the north. Throughout most of this length the lane use consists of a single through lane in each direction and a two-way center turn lane to accommodate motorists turning left from the corridor onto one of the many side streets and driveways. Shoulder widths vary throughout the corridor with some segments having shoulder widths as narrow as two feet.

The character of the corridor changes noticeably near the traffic signal-controlled intersections with Lincoln Avenue and Depot Road, and with Exeter Road (Route 88) where the corridor passes though Hampton Falls' functional town center. Land use along this segment of the corridor such as the Town Common and local commercial businesses are located close to the US Route 1 travel way.

Traffic Flow

To determine the existing traffic volume demands and flow patterns along the study corridor, a traffic volume count program was conducted in August 2020. Weekday morning (7-9 AM), weekday evening (4-6 PM), and Saturday midday (12-2 PM) peak period traffic volumes turning movement counts were conducted at the intersections of US Route 1 with Lincoln Avenue/Depot Road, Exeter Road (Route 88), and with Kensington Road (Route 84). The peak period intersection turning movement counts recorded the movement of automobiles, trucks, bicyclists, and pedestrians. In addition, 24-hour automatic traffic recorder (ATR) counts were conducted along US Route 1 between the intersections of Exeter Road and Kensington Road. The ATR counts recorded daily traffic volumes as well as vehicle speeds.

Note that due to the COVID-19 pandemic, the travel demand along the study corridor in August 2020 was lower than normal. For this reason, NHDOT historical traffic counts were reviewed for the same week in August 2019. The results show that the volume of traffic recorded in August 2020 was approximately 14 percent lower that the pre-pandemic period of August 2019. Therefore, the August 2020 traffic counts were increased by 14 percent to reflect pre-pandemic traffic volumes.

The 85th percentile speeds were recorded at between 34 mph and 38 mph. The speed limit is posted at 35 mph. Very few (0 to 5) pedestrian or bicyclist movements were observed during the peak hours. The percentage of trucks recorded during the weekday AM peak period ranged from 1.7 to 2.0 percent while the percentage of trucks recorded during the weekday PM and Saturday midday periods were less than 1.0 percent.

The adjusted 2020 Base Year (summer) peak hour traffic volumes are provided in Figure 1 in the appendix.

To evaluate the future travel demands along the study corridor, the 2020 Base Year (summer) traffic volumes were projected to a 2042 design year (summer) condition. Based on a review of historical growth trends, regional growth projections, and discussions with NHDOT and RPC officials regarding any planned development projects in the area, traffic growth in the study area is expected to be modest. For this reason, a modest, but reasonable, 1.0 percent compounded annual growth rate was applied to the base volumes to establish the 2042 Future Year (summer) condition. The 2042 Future Year (summer) peak hour traffic volumes are provided in Figure 2 in the appendix.

Vehicle Crash Evaluation

NHDOT vehicle crash data was compiled for the US Route 1 corridor within Hampton Falls for the 3-year period of 2017 through 2019. A total of 72 crashes were recorded over the 3 years. Unfortunately, there was insufficient available data to draw conclusions on the type of crash, however a review of the data did reveal the following trends.

- The number of crashes per year did not vary much with 23 crashes in 2017, 25 crashes in 2018, and 24 crashes in 2019.
- The highest month for crashes was August (15 crashes) followed by May and December (each with 8 crashes) and October (7 crashes). All other months recorded 6 or fewer crashes with February and March being the lowest months (2 crashes in each month).
- Wednesday, Thursday, and Friday were the highest crash days (each with 13 crashes) with Sunday and Tuesday recording 10 crashes each. Seven crashes were reported on Monday and 6 crashes were reported on Saturday.
- Fifty-three crashes (74 percent) involved no apparent injury, while 8 crashes (11 percent) involved a suspected minor injury, 4 crashes (6 percent) involved a possible injury, and 3 crashes (4 percent) involved a serious injury. No fatalities were reported.
- One crash involved a pedestrian.

Field Observations

In addition to conducting traffic volume counts, measuring vehicle speeds, and reviewing crash data, general field observations were conducted. These field observations consisted of driving and walking the study corridor to gain a better understanding of how the corridor functions. The following are some of the observations that were noted.

- The US Route 1 northbound and southbound traffic queues back substantially from the traffic signal-controlled Exeter Road and Lincoln Avenue intersections, respectively.
- The northbound vehicle queue at the Exeter Road intersection extends back and beyond the unsignalized Kensington Road (Route 84) intersection making it particularly difficult for motorists to turn left onto US Route 1 from Kensington Road.
- Motorists turning left onto US Route 1 from Kensington Road use the two-way-center-turn lane (TWCTL) by crossing the southbound lane when there is an acceptable gap, then waiting in the TWCTL to merge into the northbound vehicle queue.
- Residents from other side streets, such as Brimmer Lane and Pelton Way, also experience delays entering the corridor and like at Kensington Road, motorists use the TWCTL to execute the left-turn movement.
- Few pedestrians or bicyclists were observed along the corridor.

Traffic Operations

To assess the quality of traffic flow, operational analyses were conducted at each of the study area intersections using the Synchro and SimTraffic version 10 software programs. The traffic performance measures, and the evaluation criteria used in the operational analyses are based on the methodologies presented in the Highway Capacity Manual (HCM). Consistent with New Hampshire Department of Transportation (NHDOT) guidelines, the HCM 2000 methodology was used for signalized intersection analyses and the HCM 6th methodology for the unsignalized intersection analysis to determine delays, levels of service, and volume-to-capacity (v/c) ratios.

A primary result of capacity analysis is the assignment of level of service (LOS), which is a qualitative measure describing operational conditions. LOS generally describes these conditions in terms of such factors as speed and travel time, density or freedom to maneuver, traffic interruptions, comfort, and convenience, thereby providing an index to quality of traffic flow. Six levels of service are defined that range in letter designation from LOS A to LOS F, with LOS A representing the best operating condition and LOS F representing the worst. LOS C describes a stable flow condition and is considered desirable for design hour traffic flow. LOS D is generally considered acceptable, particularly when the cost and impacts of making the additional improvements needed to achieve LOS C are deemed unjustifiable. LOS E reflects a capacity condition, but under certain circumstances may be considered acceptable, such as in urban areas or where there's a desire to encourage multi-modal use and discourage single-occupant vehicles.

As shown in Table 1, the results of the operational analyses for the summer peak month (August) reveal poor operating conditions (LOS E and F) under existing conditions during both the Weekday PM and Saturday Midday peak periods. In particular, the US Route 1 southbound through movement

at the Lincoln Ave/ Depot Road intersection and the northbound through movement at the Exeter Road intersection show LOS F operations. This over capacity condition results in the long vehicle queues that extend back from each of the signalized intersections. Interestingly, the side street movements entering the corridor from Depot Road or Exeter Road or exiting the corridor onto Lincoln Avenue or Depot Road operate acceptably (LOS D or better).

Motorists entering the corridor (particularly those turning left) at the unsignalized Kensington Road intersection experience poor operating conditions (LOS E) during both the Weekday PM and Saturday Midday peak periods. Motorists turning left from the corridor onto Kensington Road experience good operating conditions (LOS A).

By 2042 (the future No Build condition) the poor operating existing conditions will worsen with the Lincoln Avenue/Depot Road and Exeter Road signalized intersections operating at up to 42 percent and 33 percent over capacity during the Weekday PM peak period, respectively. Also, the poor operating conditions (LOS F) extend to the Weekday AM peak period at the Lincoln Avenue/Depot Road intersection. Operations for motorists entering the corridor at the unsignalized Kensington Road deteriorate to LOS F during both the Weekday PM and Saturday Midday peak periods.

Table 1 Existing and Future No Build Operational Analyses

	2020 Existing Conditions			2042 Future Conditions		
Intersection/Peak Hour/Lane Group	**v/c[1]**	**Delay[2]**	**LOS[3]**	**v/c**	**Delay**	**LOS**
US Route 1 and Lincoln Ave/Depot Rd						
Weekday AM Peak Hour:						
US Route 1 NB Left	0.15	14.0	B	0.16	12.4	B
US Route 1 NB Through/Right	0.54	0.4	A	0.66	2.9	A
US Route 1 SB Left	0.13	49.6	D	0.14	53.9	D
US Route 1 SB Through/Right	1.02	65.7	E	1.33	190.3	F
Depot Rd WB Approach	0.20	46.3	D	0.23	50.8	D
Overall Intersection	**0.82**	**33.6**	**C**	**1.01**	**94.3**	**F**
Weekday PM Peak Hour:						
US Route 1 NB Left	0.16	8.7	A	0.17	7.4	A
US Route 1 NB Through/Right	0.85	4.3	A	1.04	29.2	C
US Route 1 SB Left	0.24	55.2	E	0.24	55.5	E
US Route 1 SB Through/Right	1.36	204.2	F	1.98	483.8	F
Depot Rd WB Approach	0.29	51.8	D	0.20	51.8	D
Overall Intersection	**1.10**	**90.7**	**F**	**1.42**	**222.7**	**F**
Saturday Midday Peak Hour:						
US Route 1 NB Left	0.16	8.8	A	0.17	7.3	A
US Route 1 NB Through/Right	0.81	3.8	A	1.01	17.7	B
US Route 1 SB Left	0.23	55.7	E	0.30	56.3	E
US Route 1 SB Through/Right	1.24	153.2	F	1.81	408.7	F
Depot Rd WB Approach	0.30	52.4	D	0.28	52.3	D
Overall Intersection	**1.02**	**66.5**	**E**	**1.34**	**178.8**	**F**

Intersection/Peak Hour/Lane Group	2020 Existing Conditions v/c[1]	Delay[2]	LOS[3]	2042 Future Conditions v/c	Delay	LOS
US Route 1 and NH Route 88 (Exeter Rd)						
Weekday AM Peak Hour:						
US Route 1 NB Approach	0.72	18.9	B	0.86	26.4	C
US Route 1 SB Approach	0.85	15.3	B	0.99	28.2	C
NH Route 88 EB Left	0.36	42.6	D	0.43	47.1	D
NH Route 88 EB Right	0.06	40.1	D	0.07	43.8	D
Overall Intersection	**0.77**	**19.4**	**B**	**0.90**	**29.0**	**C**
Weekday PM Peak Hour:						
US Route 1 NB Approach	1.18	115.8	F	1.47	242.9	F
US Route 1 SB Approach	0.99	28.3	C	1.42	216.3	F
NH Route 88 EB Left	0.47	49.1	D	0.52	49.5	D
NH Route 88 EB Right	0.11	45.5	D	0.12	45.0	D
Overall Intersection	**1.05**	**76.2**	**E**	**1.33**	**212.8**	**F**
Saturday Midday Peak Hour:						
US Route 1 NB Approach	1.13	95.8	F	1.40	213.6	F
US Route 1 SB Approach	0.95	23.4	C	1.36	191.1	F
NH Route 88 EB Left	0.52	49.5	D	0.50	49.3	D
NH Route 88 EB Right	0.10	45.1	D	0.09	45.1	D
Overall Intersection	**1.01**	**63.7**	**E**	**1.27**	**189.9**	**F**
US Route 1 and NH Route 84 (Kensington Rd)						
Weekday AM Peak Hour:						
NH Route 84 EB Approach	0.33	21.5	C	0.48	30.9	D
NH Route 1 NB Left	0.01	9.3	A	0.01	9.8	A
Weekday PM Peak Hour:						
NH Route 84 EB Approach	0.70	49.7	E	0.94	108.4	F
NH Route 1 NB Left	0.01	9.5	A	0.02	10.4	B
Saturday Midday Peak Hour:						
NH Route 84 EB Approach	0.55	40.0	E	0.91	108.0	F
NH Route 1 NB Left	0.02	9.6	A	0.03	10.5	B

[1] v/c - Volume to Capacity

[2] Delay - Average Delay in Seconds

[3] LOS - Level of Service

In summary, from an operational perspective, the primary corridor problem is that the US Route 1 through volume on both the northbound and southbound directions can't be accommodated by the single through lane in each direction at the two signalized intersections. This capacity constrained condition results in long delays and substantial vehicle queuing for motorists traveling along US Route 1. Motorists entering the corridor at the Route 88 (Exeter Road) signalized intersection can do so relatively easily (LOS D). Motorists entering the corridor at the Route 84 (Kensington Road) unsignalized intersection experience substantial delay (LOS E or LOS F).

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Potential Solutions

Alternatives Development

Having identified the existing and potential future year operational and safety concerns and having solicited input from the public and the Advisory Committee to better understand the issues, constraints, and potential solutions, a practicable range of alternatives were developed. The types of actions considered include a No Build, Transportation Demand Management (TDM) Transportation Systems Management (TSM), various Build or physical roadway modifications aimed at increasing the capacity of the corridor, and access management.

No Build. The No Build alternative (do nothing) will not meet the study purpose. The results of the operational analyses show that as one might expect, doing nothing would not only fail to address the existing queuing problem but the congestion and vehicle queuing problem will continue to worsen in the future. Nevertheless, given the concern with any potential impact to the Town Common, The Town of Hampton Falls prefers the No Build alternative to any of the Build alternatives, which would involve the widening of US Route 1.

Transportation Demand Management (TDM). TDM encompassing a range of strategies designed to change personal travel behavior, can result in a reduction in the demand for automobile use and/or shift the demand to other roadways and thereby lessening the need to construct additional roadway capacity. The community favors actions that could potentially reduce the volume of traffic on US Route 1 such as increasing regional transit and/or the use of dynamic message boards to redirect traffic to other routes such as I-95. A preliminary evaluation suggests that these types of actions would not be able to reduce the volume of traffic on US Route 1 to a level that would meet the project purpose. Nevertheless, these and other TDM actions have the potential to reduce vehicular travel demand at the regional level. Additionally, because both the benefits and impacts of these types of actions would be felt at a regional level and a more detailed evaluation and TDM specific regional study would be beneficial.

An example of a regional TDM action is the planned New Hampshire Seacoast Greenway (NHSG) non-motorized multi-use trail extending from Seabrook to Portsmouth within New Hampshire. The first phase of the NHSG, extending 9.7 miles from Hampton to Portsmouth, is in preliminary design and scheduled for opening in 2024.

The 2.4-mile trail segment in Seabrook is programmed in the NHDOT Ten Year Transportation Plan for construction in 2030 while the 2.8-mile segment in Hampton Falls and Hampton traversing Hampton Marsh is in the Draft 2023-2032 Ten Year Plan programmed for construction in 2032. Approximately nine trailhead sites with parking access are proposed along the corridor, one of which will be at Hampton Falls Depot Landing. The Town of Hampton Falls also has a committee actively planning for improved recreation access at Depot Landing. The trailhead is connected to Hampton Falls village center and US Route 1 by way of a 0.7-mile low-traffic stretch of Depot Road.

Transportation Systems Management (TSM). TSM strategies are generally low cost, easy to implement actions aimed at optimizing the performance of the existing transportation system. Relevant TSM actions for the US Route 1 corridor in Hampton Falls would be traffic signal system upgrades to the existing traffic signals at Lincoln Avenue and at Exeter Road (Route 88), and improved access management for driveways located along the corridor.

