

# Massachusetts Landfill Siting Alternatives Assessment

GRANITE STATE LANDFILL, LLC Dalton, New Hampshire

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#### 1.0 INTRODUCTION

At the request of Granite State Landfill, LLC, Sanborn, Head & Associates, Inc (Sanborn Head) prepared this Massachusetts Landfill Siting Alternatives Assessment (Alternatives Assessment) to support the New Hampshire Department of Environmental Services (NHDES) Wetlands Permit Application for the proposed Granite State Landfill (GSL) in Dalton, New Hampshire. NHDES has indicated it expects the Wetlands Permit Application to include an evaluation of adjacent states for landfill siting potential compared to sites in New Hampshire. This report fulfills the requirements for evaluation of sites in Massachusetts.

For sites to be considered potentially viable for landfill development, the parcel or combined parcels must provide at least 300 acres of available area for the landfill and supporting infrastructure. To assess the parcels in Massachusetts that would provide the required 300 acres, the Alternatives Assessment first considered the Massachusetts Solid Waste Site Suitability Criteria (MA Siting Criteria) required to achieve site assignment in accordance with the Massachusetts Solid Waste Regulations (310 CMR 16.000) as summarized below in Section 2.

After applying the MA Siting Criteria to parcels across the state and identifying potential sites of 300 acres or more, Site Study Areas were assigned to the potential landfill development areas and further assessed using the site study screening criteria discussed in Section 3 below. After applying the site study screening criteria, no sites were considered potentially suitable for landfill development.

#### 2.0 MASSACHUSETTS SITE SUITABILITY CRITERIA

The MA Siting Criteria, Massachusetts Site Assignment Regulations for Solid Waste Facilities 310 CMR 16.40, provides siting criteria specific to solid waste landfills and general siting criteria for solid waste facilities. The siting criteria are grouped into the following categories:

- Water Resources (existing and potential public and private drinking water sources and wetland resource areas (e.g., ponds, lakes, streams, wetlands, etc.);
- Proximity to occupied structures (e.g., residential dwellings, schools, prisons, health care facilities, etc.);
- Agricultural Lands;
- Traffic and access to the Site;
- Wildlife and Wildlife Habitat;
- Areas of Critical Environmental Concern;
- Protection of Open Space; and
- Others (e.g. bird hazards to air traffic, distance to waste deposition area, steep slopes, MassDOT roads)

The MA Siting Criteria is typically used to evaluate specific sites for the potential use as a solid waste facility. For this assessment, we applied the MA Siting Criteria across the entire state of Massachusetts to identify potential sites greater than 300 acres that met the MA Siting Criteria, to the extent possible. There are some siting criteria that are site-specific in nature or are study

based, not based on geographic area or setback distance; and therefore, cannot be mapped (example: setback to Public Water Supply source with no Zone II calculated). Enclosed Table 1 contains a summary table of the MA Siting Criteria, setback distances, availability of MassGIS Source Data, reference to the figure(s) where shown; and applicable comments.

#### 2.1 Site Suitability Criteria Mapping

To assess sites potentially suitable for a landfill, siting criteria data obtained from the Massachusetts Bureau of Geographic Information (MassGIS) as of March 2023 was used to depict the area of land in Massachusetts that is unavailable for purposes of siting a solid waste management facility. Seven figures were created using selected available siting criteria and grouped for clarity and include sites at least 300 acres in size. The figures are identified below and are included in the Figures section.

- Figure 1 Water Resources
- Figure 2 Wetlands and Surface Water
- Figure 3 Wildlife Habitat, Areas of Critical Environmental Concern, Open Spaces, Agriculture
- Figure 4 Urban Areas, Proximity to Select Structures, Major and Local Roadways
- Figure 5 300-acre Parcels, including regional figures:
  - Figure 5A 300-acre Parcels West Region
  - Figure 5B 300-acre Parcels Northeast Region
  - Figure 5C 300-acre Parcels Southeast Region
- Figure 6 Siting Criteria Overlay
- Figure 7 Unavailable Land, including regional figures:
  - o Figure 7A Unavailable Land West Region
  - o Figure 7B Unavailable Land Northeast Region
  - Figure 7C Unavailable Land Southeast Region

#### Figure 1 – Water Resources

Figure 1 was created to depict water resources including the following:

- Public Water Supply Wells
- Interim Wellhead Protection Areas and Zone IIs
- United States Environmental Protection Agency (USEPA) Designated Sole Source Aquifers
- Surface Water Supply Watersheds
- Surface Water Supply Protection Areas
- Potentially Productive Aquifers
- Outstanding Resource Waters

#### Figure 2 – Wetlands and Surface Water

Figure 2 was created to depict wetland and surface water resources. Available statewide and National Wetland Inventory (NWI) wetland mapping was used to generate this figure. For the purposes of this assessment, the NWI mapped wetlands are assumed to be representative of the presence of wetlands in the state. We note that in accordance with the Massachusetts Wetland Regulations, the actual wetland limits are required to be delineated and approved by

the local Conservation Commission as part of any development project that may infringe on the 100-foot buffer to a bordering vegetated wetland. A wetland delineation was not completed by the Conservation Commission for this analysis but is anticipated to further limit the viability of some sites.

## Figure 3 - Wildlife Habitat, Areas of Critical Environmental Concern, Open Spaces, Agriculture Figure 3 was created to depict land-based resources including the following:

- Land classified as Prime, Unique, or of State and Local Importance by the USDA NRCS and agricultural land based on the 2016 state-wide land cover/land use dataset
- Protected and Recreational Open Space
- Areas of Critical Environmental Concern
- Natural Heritage and Endangered Species Program Natural Communities

#### Figure 4 - Urban Areas, Proximity to Select Structures, Major and Local Roadways

Figure 4 was created to depict the occupied structures (Healthcare Facilities, Schools, and Prisons) and the other features (urban areas, airports, and roadways) that are not siting criteria but are likely restrictive for the purposes of siting a solid waste landfill. Major roadways are shown on the figures for informational purposes. Local roadways are only shown on Figure 4 for informational purposes.

Although not specifically a siting criteria, airports are shown on Figure 4 and 6 with a 10,000-foot setback. The Massachusetts Solid Waste Regulations require permit applications to include regional mapping of airports with either a 5,000-foot setback (for piston type only aircraft usage) or a 10,000-foot setback (for turbo jet type aircraft usage) as shown. Land within this setback may not necessarily be prohibited for landfill development, but adverse impact from bird hazards to air traffic would need to be addressed and likely require approval from the Federal Aviation Administration. The 10,000-foot setback from airports is included on Figure 6 and 7 as "unavailable land" for the purposes of this assessment and as further described below.

#### Figure 5 - 300-acre Parcels

Figure 5 was created to depict sites considered for Site Study Areas that are at least 300-acres in size by generally combining up to two parcels, including developed and undeveloped parcels, as an initial screening. Further screening of these sites for possible development as solid waste landfill sites is discussed in Section 3.0 below.

Figures 5A, 5B, and 5C are regional views of the information depicted on Figure 5 to show the 300-acre potential sites at a higher resolution.

#### Figure 6 - Siting Criteria Overlay

Figure 6 was created to depict the mapped siting criteria combined (from Figures 1 through 4) and overlaid onto one figure as one shaded area to show the "unavailable land". Urban areas, roadways, and airports (with a 10,000-foot setback) are also depicted as it is unlikely a landfill



would be successfully sited within these areas. The mapped siting criteria depicted on Figure 6 includes the following:

- Wellhead Protection Areas
- USEPA Designated Sole Source Aquifers
- Surface Water Supply Watersheds
- Outstanding Resource Waters
- Surface Water Supply Protection Areas
- Potentially Productive Aguifers
- Areas protected by the Wetland Protection Act
- Lakes
- Healthcare Facilities, Schools, and Prisons
- Prime Farmland, Farmland of Unique Importance, and Farmland of Statewide Importance
- Agricultural Land
- Natural Heritage and Endangered Species Program Natural Communities
- Areas of Critical Environmental Concern
- Protected and Recreational Open Space
- Surface Water Bodies
- MassDOT Roadways

#### Figure 7 - Unavailable Land

Figure 7 was created to depict mapped siting criteria, urban areas, roadways, and airports (with a 10,000-foot setback) as unavailable land as single color for clarity. Also shown on Figure 7 are the active solid waste landfills and waste-to-energy facilities.

Figures 7A, 7B, and 7C are regional views of the information depicted on Figure 7 to show the "unavailable land" within western, northeastern, and southeastern Massachusetts, respectively and potentially available land areas at a higher resolution.

An overview of siting locations with possibly available land is provided on Figure 8.

After applying the MA Siting Criteria to sites across the state, 16 locations were identified as having available land area providing at least 300 acres.

#### 3.0 SITE STUDY SCREENING CRITERIA

After considering the MA Siting Criteria, additional site study screening criteria were evaluated for the 16 Site Study Areas to further assess if any of the 16 sites are potentially suitable for landfill development. The additional site screening criteria are based on the landfill siting approach used by CMA Engineers, Inc. of Portsmouth, NH for the GSL project site and defined as:



- Having contiguous land at least 300 acres in size using up to two abutting parcels<sup>1</sup>;
- Providing at least 175 acres of land for the lined landfill and landfill operations infrastructure (e.g. leachate storage, stormwater treatment, scalehouse, etc.);
- Providing at least 70 acres for the lined landfill;
- Not having existing slopes greater than 15 percent [approximately 7 horizontal to 1 vertical (7H:1V)] for access roads into the sites;
- Having a landfill base slope area that averages less than 12 percent unless buttressed by a substantial area of base area sloped at less than 8 percent;
- Not having existing slopes greater than 3H:1V for landfill slopes;
- Not being an irregular shape, which would be incompatible with landfill facility design;
- Not taking any wetland identified in the national wetland inventory;
- Not having topography that that would make it difficult to perform surface water monitoring,
- Not including hydric soils based on the Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS) data;
- Land identified as potentially suitable had to be in one municipality; and
- Consider a Massachusetts Environmental Justice Assessment.

For the Site Study Area to be considered potentially viable for landfill development, the screening above had to be met after considering the MA Siting Criteria and the site suitability screening criteria as further described in the sections below.

#### 3.1 Site Suitability with Screening and MA Siting Criteria

Figures 9A through 9P show Site Study Areas 1 through 16 with the MA Siting Criteria setbacks for Solid Waste Landfills [310 CMR 16.40(3), (4) and (5)] and the additional site suitability screening criteria for the 16 locations that are at least 300 acres.

Note that some of the MA Siting Criteria could not be evaluated without site-specific information (e.g., high groundwater elevation, groundwater flow direction, etc.). In these cases, the criteria were either not evaluated or, where upgradient versus downgradient positioning matters, we assumed the landfill was upgradient of the criteria feature (e.g., residential drinking water well).

The one exception to this assumption involved the siting criteria under 310 CMR 16.40(3)(a)(4), which does not allow a proposed landfill to be located within 15,000 feet upgradient of an existing public water source well or proposed drinking water source area for which a Zone II has not been calculated (i.e., Interim Wellhead Protection Area). Site-specific hydrogeological information was not available to confirm if this specific criterion applies to any of the 16 sites. Therefore, for the purposes of screening sites as part of this evaluation, we assumed the 15,000-foot upgradient setback would not restrict or eliminate any of the 16 sites and that

<sup>&</sup>lt;sup>1</sup> For some Site Study Areas, when a third and/or fourth abutting parcel was available, it was included in the assessment to evaluate if it would provide the land area required to site a landfill. Site Study Areas including a third and/or fourth parcel are shown on the figures further described below.



these sites were assumed to be available for further screening in the absence of Zone II information indicating otherwise.

#### 4.0 SUMMARY OF SITE STUDY AREA FINDINGS

Screening for the minimum required 70-acres of lined landfill area and the minimum total disturbance of 175-acres resulted in 10 sites as potentially viable for landfill development. For the 10 remaining sites, each Site Study Area was also assessed when considering irregular shape, no or steep access to the site, and for steep slopes on which a lined landfill would be located for landfill development.

The irregular shaped sites were caused by the presence of streams/brooks or roads that bisected the site into disjointed or "fingerlike" areas which were not compatible with typical landfill geometry. Sanborn Head used Google Earth PRO, USGS Maps, or available LiDAR information to check slope conditions, for both access from a public roadway to the site and for the range of existing slopes within the site where a lined landfill would presumably be constructed. The maximum slope for an access road was set to be 15 percent. For a lined landfill development, steep slopes were defined to be 7H:1V or steeper, shallow slopes were defined to be 12H:1V or shallower, and moderate slopes fell in between these values. Screening for these criteria eliminated nine of the remaining 10 sites.

The remaining potential viable site, Site Study Area SSA-14, was ruled out as it had undesirable topography for environmental monitoring and is in two municipalities, Chesterfield and Williamsburg. Therefore, based on a review of the site suitability screening criteria at each of the 16 Site Study Areas, all the Site Study Areas are considered unsuitable for landfill development.

Because none of the Site Study Areas are considered potentially viable for landfill development, the NRCS WSS assessment and the Massachusetts Environmental Justice Assessment were not completed.

In summary, after applying the MA Siting Criteria to sites across the state, 16 locations were identified as having available land area providing at least 300 acres. Screening for the minimum required 70-acres of lined landfill area and the minimum total disturbance of 175-acres resulted in 10 sites as potentially viable for landfill development. After applying additional site study screening criteria to these 10 sites, no sites were considered potentially suitable for landfill development.



### **Tables**

Sub- Paragraph	Criteria	Setback (feet)	Included in GIS Analysis?	MassGIS Source Data (Date Updated)	Comments					
	310 CMR 16.40(3) - Facili	ty Specific	Site Suitabili	ty Criteria (Criteria for Landfill Faciliti	es (Restricted Areas))					
(a)(1)	within Zone II of public water supply well	0	Yes	MassDEP Wellhead Protection Areas - Zone II (February 2023)	Incorporated into the "Unavailable Land" layer					
(a)(2)	within the Interim Wellhead Protection Area of an existing public water supply	0	Yes	Wellhead Protection Areas - IWPA (February 2023)	Incorporated into the "Unavailable Land" layer					
(a)(3)	within a Zone II or the Interim Wellhead Protection Area of a <b>proposed</b> public water supply	0	Yes	MassDEP Wellhead Protection Areas - Zone II (February 2023)	Incorporated into the "Unavailable Land" layer					
(a)(4)	within 15,000 feet upgradient of existing public water source well or proposed drinking water source area for which a Zone II has not been calculated	15,000	No (see comments)	Public Water Supplies (February 2023)	Public water supply locations are displayed on Figure 3. Because interpretation of a 15,000 foot buffer <b>upgradient</b> of a PWS is site-specific and depends on local hydrogeologic setting, this setback is not incorporated into the "Unavailable Land" layer.					
(a)(5)	DEP determines discharge from facility would pose a danger to ex. or prop. drinking water source area	0	No	Not Available (N/A)	Site-specific considerations					
(a)(6)	within recharge area of a Sole Source Aquifer	0	Yes	U.S. EPA Sole Source Aquifers (September 2020)	Incorporated into the "Unavailable Land" layer					
(a)(7)	within the zone of contribution of an existing public water supply or proposed drinking water source area, or the recharge area of a surface drinking water supply	0	Yes	Surface Water Supply Watersheds (April 2017); Outstanding Resource Waters (March 2010)	Incorporated into the "Unavailable Land" layer					
(a)(8)	within the Zone A or Zone B of a surface drinking water supply	0	Yes	Surface Water Supply Protection Areas (April 2017)	Incorporated into the "Unavailable Land" layer					
(a)(9)	less than 400 feet upgradient of a perennial water course that drains to a surface drinking water supply which is within one mile of waste deposition area	400	Yes	N/A	Site-specific considerations					
(a)(10)	within a Potentially Productive Aquifer	0	Yes	Aquifers (July 2007); Non-Potential Drinking Water Source Areas (February 2019)	Non-potential drinking water source areas were removed from the aquifer layer. This resultant layer was incorporated into the "Unavailable Land" layer.					
(a)(11)	within 1,000 feet <b>upgradient</b> of a private water supply well existing or established as a potential water supply	1,000	Yes	N/A	Site-specific considerations					
(a)(11)	within 500 feet <b>downgradient</b> of a private water supply well existing or established as a potential water supply	500	No	N/A	Site-specific considerations					
(a)(12)	maximum high groundwater table is within four feet of the ground surface	0	No	N/A	Site-specific considerations					

Sub- Paragraph	Criteria	Setback (feet)	Included in GIS Analysis?	MassGIS Source Data (Date Updated)	Comments
(a)(13)	within a resource area protected by the Wetlands Protection Act, M.G.L.c.131, § 40, including the 100 year floodplain	100	Yes (see comments)	MassDEP Wetlands (December 2017); FEMA National Flood Hazard Layer (July 2017)	A 100-ft buffer was applied to NWI and MassDEP wetlands and areas within 100-year flood zones. These locations are displayed on the Figures, but were not incorporated into the "Unavailable Land" layer.
(a)(14)	less than 400 feet of a lake that is not a drinking water supply	400	Yes	MassDEP Hydrography 1:25,000 (December 2019)	A 400-ft buffer was applied to polygons categorized as Code 6 ("Lake, Pond, Wide River, Impoundment") and this resultant layer was incorporated into the "Unavailable Land" layer. Note that this feature may include some lakes that are drinking water supplies, as well as some wide rivers that are not lakes/ponds.
(a)(14)	less than 200 feet to the Riverfront Area that is not a drinking water supply	200	Yes	N/A	Riverfront Area dataset not available on MassGIS. Assumed any stream or river meets requirements for having a Riverfront Area
(a)(15)	within 1000 feet of a occupied residential dwelling, health care facility, prison, elementary school, middle school or high school or children's pre-school, licensed day care center, senior center or youth center	1,000	Partial (see comments)	Acute Care Hospitals (December 2018)  Non-acute Care Hospitals (December 2018)  Community Health Centers (October 2019)  Long Term Care Residences (May 2019)  Prisons (January 2019)  Schools Pre-K through High School (May 2022)	A 1,000 ft buffer was applied to the available spatial layers and incorporated into the "Unavailable Land" layer. Information for occupied residential dwellings, licensed day care centers, and senior or youth centers was not available. Only health care facilities, prisons, and schools are available.
(a)(16)	result in a threat of an adverse impact to groundwater through discharge of leachate	0	No	N/A	Site-specific considerations
	,	310 C	MR 16.40(4) -		
(a)	Agricultural Lands				
(a)(1)	within land classified as Prime, Unique or of State and Local Importance by the USDA, NRCS.	0	Yes	NRCS SSURGO-Certified Soils for Prime Farmland, Farmland of Unique Importance, Farmland of Statewide Importance (November 2021)	Incorporated into the "Unavailable Land" layer
(a)(2)	within land deemed Land Actively Devoted to Agricultural or Horticultural Uses	0	Yes	2016 Land Cover/Land Use (May 2019)	Land covers categorized as Class 6 (Cultivated Land) or Class 7 (Pasture/Hay) in the 2016 land cover/land use dataset were interpreted to be agricultural lands for the purposes of this assessment.
(a)(3)	within 100-foot buffer of lands identified above	100	Yes	N/A	A 100-ft buffer was applied to the above-referenced datasets and incorporated into the "Unavailable Land" layer.
(b)	Traffic and Access to the Site (no physical setbacks	)			,
(b)(1)	traffic congestion	0	No	N/A	Site-specific considerations
(b)(2)	pedestrian and vehicular safety	0	No	N/A	Site-specific considerations
(b)(3)	road configurations	0	No	N/A	Site-specific considerations
(b)(4)	alternate routes	0	No	N/A	Site-specific considerations
(b)(5)	vehicle emissions	0	No	N/A	Site-specific considerations
(c)	Wildlife and Wildlife Habitat				