Build Alternatives. Of the Build alternatives considered, they all focused on the middle segment of the corridor extending from just south of the Kensington Road (Route 84) to just north of Lincoln Avenue. This is the area where the additional lane capacity is needed. The existing 3-lane section (a through lane in each direction and a two-way center turn lane) is sufficient along the southern and northern segments of the study corridor.

One of the Build alternatives for this middle segment of the corridor involved the widening of US Route 1 to a 5-lane section (a left-turn lane and two through lanes in each direction) while a second alternative consider a limited widening option that provided an additional through lane in the northbound direction only. Additionally, each of these alternatives were considered with or without the installation of traffic signal control at the US Route 1/Kensington Road (Route 84) intersection.

Other Build alternatives included eliminating the Exeter Road traffic signal by discontinuing Exeter Road at US Route 1 and converting Lincoln Avenue to 2-way flow. These alternatives considered maintaining traffic signal control at the Lincoln Avenue/Depot Road intersection as well as converting the intersection into a modern roundabout.

Access Management. Access Management balances corridor mobility and access to improve the efficient movement of traffic while enhancing safe and efficient access to and from properties. The US Route 1 Corridor Plan report prepared by the Rockingham Planning Commission (RPC) dated November 2011 recommended a series of access management actions aimed at:

- Separating or limiting the number of conflict points,
- Removing turning vehicles from through traffic lanes,
- Improving driveway operations, and
- Improving roadway operations.

Although there was little if any support for advancing access management actions obtained through our public outreach effort for this current Hampton Falls Corridor Study, the Town should revisit these previous RPC recommendations and consider incorporating some of these recommendations

into the Town's land use regulations for future developable properties along the US Route 1 corridor. One recommended action that would serve the Town well when development proposals come before the Planning Board would be to encourage shared access to parcels and driveway consolidation.

Given the high volume of through traffic on US Route 1, it is currently, and may become increasingly difficult to turn left onto the corridor from driveways and unsignalized side streets. If traffic continues to grow, it may become necessary in the future to install additional traffic signal control along the corridor. For that reason, it would be beneficial for future development along the corridor to provide cross easements to adjacent parcels. These easements could be used to provide access to a future traffic signal for multiple parcels.

Operational Evaluation

Level of Service analyses, like those conducted for the existing and future No Build conditions, were performed for a 5-Lane and a 4-Lane alternative to determine if, and to what extent, each alternative addressed the study purpose of addressing the queuing problem at the existing traffic signals.

As shown in Table 2, the results of the operational analyses show that widening US Route 1 to a 5-lane section (a left-turn lane and two through lanes) would result in good operating conditions (overall intersection LOS of B or better) under traffic signal control at the Lincoln Ave/Depot Road, Exeter Road (Route 88), and Kensington Road (Route 84) intersections with US Route 1 through the year 2042.

The 4-lane alternative (additional through lane in the northbound direction only) would result in acceptable operating conditions (overall intersection LOS of D or better) at the same three signalized intersections. Note that the US Route 1 southbound through movement at the Lincoln Avenue intersection would operate poorly with an LOS F during the Weekday PM peak hour and an LOS E during the Saturday Midday peak hour. With only a single southbound through lane the long southbound vehicle queuing problem would continue to exist.

Table 2 2042 Future Year Build Alternatives Operational Analyses

	5-Lane Cross Section			4-Lane Cross Section		
Intersection/Peak Hour/Lane Group	v/c[1]	Delay[2]	LOS[3]	v/c	Delay	LOS
US Route 1 and Lincoln Ave/Depot Rd						
Weekday AM Peak Hour:						
US Route 1 NB Left	0.20	18.7	B	0.26	44.6	D
US Route 1 NB Through/Right	0.37	0.4	A	0.33	0.5	A
US Route 1 SB Left	0.10	47.6	D	0.16	73.7	E
US Route 1 SB Through/Right	0.65	23.4	C	0.93	42.5	D
Depot Rd WB Approach	0.19	44.8	D	0.23	68.9	E
Overall Intersection	**0.54**	**13.3**	**B**	**0.76**	**24.3**	**C**
Weekday PM Peak Hour:						
US Route 1 NB Left	0.24	15.6	B	0.32	39.7	D
US Route 1 NB Through/Right	0.62	3.0	A	0.55	0.4	A
US Route 1 SB Left	0.18	46.4	D	0.27	72.8	E
US Route 1 SB Through/Right	0.84	31.7	C	1.17	116.7	F
Depot Rd WB Approach	0.20	44.7	D	0.24	68.9	E
Overall Intersection	**0.74**	**16.5**	**B**	**0.97**	**52.2**	**D**
Saturday Midday Peak Hour:						
US Route 1 NB Left	0.24	15.5	B	0.34	39.2	D
US Route 1 NB Through/Right	0.60	2.9	A	0.54	0.4	A
US Route 1 SB Left	0.23	46.8	D	0.27	70.7	E
US Route 1 SB Through/Right	0.76	28.3	C	1.05	73.7	E
Depot Rd WB Approach	0.26	45.0	D	0.33	69.2	E
Overall Intersection	**0.69**	**14.8**	**B**	**0.90**	**33.4**	**C**
US Route 1 and NH Route 88 (Exeter Rd)						
Weekday AM Peak Hour:						
US Route 1 NB Approach	0.50	11.0	B	0.40	10.8	B
US Route 1 SB Approach	0.54	8.6	A	0.81	7.6	A
NH Route 88 EB Left	0.45	43.5	D	0.65	78.0	E
NH Route 88 EB Right	0.07	40.1	D	0.07	64.5	E
Overall Intersection	**0.52**	**12.8**	**B**	**0.74**	**14.9**	**B**
Weekday PM Peak Hour:						
US Route 1 NB Approach	0.84	19.6	B	0.69	18.3	B
US Route 1 SB Approach	0.69	10.8	B	1.01	18.9	B
NH Route 88 EB Left	0.58	46.4	D	0.67	75.5	E
NH Route 88 EB Right	0.12	40.0	D	0.12	62.0	E
Overall Intersection	**0.77**	**18.4**	**B**	**0.93**	**23.4**	**C**

Table 2 2042 Future Year Build Alternatives Operational Analyses (Continued)

Intersection/Peak Hour/Lane Group	5-Lane Cross Section v/c[1]	Delay[2]	LOS[3]	4-Lane Cross Section v/c	Delay	LOS
US Route 1 and NH Route 88 (Exeter Rd)						
Saturday Midday Peak Hour:						
US Route 1 NB Approach	0.80	17.1	B	0.67	19.0	B
US Route 1 SB Approach	0.61	10.8	B	0.88	8.1	A
NH Route 88 EB Left	0.55	45.3	D	0.64	73.4	E
NH Route 88 EB Right	0.09	39.9	D	0.09	61.8	E
Overall Intersection	**0.73**	**17.0**	**B**	**0.83**	**19.2**	**B**
US Route 1 and NH Route 84 (Kensington Rd)						
Weekday AM Peak Hour:						
US Route 1 NB Left	0.05	22.4	C	0.07	34.8	C
US Route 1 NB Through/Right	0.48	9.0	A	0.37	6.1	A
US Route 1 SB Left	0.06	26.1	C	0.08	35.5	D
US Route 1 SB Through	0.51	8.2	A	0.75	13.0	B
US Route 1 SB Right	0.10	12.2	B	0.11	8.6	A
NH Route 88 EB Left/Through	0.47	19.3	B	0.68	40.9	D
NH Route 84 EB Right	0.00	14.0	B	0.00	25.4	C
Currier's Driveway WB Approach	0.01	16.4	B	0.01	28.2	C
Overall Intersection	**0.47**	**9.6**	**A**	**0.70**	**11.8**	**B**
Weekday PM Peak Hour:						
US Route 1 NB Left	0.07	21.5	C	0.09	33.5	C
US Route 1 NB Through/Right	0.77	13.4	B	0.61	9.2	A
US Route 1 SB Left	0.05	28.6	C	0.07	34.1	C
US Route 1 SB Through	0.65	13.9	B	0.96	28.1	C
US Route 1 SB Right	0.19	8.6	A	0.20	8.8	A
NH Route 88 EB Left/Through	0.55	20.5	C	0.69	38.9	D
NH Route 84 EB Right	0.01	13.2	B	0.01	23.0	C
Currier's Driveway WB Approach	0.01	16.3	B	0.01	26.8	C
Overall Intersection	**0.66**	**13.6**	**B**	**0.84**	**18.2**	**B**
Saturday Midday Peak Hour:						
US Route 1 NB Left	0.16	22.0	C	0.15	32.3	C
US Route 1 NB Through/Right	0.83	15.3	B	0.64	8.8	A
US Route 1 SB Left	0.05	27.9	C	0.07	35.4	D
US Route 1 SB Through	0.61	13.2	B	0.92	23.8	C
US Route 1 SB Right	0.10	15.7	B	0.12	10.1	B
NH Route 88 EB Left/Through	0.47	19.3	B	0.67	40.4	D
NH Route 84 EB Right	0.01	13.3	B	0.01	22.9	C
Currier's Driveway WB Approach	0.01	16.4	B	0.01	28.2	C
Overall Intersection	**0.69**	**14.8**	**B**	**0.80**	**16.2**	**B**

1 v/c – Volume to Capacity

2 Delay – Average Delay in Seconds

3 LOS – Level of Service

Resource Evaluation

To understand the potential impacts on environmental and social resources, a preliminary screening of existing conditions along the study corridor was conducted to help determine corridor land use, environmental concerns, historic constraints, and other potential issues. Resources considered during this process included wetlands and hydric soils, floodplains, surface water resources, groundwater resources, historic resources, rare, threatened, and endangered species/habitat, public and conservation lands, and hazardous waste sites. The study alternatives were then reviewed to identify potential impacts and to determine if there were substantial differences among the alternatives.

The Impact Evaluation Matrix (Table 3) provides a summary of potential impacts related to each alternative; it includes resources that would be potentially impacted by the alternatives. Resources that were screened and found to either not occur along the study corridor or would not be affected by the alternatives were not included in the Matrix. The sections below provide additional context on the various resources screened.

Available geospatial information was assembled and organized to understand the distribution of environmental resources along the study corridor. The desktop environmental review identified resources existing in the project area that could be affected by one or more of the alternatives under consideration. Since some of the alternatives would impact the intersections of Exeter Road and Lincoln Avenue with US Route 1, abutting properties along those roadways were also included as part of the screening. Multiple online databases were consulted for this effort, including the NH Department of Environmental Services OneStop, the NH Division of Historic Resources Enhanced Mapping and Management Information Tool (EMMIT), Hampton Falls Tax Maps, the National Wetland Inventory (NWI) and NH GRANIT. Various data layers were accessed within NH GRANIT and referenced as part of the resources screening. These layers included:

- Wetlands
- Floodplains
- Wildlife Action Plan Habitat and Tiers
- Surface Water Resources
- Groundwater Resources
- Public and Conservation Lands

The information retrieved from these databases was plotted on a series of resources maps, depicted on the Figures 10 through 18 provided in the appendix. Tallies or areal measurements were developed for each resource by identifying instances in which the resource intersected the immediate project area. Hazardous waste sites and historic resources that abutted US Route 1 were counted if there would be overlap of any ROW widening or soil work within the subject property lines.

Wetlands and Hydric Soils

Wetland data within the greater US Route 1 corridor was retrieved using the NWI data mapper, with limited field verification. No NWI mapped wetlands were found within the study corridor. Hydric soils were found along portions of the corridor. Note that because this planning level phase of the study

relies on previously mapped data, and because NWI can miss small wetland units, a site-specific wetland delineation would be appropriate if a construction project advances to ensure that no wetlands would be affected.

Floodplains

Floodplain data was retrieved using NH GRANIT. While 100-year floodplain occurs within adjacent tidal salt marshes and surface waters, no mapped floodplains were found to occur within the immediate project area.

Wildlife Habitat and Tiers

Wildlife Action Plan data was retrieved using NH GRANIT. The project area is located along a transportation ROW within an urban environment, and as such most of the land immediately adjacent to US Route 1 has been fully developed. Surrounding land cover habitat primarily includes grassland, Appalachian oak-pine, temperate swamp, and salt marsh. No ranked tier habitats occur within the study corridor. The closest ranked habitat occurs along the Hampton Falls River into Dodge Pond.

Surface Water Resources

Surface water features were retrieved using NH GRANIT. No surface water exists within the immediate study corridor; however, the following rivers and ponds are near the corridor:

Browns River

Browns River is a tidal river that runs along the Seabrook town line. The river ends before reaching US Route 1 and thus does not intersect the study corridor.

Hampton Falls River

The Hampton Falls River is a tidal river that runs from the Atlantic Ocean through the three Dodge Ponds before continuing into Seabrook. Prior to its intersection with Dodge Pond, the river is surrounded by salt/swamp marsh and contains numerous perennial streams that filter off the main river. The river intersects US Route 1 beyond the study corridor.

Kenney Brook

Kenney Brook is located to the northeast of US Route 1 and eventually intersects with NH Route 88 but is located beyond the project limits.

Dodge Ponds/Dams

Dodge Ponds is a collection of three ponds connected by the Hampton Falls River, with the ponds being separated by active dams. The largest dam is called Big Dodge Pond Dam and is located off US Route 1 between the Hampton Falls River and Dodge Pond. A culvert is located under a portion of US Route 1 which allows for the Hampton Falls River to flow through the dam. The two additional dams are found between the Dodge Ponds and are smaller in size. The Hampton Falls River I Dam is

located along the Hampton Falls River between the edge of the largest Dodge Pond and NH Route 84. The Hampton Falls River II Dam is located along the edge of the secondary Dodge Pond, which also serves as the Hampton Falls Water Reservoir. None of the Dodge Ponds would be directly impacted by any of the alternatives.

Groundwater Resources

NH GRANIT was used to identify public water supplies, well water inventories for private wells, and wellhead protection areas within the project area. The project area was found to be located within three separate wellhead protection areas. Two active public water supplies exist within the project area, with one located on Exeter Road and the other located on US Route 1. Additionally, seven private wells exist on properties within the study corridor. If a construction project is advanced, it is recommended that an additional site-specific study occurs to assess possible impacts to groundwater resources.

Historic Resources

As part of the historic resources review, properties greater than 50 years old and any known above-ground historic properties adjacent to the alternatives were identified. A property was defined as being impacted if one or more alternatives would require any grading or ROW widening within the subject property lines. Property ages were obtained from publicly available Hampton Falls Tax Map data found on the Town's website. The NHDHR EMMIT database was consulted to determine the presence of any National Register (NR)-listed or NR-eligible above-ground historic properties within the project area or properties which had been surveyed for possible listing. The total number of properties found to be potentially impacted by the alternatives are included in the Impact Evaluation Matrix Table.

For the two alternatives aligned with US Route 1 widening only, 18 properties greater than 50 years old would be impacted, but none of these properties are currently listed or have been determined to be eligible for listing as of October 2021.

For the three alternatives that would discontinue Exeter Road, 19 properties greater than 50 years old would be impacted. This includes the Gov. Meshech Weare House on Exeter Road, built in 1723 and listed on the National Register of Historic Places in 1973, which could be impacted by these alternatives. Additionally, while not counted as a direct impact, the First Baptist Church of Hampton Falls Cemetery is located adjacent to Lincoln Avenue and would also potentially be impacted by these three alternatives.