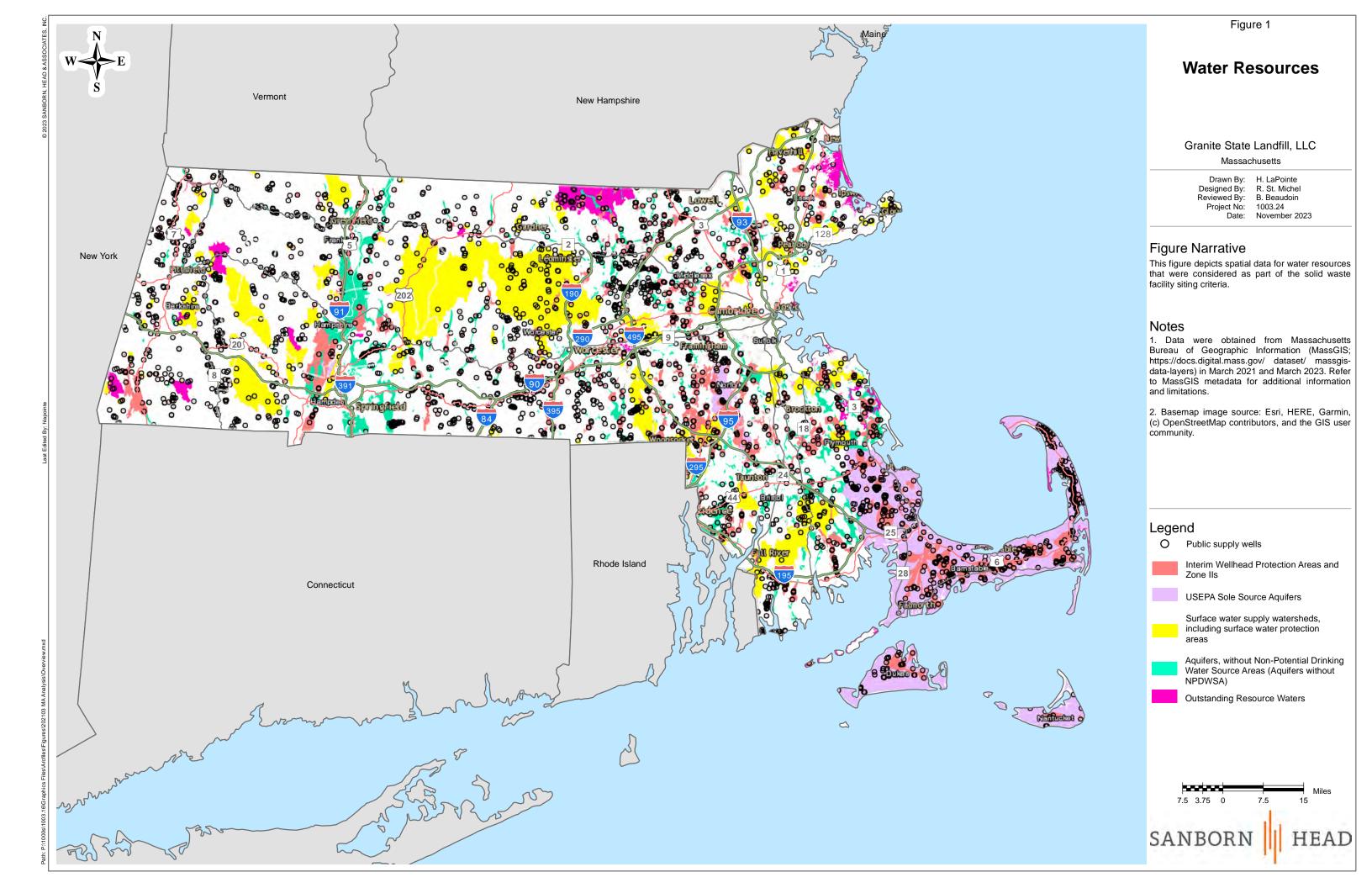
Sub- Paragraph	Criteria	Setback (feet)	Included in GIS Analysis?	MassGIS Source Data (Date Updated)	Comments				
(c)(1)	adverse impact on Endangered, Threatened or Special Concern species listed by the Natural Heritage and Endangered Species Program of the Division of Fisheries and Wildlife	0	No	N/A	Site-specific considerations and requires confirmaton with NHESP				
(c)(2)	adverse impact on Ecologically Significant Natural Community as documented by the NHESP	0	Yes	NHESP Natural Communities (June 2016)	Incorporated into the "Unavailable Land" layer				
(c)(3)	adverse impact on the wildlife of any state Wildlife Management Area	0	Yes	Protected and Recreational Open Space (January 2023)	Incorporated into the "Unavailable Land" layer				
(d)	Areas of Critical Environmental Concern								
(d)(1)	within an ACEC	0	Yes	Areas of Critical Environmental Concern (April 2009)	Incorporated into the "Unavailable Land" layer				
(d)(2)	would fail to protect the outstanding resources of an ACEC as identified by the Secretary's designation if the facility is to be located outside, but adjacent to the ACEC	0	No	N/A	Site-specific considerations				
(e)	Protection of Open Space								
(e)(1)	state forests	0	Yes	Protected and Recreational Open Space (January 2023)	Incorporated into the "Unavailable Land" layer				
(e)(2)	state or municipal parklands or conservation land or other open space held for natural resources purposes	0	Yes	Protected and Recreational Open Space (January 2023)	Incorporated into the "Unavailable Land" layer; there may be other open space held for natural resources purposes that is not included in the MassGIS dataset and therefore not incorporated into the assessment.				
(e)(3)	MDC reservations	0	Yes	Protected and Recreational Open Space (January 2023)	Incorporated into the "Unavailable Land" layer				
(e)(4)	lands with conservation, preservation, agricultural, or watershed protection restrictions	0	Yes	Protected and Recreational Open Space (January 2023)	Incorporated into the "Unavailable Land" layer; there may be other restricted land that is not included in the MassGIS dataset and therefore not incorporated into the assessment.				
(e)(5)	conservation land owned by private non-profit land conservation organizations and open to the public	0	Yes	Protected and Recreational Open Space (January 2023)	Incorporated into the "Unavailable Land" layer; there may be other conserved land that is not included in the MassGIS dataset and therefore not incorporated into the assessment.				
(f)	Potential Air Quality Impact								
(f)(1)	adverse impact based on concentration and dispersion of emissions	N/A	No	N/A	Site-specific considerations				
(f)(2)	adverse impact based on number and proximity of sensitive receptors	N/A	No	N/A	Site-specific considerations				
(f)(3)	the attainment status of the area	N/A	No	N/A	Site-specific considerations				
(g)	Potential for the Creation of Nuisances								
(g)(1)	adverse impact due to noise	N/A	No	N/A	Site-specific considerations				
(g)(2)	adverse impact due to litter	N/A	No	N/A	Site-specific considerations				
(g)(3)	adverse impact from vermin	N/A	No	N/A	Site-specific considerations				
(g)(4)	adverse impact due to odors	N/A	No	N/A	Site-specific considerations				

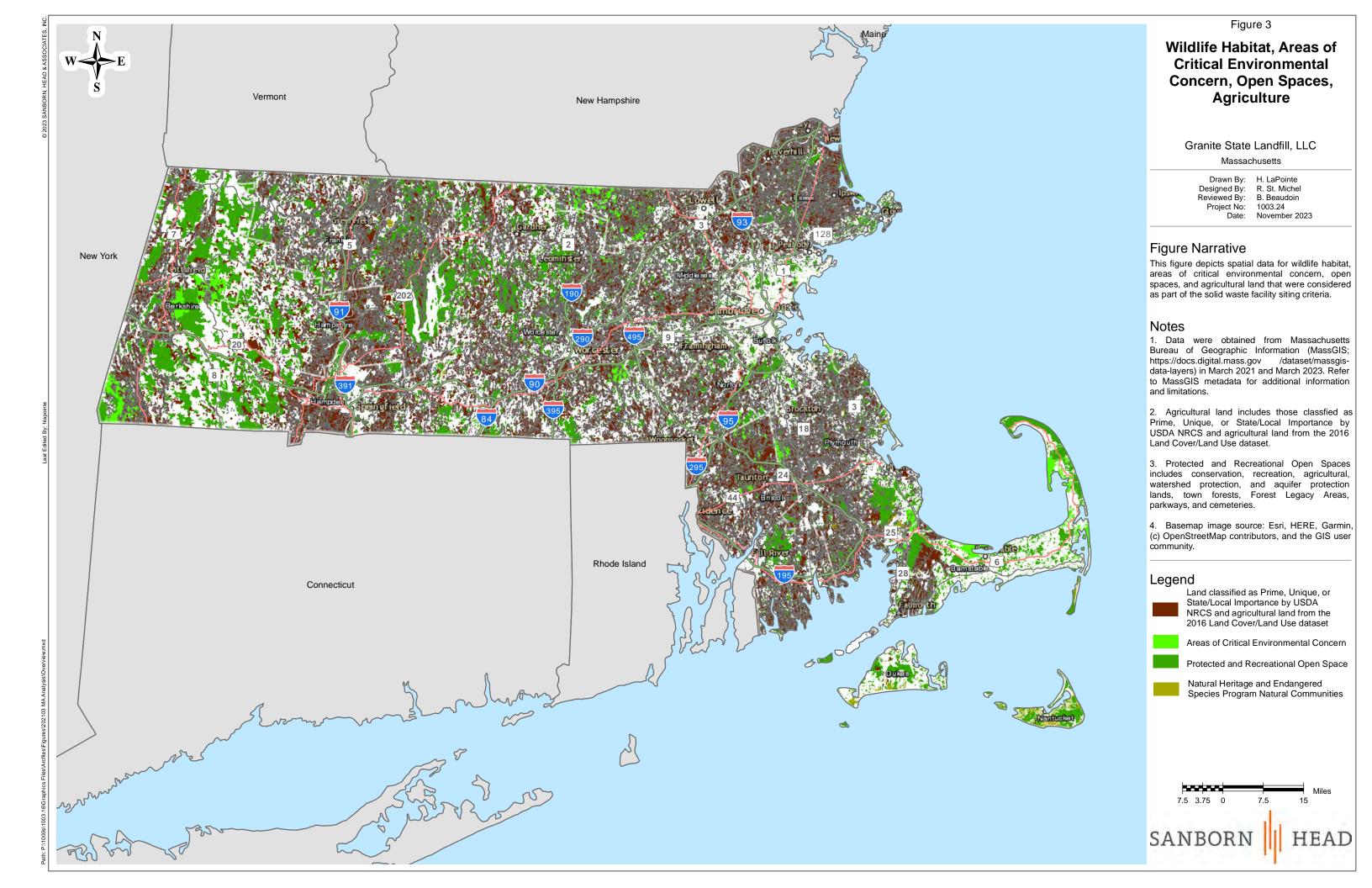
Sub- Paragraph	Criteria	Setback (feet)	Included in GIS Analysis?	MassGIS Source Data (Date Updated)	Comments					
(g)(5)	adverse impact from bird hazards to air traffic	10,000	Yes (see comments)	Airports (March 2021)	A 10,000 foot setback was applied to all airports in the state dataset. Some airports may have runways that are used only by piston type aircraft; in these instances, a 5,000 ft setback would apply. Massachusetts Solid Waste Regulation 310 CMR 19.104(2)(g) requires airports within 10,000 feet of a landfill be shown on permit drawings, but would not necessarily prohibit the development of a landfill.					
(g)(5)	adverse impact from bird hazards to air traffic	5,000	Yes (see comments)	Airports (March 2021)	See above					
(g)(6)	adverse impact due to other nuisance problems	N/A	No	N/A	Site-specific considerations					
(h)	Size of Facility	· · · · · · · · · · · · · · · · · · ·								
(h)	distance of waste handling area or waste deposition area to property line	100	Yes	N/A	A 100 ft buffer was applied.					
(i)	Areas Previously Used for Solid Waste Disposal	0	No	MassDEP Solid Waste Diversion and Disposal (January 2016)	Site-specific considerations					
-	No setback requirements - See Regulations for additional critiria requirements if applicable	0	No							
(i)	Existing Facilities	0	No	MassDEP Solid Waste Diversion and Disposal (January 2016)	Site-specific considerations					
	No setback requirements - See Regulations for additional critiria requirements if applicable	0	No							
(k)	Consideration of Other Sources of Contamination or Pollution	0	No	N/A	Site-specific considerations					
	No setback requirements - show these areas from MassGIS (if available, thinking of major areas of known pollution (Superfund sites))	0	No							
(l)	Regional Participation	-	-	N/A	Site-specific considerations					
	No setback requirements									
	240.0	MD 16 40	(f) Dw	n of Integrated Solid Waste Managemo	l					
(5)	Promotion of Integrated Solid Waste Management	MK 10.40	Promotio	n of integrated solid waste manageme N/A	Site-specific considerations					
(3)		Other Cri	teria Consider	ed in the Analysis Not Listed Above	one specific considerations					
-	open surface water	0	Yes	MassDEP Hydrography 1:25,000 (December 2019)	Open surface water bodies were assumed to be unsuitable for landfill development and incorporated into the "Unavailable Land" layer.					
-	topography (steep slopes)	0	Yes	Visual Assessment						
-	roadways	0	Yes	MassDOT Roads (May 2022)	Roadways were assumed to be unsuitable for landfill development and incorporated into the "Unavailable Land" layer. A 20 ft buffer was applied to the roadway centerline.					
-	urban areas	0	No	Urban Boundaries 2010 Census (November 2021)	Urban areas are displayed on Figures 1 and 2 for reference purposes; urban areas were not incorporated into the "Unavailable Land" layer.					

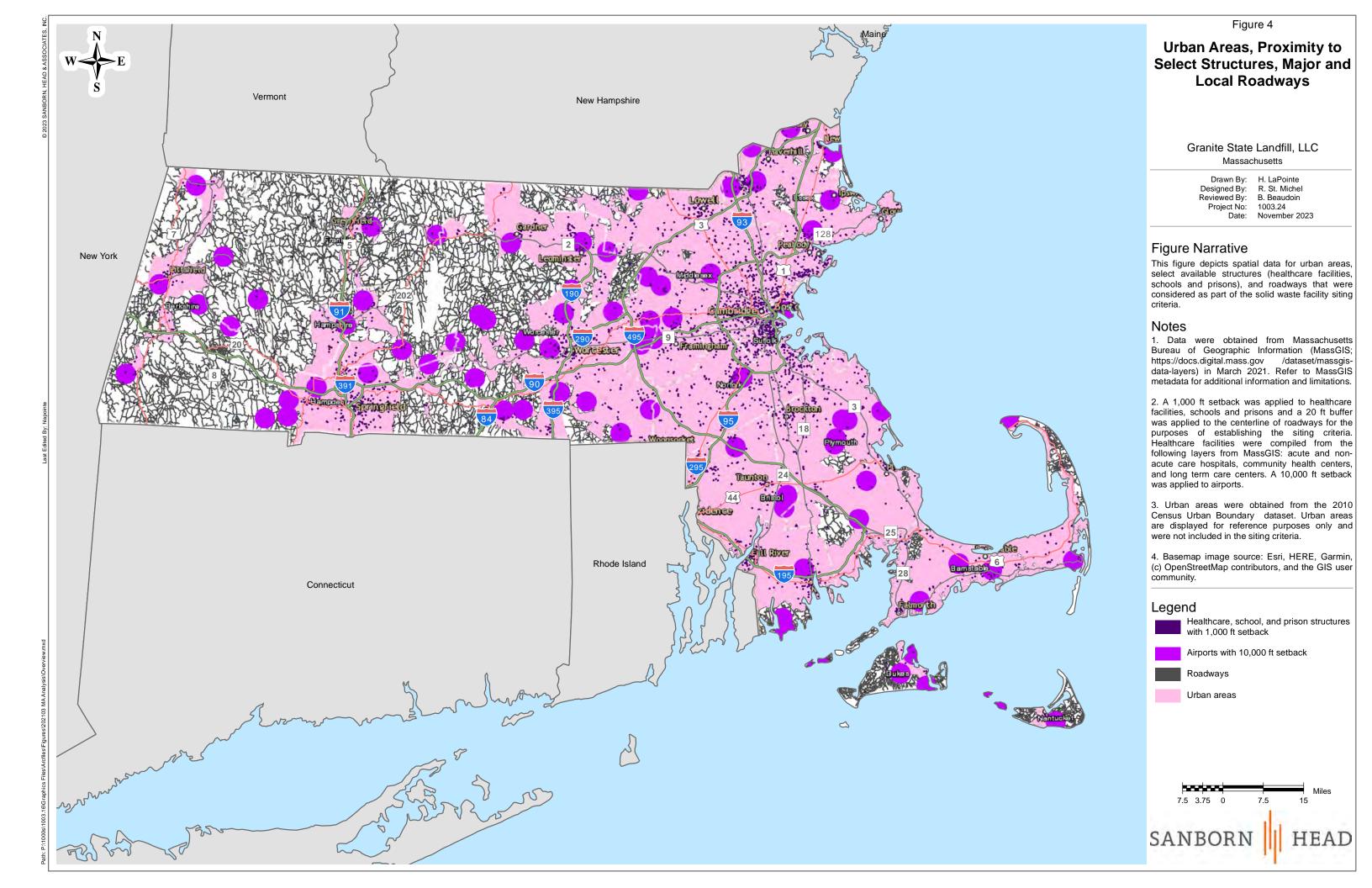
# Table 2 Evaluation Summary Granite State Landfill, LLC