Rare, Threatened, Endangered Species/Habitat

To obtain data regarding federal and state rare, threatened, or endangered species and habitat, consultation occurred with US Fish and Wildlife Service (USFWS) and the New Hampshire Natural Heritage Bureau (NHB).

A Species List was obtained on June 18, 2021, through the USFWS IPaC system for federally listed species located within the US Route 1 study corridor. One threatened species, The Northern Long-eared Bat (*Myotis septentrinolis*), was found to potentially inhabit the corridor. Therefore, any future

project would need to conduct additional coordination with the USFWS to determine whether the project would affect the bat.

An NHB Datacheck was completed on June 24, 2021, and a Results Letter was received on June 27, 2021. While it was determined that six state threatened or endangered plant species and three state threatened or endangered vertebrate species have been found within the greater vicinity of the US Route 1 corridor, no known occurrences were mapped along the immediate corridor.

As discussed above, the proposed project would take place primarily within an urban setting (e.g., in-street settings) and would not involve major impacts outside of the transportation right-of-way. For this reason, it is anticipated that impacts to suitable habitat for federal and state rare, threatened, or endangered species would be minimal.

Public and Conservation Lands (Hampton Falls Town Common)

The NH GRANIT database was used to compile a list of public lands within the US Route 1 study corridor. While multiple public lands were found within the greater corridor area, it was determined that only the Hampton Falls Common was located close enough to the proposed project area to be impacted by the alternatives. While all the proposed alternatives would have some level of impact to the Hampton Falls Town Common, the maximum impact would occur with the Roundabout alternative, which would be approximately 10,500 square feet. Conversely, the 4-Lane US Route 1 Northbound Widening Only alternative presented the least impact, at approximately 3,000 square feet.

Hazardous Waste Sites

Hazardous waste sites along the study corridor were identified using the NHDES One Stop Database. These sites were broken down into the following categories: underground storage tanks, local point contamination sources, hazardous waste generators, and remediation sites. Only remediation sites that were still active were included within the list of impacted sites due to the potential to affect a project. All five alternatives were found to impact the same 12 sites on adjacent properties, which include one underground storage tank, three hazardous waste generators, three active remediation sites, and five local point contamination sources. As a result of these findings, if a construction project is advanced, it is recommended that additional site-specific studies occur to assess the potential risk of encountering contaminated soils or groundwater within the project area.

Seacoast Transportation Corridor Vulnerability Assessment

The Tides to Storms (RPC, 2015) vulnerability assessment identified the coastal transportation corridors as a highly vulnerable network of assets, given the number of north-south and east-west roadways (including NH 1A and 1B, US 1, NH 27, NH 111, NH 101, NH 286, and I-95) that are vulnerable to sea-level rise and induced ground water rise in certain areas. The Seacoast Transportation Corridors Vulnerability Assessment (STCVA) builds on that work by conducting a vulnerability assessment on the locations where the roadways are expected to be inundated and a network analysis to start identifying the changes in travel patterns that result from roadway closures due to sea-level rise. The STCVA assessment is based on the extent of inundation that would result under four scenarios of static sea-level rise.

The Rockingham Planning Commission is using its regional travel demand model to conduct a network analysis with the goal of better understanding the impacts of road closures on the transportation network under these potential sea-level rise scenarios. While the model has some limitations (not all roadways are included for instance) it serves as a functional tool for estimating potential changes in travel demand.

Impacts Evaluation

Having completed the operational and resource evaluations, and to help the community understand the benefits and drawbacks of each of the Build alternatives, an impacts table was compiled. Table 3 summarizes and compares the impacts to property; utilities; historic resources; rare, threatened, or endangered species or habitat; public lands (such as the Town Common); water quality; and hazardous waste sites. Additionally, the table presents a planning level construction cost, and the degree to which the alternative meets the project purpose.

Table 3 Impacts Summary

Impact	Metric	No Build	Widen Route 1 Only[1]		Discontinue Exeter Road[2]		
			5-Lane	4-Lane	5-Lane Signal	4-Lane Signal	Roundabout
Right-of-Way	# of Parcels Affected	0	21	21	23	23	24
	SF of Acquisition	0	39,300	20,400	39,300	20,600	24,500
	SF of Easements	0	3,600	5,000	7,000	8,500	5,000
	Property Impacts	0	7 Signs	4 Signs	7 Signs	4 Signs	4 Signs
			1 Fence		1 Fence	1 Fence	1 Fence
Utilities	Utilities Impacted	0	Aerial Utilities	Aerial Utilities	Aerial Utilities	Aerial Utilities	Aerial Utilities
Historic Resources	# Properties >50 yrs.	0	18	18	19	19	19
	Above Ground Historic Properties	0	0	0	1	1	1
Rare, Threatened, Endangered Species/Habitat	Federal Listed Populations	0	0	0	0	0	0
	State Listed Populations	0	0	0	0	0	0
Public Lands	SF of Impact	0	5,300	3,000	5,300	8,300	10,500
Water Quality	SF of New Impervious Surface	0	55,800	31,900	42,300	18,500	22,000
Hazardous Waste	Sites Impacted	0	12	12	12	12	12
Construction Cost	2021 Dollars	-	$4.0M	$3.5M	$4.3M	$3.8M	$4.6M
Meets Project Purpose? (Address Corridor Congestion)		Fails to meet	Substantially meets	Moderately meets	Substantially meets	Moderately meets	Moderately meets

[1] See Figures 3 and 4

[2] See figures 5, 6, and 7

The results of the evaluation suggests that, apart from the impact on public lands (The Town Common), the impacts to resources (particularly environmental resources) would be manageable regardless of the alternative. Similarly, the construction costs for the various alternatives fall within a relatively tight range of $3.5 million to $4.6 million. Widening US Route 1 at the Lincoln Avenue and Exeter Road traffic signal-controlled intersections to provide an additional through lane in each direction would substantially meet the project purpose and address the congestion and vehicle queueing problem. The 4-lane alternative, which would provide an additional through lane in the northbound direction only, would partially meet the project purpose by addressing the northbound queuing problem, but not the southbound queuing problem.

The most significant issue related to the widening of US Route 1 in the vicinity of Lincoln Avenue and Exeter Road is the potential impact on adjacent land use. As can be seen in the photo to the right, both the Town Common on the west side, and commercial businesses on the east side, are located close to the travel way. To provide an additional through lane in each direction (see Figure 3) would likely result in the edge of road being shifted to the east by approximately 8 feet and to the west (towards the Town Commons) by approximately 17 feet. To provide an additional through lane in the northbound direction only (see Figure 4) would likely result in the edge of road being shifted to the east by the same 8 feet while the widening to the west could be limited to approximately 5 feet.

Other Build alternatives, which included discontinuing Exeter Road and converting Lincoln Avenue to two-way flow to eliminate one of the traffic signals, each involved some level of impact to the Town Common. Similarly, although installing a traffic signal at the US Route 1/ Kensington Road intersection would improve operations for motorists turning left onto US Route 1, installing a traffic signal without widening US Route 1 would extend the queuing problem further to the south. Widening US Route 1 to provide the additional through lane would require the additional lane be carried through the Lincoln Avenue intersection, which again would potentially impact the Town Common.

Based on public input, as well as direct input from the Hampton Falls Board of Selectmen, the most important consideration from the Town's perspective is whether the alternative would adversely impact the Town Common. In a letter signed by the Hampton Falls Board of Selectmen, the Selectmen state that "the Board of Selectmen, on behalf of the citizens of the Town of Hampton Falls, is opposed to any proposed change(s) to the Town Common or change that would affect the Town Common in anyway." The 5-lane alternative would have a substantial impact on the Town Common as it would require property acquisition and potentially the removal of mature trees. The 4-lane alternative would likely avoid the need to acquire any significant portion of the Common by widening within the state right-of-way. Nevertheless, this limited widening could potentially damage the mature trees. For these reasons, the Town prefers the No Build option or enhancements to the existing traffic signals (without any widening of US Route 1) over the alternatives that add through lanes to US Route 1.

5

Study Findings

The purpose of this corridor planning study was to identify and evaluate potential transportation solutions aimed at addressing congestion and safety related problems along US Route 1 in Hampton Falls. As a planning study, it was important to consider the needs and desires of the Hampton Falls community and therefore the study was driven by an open and active public-participation process. The public was provided the opportunity to share comments and ideas at three public informational meetings including one interactive public workshop, as well as through the NHDOT's project website and an on-line public input survey provided by the Rockingham Planning Commission. Additionally, a Study Advisory Committee consisting of community officials, business leaders, and residents provided invaluable insight concerning the needs and desires of the community and served as a sounding board in the development and evaluation of potential solutions.

The predominant corridor problem is the congestion and long vehicle queues that extend back in both directions along US Route 1 from the traffic signal-controlled intersections at Lincoln Avenue and Depot Road, and at Exeter Road (Route 88). The single through lanes on US Route 1 at the signalized intersections do not have sufficient capacity to accommodate the volume of traffic that travels the corridor through much of the weekdays and weekends particularly in the summer months. The northbound vehicle queue at the Exeter Road intersection extends back and beyond the unsignalized Kensington Road (Route 84) intersection making it particularly difficult for motorists to turn left onto US Route 1 from Kensington Road. Motorists entering the corridor from driveways and other side streets also experience substantial delay.

Having identified the existing and potential future year operational and safety concerns and having solicited input from the public and the Advisory Committee to better understand the issues, constraints, and potential solutions, a practicable range of alternatives were developed. The types of actions considered include a No Build, Transportation Demand Management (TDM), Transportation Systems Management (TSM), various Build or physical roadway modifications aimed at increasing the capacity of the corridor, and access management.

The results of the evaluation for the Build alternatives suggest that, apart from the impact on public lands (The Town Common), the impacts to resources (particularly environmental resources) would be manageable regardless of the alternative. Similarly, the construction costs for the various Build alternatives fall within a relatively tight range of $3.5 million to $4.6 million. Widening US Route 1 at

the Lincoln Avenue and Exeter Road traffic signal-controlled intersections to provide an additional through lane in each direction would substantially meet the project purpose and address the congestion and vehicle queueing problem. The 4-lane alternative, which would provide an additional through lane in the northbound direction only, would partially meet the project purpose by addressing the northbound queuing problem, but not the southbound queuing problem.

Based on public input, as well as direct input from the Hampton Falls Board of Selectmen, the most important consideration from the Town's perspective is whether the alternative would adversely impact the Town Common. In a letter signed by the Hampton Falls Board of Selectmen, the Selectmen state that "*the Board of Selectmen, on behalf of the citizens of the Town of Hampton Falls, is opposed to any proposed change(s) to the Town Common or change that would affect the Town Common in anyway*." The 5-lane alternative would have a substantial impact on the Town Common as it would require property acquisition and potentially the removal of mature trees. The 4-lane alternative would likely avoid the need to acquire any significant portion of the Common by widening within the state right-of-way. Nevertheless, this limited widening could potentially damage the mature trees.

Other Build alternatives, which included discontinuing Exeter Road and converting Lincoln Avenue to two-way flow to eliminate one of the traffic signals, each involved some level of impact to the Town Common. Similarly, although installing a traffic signal at the US Route 1/ Kensington Road intersection would improve operations for motorists turning left onto US Route 1, installing a traffic signal without widening US Route 1 would extend the queuing problem further to the south. Widening US Route 1 to provide the additional through lane would require the additional lane be carried through the Lincoln Avenue intersection, which as described previously would potentially impact the Town Common. For these reasons, the Town prefers the No Build option or enhancements to the existing traffic signals (without any widening of US Route 1) over the alternatives that add through lanes to US Route 1.

The community does favor TDM actions that have the potential to reduce the volume of traffic on US Route 1 such as increasing regional transit or the use of dynamic message boards to redirect traffic to other routes such as I-95. A preliminary evaluation suggests that these types of actions would not be able to reduce the volume of traffic on US Route 1 to a level that would meet the project purpose. Additionally, both the benefits and impacts of these types of actions would be felt at a regional level and therefore a more detailed evaluation and regional study would be needed prior to advancing regional transportation demand management strategies.

The Town does support traffic signal system upgrades (without increasing the number of lanes) to the existing traffic signals at Lincoln Avenue and at Exeter Road (Route 88).

Although there was little if any support for advancing access management actions obtained through our public outreach effort for this current Hampton Falls Corridor Study, the Town should revisit the 2011 US Route 1 Corridor Plan prepared by the Rockingham Planning Commission and consider incorporating some of the access management recommendations into the Town's land use regulations for future developable properties along the US Route 1 corridor. One recommended action that would serve the Town well when development proposals come before the Planning Board would be to encourage shared access to parcels and driveway consolidation.

Given all the above, the follow actions could be pursued:

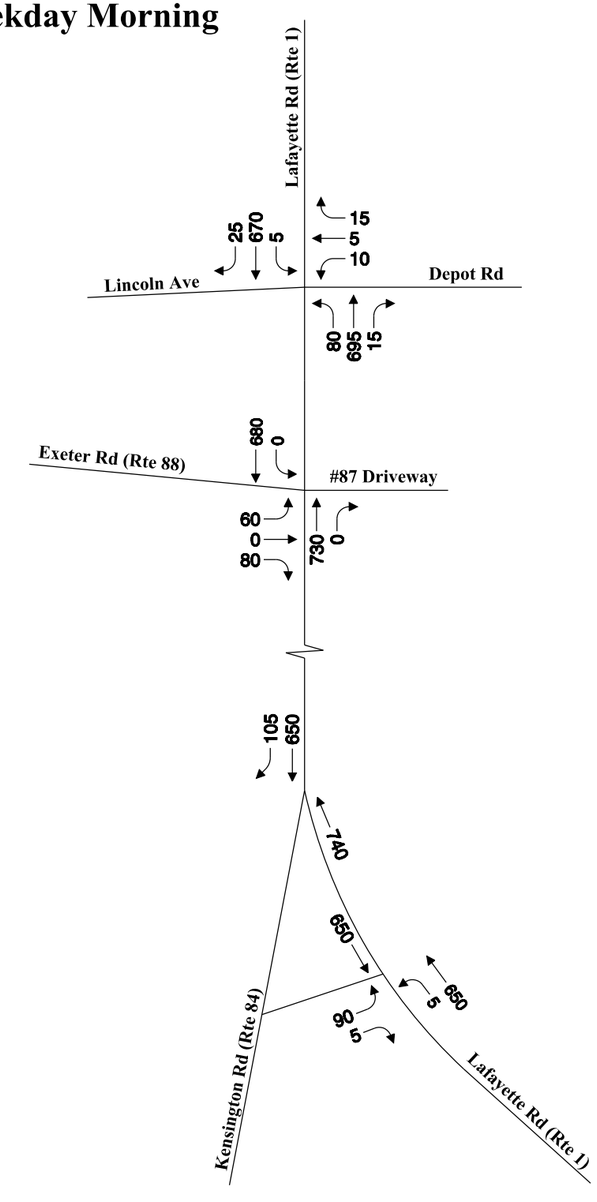
- The NHDOT should work with the Town on potential traffic signal system upgrades (without increasing the number of lanes) to the existing traffic signals at Lincoln Avenue and at Exeter Road (Route 88).
- The Rockingham Planning Commission should consider pursuing a regional study to consider and evaluate transportation demand management strategies aimed at reducing the volume of traffic on US Route 1.
- The Town should revisit the 2011 US Route 1 Corridor Plan prepared by the Rockingham Planning Commission and consider incorporating some of the access management recommendations into the Town's land use regulations for future developable properties along the US Route 1 corridor. One recommended action that would serve the Town well when development proposals come before the Planning Board would be to encourage shared access to parcels and driveway consolidation.

Lastly, recognizing that the Town made its position clear that any impacts to the Town Common would not be acceptable, in the future the Town may still want to reexamine the 4-Lane widening alternative, which would add an additional northbound through lane only. This option could potentially be constructed with minimal impact to the Town Common.

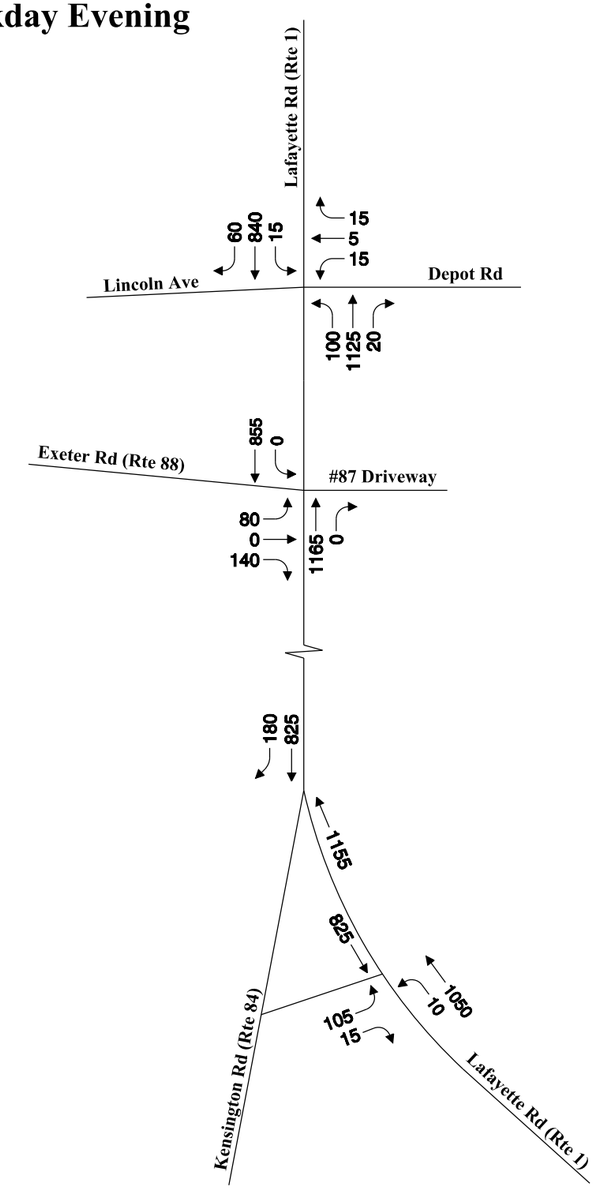
Appendix

Figures

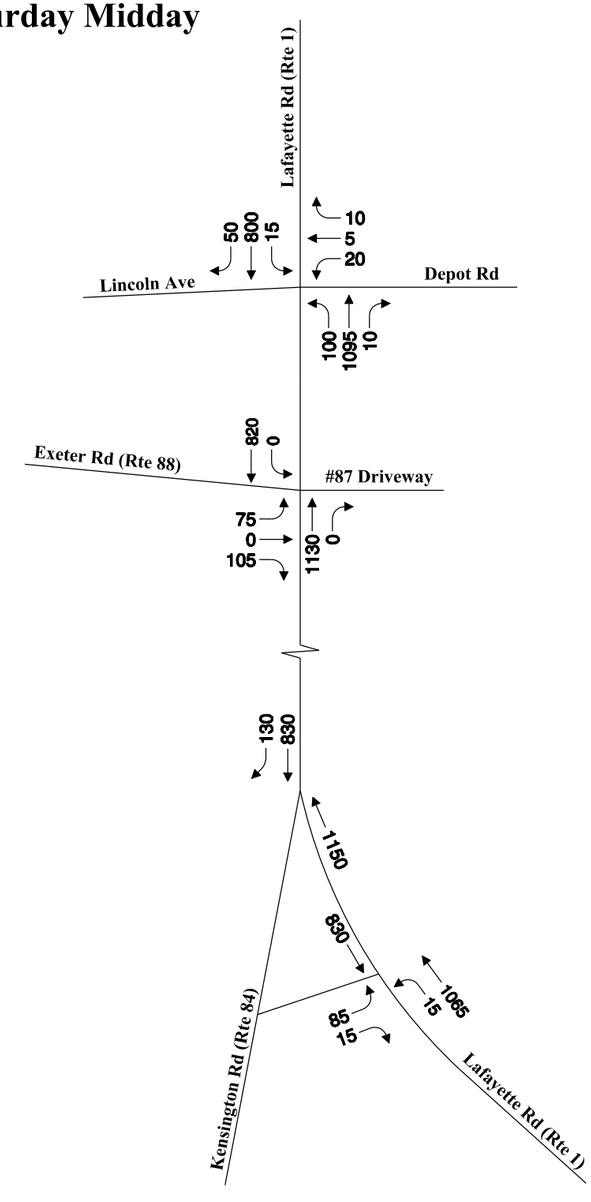
Weekday Morning



Weekday Evening



Saturday Midday



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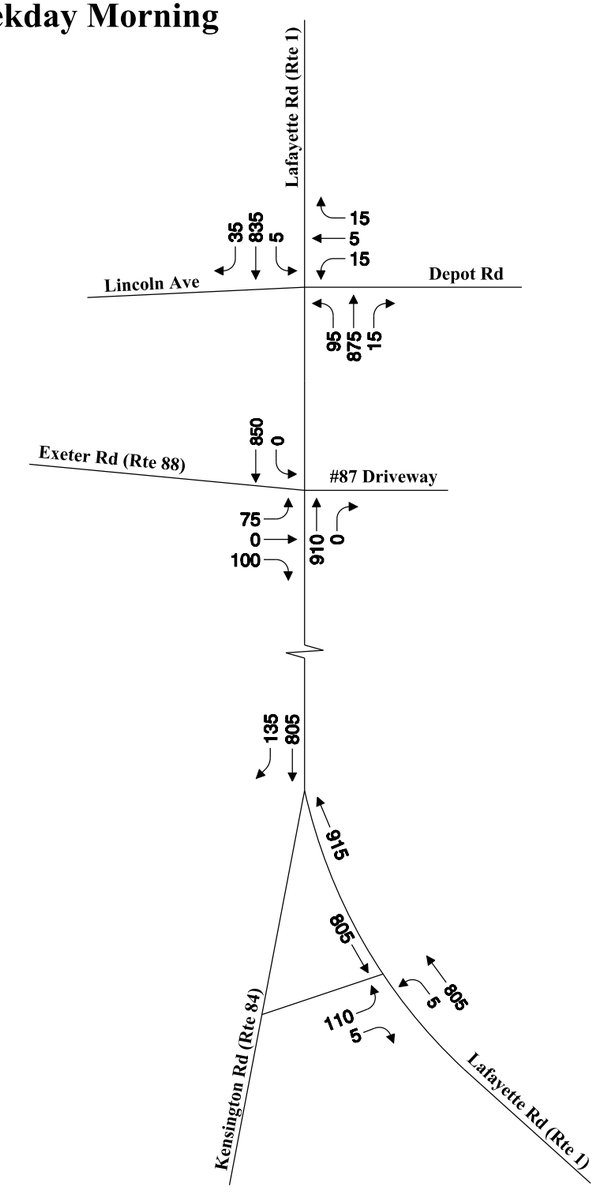
NOT TO SCALE

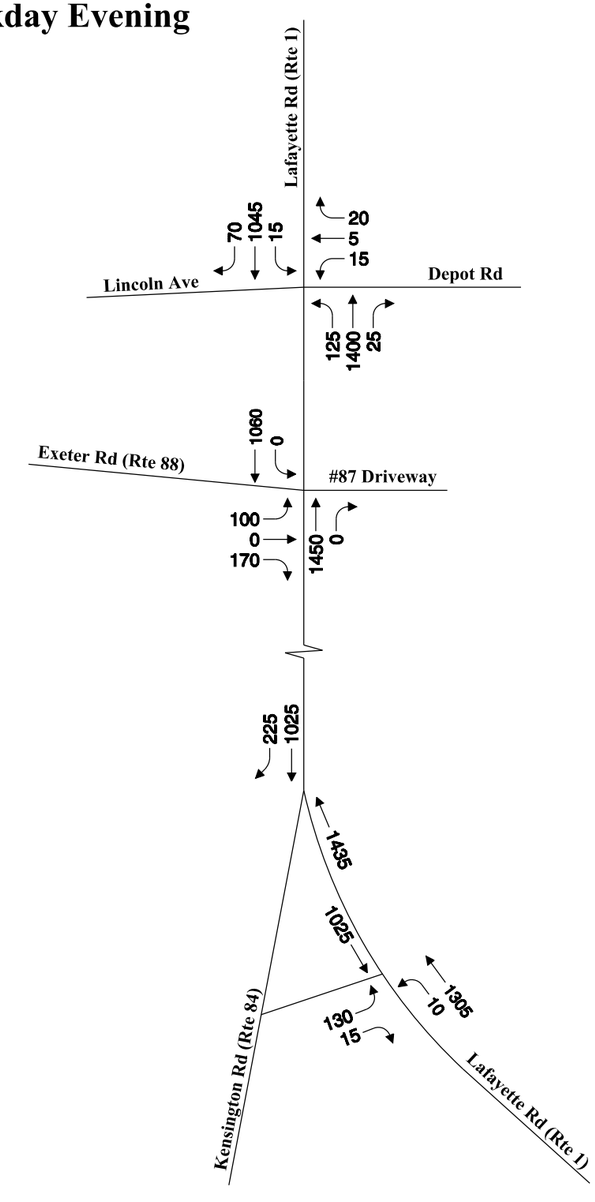
Hampton Falls 29610 | Hampton Falls, New Hampshire

Figure 1
2020 Existing
Peak Hour Traffic Volumes

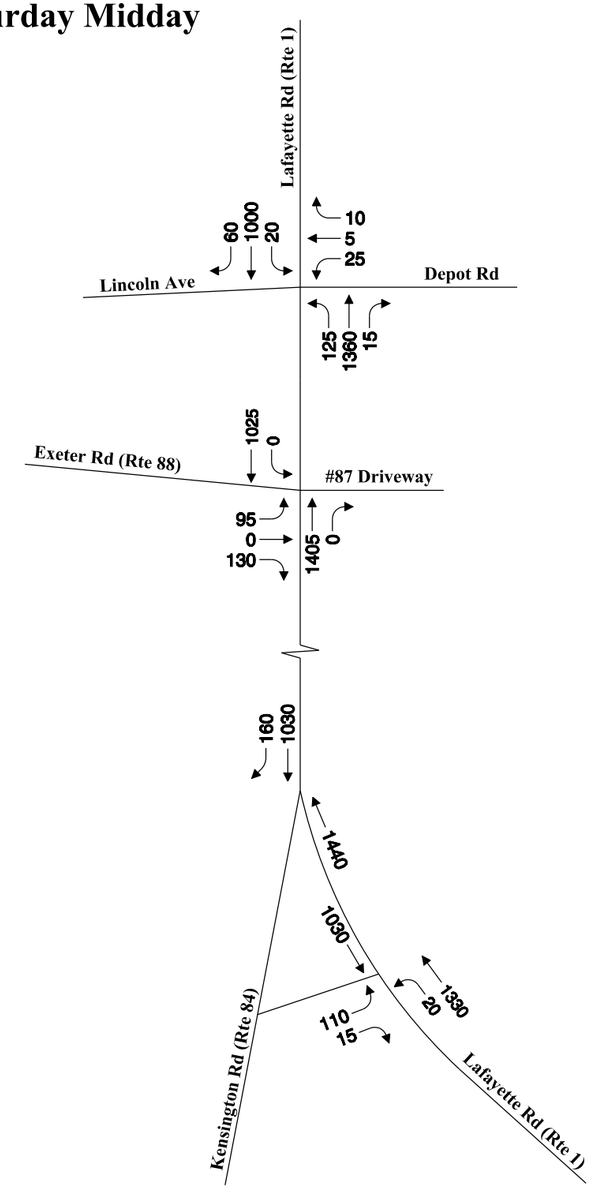
Weekday Morning



Weekday Evening



Saturday Midday



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NOT TO SCALE

Hampton Falls 29610 | Hampton Falls, New Hampshire

Figure 2
2042 Future
Peak Hour Traffic Volumes

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Hampton Falls 29610 | Hampton Falls, New Hampshire

Figure 3
Additional NB and SB Lane with Traffic Signal at Kensington Road

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Hampton Falls 29610 | Hampton Falls, New Hampshire

Figure 4
Additional NB Lane Only with Traffic Signal at Kensington Road

HAMPTON FALLS
FIRST BAPTIST CHURCH

LINCOLN AVENUE

12′
12′

12′
11′
12′

DEPOT ROAD

TOWN
COMMON

EXETER ROAD

88

LINCOLN
ACKERMAN SCHOOL

POST
OFFICE

1

0 30 60 120 FEET

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Hampton Falls 29610 | Hampton Falls, New Hampshire

Figure 5
Additional NB and SB Lane with Closure of Exeter Road

HAMPTON FALLS
FIRST BAPTIST CHURCH

LINCOLN AVENUE

12′
12′

12′
11′
12′

DEPOT ROAD

TOWN
COMMON

EXETER ROAD

88

LINCOLN
ACKERMAN SCHOOL

POST
OFFICE

1

0 30 60 120 FEET

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Hampton Falls 29610 | Hampton Falls, New Hampshire