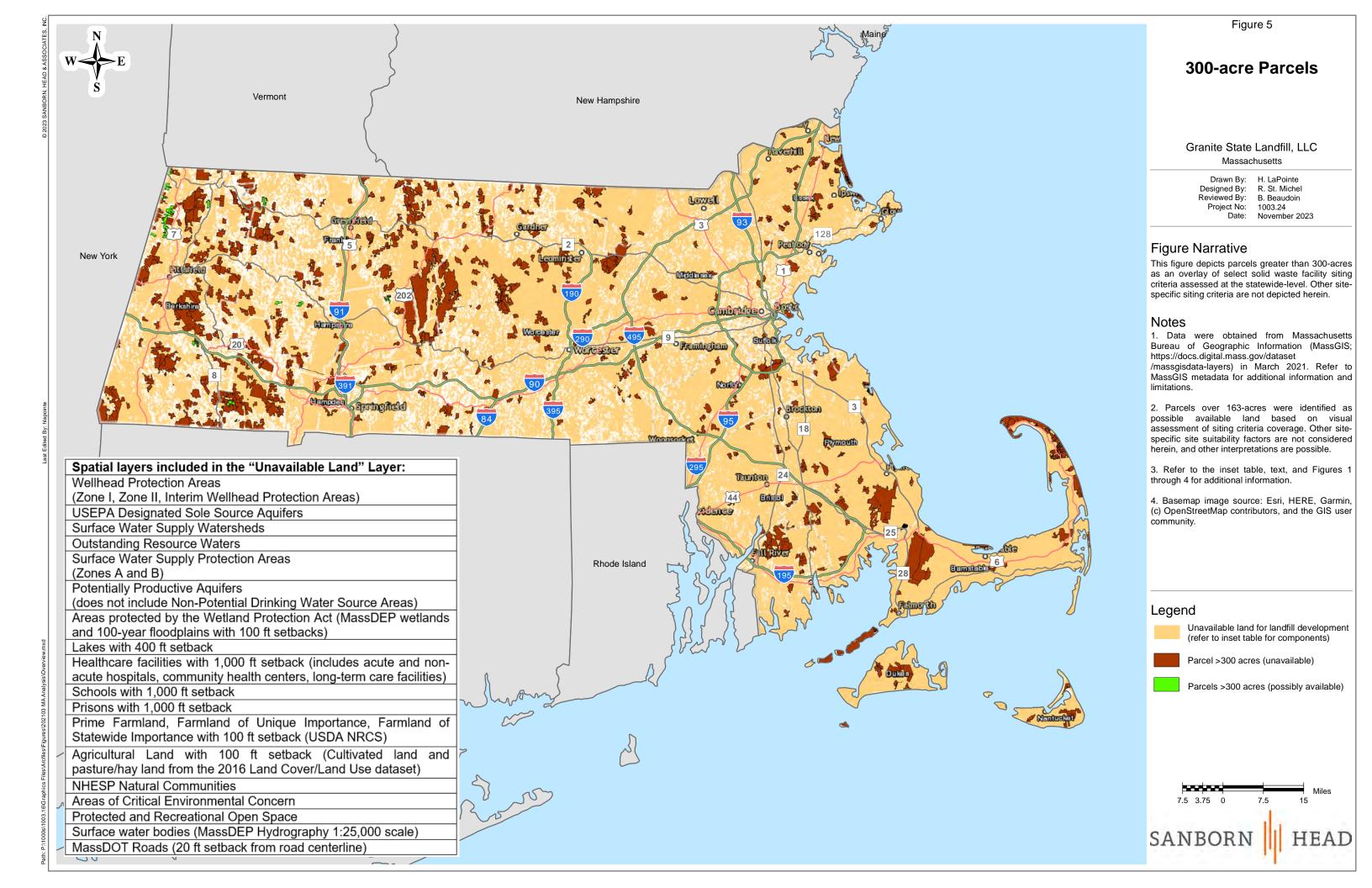
	-		Drimary Cono	eening (Parcel Size)		Other Screening Criteria					NRCS Hydric Soils Environmental Justice				Other Factors		Regulatory Criteria
		Primary Screening (Parcel Size)			Other Screening Criteria					NRCS Hydric Soils Environmental Justice			Other ractors				
		Minimum 300-	Minimum 70- acres of Lined	Minimum Total Disturbance of 175-				Steep Slopes	Hilltop								Massachusetts Landfill Site Suitability Criteria
Study Area (SSA)/Fig	Parcel Description	acre parcels	Landfill Area	acres	Viable?	Irregular Shape	No Access or Steep Access (>15%)	(>7H:1V)	_	Viable?	NRCS Hydric Soils	Viable?	Within an EJ District	Viable?	Other Factors	Viable?	
Figure 9	Figure Key																
SSA-1/Figure 9A	One parcel, irregular shaped parcel (4 fingers) with largest finger having area of approx. 103 usable acres, no access to public roadway, and steep slopes (~2.7H:1V to 4H:1V) with no flat area.	Yes (~416 acres)	Yes (~103 acres)	No (~103 acres)	No	Yes	Yes. Steep Slope off of Route 2 (>50%)	Yes	Hillside, Hilltop	No	Not Evaluated		Not Evaluated		None		Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria.
SSA-2/Figure 9B	Two parcels, irregular shaped parcels with largest land mass having area of approx. 189 usable acres, No access to public roadway, and steep slopes (~2.3H:1V to 3.4H:1V) with no flat area.	Yes (~172 and 477 acres)	Yes (~189 acres)	Yes (~189 acres)	Potentially	Yes	Yes. Oblong Road over 2,000 feet away (>20%	) Yes	Hillside, Hilltop	No	Not Evaluated		Not Evaluated		None		Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria.
SSA-3/Figure 9C	Two parcels, irregular shaped parcels (4 halves) with largest halve area of approx. 152 usable acres, No access to public roadway, and steep slopes (~2.2H:1V to 3.5H:1V) with no flat area.	Yes (~210 and 177 acres)	Yes (~152 acres)	No (~152 acres)	No	Overall Yes, Usable Area No	Yes. Route $43 \sim 1$ mile away, through private property and wetland features. (>20% slopes)	Yes	Hillside, Hilltop	No	Not Evaluated		Not Evaluated		None		Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria.
SSA-4/Figure 9D	Four parcels, largest halve area of approx. 578 usable acres, No access to public roadway, and steep slopes (~2.9H:1V to 4.9H:1V) with no flat area.	Yes (~218, 72, 344 and 205 acres)	Yes (~578 acres)	Yes (~578 acres)	Potentially	^ :	Yes. Route 43 ~0.5 miles away, through privat property and need to cross West Branch Green River. (>20% slopes)		Hillside, Hilltop	No	Not Evaluated		Not Evaluated		None		Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria.
SSA-5/Figure 9E	Three parcels, approx. 360 usable acres, no access to public roadway, and steep slopes (~2.3H:1V to 6.9H:1V) with no flat areas.	Yes (~197, 103 and 365 acres)	Yes (~360 acres)	Yes (~360 acres)	Potentially	Yes	Yes. Route 43 ~0.25 miles away, through private property and need to cross West Branch Green River. (>20% slopes)	Yes	Hillside, Hilltop	No	Not Evaluated		Not Evaluated		None		Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria.
SSA-6/Figure 9F (extends from Figure 9E)	Two parcels, approx. 432 usable acres, no access to public roadway, and steep slopes ( $\sim$ 2.3H:1V to 6.3H:1V) with no flat areas.	Yes (~200 and 365 acres)	Yes (~432 acres)	Yes (~432 acres)	Potentially	No. Portions of parcels split by water feature	Yes. Route 43 ~0.25 miles away, through private property and need to cross West Branch Green River. (>20% slopes)	Yes	Hillside, Hilltop	No	Not Evaluated		Not Evaluated		Parcel contains four (4) Windmills. Adjacent to Brodie Mtn and Ski Lift.	No	Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria. Parcel contains four (4) Windmills.  Adjacent to Brodie Mtn and Ski Lift.
SSA-7/Figure 9G	One parcel, approx. 213 usable acres, no access to public roadway, and steep slopes (~1.6H:1V to 6.4H:1V) with no large flat areas.	Yes (~486 acres)	Yes (~213 acres)	Yes (~213 acres)	Potentially	Parcel split by water feature	Yes. Existing access road to Windmills off of Brodie Mountain Road ~0.85 miles away. (upt 20% slopes).	o Yes	Hillside, Hilltop	No	Not Evaluated		Not Evaluated		Parcel contains six (6) Windmills. Adjacent to Brodie Mtn and Ski Lift.	No	Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria. Parcel contains six (6) Windmills.  Adjacent to Brodie Mtn and Ski Lift.
SSA-8/Figure 9H	Two parcels, approx. 224 usable acres, no access to public roadway, and steep slopes (~2.1H:1V to 4.8H:1V) with no flat areas.	Yes (~118 and 223 acres)	Yes (~224 acres)	Yes (~224 acres)	Potentially	Parcel split by water feature	Yes. Access would be off of Brodie Mountain Road ~600 feet away, (upto 35% slopes).	Yes	Hillside, Hilltop	No	Not Evaluated		Not Evaluated		Adjacent to Brodie Mtn and Ski Lift.	No	Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria. Adjacent to Brodie Mtn and Ski Lift.
SSA-9/Figure 9I	Two parcels, approx. 227 usable acres, no access to public roadway, and moderate to steep slopes (~3.1H:1V to 8.6H:1V) with no flat areas.	Yes (∼133 and 195 acres)	Yes (~227 acres)	Yes (~227 acres)	Potentially	No	Yes. Access would be off of Route 43 ~650 feed away through an active farming operation, (upto 50% slopes). Or off of Madden Road which transitions to dirt road ~1,000 feet from the site (up to 36% slope) and ends ~100 feet from the site.	Steep and Moderate	Hillside, Hilltop	No	Not Evaluated		Not Evaluated		Near Brodie Mtn Ski Resort.	No	Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria.  Near Brodie Mtn Ski Resort.
SSA-10/Figure 9J	One parcel, approx. 68 usable acres, moderate to shallow slopes (within 68 acre area), very steep slopes elsewhere on parcel.	Yes (~342 acres)	No (~68 acres)	No (~68 acres)	No	No	No	Steep, Moderate and Shallow	Hillside and <b>Quarry</b>	No	Not Evaluated		Not Evaluated		Parcel is an active quarry operation.	No	Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria. Parcel is an active quarry operation,
SSA-11/Figure 9K	Three parcels, approx. 256 usable acres, steep access to public roadway, and steep to shallow slopes (~2.5H:1V to 15H:1V) with no flat areas.	Yes (~162, 281 and 90 acres)	Yes (~256 acres)	Yes (~256 acres)	Potentially	Yes. Parcel split by water feature	Yes. Access would be off of Zoar Road (south o the site and just off of Route 2) ~2000 feet away, (up to 60+% slopes).		Hillside, Hilltop	No	Not Evaluated		Not Evaluated		None		Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria.
SSA-12/Figure 9L	Two parcels, approx. 140 usable acres, No direct access to public roadway, access available via curvy residential road, and moderate slopes (~5.7H:1V to near flat at the top).	Yes (~160 and 281 acres)	Yes (~140 acres)	No (~140 acres)	No	Yes. Parcel split by water features	Yes. Access via curvy residential road approx.1.3 miles from major public roadway	Steep, Moderate and Shallow	Hilltop	No	Not Evaluated		Not Evaluated		None		Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria.
SSA-13/Figure 9M	Two parcels, approx. 109 usable acres, direct access off of Goose Lane Road, steep to shallow slopes (~3.8H:1V to 13H:1V).	Yes (~191 and 111 acres)	Yes (~109 acres)	Yes (~109 acres)	No	Yes. Parcel split by Goose Lane	Yes. Access would need to be developed from Bryant Road to the east.	Steep and Shallow	Hillside, Hilltop	No	Not Evaluated		Not Evaluated		Goose Lane splits parcel. It does not provide contiguous area required to support landfill facility operations/infrastructure.	No	Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria. Parcels are classified as forest lands.
SSA-14/Figure 9N	Three parcels, approx. 243 usable acres, access off of Route 143, steep to shallow slopes (~2.6H:1V to 13H:1V).	Yes (~103, 157 and 148 acres)	Yes (~243 acres)	Yes (~243 acres)	Potentially	No	No. Access directly off of Route 143	Steep and Shallow	Hilltop	No	Not Evaluated		Not Evaluated		Parcels are located in two municipalities. Topography does not provide flat area for landfill development without major earthwork and would make it difficult for surface water monitoring. Parcel abuts Unquomonk Reservoir.		Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria. <b>Parcel abuts Unquomonk Reservoir.</b>
SSA-15/Figure 90	One parcel, approx. 77 usable acres, no access from public roadway, steep slopes (2.5H:1V).	Yes (~318 acres)	No (~77 acres)	No (~77 acres)	No	Yes. Parcel split by water features	No. Access via One Pratt Corner Road which is ~0.6 miles from Buffam Road.	Yes	Hillside, Hilltop	No	Not Evaluated		Not Evaluated		Parcel split by utility easement.	No	Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria. <b>Parcel split by</b> <b>utility easement.</b>
SSA-16/Figure 9P	One parcel, approx. 243 usable acres, direct access off of Schoolhouse Road, moderate to shallow slopes (7.7H:1V to 15H:1V).	Yes (~503 acres)	Yes (~243 acres)	Yes (~243 acres)	Potentially	Yes. Parcel split by water features	No. Direct Access off of Schoolhouse Road.	Moderate and Shallow	Hillside, Hilltop	No	Not Evaluated		Not Evaluated		Parcel abuts Farmington River West Branch Watershed to the east and the Tolland State Forest to the west. Directly abuts Noyes Pond. Parcel is split by water features. It does not provide contiguous area required to support landfill facility operations/infrastructure.	No	Site Suitability Criteria setbacks applied when developing "usable" landfill areas. Refer to report for limitations on applying certain Site Suitabliity Criteria. Parcel abuts Farmington River West Branch Watershed to the eas and the Tolland State Forest to the west. Directly abuts Noyes Pond.