Figure 6
Additional NB Lane Only
with Closure of Exeter Road

HAMPTON FALLS
FIRST BAPTIST CHURCH

LINCOLN AVENUE

12′
12′

13′
13′

66′

DEPOT ROAD

TOWN
COMMON

EXETER ROAD

88

LINCOLN
ACKERMAN SCHOOL

POST
OFFICE

1

0 30 60 120 FEET

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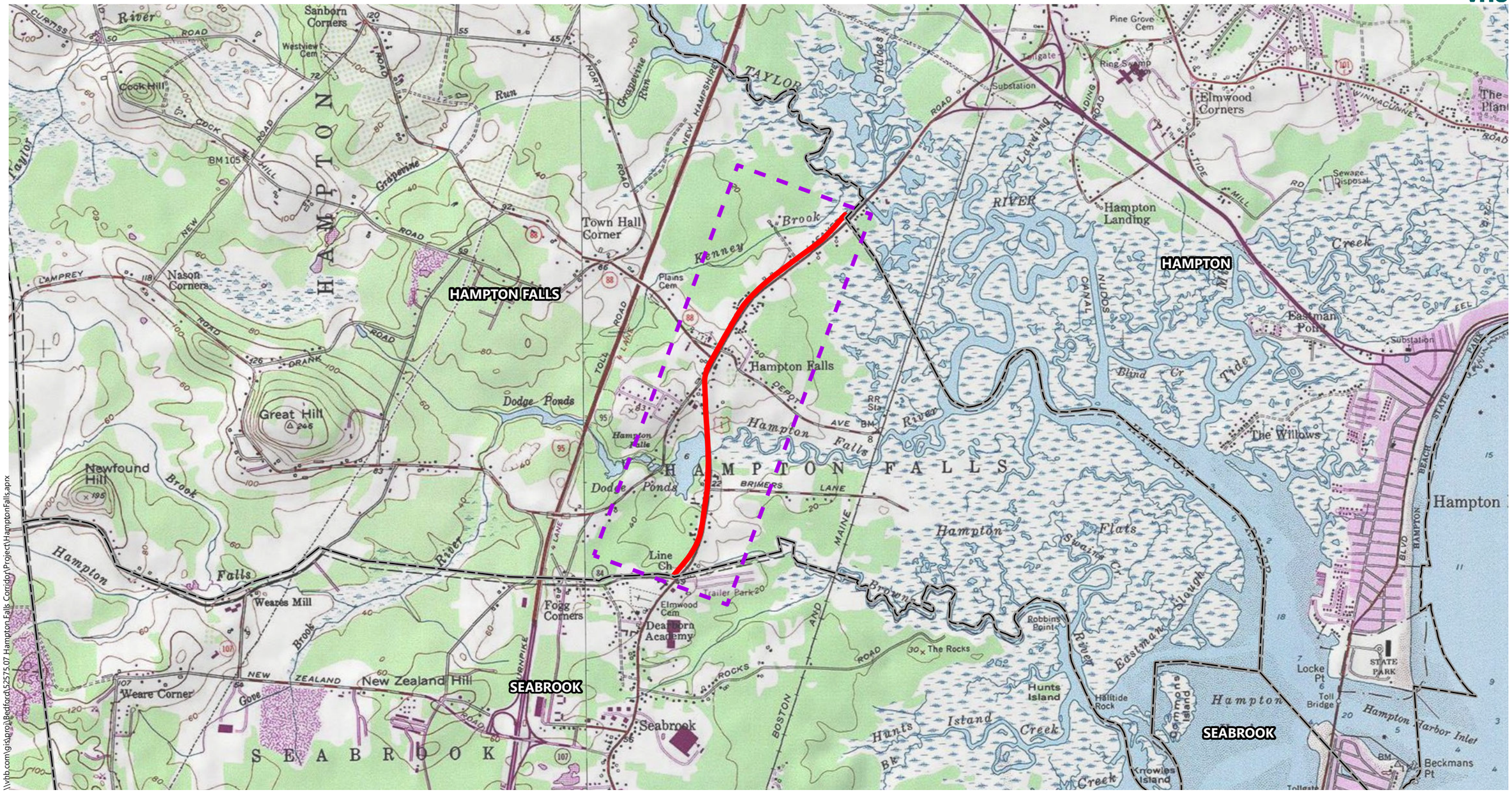
Hampton Falls 29610 | Hampton Falls, New Hampshire

Figure 7
Closure of Exeter Road with Roundabout at Lincoln Avenue



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0 1000 2000 4000 Feet

Study Limits

Study Area

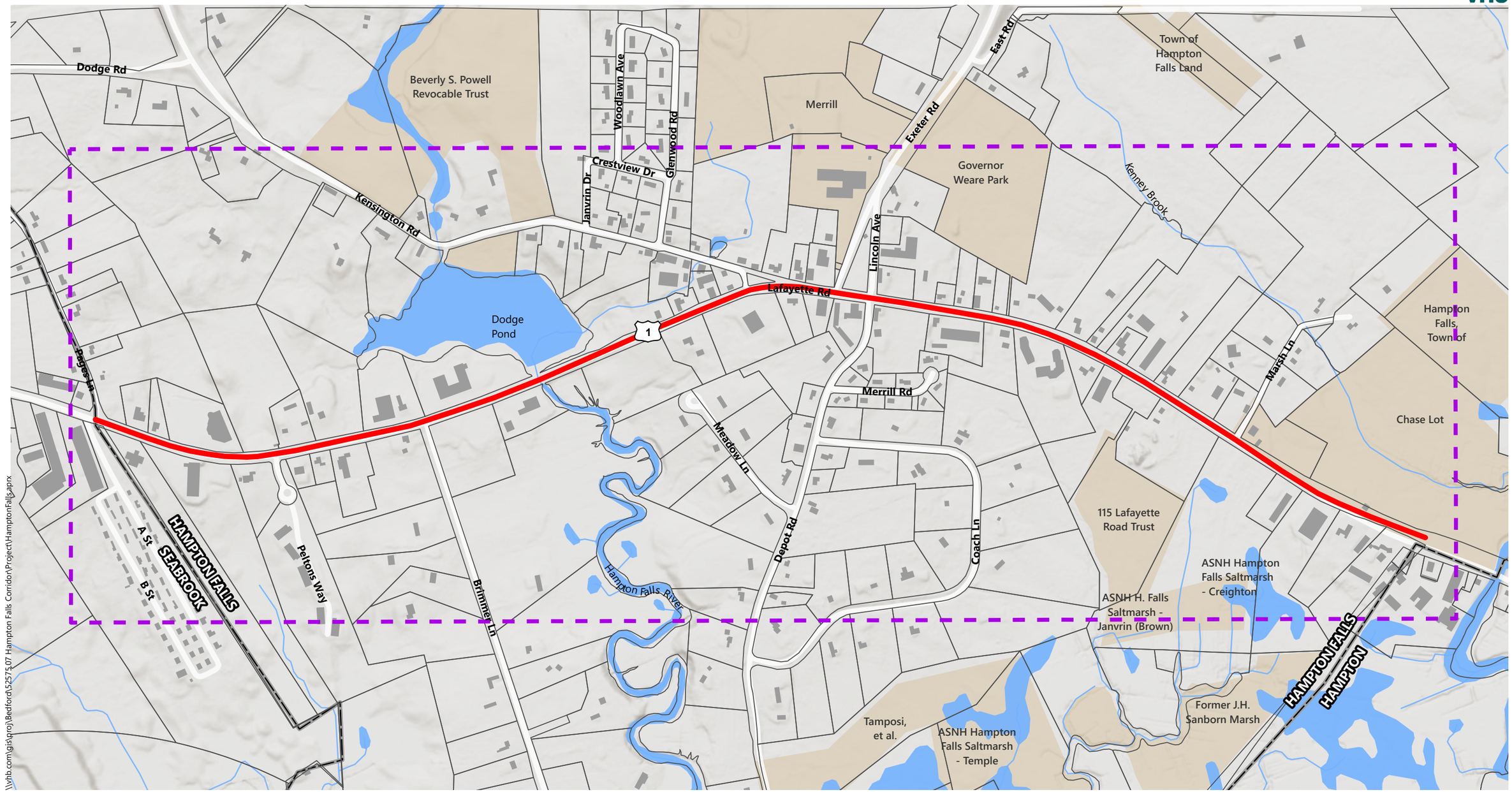
Town Boundary

Hampton Falls 29610

New Hampshire DOT Department of Transportation

Hampton Falls, New Hampshire

Figure 8
USGS Site Location Map



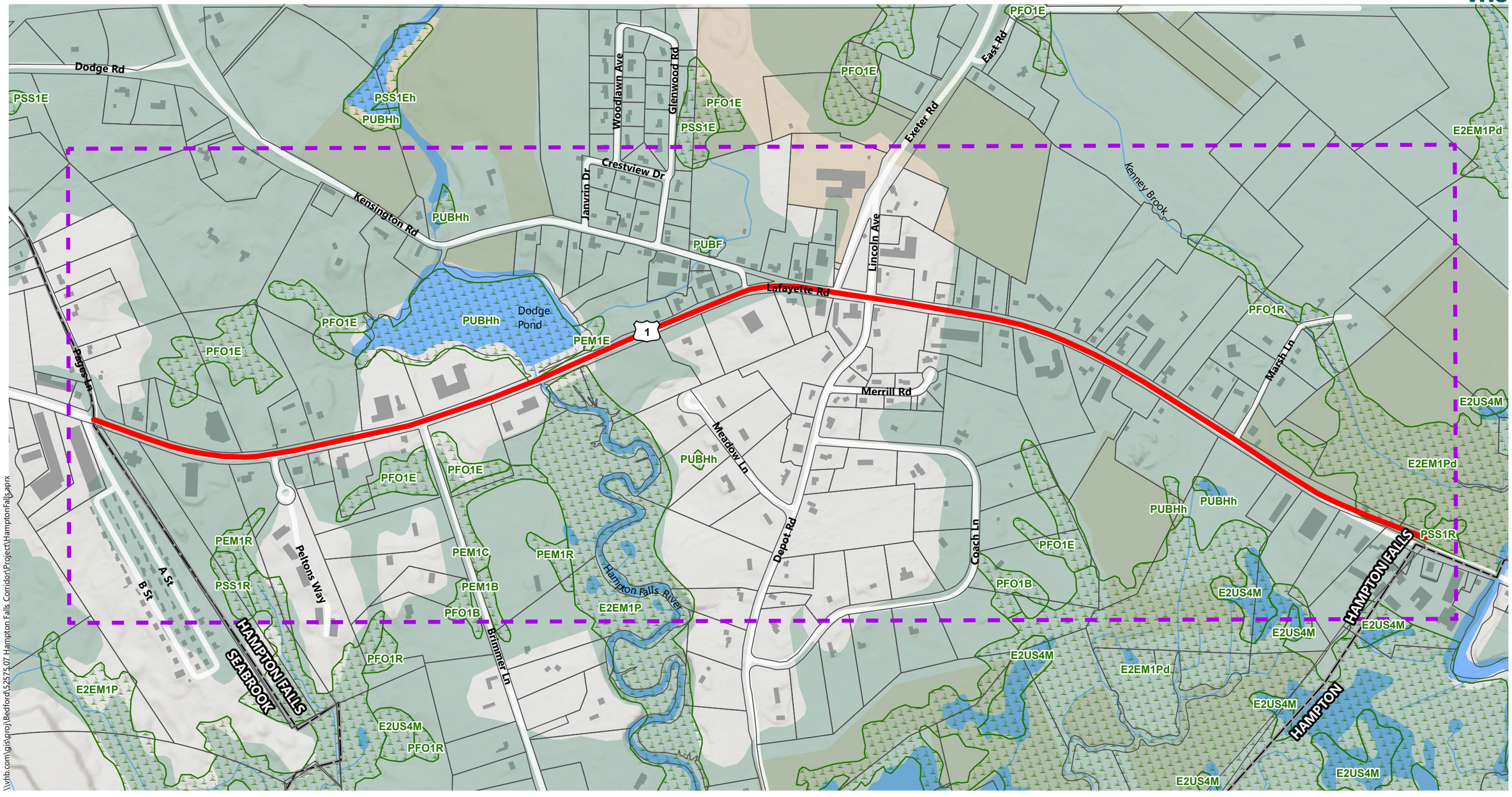
0 300 600 1200 Feet

- Study Limits
- Study Area
- Building
- Town Boundary
- Stream
- Surface Water
- Conservation Land
- Parcel Boundary

Hampton Falls 29610

Hampton Falls, New Hampshire

Figure 9
Study Area



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0 300 600 1200 Feet

Study Limits
Study Area
Building
Town Boundary
Stream
Surface Water
Conservation Land
Parcel Boundary
NWI Wetlands
Hydric Soil

Hampton Falls 29610

New Hampshire DOT Department of Transportation

Hampton Falls, New Hampshire

Figure 10
Wetlands/Soils

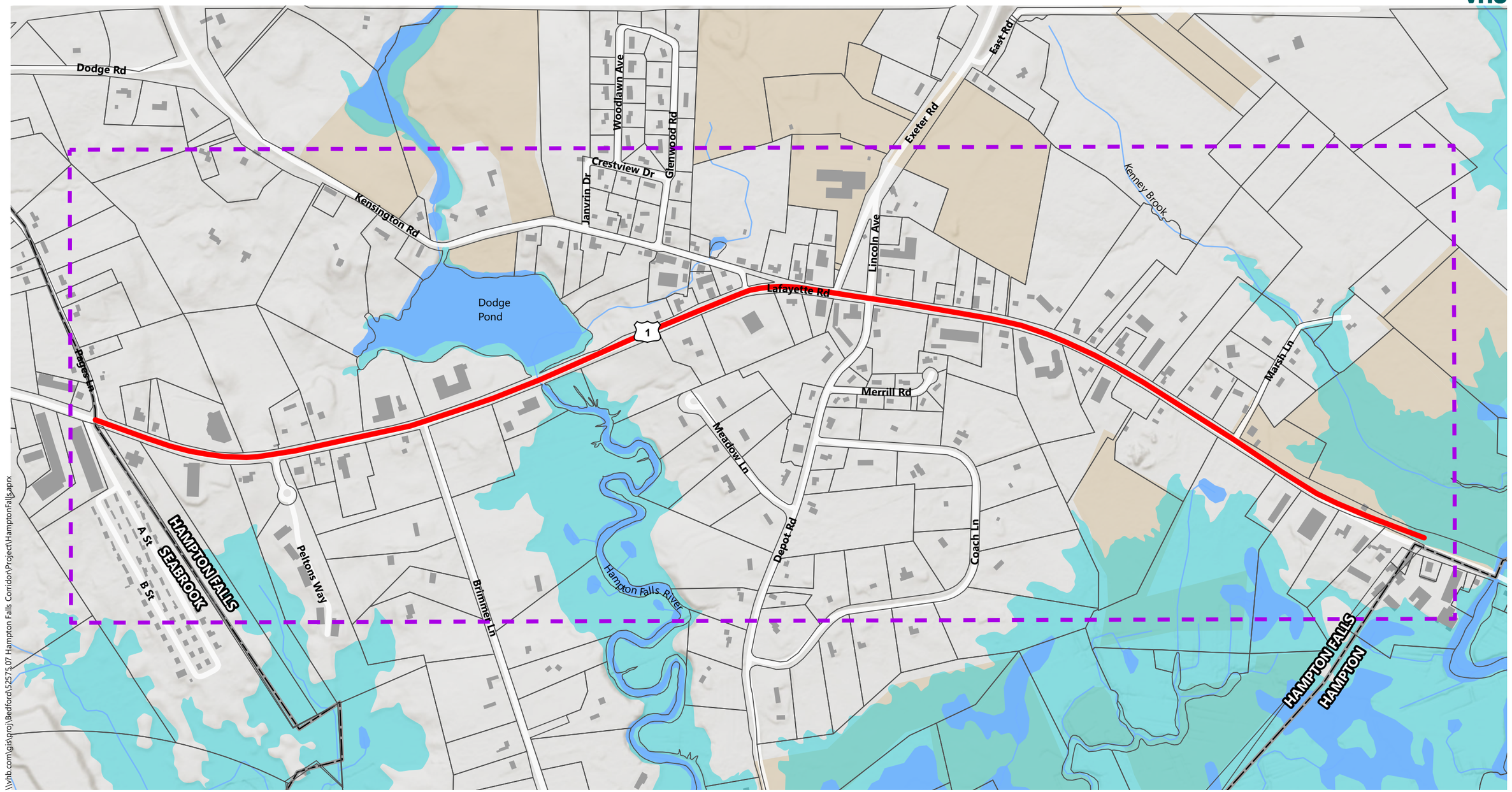

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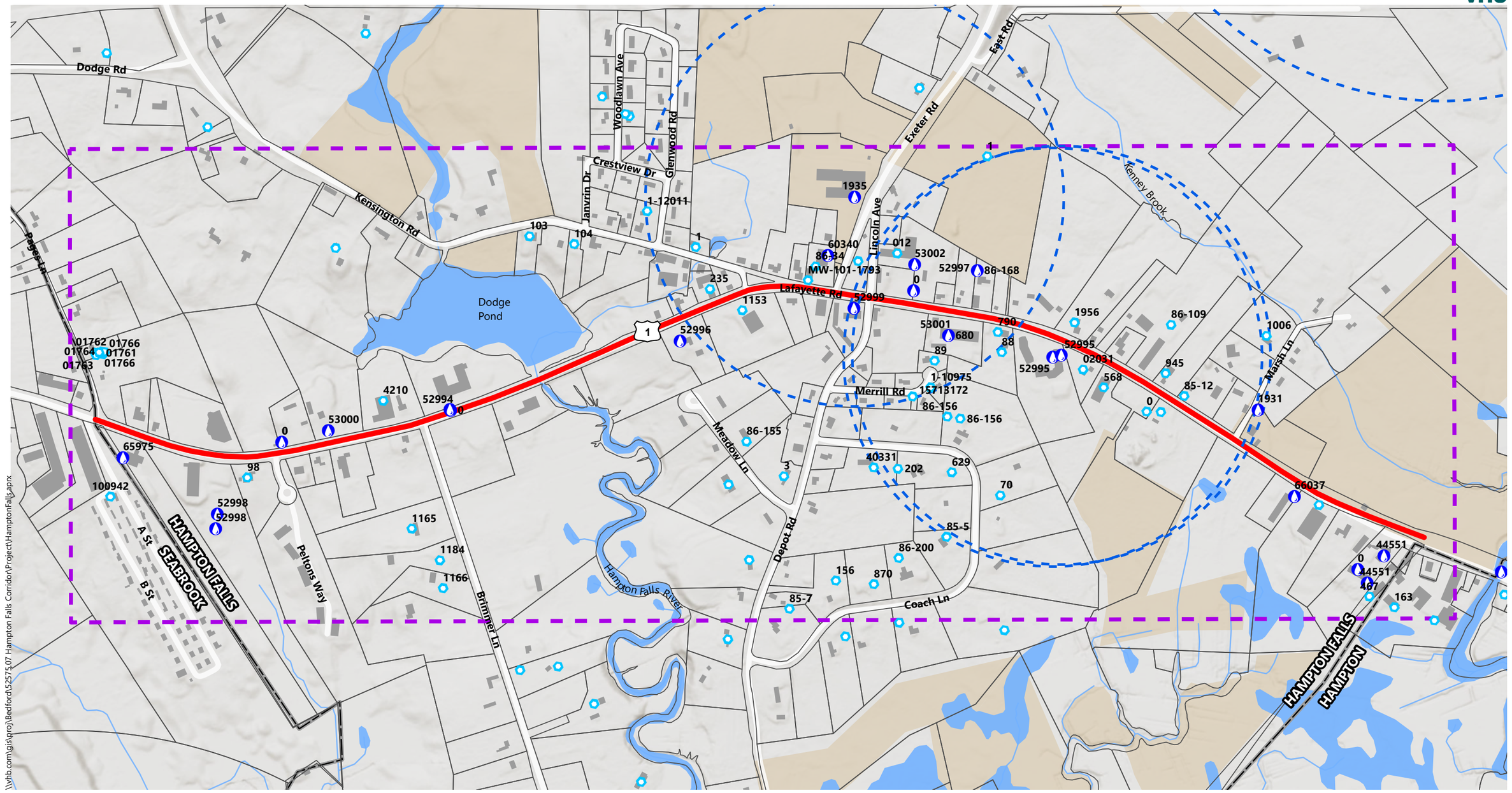
Figure 11
Surface Waters and Floodplain



0 300 600 1200 Feet

Study Limits
Study Area
Building
Town Boundary
Stream
Surface Water
Conservation Land
Parcel Boundary
Public Water Supply
Well Water Inventory
Wellhead Protection Area

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Hampton Falls, New Hampshire

Figure 12
Groundwater Resources

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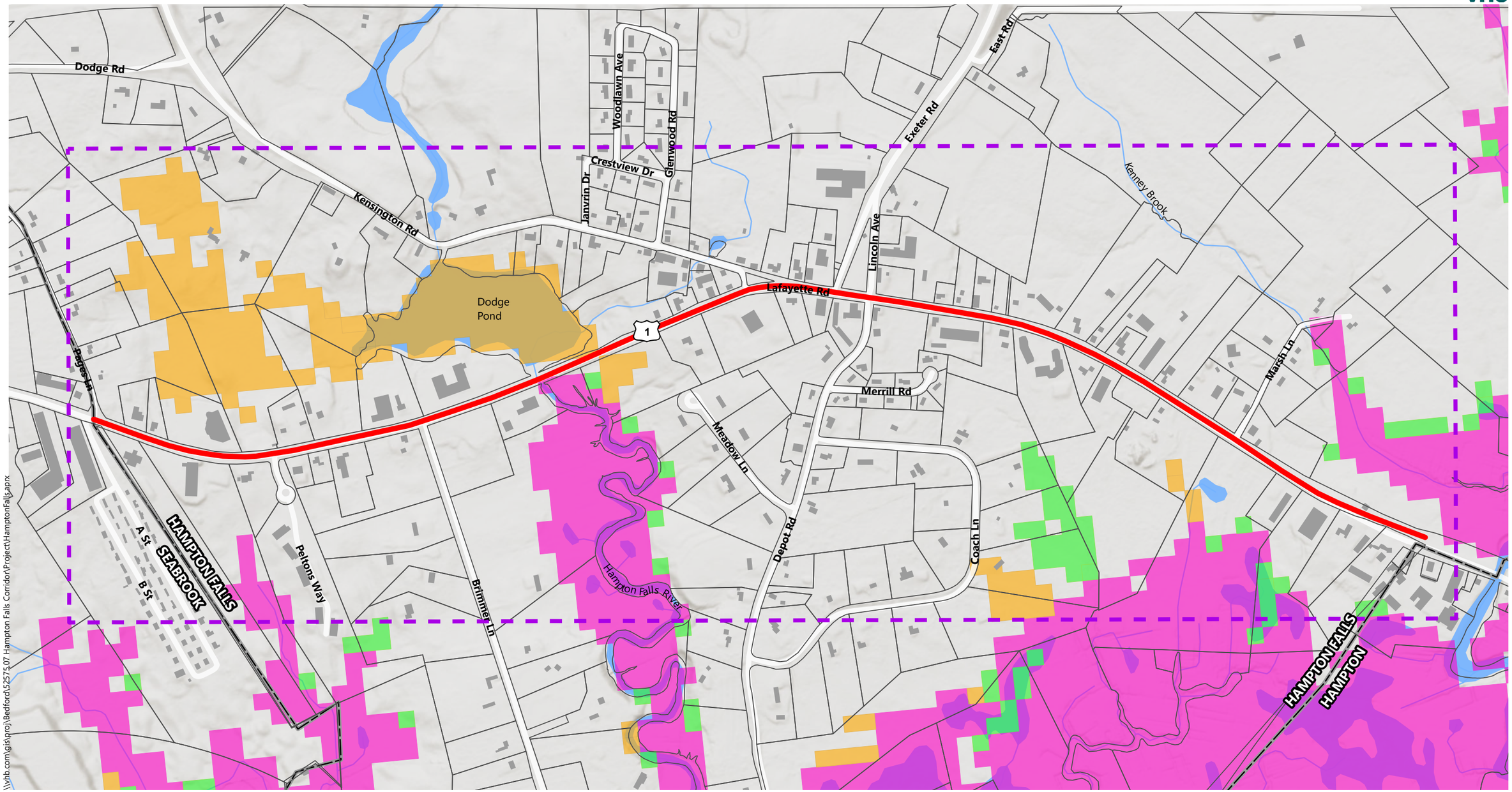

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Figure 13
NHFG Wildlife Action Plan Tiers

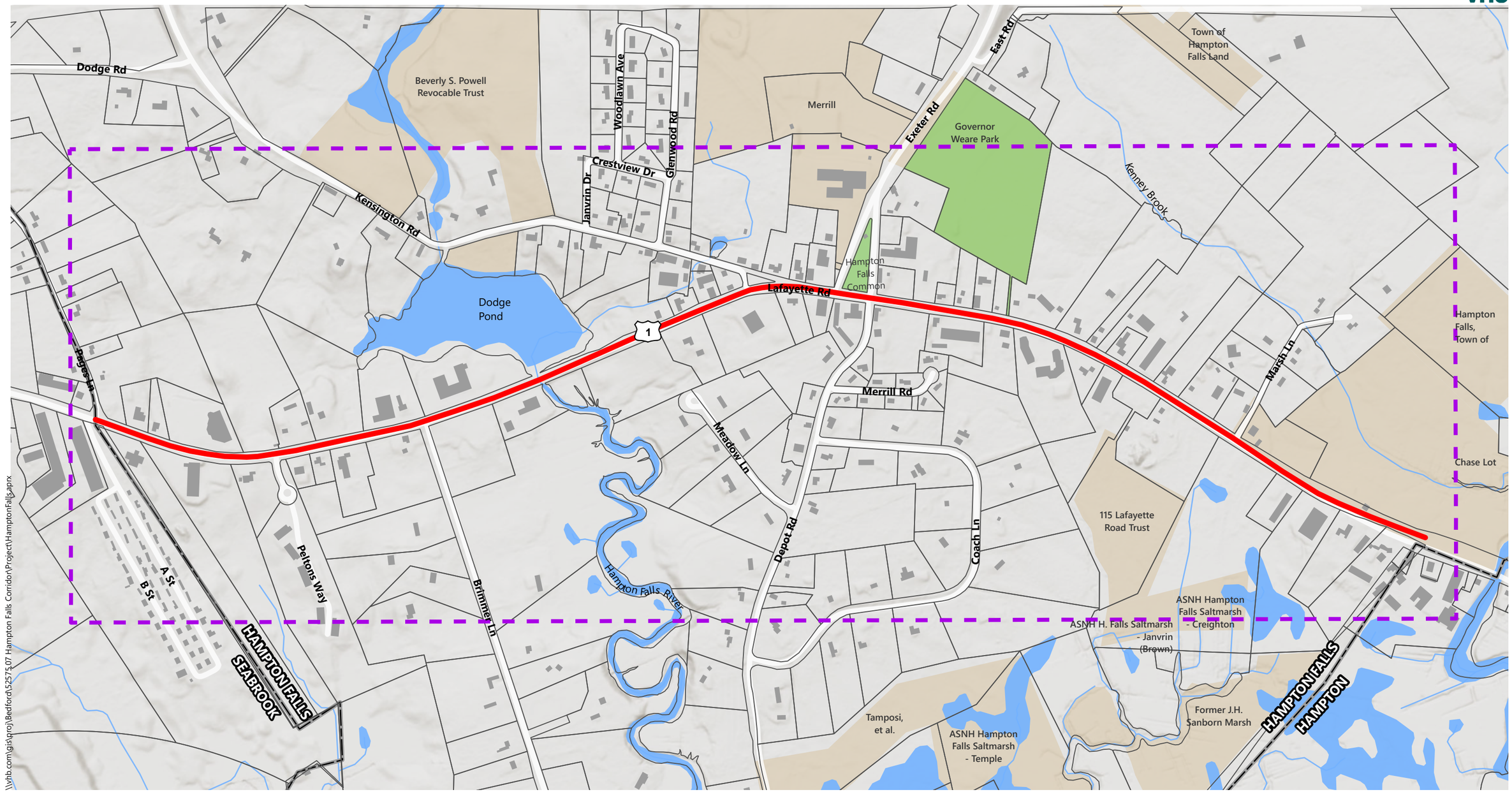

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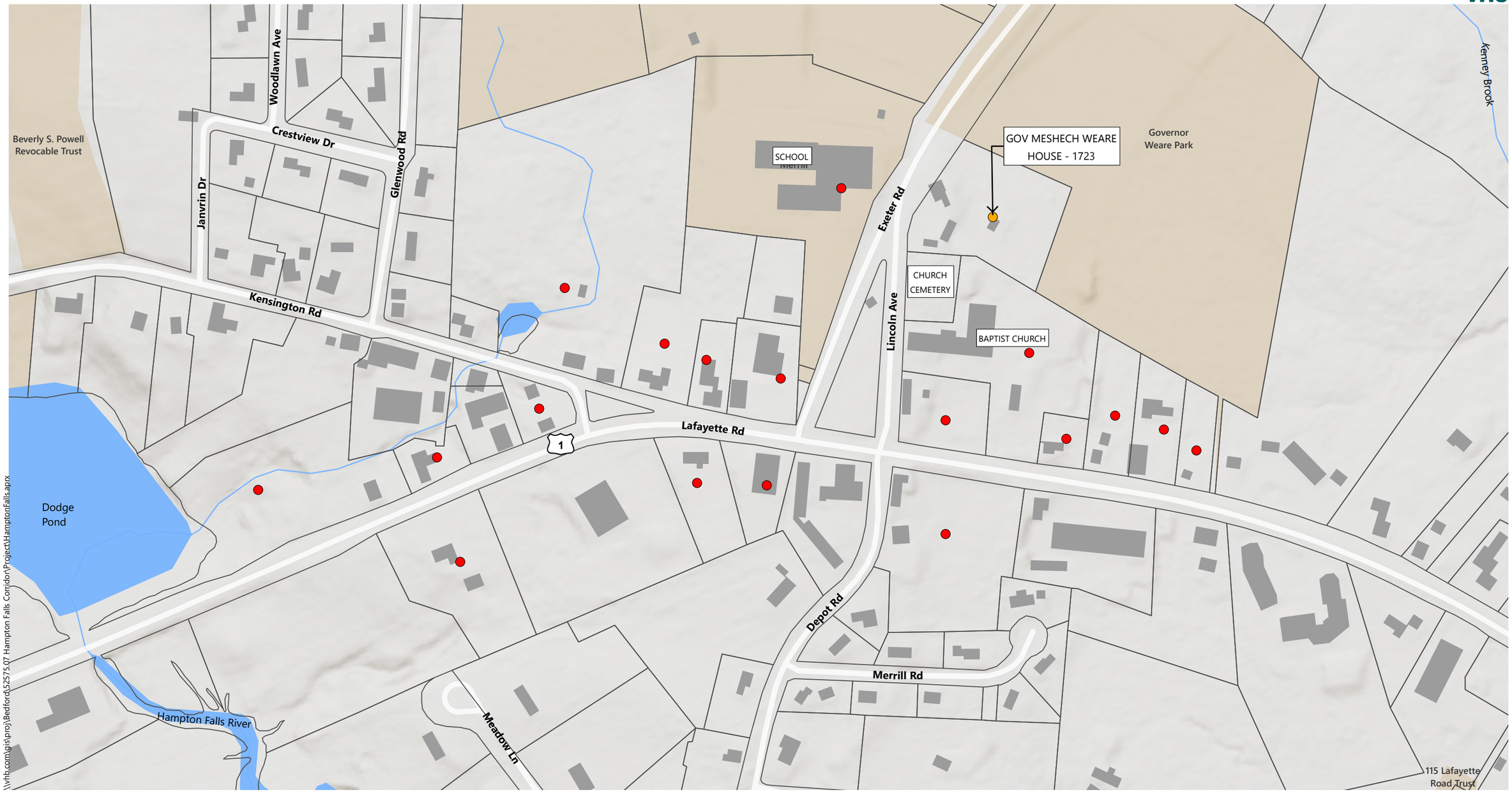
Figure 14
Conservation and Public Lands