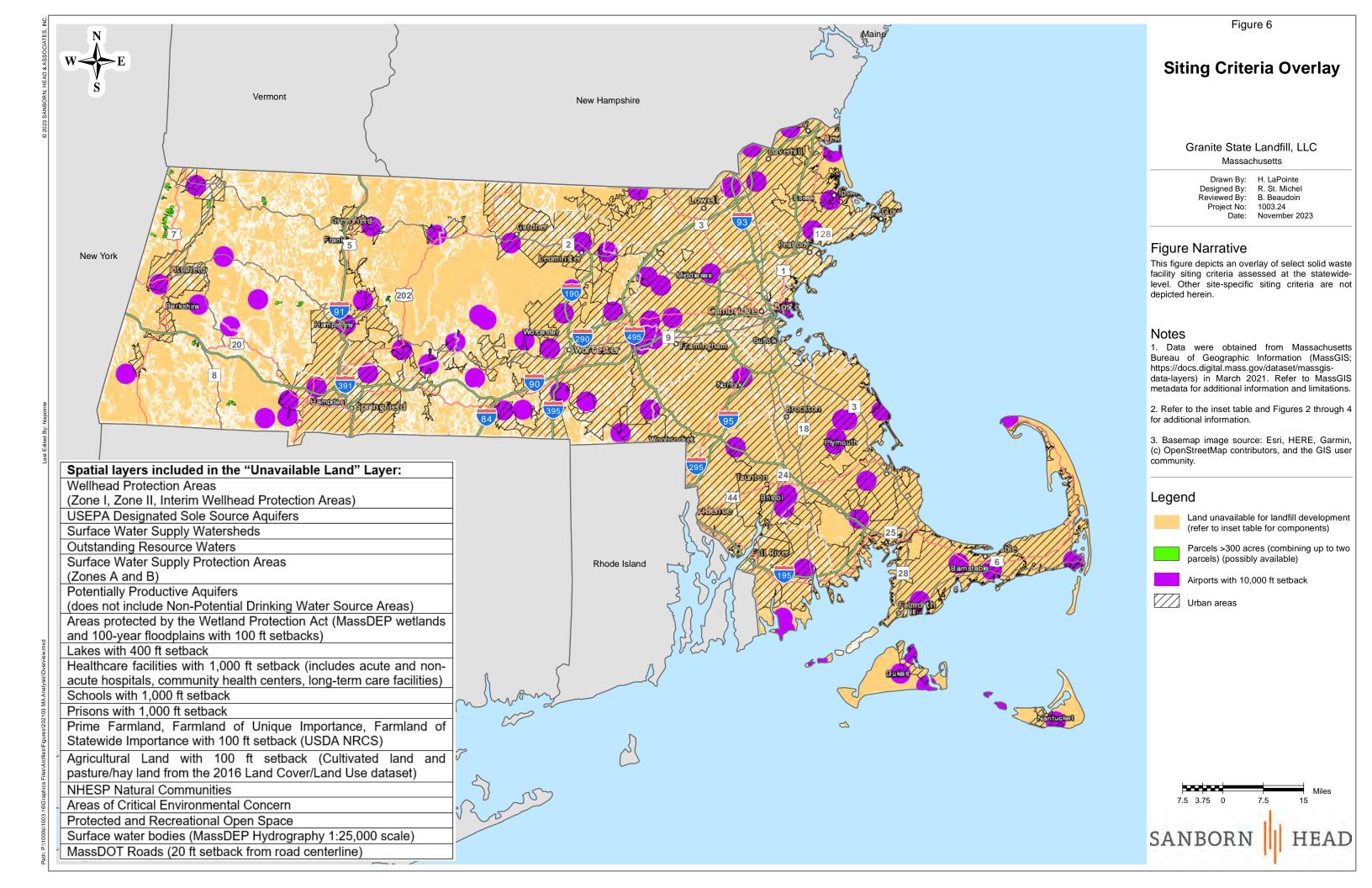
## **Figures**

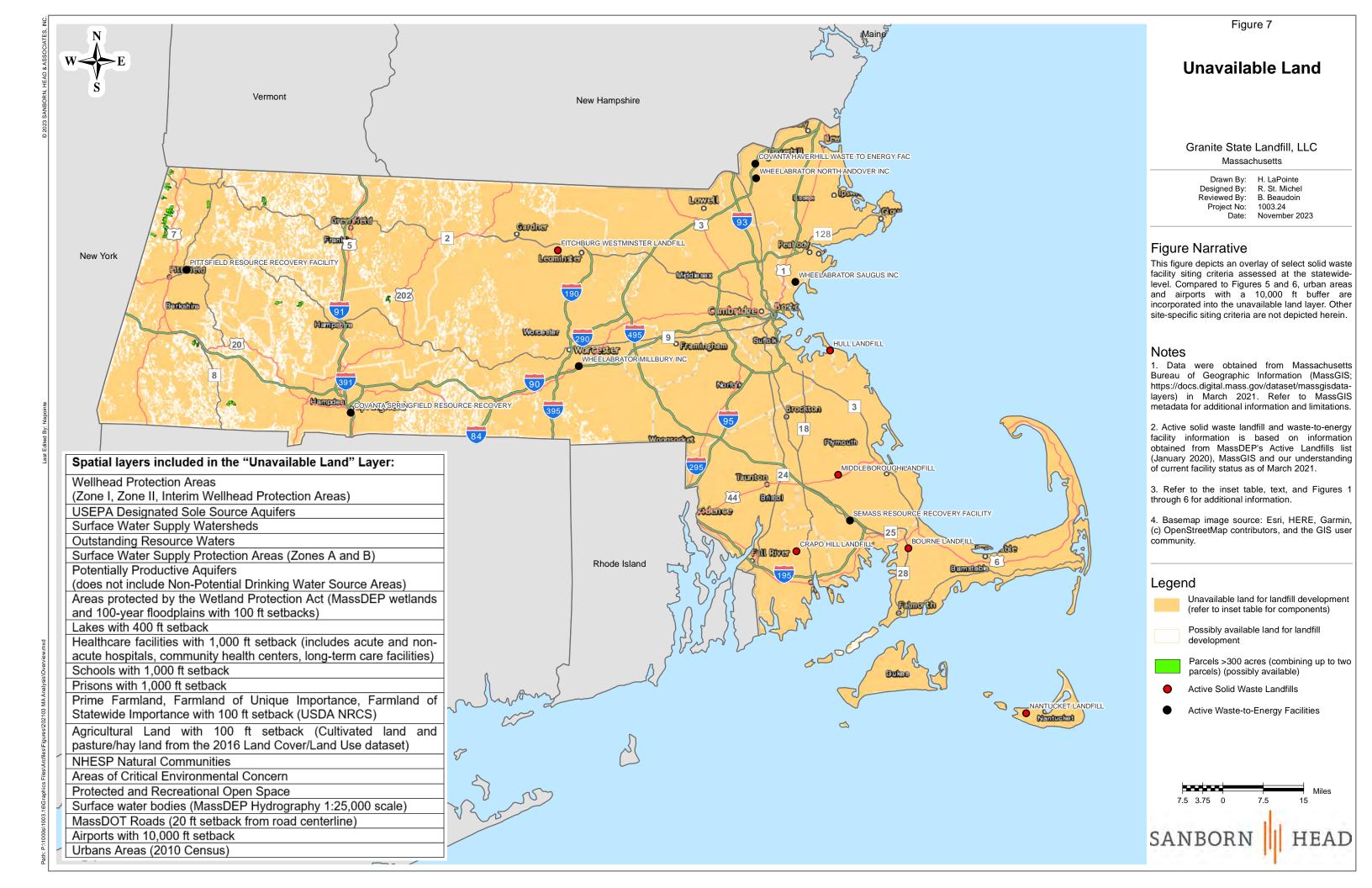


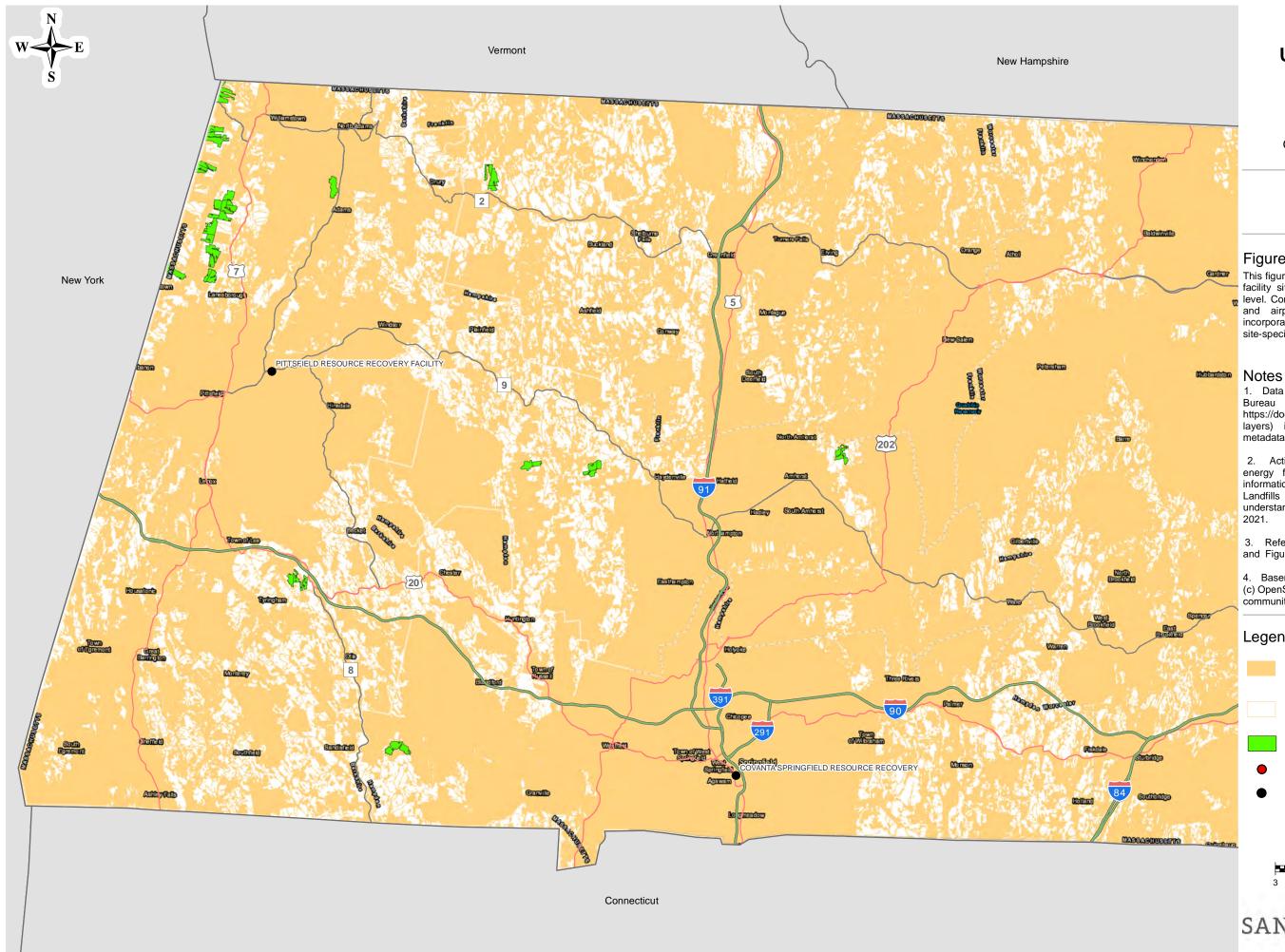


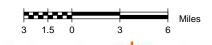








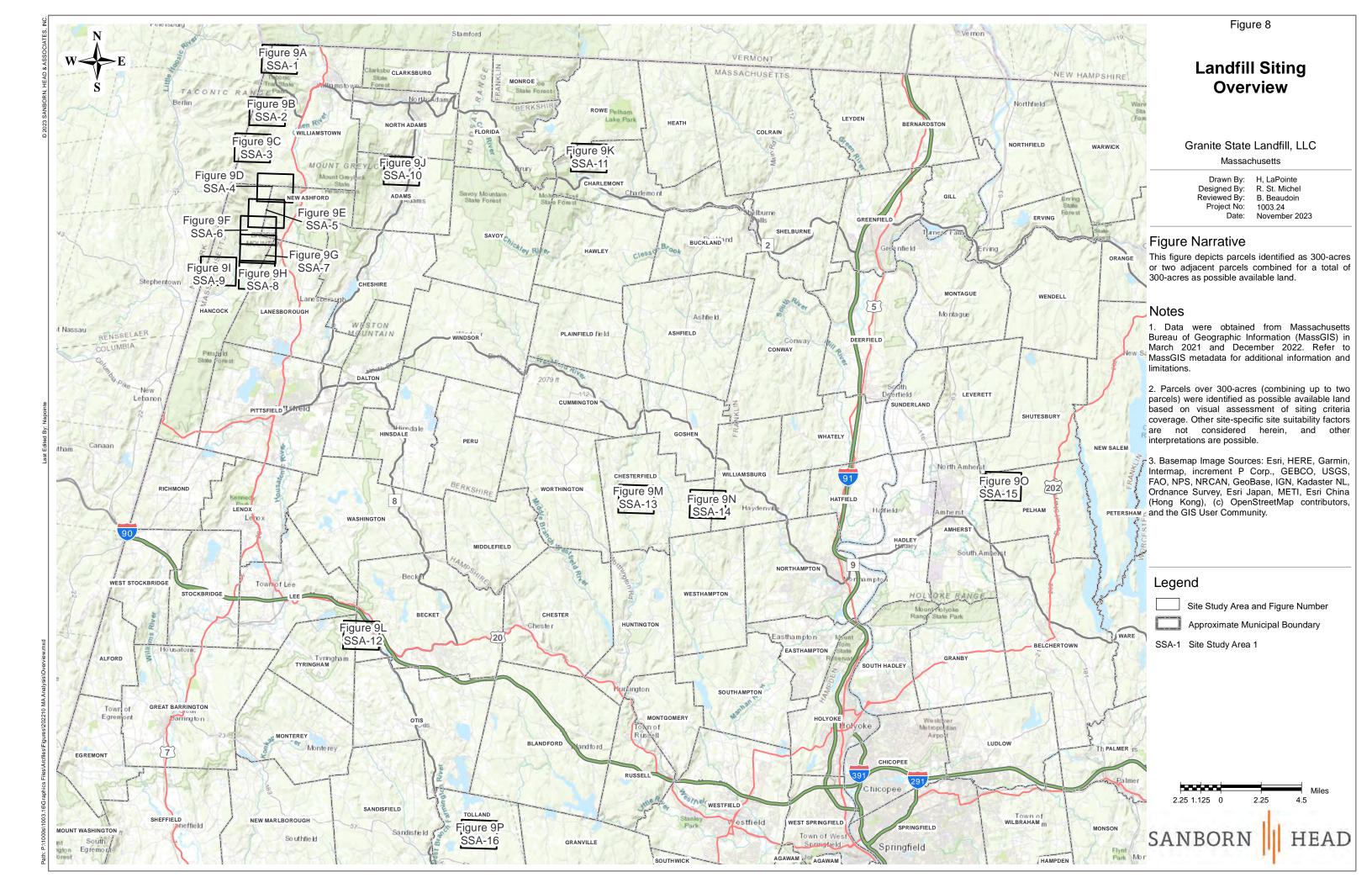


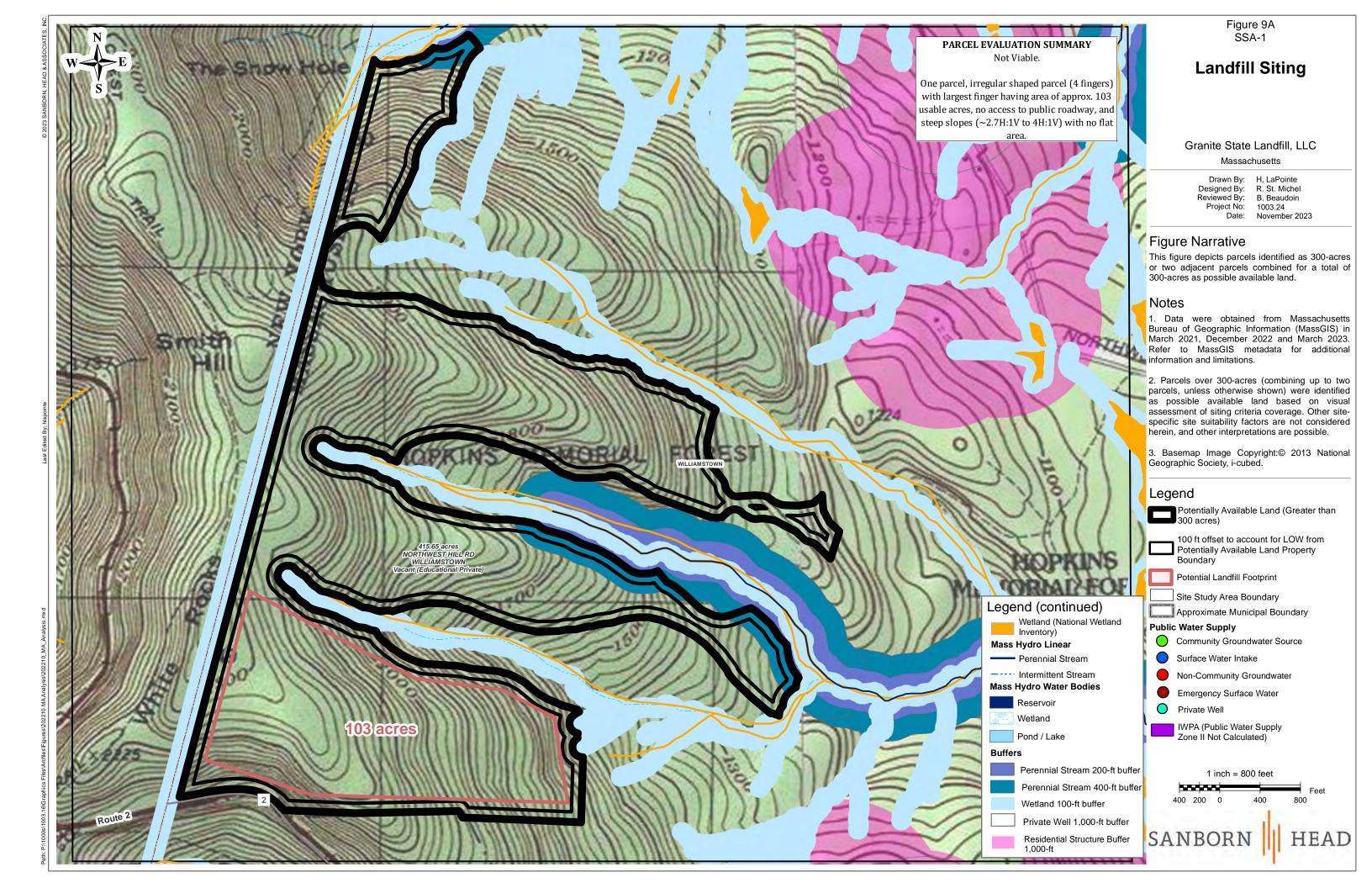


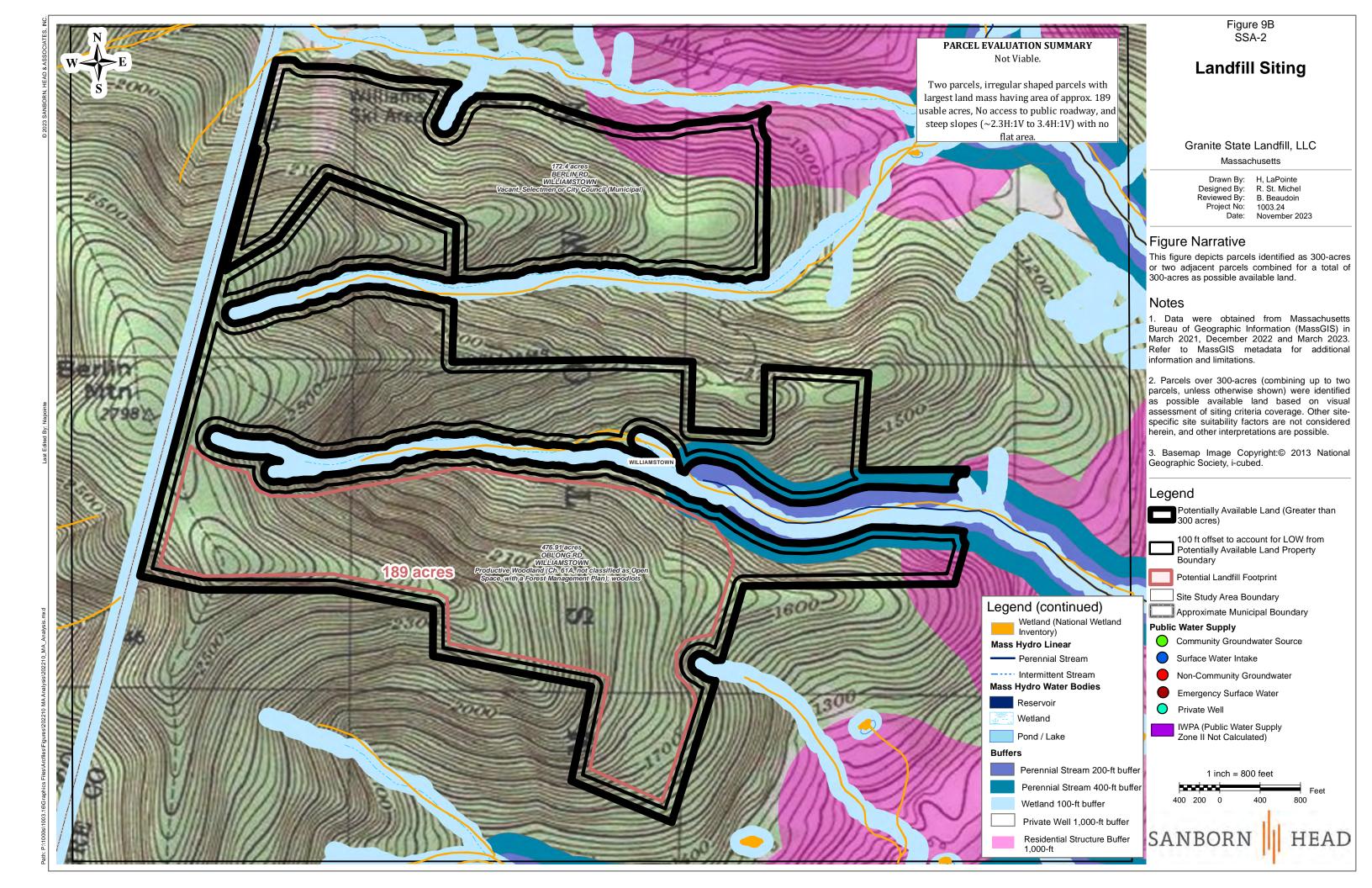


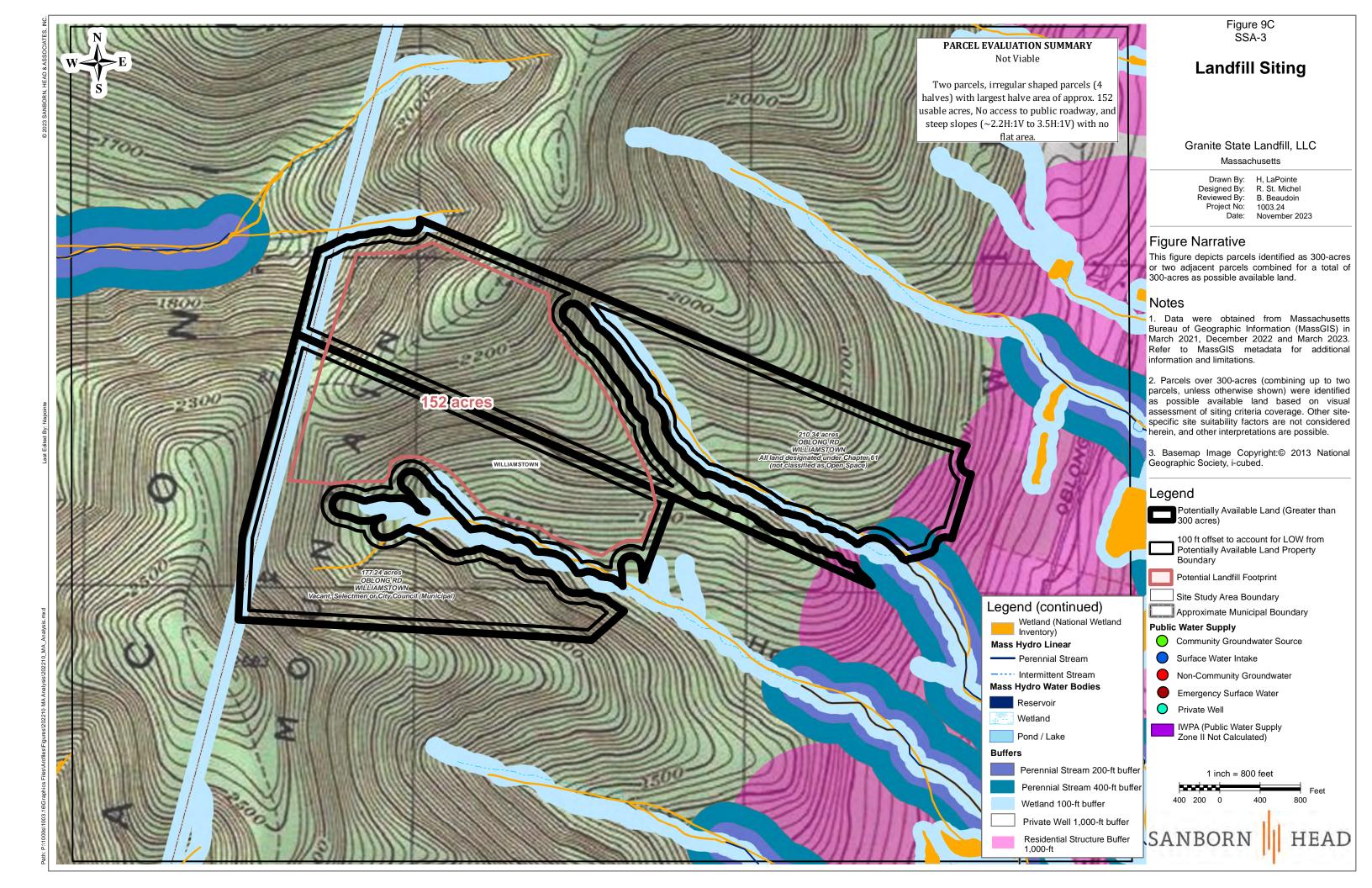


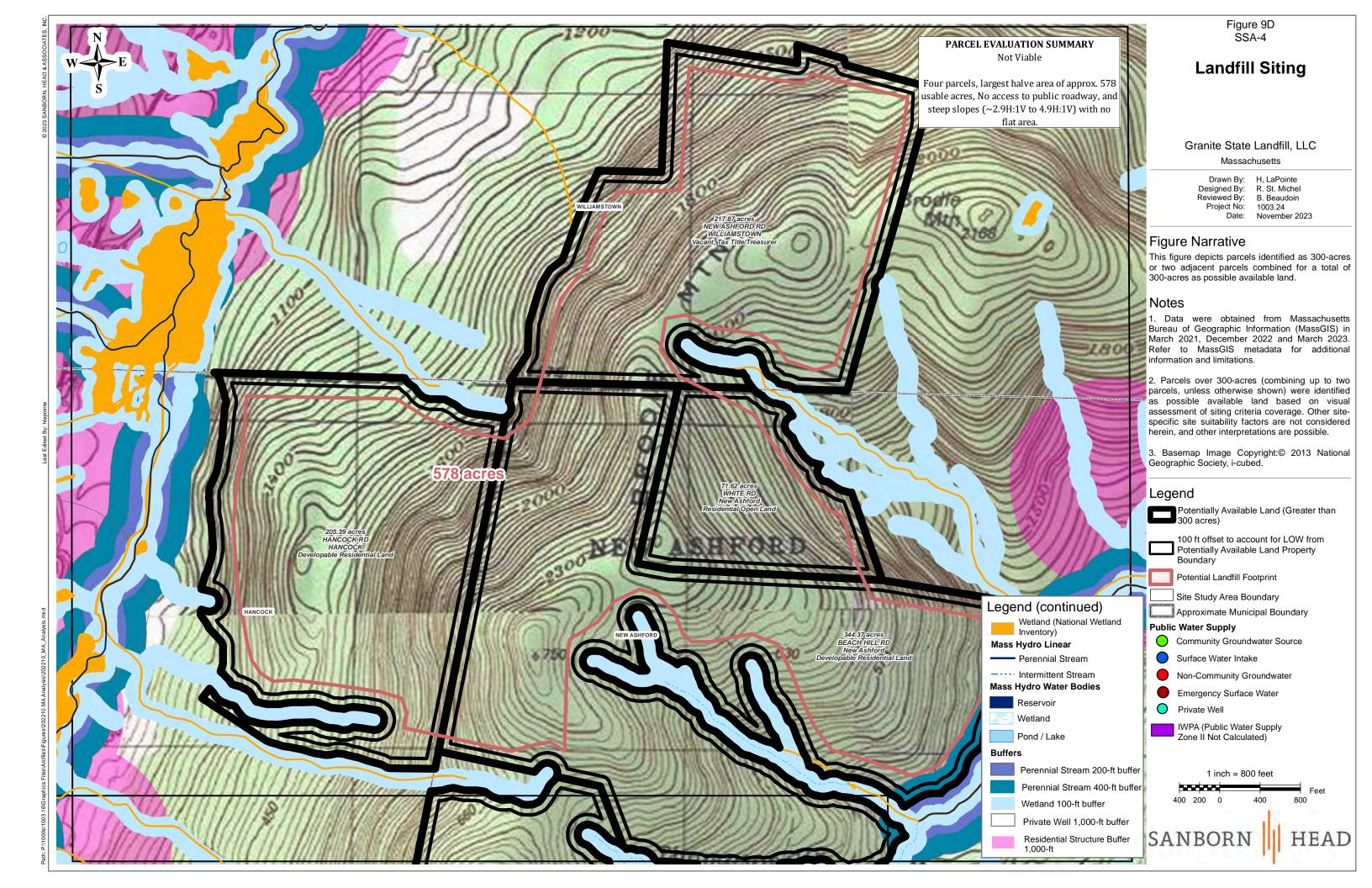


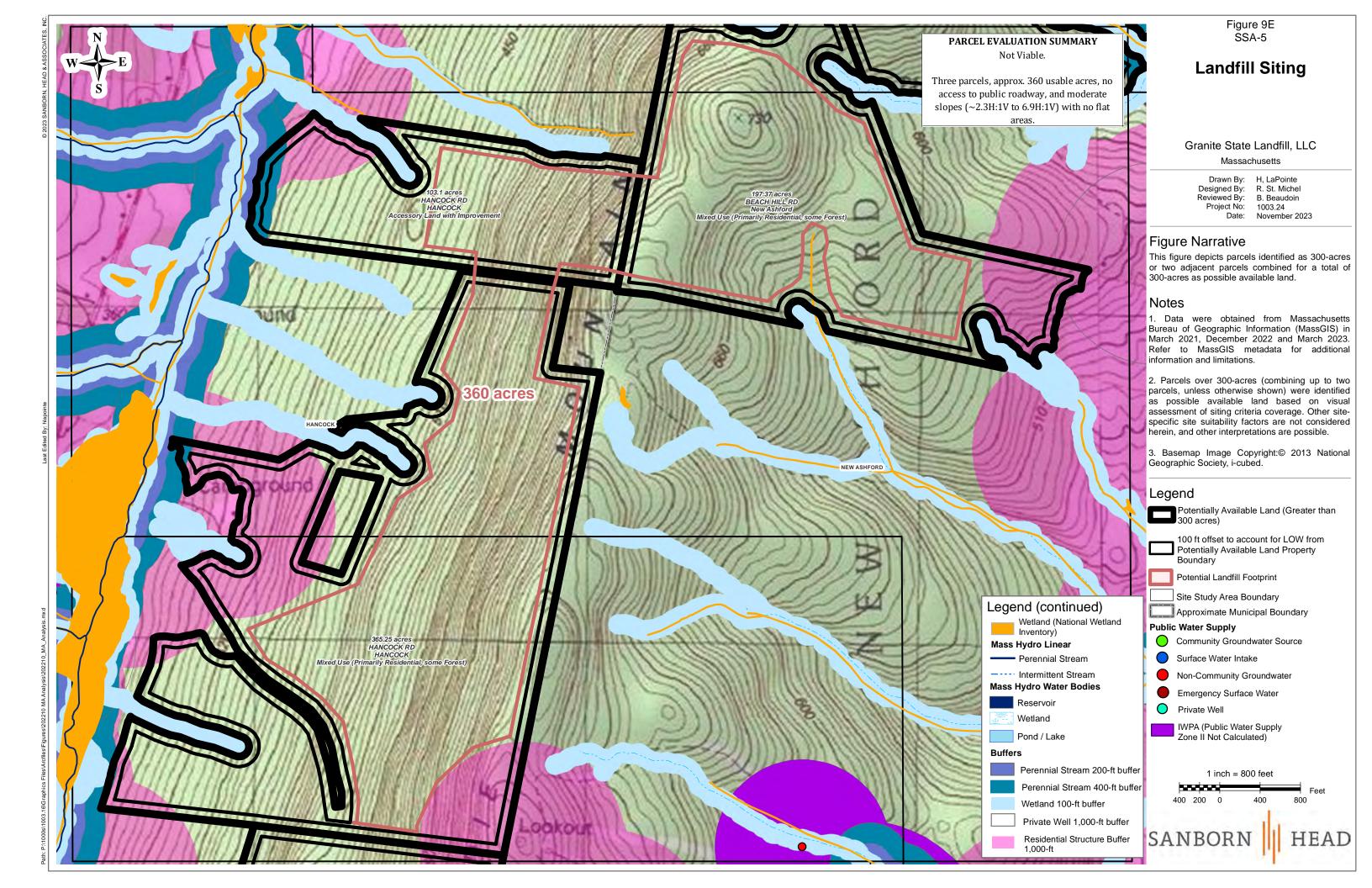


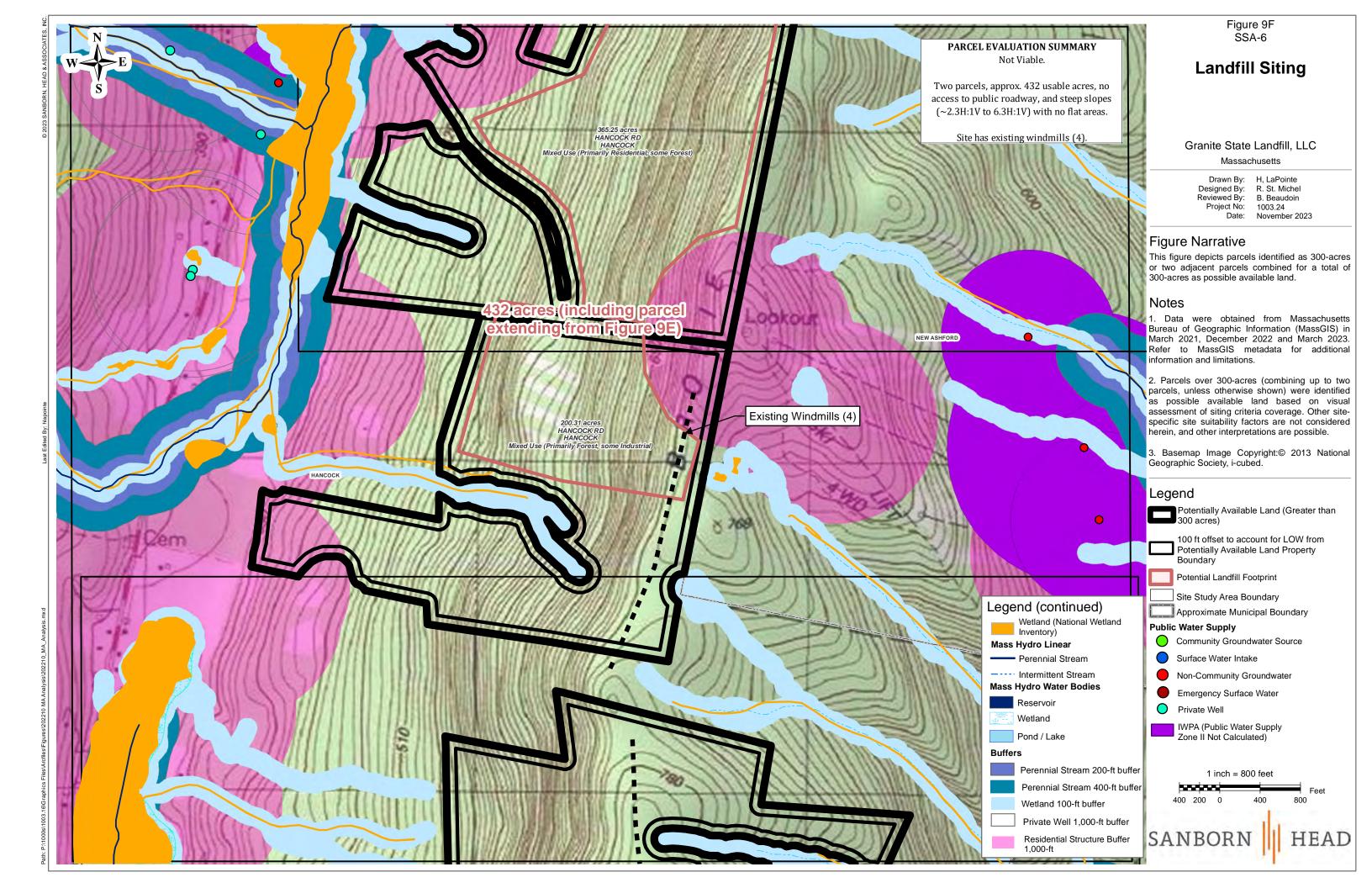


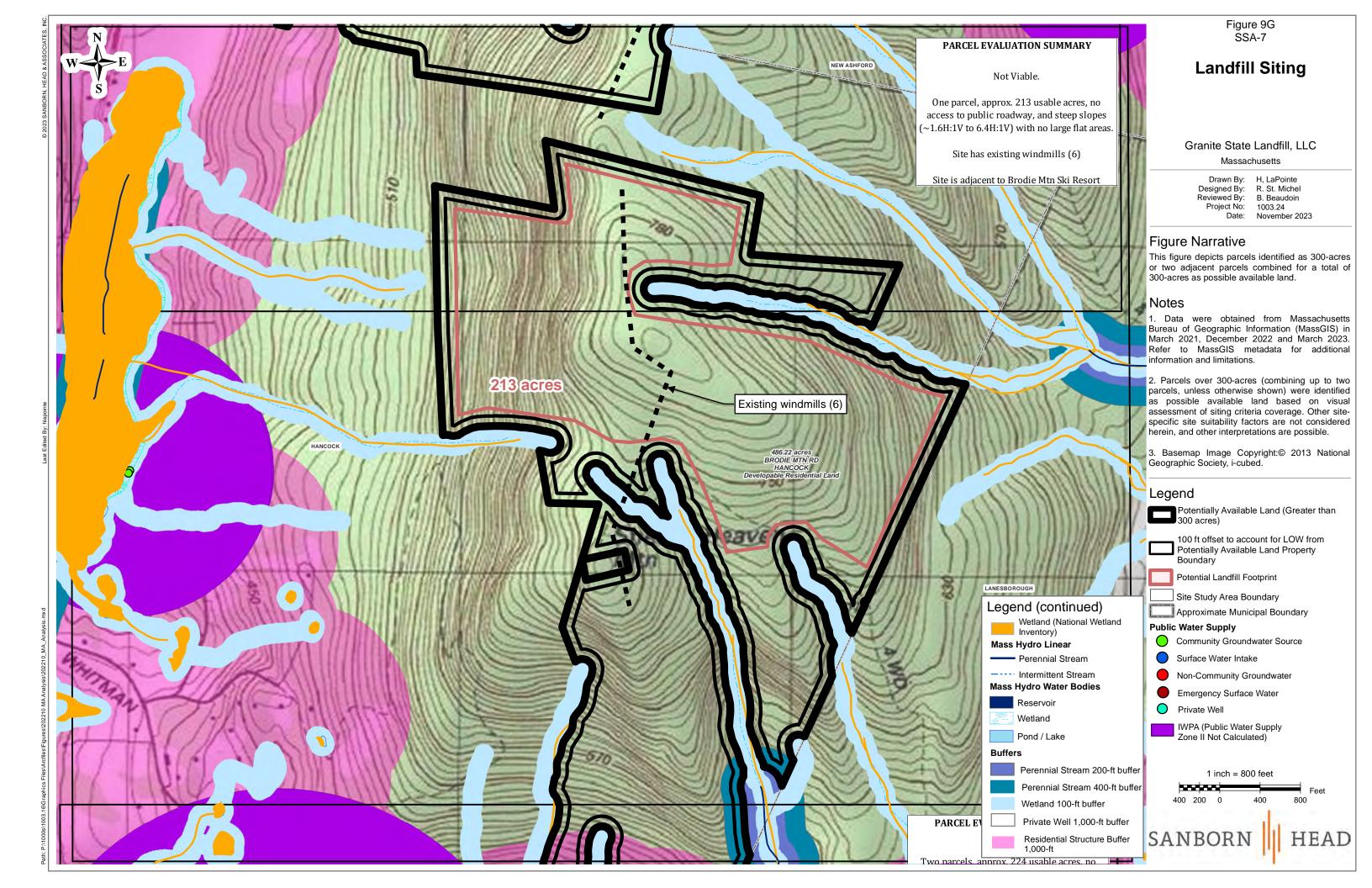


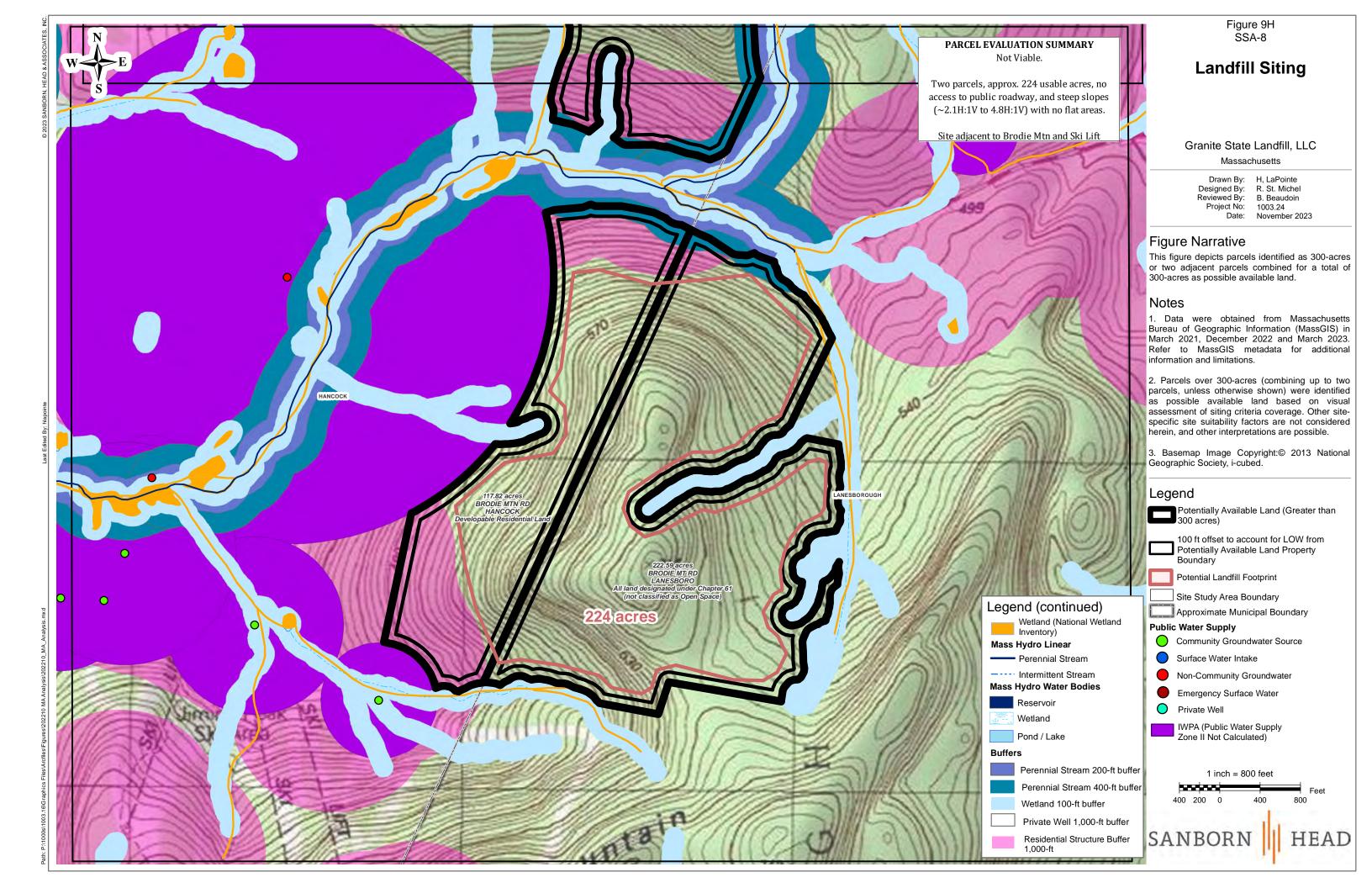


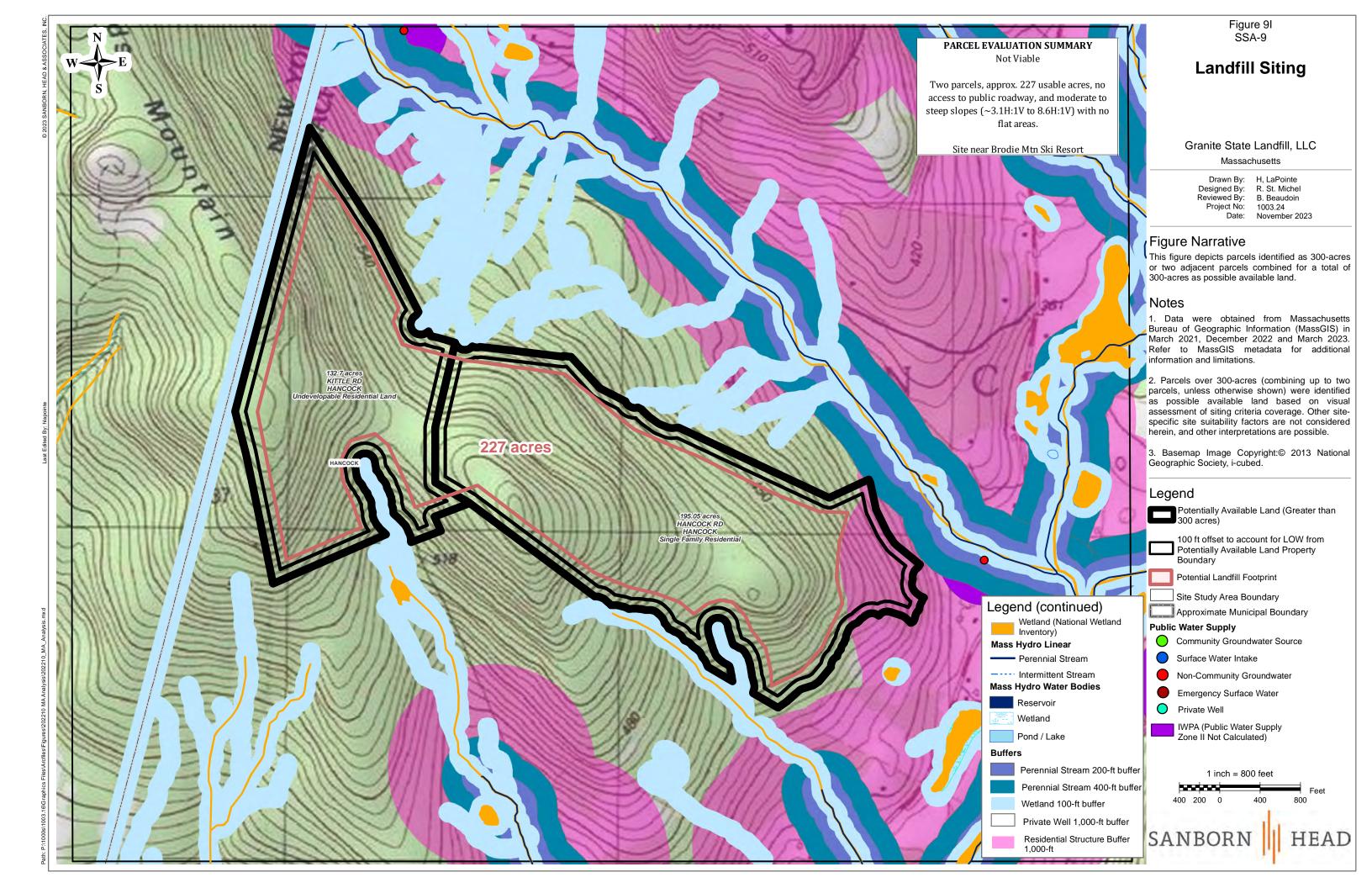


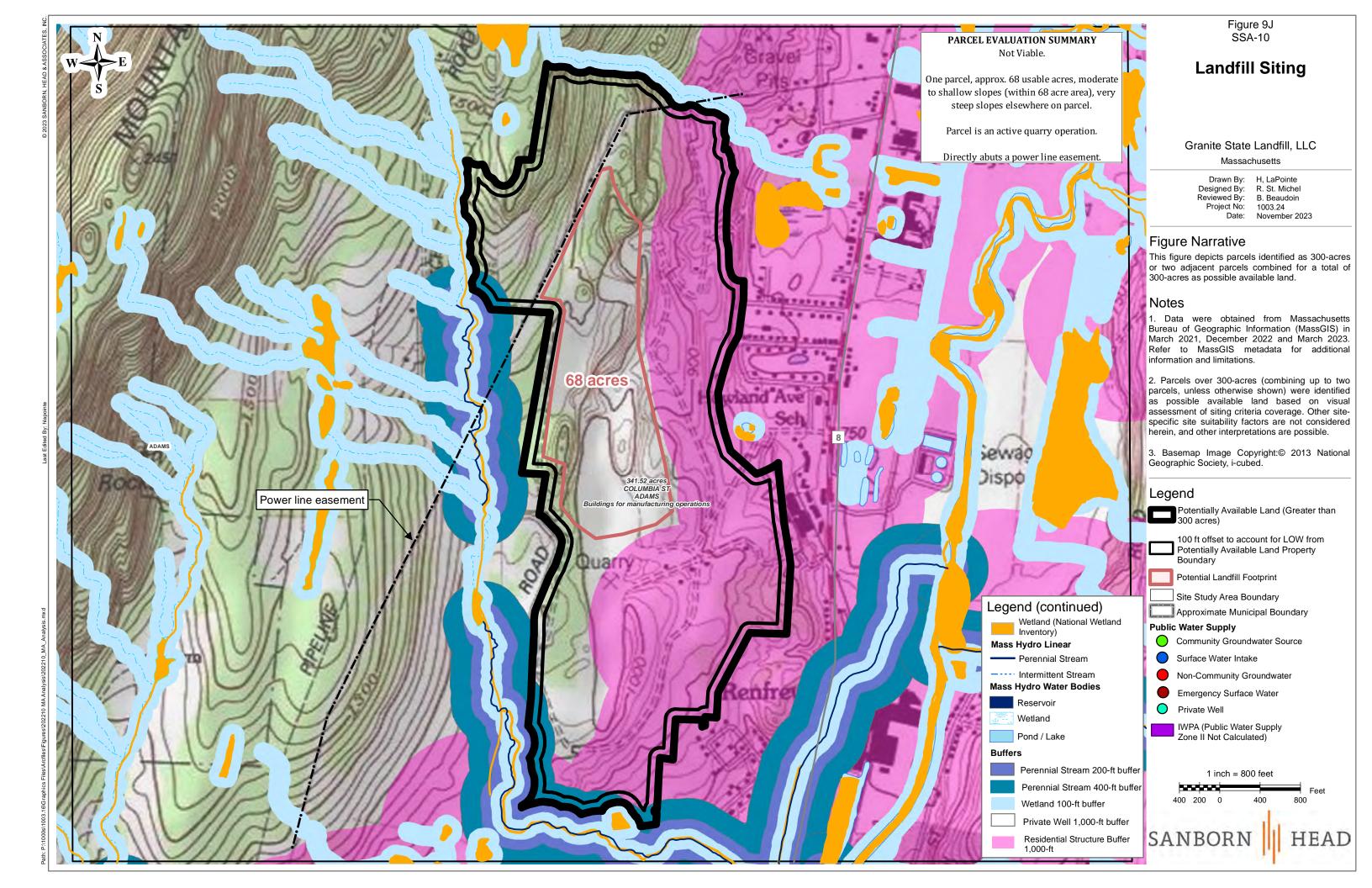


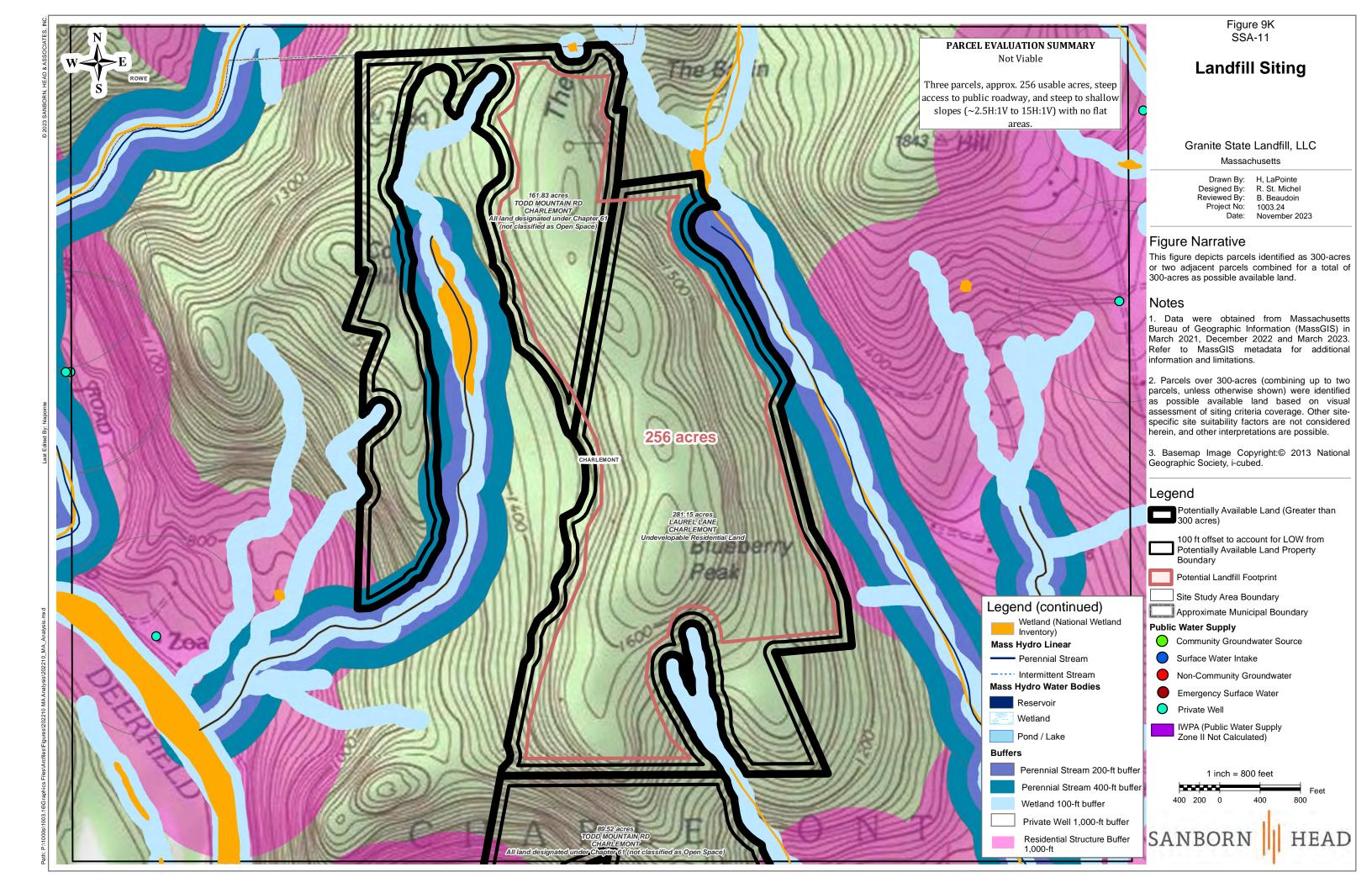


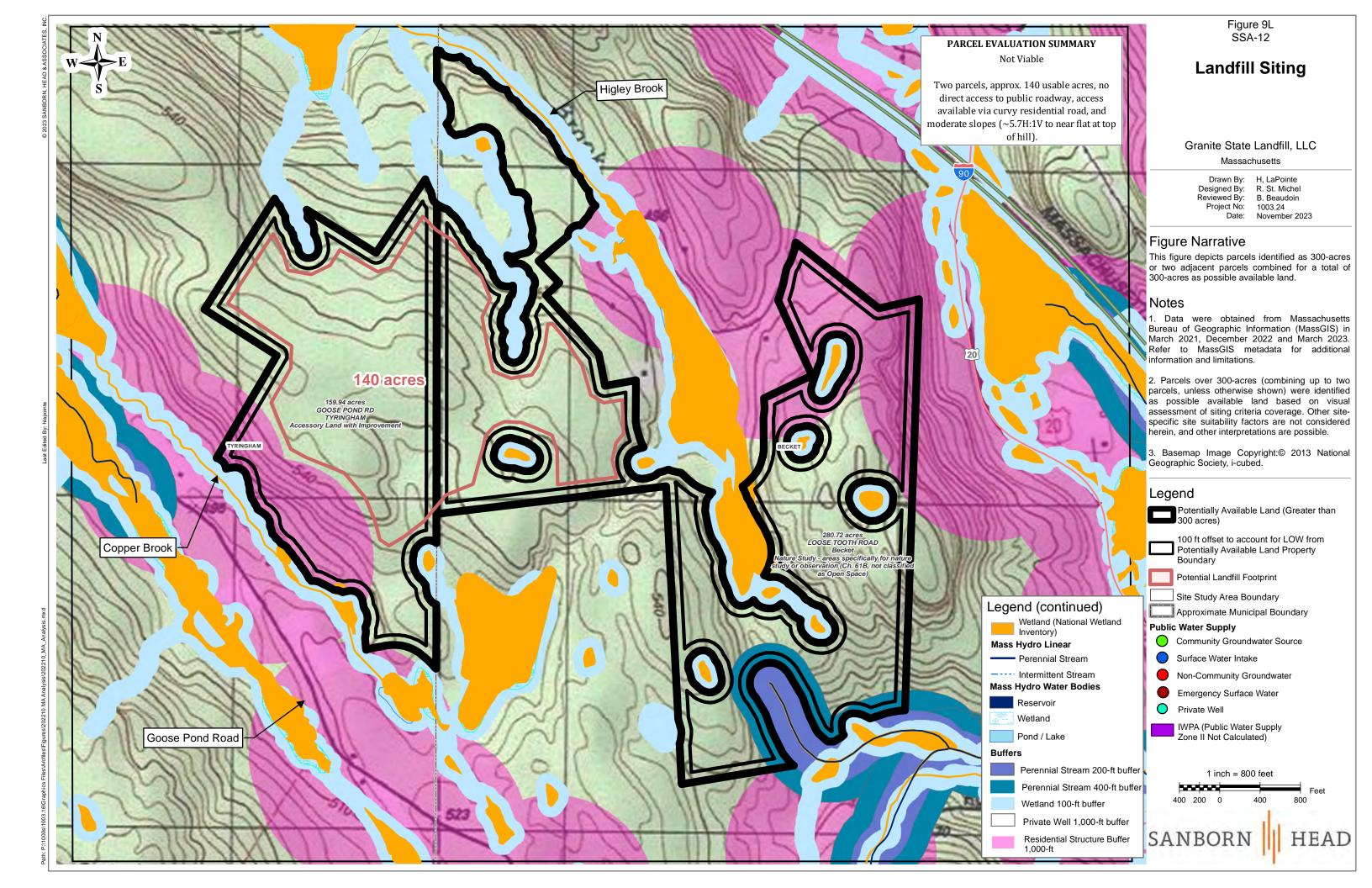


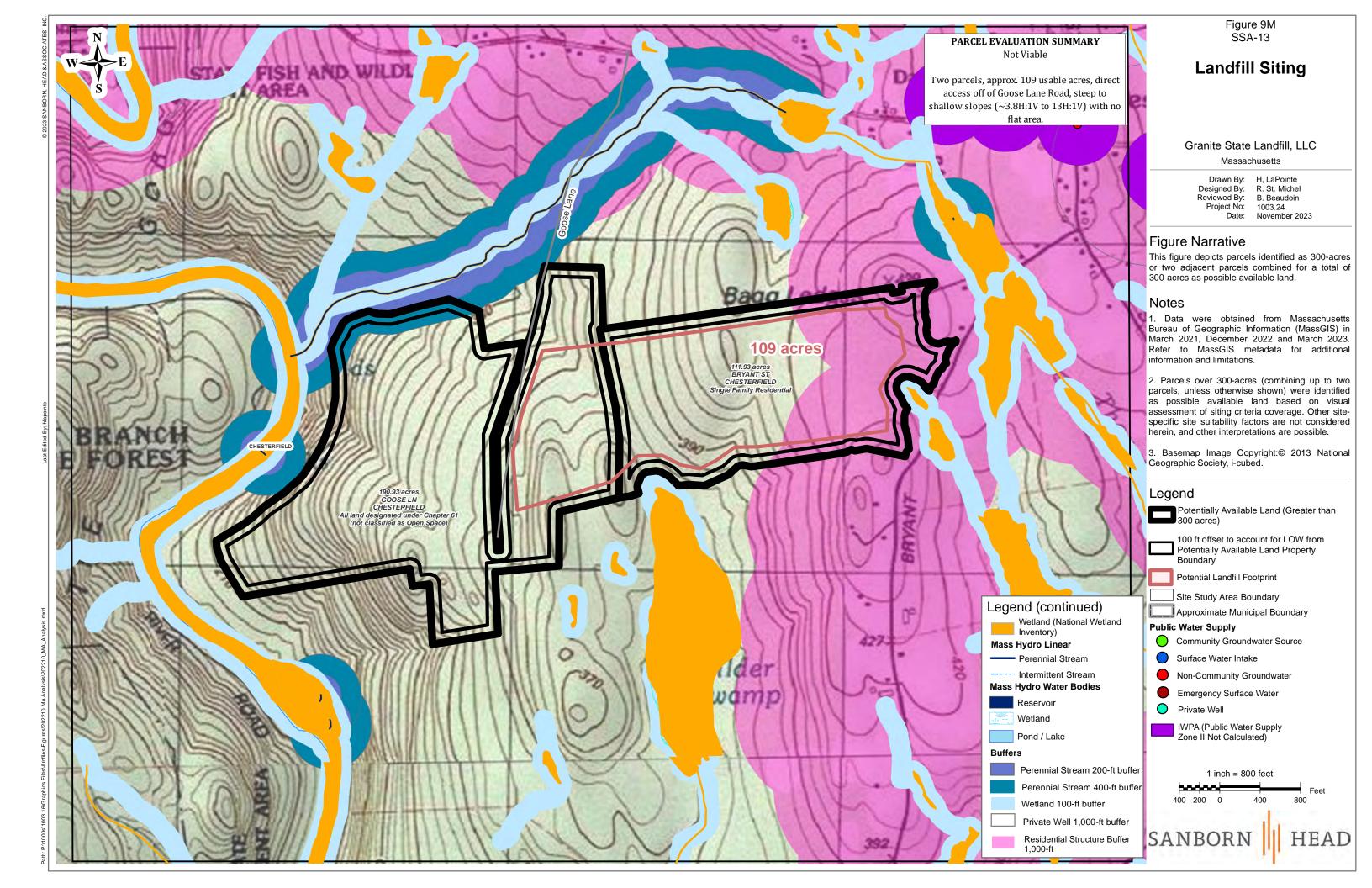


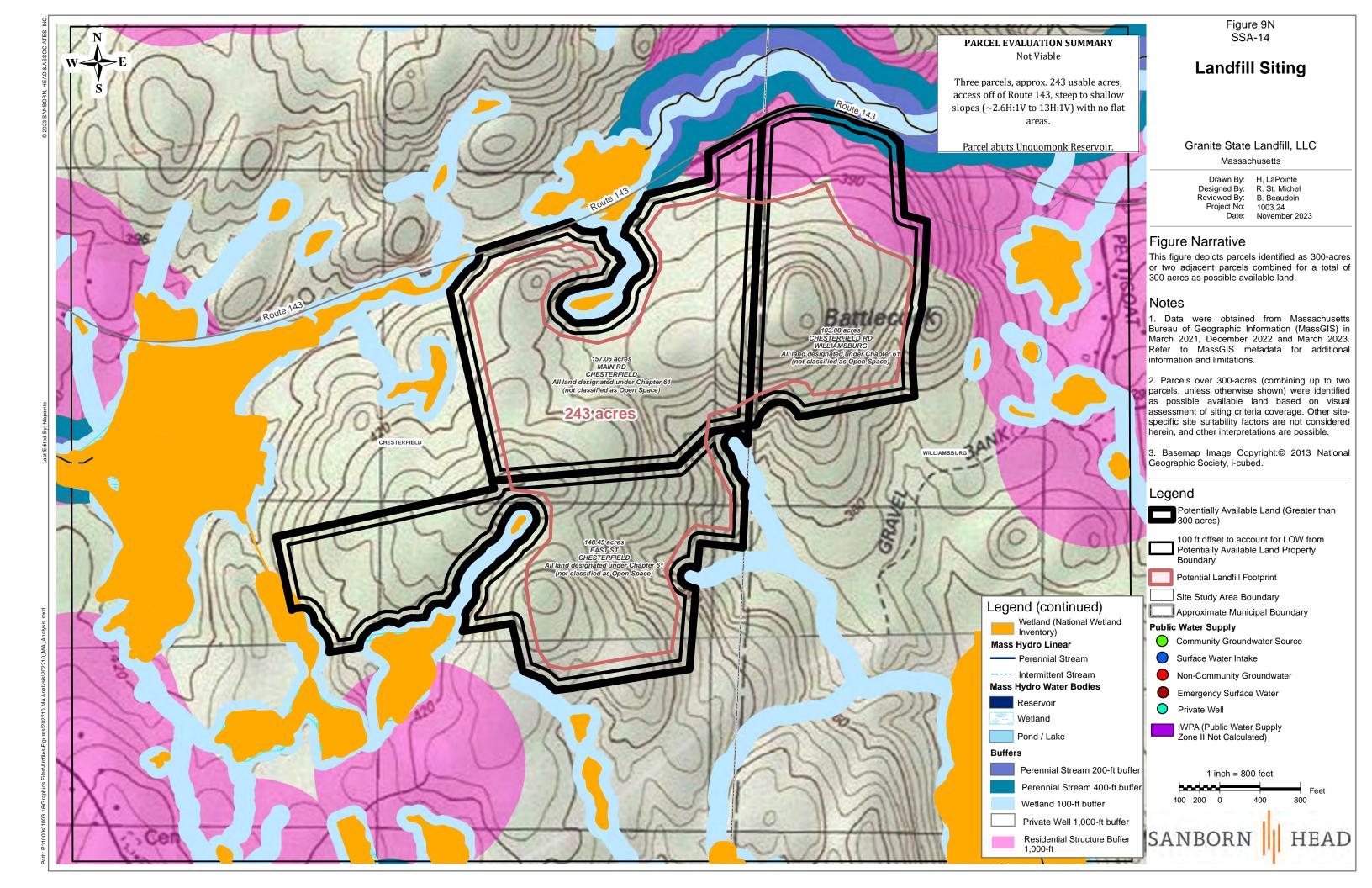


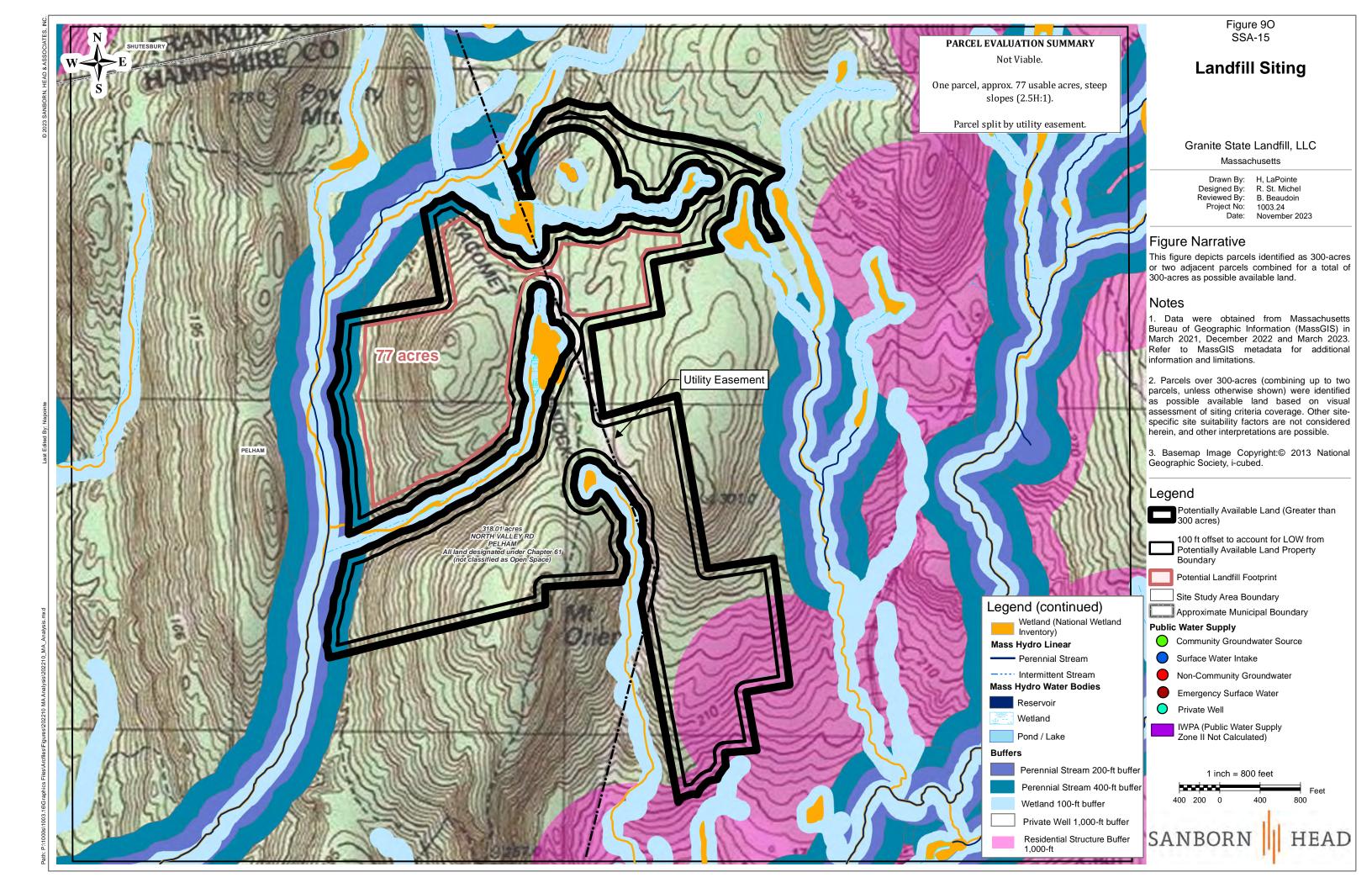


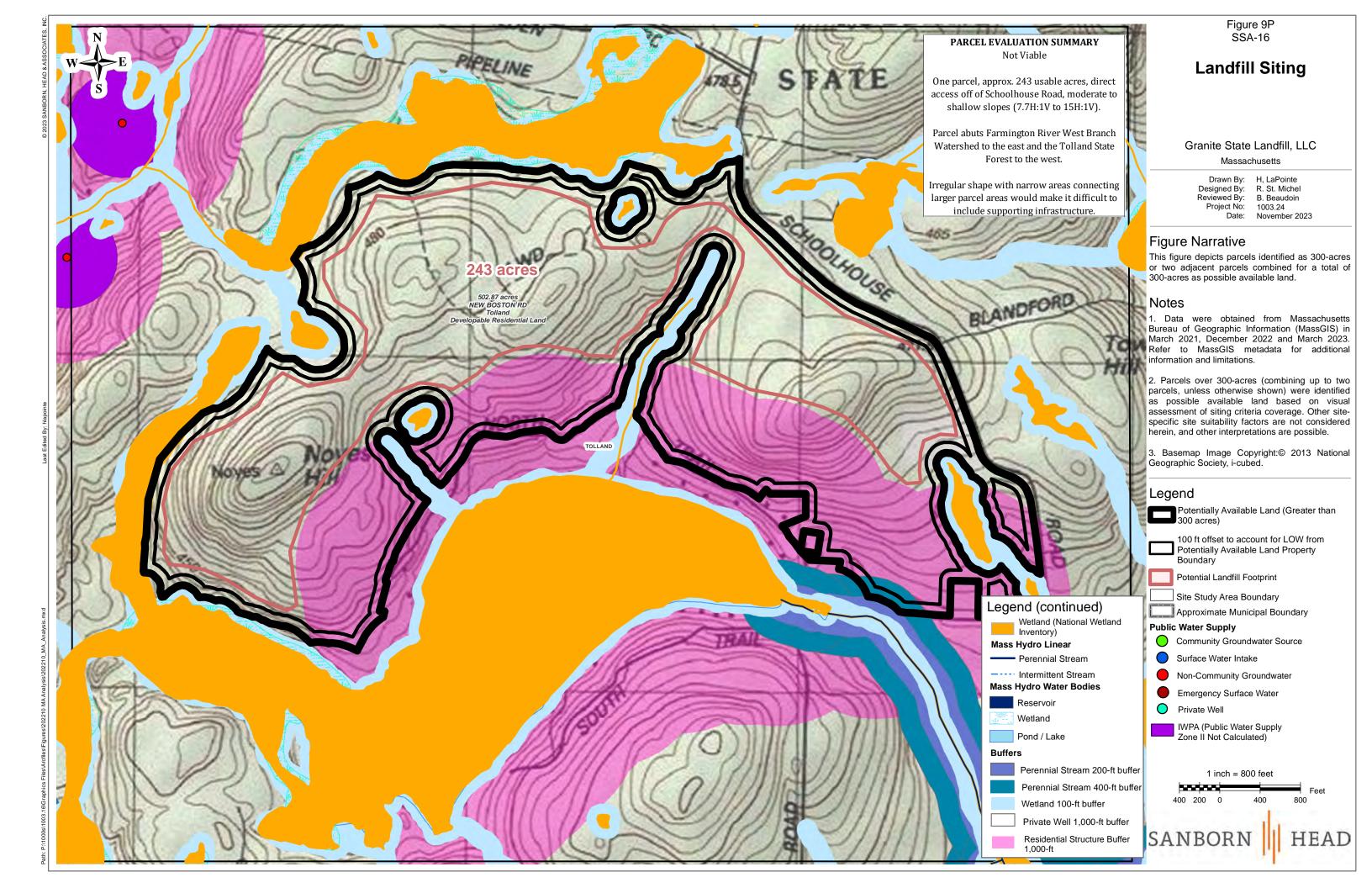












# Appendix B

Potential Sites Passing Initial Screen

## **Granite State Landfill**

Municipality	Google EARTH	Site Number	Latitude	Longitude	Combined Parcel Size - Acres	Viability	Comments
Amherst	1	1	42-54-12	71-38-16	dozens lots	No	New subdivision and housing
Brookline	2	1	42-46-44	71-39-03	3 parcels 398 ac	No	Town conservation land
	3	2	42-45-12	71-39-46	Biggest 3 parcels <300 ac	No	Remaining land residential Sand & Gravel mine, abuts major protected
Carroll	4	1	44-17-21	71-33-16	375 ac parcel	No	aquifer
	5	2	44-18-57	71-34-27	1684 ac parcel	Yes	Undeveloped commercial forest
	6	3	44-20-09	71-32-46	2 parcels, 1211 ac	Yes	Undeveloped commercial forest
Charleston	7	1	43-17-51	72-23-49	max lot 119 ac, many small lots	No	Too many small lots
Chesterfield	8	1	42-55-21	72-25-37	Many small lots	No	Too many small lots, steep slopes Accessed by 3 mile rural rd passing 32
	9	2	42-53-30	72-23-50	1043 ac forested parcel	No	residences, mtns/hills bisected by streams Accessed by 3 mile narrow rural rd passing 32
	10	3	42-52-35	72-24-21	814 ac forested parcel	No	residences, steep topography
	11	4	42-52-39	72-27-34	Many small lots	No	Too many small lots
	12	5	42-53-19	72-27-28	Many small lots	No	Too many small lots
	13	6	42-52-36	72-28-14	Many small lots	No	Too many small lots
	14	7	42-51-29	72-29-13	<300 ac	No	Too small
	15	8	42-52-13	72-29-13	Many small lots	No	Too many small lots
	16	9	42-52-58	72-31-51	Many small lots	No	Too many small lots
	17	10	42-53-19	72-28-50	Many small lots	No	Too many small lots