0 125 250 500 Feet

Building
Town Boundary
Stream
Surface Water
Conservation Land
Parcel Boundary
Properties Older than 50 Years
Property Listed in National Register of Historic Places

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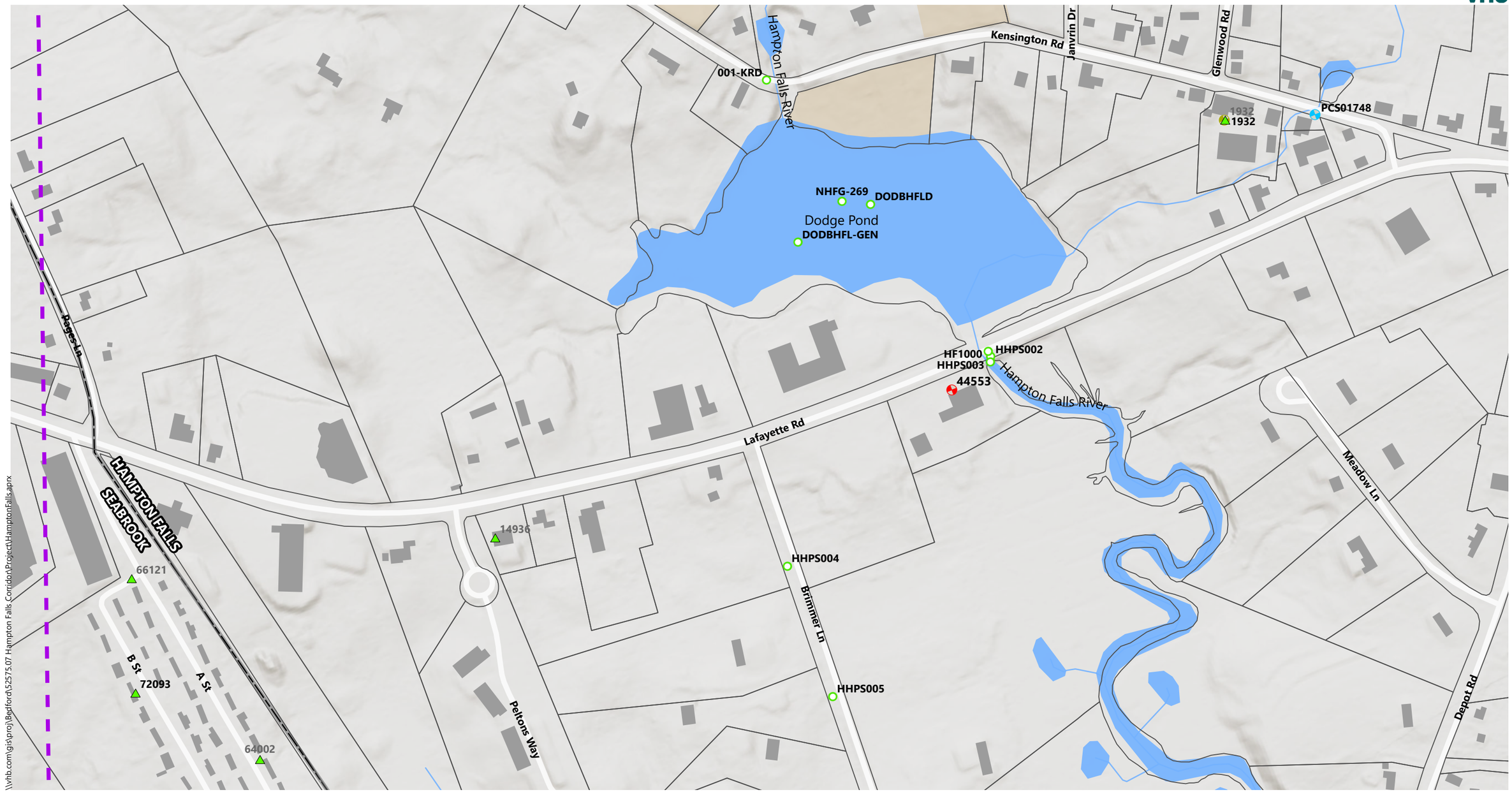
Figure 15
Historic Resources



0 150 300 600 Feet

- Study Area
- Building
- Town Boundary
- Stream
- Surface Water
- Conservation Land
- Parcel Boundary
- Aboveground Storage Tank
- Environmental Monitoring Site
- Hazardous Waste Generator
- Local Potential Contamination Source
- Underground Storage Tank
- Remediation Site

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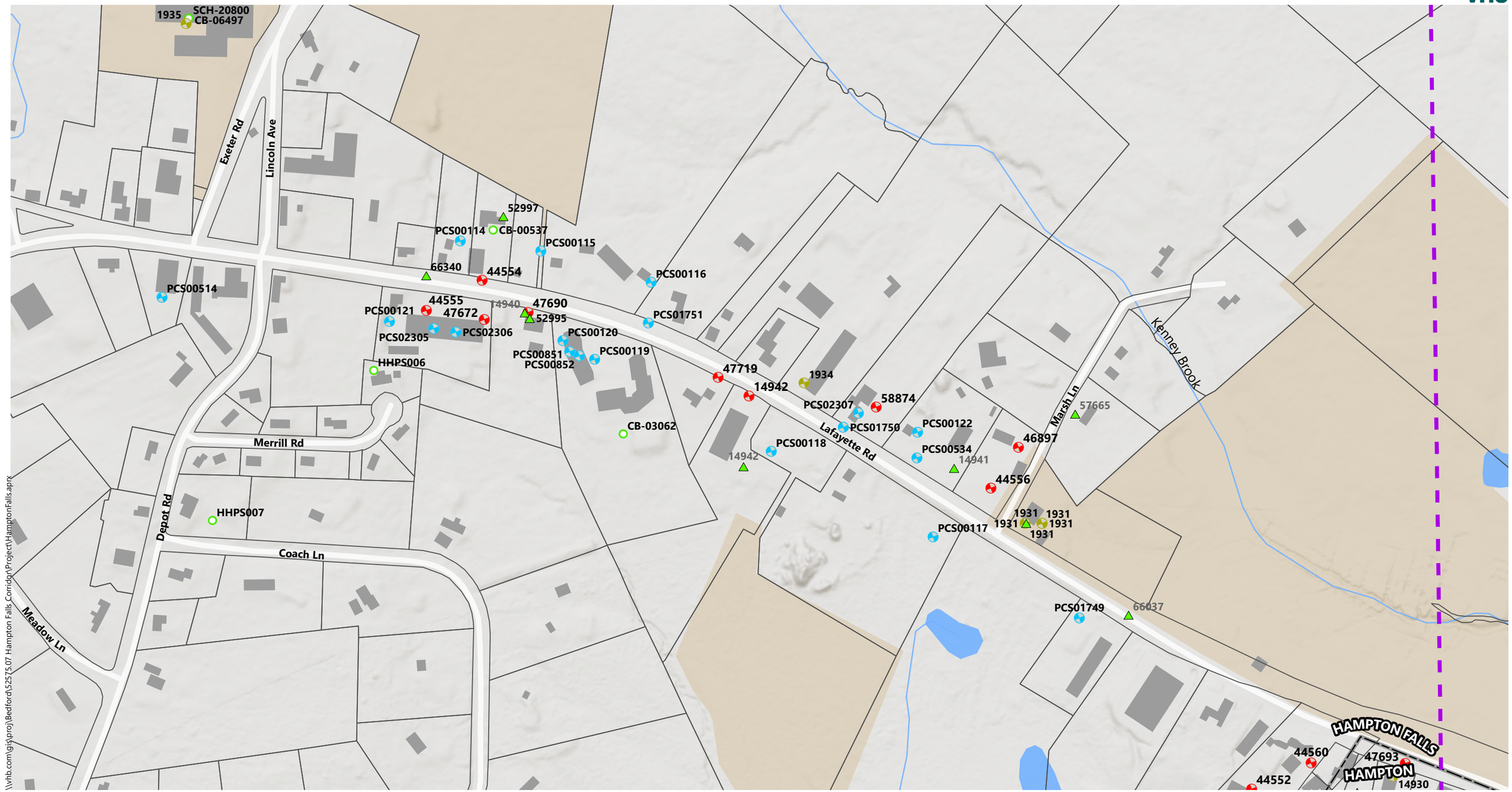
Figure 16
Hazardous Waste Sites
Page 1 of 2



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0 150 300 600 Feet

- Study Area
- Building
- Town Boundary
- Stream
- Surface Water
- Conservation Land
- Parcel Boundary
- Aboveground Storage Tank
- Environmental Monitoring Site
- Hazardous Waste Generator
- Local Potential Contamination Source
- Underground Storage Tank
- Remediation Site

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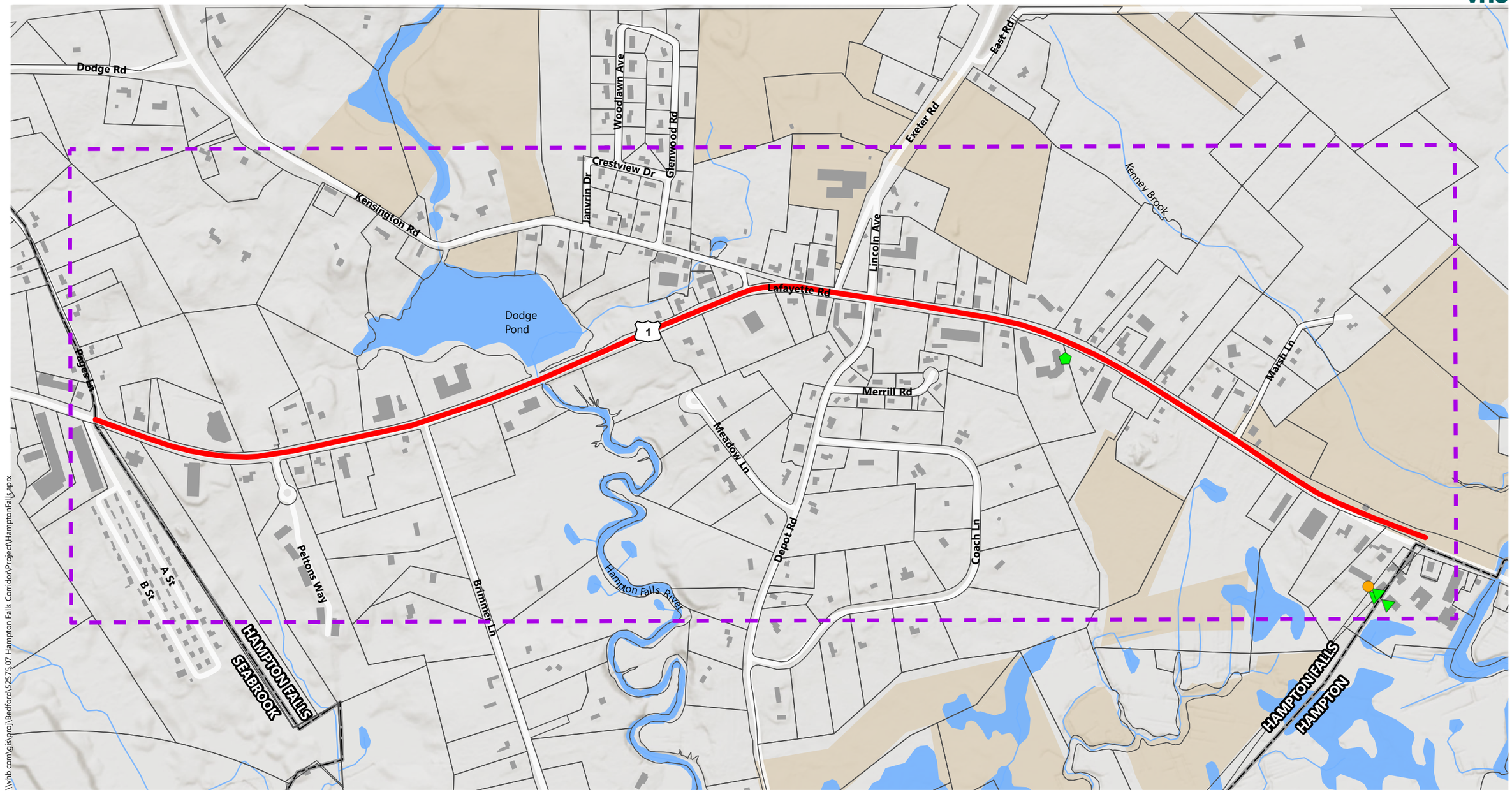
Hampton Falls, New Hampshire

Figure 16
Hazardous Waste Sites
Page 2 of 2



0 300 600 1200 Feet

Study Limits
Study Area
Building
Town Boundary
Stream
Surface Water
Conservation Land
Parcel Boundary