Clarksville	18	1	45-01-36	72-26-52	Mountains, remote	No	Steep slopes, no access
	19	2	45-00-28	71-23-44	Mountains, remote	No	Steep slopes, no access
	20	3	45-01-00	71-21-24	Mountains, remote	No	Steep slopes, no access
	21	4	45-01-38	71-18-51	Wildlife area, remote	No	Public area, remote
Dublin	22	1	42-54-13	72-07-39	655 Ac	No	Hills, incised by streams and wetlands
	23	2	42-54-09	72-03-12	Many small lots	No	Too many small lots
	24	3	42-53-53	72-02-10	Many small lots	No	Too many small lots
	25	4	42-52-27	72-03-01	Many smaller lots	No	Hills, small lots
	26	5	42-52-27	72-00-48	Many smaller lots	No	Hills, small lots
Dalton	27	1	44-21-03	71-41-40	1279 ac	Yes	Wood lot, sand and gravel mine
	28	2	44-21-59	71-39-43	433 ac	No	Access is from 3-mile unpaved public road, upgradient of public water supply wells
Fitzwilliam	29	1	42-45-07	72-11-59	391 ac, 3 parcels	No	Hilly throughout, incised with streams and wetlands
	30	2	42-45-51	72-06-20	365 ac, many parcels	No	Massive wetland, key access parcel owned by Town, limited by streams/wetlands Too small after accounting for residential
	31	3	42-45-14	72-06-58	<300 ac, subdivisions	No	subdivisions Extremely hilly, steep irregular ground, likely
	32	4	42-43-23	72-06-33	394 ac	No	bedrock controlled
Francestown	33	1	42-58-17	71-45-58	<300 ac	No	3 undeveloped parcels, too small
Franklin	34	1	43-30-16	71-42-45	282 ac	No	Conservation land Odd shape, pond, wetlands & stream. Shallow
	35	2	43-23-11	71-39-37	506 ac	No	bedrock. Largest lot recently developed yr 2000+ as
Greenfield	36	1	42-56-23	71-52-47	187 ac, remaing small lots	No	house/ranch
	37	2	42-55-38	71-54-11	small lots	No	Too many small lots Hills with 20% slopes, valleys with surface
	38	3	42-56-23	71-50-16	Abuntting 401 and 180 ac lots	No	water and wetlands
	39	4	42-55-34	71-52-29	Subdivisions, small lots	No	All small lots
	40	5	42-55-16	71-51-33	Half subdivision, rest too small	No	No 2 lots >300 ac
Hancock	41	1	42-57-13	72-01-07	Town and Conservation Land	No	Public and Conservation Land
	42	2	42-57-08	71-59-50	Many small lots	No	No 2 lots >300 ac
	43	3	42-57-27	71-57-58	Smaller Lots	No	No combination of lots yields viable footprint <300 ac without BU parcel "Sargent Center for
	44	4	42-56-22	71-59-04	130 ac owned by Boston Univ	No	Outdoor Education"
Harrisville	45	1	42-55-31	72-04-32	4 lots - 429 ac	No	Steep slopes, streams and wetlands, too small Steep slopes, streams and wetlands leave no
	46	2	42-56-21	72-02-54	2 possible lots <300 ac	No	viable footprint
Haverhill	47	1	44-01-49	71-57-26	Need 5 parcels to be >300 ac	No	Large wetland system bisects site
Hinsdale	48	1	42-50-21	72-32-13	Large parcels State parkland	No	State Park land, otherwise many small parcels
	49	2	42-48-10	72-30-16	Subdivision	No	Many small lots
	50	3	42-48-42	72-29-29	Mountainous land	No	Too steep

Municipality	Google EARTH	Site Number	Latitude	Longitude	Combined Parcel Size - Acres	Viability	Comments
waniespancy	2,						Too small, bisected by power line, possible
	51	4	42-44-45	72-28-02	Farmland, <300 ac	No	floodplain
Hollis	52	1	42-45-36	71-36-47	Subdivision	No	Residential, small lots
							Adjacent to airport, does not meet state siting
Jaffery	53	1	42-48-42	71-59-40	2 parcels, 342 ac	No	criteria
	54	2	42-48-09	71-59-54	Airport parcel	No	Does not meet state siting criteria
t a series	55	3	42-49-29	72-06-55	2 parcels, 316 ac	No	Mountainous land
Langdon	56	1	43-08-48	72-24-41	State/Town Land	No	Too small after accounting for public land Setback to CT river, wetlands and streams, no
Littleton	57	1	44-19-44	71-50-14	4 parcels, 319 ac	No	viable footprint Setback to CT river and steep slopes, no viable
	58	2	44-23-35	71-46-48	1445 ac parcel	No	footprint Too small, valley with stream running down
Lyndeborough	59	1	42-57-05	71-46-44	<300 ac	No	center. Not viable Largest parcel, 165 ac conservation land. "New
	60	2	42-56-54	71-45-32	Many smaller lots, <300 ac	No	England Forestry Foundation"
	61	3	42-54-10	71-46-21	<300 ac, town rd crosses	No	Many hills, valleys with streams and wetlands
	62	4	42-54-24	71-48-22	801 ac	No	Winn Mountain. Too steep  Mountainous land, state wildlife management
	63	5	42-54-42	71-44-55	Many +/- 80 ac lots	No	area 200 ac lot owned by New Hamphire Water
	64	6	42-52-51	71-45-24	200 ac lot plus others	No	Resources Board
	65	7	42-53-01	71-43-09	3 lots 426.3 ac	No	Very steep slopes
							Steep hills, wetlands. Adjacent 328 ac parcel
Marlborough	66	1	42-54-23	72-09-43	2 lots 403 ac	No	New England Forestry Foundation
	67	2	42-51-22	72-11-41	Many lots in 30 to 100 ac range	No	Subdivision and power line bisects site
	68	3	42-51-49	72-10-49	largest parcel 201 ac residential	No	Insufficient developable land
	69	4	42-51-32	72-08-44	4 parcels 289 ac	No	Bisected by streams, large wetland
Mason	70	1	42-47-06	71-44-33	2 parcels 427 ac	No	Town and conservation land
	71	2	42-46-27	71-45-54	235 ac parcel, rest town land	No	Too small, wetlands throughout