Groundwater Samples
PFOA+PFOS >70 ppt
PFAS > AGQS / MCL
PFAS ≤ AGQS / MCL

Other Sample Type
PFOA+PFOS >70 ppt
PFAS > AGQS / MCL
PFAS ≤ AGQS / MCL

PWS Samples
PWS PFOA+PFOS >70 ppt
PWS PFAS > AGQS / MCL
PWS ≤ AGQS / MCL

Hampton Falls 29610

New Hampshire DOT Department of Transportation | Hampton Falls, New Hampshire

Figure 17
NHDES PFAS Sampling Data

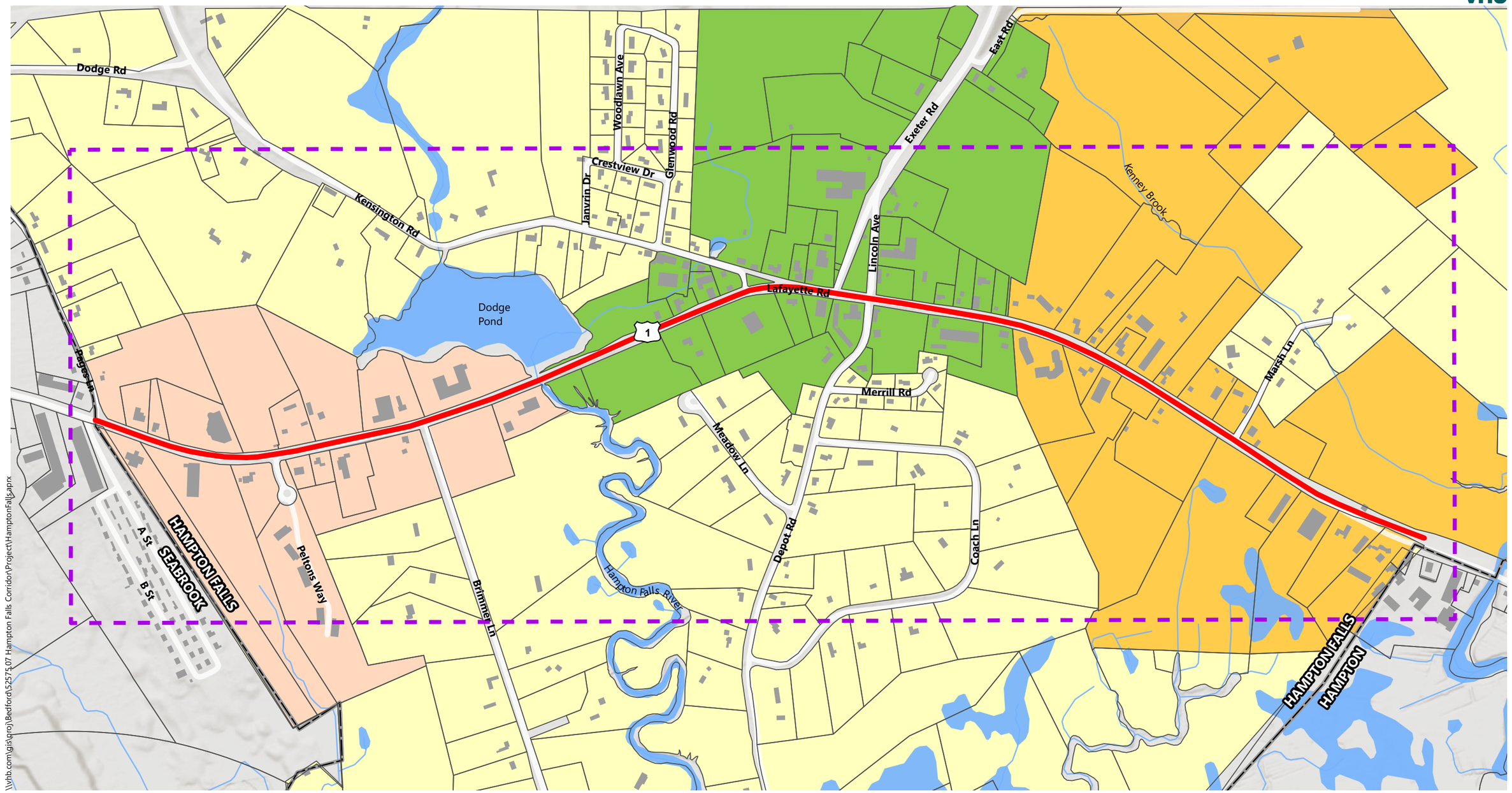


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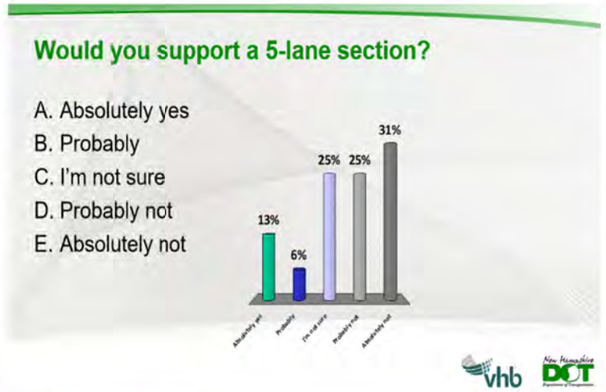
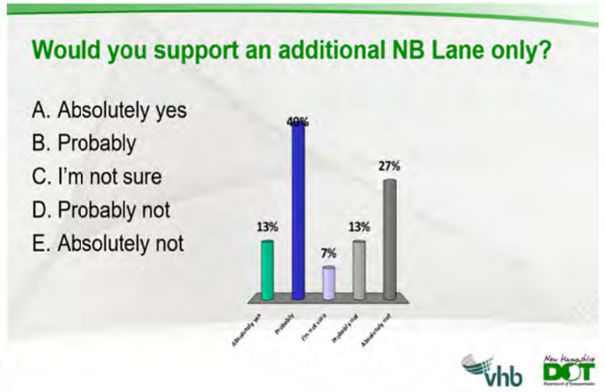
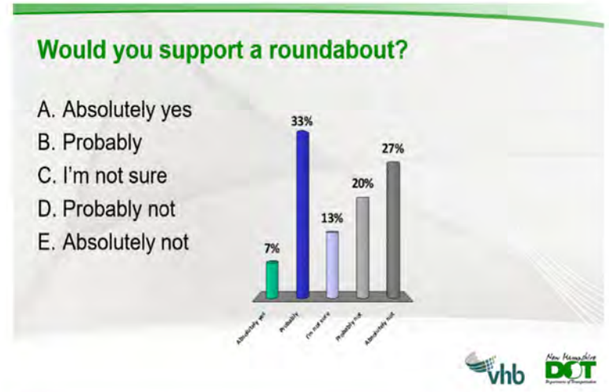
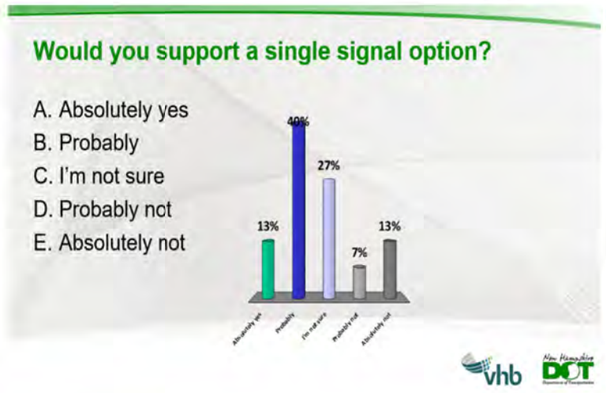
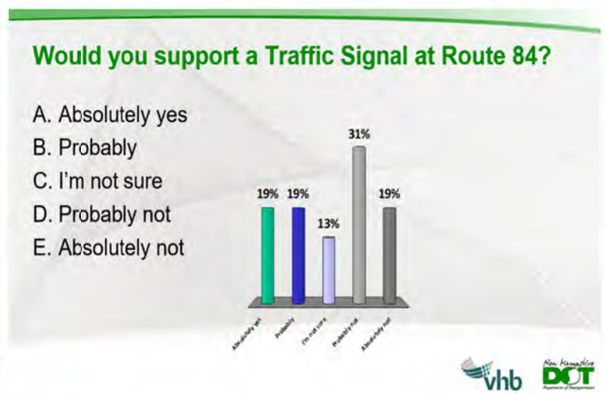
Figure 18
Zoning Map

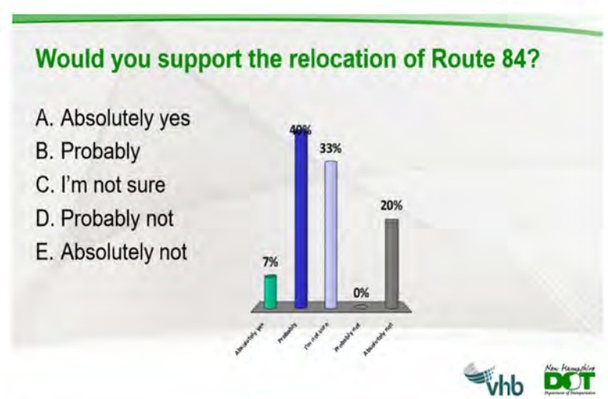


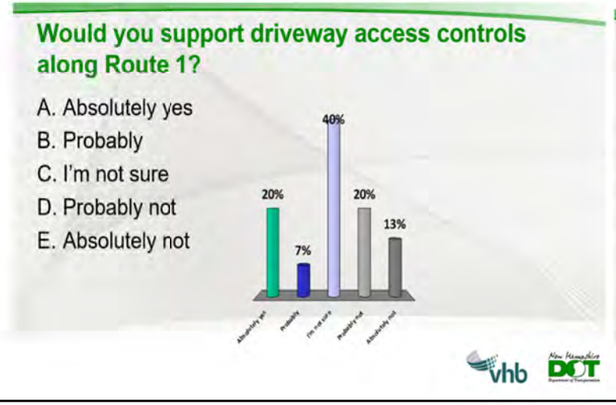


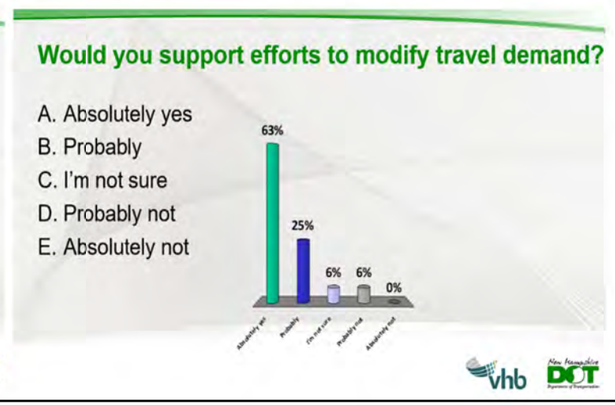












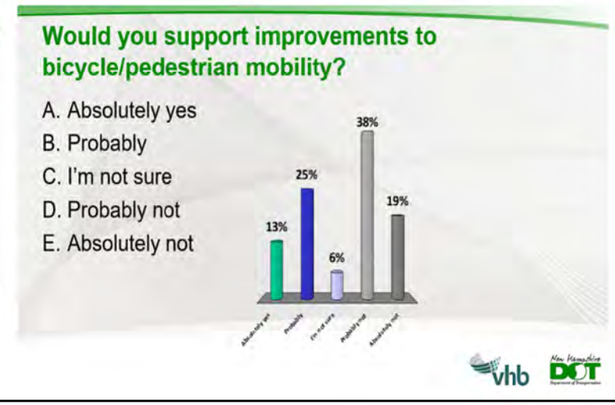


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Figure 19
7/15/21 Public Workshop
Informal Poll Results

Rockingham Planning Commission On-line Survey Results

Alternative	Level of Support	Hampton Falls Residents Only			Residents from Other Communities			Total including non-identified communities		
5-Lane	Absolutely Yes	7	26%	48%	8	50%	69%	20	29%	57%
	Probably	6	22%		3	19%		19	28%	
	I'm Not Sure	2	7%		1	6%		16	24%	
	Probably Not	3	11%	44%	2	13%	25%	8	12%	19%
	Absolutely Not	9	33%		2	13%		5	7%	
		27			**16**			**68**		
4-Lane	Absolutely Yes	3	16%	42%	2	22%	89%	16	38%	59%
(additional NB lane only)	Probably	5	26%		6	67%		9	21%	
	I'm Not Sure	3	16%		0	0%		8	19%	
	Probably Not	3	43%	69%	0	0%	11%	5	12%	22%
	Absolutely Not	5	26%		1	11%		4	10%	
		19			**9**			**42**		
Roundabout	Absolutely Yes	4	17%	46%	1	7%	50%	21	36%	67%
	Probably	7	29%		6	43%		18	31%	
	I'm Not Sure	2	8%		1	7%		9	15%	
	Probably Not	2	8%	46%	3	21%	43%	6	10%	18%
	Absolutely Not	9	38%		3	21%		5	8%	
		24			**14**			**59**		
Combine Signals	Absolutely Yes	4	20%	60%	3	33%	67%	17	39%	62%
	Probably	8	40%		3	33%		10	23%	
	I'm Not Sure	2	10%		1	11%		8	18%	
	Probably Not	3	15%	30%	1	11%	22%	6	14%	21%
	Absolutely Not	3	15%		1	11%		3	7%	
		20			**9**			**44**		
Signal at Route 84	Absolutely Yes	7	30%	65%	2	15%	31%	13	24%	48%
	Probably	8	35%		2	15%		13	24%	
	I'm Not Sure	1	4%		3	23%		12	22%	
	Probably Not	3	13%	30%	3	23%	46%	10	19%	30%
	Absolutely Not	4	17%		3	23%		6	11%	
		23			**13**			**54**		
Relocated Route 84	Absolutely Yes	5	31%	50%	1	11%	22%	11	28%	51%
	Probably	3	19%		1	11%		9	23%	
	I'm Not Sure	3	19%		5	56%		7	18%	
	Probably Not	4	25%	31%	0	0%	22%	7	18%	31%
	Absolutely Not	1	6%		2	22%		5	13%	
		16			**9**			**39**		
Access Management	Absolutely Yes	4	19%	57%	5	38%	38%	12	24%	44%
	Probably	8	38%		0	0%		10	20%	
	I'm Not Sure	4	19%		3	23%		10	20%	
	Probably Not	4	19%	24%	3	23%	38%	10	20%	36%
	Absolutely Not	1	5%		2	15%		8	16%	
		21			**13**			**50**		
Travel Demand Management	Absolutely Yes	6	43%	79%	3	33%	67%	15	42%	70%
	Probably	5	36%		3	33%		10	28%	
	I'm Not Sure	0	0%		0	0%		6	17%	
	Probably Not	2	14%	21%	3	33%	33%	3	8%	14%
	Absolutely Not	1	7%		0	0%		2	6%	
		14			**9**			**36**		
Bike/Ped Amenities	Absolutely Yes	10	53%	68%	3	25%	50%	18	38%	61%
	Probably	3	16%		3	25%		11	23%	
	I'm Not Sure	0	0%		0	0%		10	21%	
	Probably Not	2	11%	32%	5	42%	50%	6	13%	19%
	Absolutely Not	4	21%		1	8%		3	6%	
		19			**12**			**48**		

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Figure 20
RPC Survey Results

TOWN OF HAMPTON FALLS
TOWN OFFICES, 1 DRINKWATER ROAD 603-926-4618 NEW HAMPSHIRE 03844

RECEIVED
AUG 19 2021
NHDOT
Highway Design

August 18, 2021

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Tobey Reynolds, Chief Project Manager
New Hampshire Department of Transportation
PO Box 483
Concord, NH 03302

RE: Route 1 Hampton Falls Corridor Study - Hampton Falls, NH

Dear Tobey:

The Hampton Falls Board of Selectmen addressed this matter at its July 21 meeting. Town Officials and residents of Hampton Falls have attended and participated in the public sessions overseen and presented by Martin Kennedy of VHB focusing on potential alternative solutions to the Route 1 Corridor in Hampton Falls.

We understand that through an informal workshop type format of public meetings, attendees asked questions and shared their thoughts on potential solutions. We recognize and thank you for these efforts, however, the Board of Selectmen, on behalf of the citizens of the Town of Hampton Falls, is opposed to any proposed change(s) to the Town Common or change that would affect the Town Common in any way. It is strongly felt that any change to the Town Common would devalue the aesthetics of the Common and threaten one of the sacred treasures of Hampton Falls.

Additionally, we request that consideration be given to addressing the two sets of traffic lights in Hampton Falls, first, to achieve improved and greater through-put and, second, to allow the Police Chief to be able to see and control the traffic lights from the Public Safety Building. Thank you for the opportunity to provide both the NH-DOT and VHB with this feedback and direction.

Sincerely,

Louis Garrabrant, Chairman

Mark R. Lane, Vice Chairman

Edward B. Beattie, Selectman

Hampton Falls Board of Selectmen

cc: NH Department of Transportation, Executive Councilor Janet Stevens, Governor John Sununu

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Figure 21
August 18, 2021
Board of Selectmen Letter