	72	3	42-45-30	71-46-39	Largest parcel 202 ac town land	No	Insufficient developable land Insufficient developable land, only access
	73	4	42-45-23	71-44-27	Mostly residential lots	No	through narrow country roads Adjacent to airport, does not meet state siting
	74	5	42-45-05	71-43-09	12 lots 450 ac, no 2 lots >300 ac	No	criteria
	75	6	42-43-53	71-45-11	<300 ac	No	Site bisected by rail trail, too small
	76	7	42-43-54	71-44-09	Many small lots	No	Only access through narrow country road Streams bisect site, insufficient developable
	77	8	42-43-10	71-44-41	Many small lots	No	land
Milford	78	1	42-51-39	71-41-19	<300 ac	No	Too small, steep slope and wetlands
	79	2	42-47-06	71-38-06	<300 ac	No	Power lines, stream and wetland bisect site
Monroe	80	1	44-15-09	72-02-39	<300 ac	No	Many small lots, too small Only 200 ac developable, access from narrow
Mont Vernon	81	1	42-54-39	71-43-20	2 lots 400 ac	No	country road
	82	2	42-52-48	71-42-02	364 ac	No	Town and conservation land
New Boston	83	1	42-59-04	71-43-58	294 ac	No	Bisected by streams, wetland, too small
	84	2	42-58-04	71-44-31	3 lots 483 ac	No	Largest lot Town Forest
	85	3	42-56-06	71-43-04	864 ac	No	Town and conservation land
New Ipswich	86	1	42-45-42	71-56-03	<300 ac	No	Too many small lots
	87	2	42-46-57	71-51-55	<200 ac	No	Site bisected by power lines, too small
	88 89	3 4	42-45-08 42-44-46	71-51-43 71-52-36	<300 ac <300 ac	No No	Too many small lots Too many small lots
	90	5	42-44-03	71-49-43	451 ac	No	Steep slopes, streams, no access
Orford	91	1	43-53-14	72-05-31	<300 ac, no tax map info	No	Large lot residential development, too small to develop Streams and wetlands between steep hills, no
	92	2	43-53-32	72-03-40	No tax map info	No	developable area
	93	3	43-55-03	72-02-19	No tax map info	No	Mountains and wetlands, no developable area Divided by streams, 7 ponds, wetlands. Active
Ossipee	94	1	43-40-17	71-04-14	1313 ac	No	commercial gravel pit with rail access! 277 ac are BU parcel "Sargent Center for
Peterborough	95	1	42-55-27	71-58-44	414 ac	No	Outdoor Education"
-	96	2	42-55-31	71-57-31	Many smaller lots	No	Large wetland, too many smaller lots
	97	3	42-55-58	71-55-39	Small lots	No	Streams, residential subdivisions, not viable
	98	4	42-56-19	71-55-03	161 ac	No	Too small
	99	5	42-55-43	71-54-07	876 ac	No	Extensive wetlands throughout <200 ac available area, landlocked, narrow
	100	6	42-54-17	71-53-45	Many smaller lots	No	country roads

No. and a line a litera	Google	Site Number	Latitude	Longitude	Combined Parcel Size - Acres	Viability	Comments
Municipality	EARTH 101	7	42-54-14	71-54-51	Residential subdivisions	No	No viable developable area
	100		42.52.04	74 55 06	21426		Steep hills, wetlands. Access from only narrow
	102 103	8 9	42-53-04 42-50-34	71-55-06 71-58-55	3 lots 426 ac 8 lots 207 ac	No No	country roads Too small, too many lots
	103	9	42-30-34	/1-30-33	8 10t3 207 ac	INO	Developable area too small, wetlands and
	104	10	42-50-48	71-57-29	3 lots 446 ac	No	setbacks
Pittsburg	105	1	45-03-47	71-21-48	5 lots 306 ac	No	Steep slopes, developable area too small
	106	2	45-08-14	71-20-49	7,929 ac	No	3 miles from paved road
Richmond	107	1	42-47-39	72-19-20	Many smaller lots	No	Steep slopes, wetlands and streams
	108	2	42-48-03	72-15-35	Several smaller lots	No	Steep slopes, wetlands and streams
	109	3	42-46-21	72-19-25	280 ac	No	Quint Preserve conservation area  Long and narrow, abutting residences, some
	110	4	42-45-40	72-17-01	6 lots 381 ac	No	steep slopes. Insufficient project area.
	111	5	42-44-45	72-17-46	322 ac	No	Very steep slopes
	112	6	42-44-28	72-16-37	Many small parcels	No	Too small developable area
							Steep slopes, constrained by large wetland and
	113	7	42-44-59	72-14-53	5 lots 385 ac	No	public roads
		_					Steep slopes, access by unpaved roads by 8
	114	8	42-43-46	72-13-21	7 lots 654 ac, no 2 lots >300 ac	No	residences
Rindge	115 116	9 1	42-44-59 42-46-26	72-14-53 72-01-04	3 lots 538 ac 4 lots 378 ac	No No	Very steep slopes, streams Bisected by streams and wetlands
Killuge	117	2	42-45-35	71-57-20	4 lots 450 ac, no 2 lots >300 ac	No	Power lines bisect site
Roxbury	118	1	42-58-36	72-11-52	637 ac	No	Taves Reservation, conservation land
,							Too many parcels, wetlands and streams cross
	119	2 (Nelson)	42-59-34	72-09-59	7 lots 324 ac	No	site
Rumney	120	1	43-48-34	71-47-43	384 ac	No	Steep slopes, Mount Stinson
	121	2	43-50-38	71-48-21	Many small lots	No	Steep slopes, Mount Stinson
	400			74 00 00			110 ac developable area, too small, limited by
Sandwich	122	1	43-48-04	71-23-23	441 parcel	No	wetlands and surface water. <100 ac developable area, too small, limited by
	123	2	43-50-04	71-24-17	5 lots 314 ac	No	surface water and wetlands
	123	-	.5 50 0 .	, , _ ,	3.003.01.40		<100 ac developable area, too small, limited by
	124	3	43-49-26	71-24-39	Several smaller lots	No	surface water and wetlands
	125	4	43-49-31	71-25-44	Several smaller lots	No	Scattered residences and wetlands, not viable
	126	5	43-50-60	71-26-51	6 lots 475 ac, no 2 lots >300 ac	No	Wetlands throughout
	127	6	43-54-02	71-22-15	409 ac	No	Conservation land
	128	7	43-52-20	71-22-52	505 ac	No	Bisected by Town road (unpaved woods road), steep slopes (Brown Hill) and wetlands
	120	,	43-32-20	71-22-32	303 ac	NO	Steep slopes, stream and wetlands, too small
Sharon	129	1	42-49-59	71-54-51	657 ac	No	developable area
	130	2	42-50-10	71-56-13	<300 ac	No	Site too small
	131	3	42-49-39	71-56-43	885 ac	No	Town forest
	132	4	42-47-53	71-55-20	398 ac	No	Wetlands through center of site
Charradaharra	122	4	44 57 20	71 10 10	2540	N	Miles of narrow or unpaved road to access, by
Stewardstown	133	1	44-57-28	71-19-49	2549 ac	No	19 residences Steep slopes, potentially viable smaller area
Stratford	134	1	44-40-29	71-33-22	346 ac	No	abuts town center businesses
							Steep slopes mountainous, no paved access to
	135	2	44-45-29	71-35-10	1835 ac	No	site
							Miles of country or unpaved road to access, by
	136	3	44-42-48	71-28-48	5734 ac	No	dozens of residences.
Challanna	137	4	44-39-50	71-31-17	Many smaller lots	No	Steep slopes
Shelburne	138	1	44-25-42	71-01-49	3588 ac	Yes	Need to create access from Rt 2 Access by unpaved road, travel by many
Swanzy	139	1	42-53-58	72-20-20	303 ac	No	residences, streams cross site
,	140	2	42-51-18	72-20-56	Many smaller lots	No	Wetlands and streams, too small
	141	3	42-51-02	72-22-09	Many smaller lots	No	Hills with steep slopes, stream bisects land
							Hills interspersed with streams and wetlands,
	142	4	42-51-57	72-21-50	Many smaller lots	No	no viable footprint
	143	5	42-50-07	72-19-60 72-14-59	Many smaller lots	No No	Mountainous, steep slopes
	144	6	42-52-27	72-14-58	Many smaller lots	No	Mostly steep slopes, flatter area too small Hilly with steep slopes, streams and wetlands
	145	7	42-50-45	72-17-23	Many smaller lots	No	in flatter areas
	146	8	42-49-41	72-15-17	5 lots 365 ac	No	Hilly with steep slopes, no viable footprint
	147	9	42-49-38	72-18-16	Many small lots	No	Steep slopes and streams/wetlands
Tamworth	148	1	43-51-14	71-14-33	428 ac	No	Hilly with steep slopes, no viable footprint
Tamerila	149	2	43-52-36	71-14-58	4 lots 249 ac	No	Too small
Temple	150	1	42-52-34	71-50-49	2 lots 343 ac	No	Mountainous

Municipality	Google EARTH	Site Number	Latitude	Longitude	Combined Parcel Size - Acres	Viability	Comments
	151	2	42-50-59	71-50-07	Residential lots, farm 186 ac	No	Hills, residences and wetlands
	152	3	42-47-51	71-53-13	Needs more than 2 lots	No	Steep slopes, viable area too small
							Power line, pond and steep slopes, insufficient
Troy	153	1	42-50-21	72-13-02	405 ac	No	footprint, narrow country road
							Access narrow road by many residences,
	154	2	42-49-31	72-13-45	5 lots 329ac	No	developable area too small
Warren	155	1	43-56-49	71-51-34	2 lots 424 ac	No	Steep slopes, wetland, too small
	156	2 (Piermont)	43-56-23	71-59-35	1755 ac	No	Mountains, steep slopes, brooks and wetlands
							Farmland, commercial development, crossed
Walpole	157	1	43-06-07	72-26-12	<300 ac	No	by streams
							2 Farms each about 300 ac, bisected by
	158	2	43-02-59	72-27-15	300 ac	No	streams or wetlands, floodplain
	159	3	43-01-48	72-26-57	3 lots 380 ac	No	Roads and streams bisect propertied
Wentworth	160	1	43-48-52	71-54-13	6 lots 322 ac	No	Too many lots, small developable area
Westmoreland	161	1	42-57-20	72-31-16	2 lots 240 ac	No	2 farms divided by stream, too small
							Public road and 2 streams bisect property,
	162	2	42-59-35	72-27-16	347 ac	No	insufficient developable area
							Hills with steep slopes, insufficient developable
Wilton	163	1	42-50-50	71-48-24	Needs more than 2 lots	No	area
							Too many residential lots, no viable landfill
	164	2	42-48-40	71-45-28	Many small lots	No	footprint
							Hilly with very steep slopes, access via historic
Winchester	165	1	42-50-16	72-22-57	Many smaller lots	No	covered bridge
	166	2	42-49-24	72-24-15	377 ac	No	Land owned by State of New Hampshire
	167	3	42-46-57	72-26-57	306 ac	No	Very steep slopes throughout
	168	4	42-44-24	72-23-24	Needs more than 2 lots	No	Steep slopes, streams
	169	5	42-44-13	72-22-26	327 ac	No	Steep slopes, crossed by streams

## Appendix C

USEPA Environmental Justice Screening Tool Results and Real Estate Survey





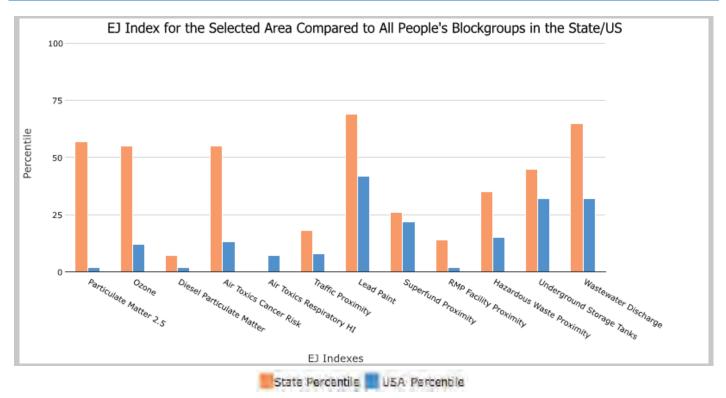
#### **EJScreen Report (Version 2.1)**



#### 2 miles Ring around the Area, NEW HAMPSHIRE, EPA Region 1

Approximate Population: 510 Input Area (sq. miles): 22.71

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	57	2
EJ Index for Ozone	55	12
EJ Index for Diesel Particulate Matter*	7	2
EJ Index for Air Toxics Cancer Risk*	55	13
EJ Index for Air Toxics Respiratory HI*	0	7
EJ Index for Traffic Proximity	18	8
EJ Index for Lead Paint	69	42
EJ Index for Superfund Proximity	26	22
EJ Index for RMP Facility Proximity	14	2
EJ Index for Hazardous Waste Proximity	35	15
EJ Index for Underground Storage Tanks	45	32
EJ Index for Wastewater Discharge	65	32



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

December 12, 2022 1/3

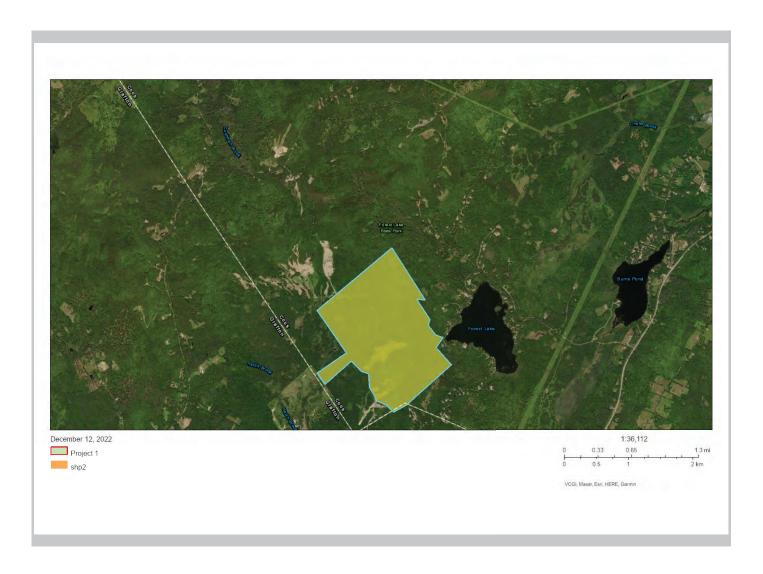


## **EJScreen Report (Version 2.1)**



### 2 miles Ring around the Area, NEW HAMPSHIRE, EPA Region 1

Approximate Population: 510 Input Area (sq. miles): 22.71



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

December 12, 2022 2/3



#### **EJScreen Report (Version 2.1)**



#### 2 miles Ring around the Area, NEW HAMPSHIRE, EPA Region 1

Approximate Population: 510 Input Area (sq. miles): 22.71

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 (μg/m³)	5.3	5.33	49	8.67	1
Ozone (ppb)	36.7	36.6	42	42.5	16
Diesel Particulate Matter* (μg/m³)	0.0391	0.122	5	0.294	<50th
Air Toxics Cancer Risk* (lifetime risk per million)	20	22	79	28	<50th
Air Toxics Respiratory HI*	0.2	0.25	0	0.36	<50th
Traffic Proximity (daily traffic count/distance to road)	21	500	19	760	14
Lead Paint (% Pre-1960 Housing)	0.39	0.3	66	0.27	65
Superfund Proximity (site count/km distance)	0.031	0.18	17	0.13	29
RMP Facility Proximity (facility count/km distance)	0.029	0.24	9	0.77	2
Hazardous Waste Proximity (facility count/km distance)	0.1	1.2	25	2.2	19
Underground Storage Tanks (count/km²)	0.3	3.8	33	3.9	34
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.00074	0.4	65	12	46
Socioeconomic Indicators					
Demographic Index	14%	15%	56	35%	19
People of Color	3%	10%	31	40%	10
Low Income	25%	19%	69	30%	45
Unemployment Rate	3%	4%	50	5%	38
Limited English Speaking Households	0%	1%	0	5%	0
Less Than High School Education	7%	7%	63	12%	45
Under Age 5	3%	5%	40	6%	31
Over Age 64	27%	18%	81	16%	85

<sup>\*</sup>Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

For additional information, see: www.epa.gov/environmentaljustice

EJScreen is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJScreen documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJScreen outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

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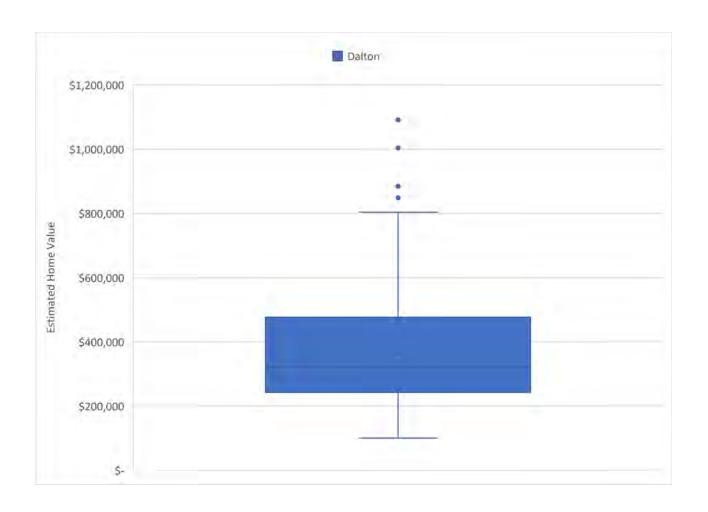
Dalto	n	
min	\$	100,400
lower quartile	\$	243,300
median	\$	321,650
upper quartile	\$	475,675
max	\$	1,091,300
Address	Zesti	mate
205 W Forest Lake Rd	\$	292,200
211 W Forest Lake Rd	\$	262,100
210 W Forest Lake Rd	\$	378,500
206 W Forest Lake Rd	\$	313,600
272 Oak Ridge Rd	\$	289,200
287 Oak Ridge Rd	\$	372,300
252 Oak Ridge Rd	\$	342,400
237 Oak Ridge Rd	\$	285,300
228 Oak Ridge Rd	\$	586,900
209 Oak Ridge Rd	\$	441,600
187 Oak Ridge Rd	\$	239,400
183 Oak Ridge Road	\$	268,100
180 Oak Ridge Rd	\$	395,000
152 Oak Ridge Rd	\$	165,500
120 Deer Run Rd	\$	499,000
1091 Manns Hill Rd	\$	579,100
1120 Manns Hill Rd	\$	707,700
42 Wilkins Farm Rd	\$	223,000
80 Wilkins Farm Rd	\$	391,900
300 Alder Brook Rd	\$	201,300
171 Wilkins Farm Rd	\$	266,300
279 Wilkins Farm Rd	\$	321,000
1211 Manns Hill Rd	\$	325,500
1231 Manns Hill Rd	\$	450,600
1320 Manns Hill Rd	\$	149,300
1285 Manns Hill Rd	\$	1,003,900
1301 Manns Hill Rd	\$	654,400
1315 Manns Hill Rd	\$	649,300
1593 Manns Hill Rd	\$	475,100
9 Hatch Brook Lane	\$	496,400
97 Hatch Brook Lane	\$	165,900
120 Hatch Brook Lane	\$	222,100
190 Hatch Brook Lane	\$	224,700
1659 Manns Hill Rd	\$	514,000
1731 Manns Hill Rd	\$	217,500
1770 Manns Hill Rd	\$	307,500
82 Brinns Way	\$	275,100
100 Brinns Way	\$	247,700
130 Brinns Way	\$	151,700
1815 Manns Hill Rd	\$	298,600

0-0	
25 Sugarwood Lane	\$ 689,800
1868 Manns Hill Rd	\$ 260,200
46 Sugarwood Lane	\$ 420,900
100 W Forest Lake Rd	\$ 334,900
291 W Forest Lake Rd	\$ 369,000
297 W Forest Lake Rd	\$ 491,400
517 Westside Road	\$ 275,000
504 Westside Rd	\$ 289,700
514 Westside Rd	\$ 202,400
516 Westside Rd	\$ 228,200
529 Westside Rd	\$ 415,900
522 Westside Rd	\$ 238,200
509 Westside Rd	\$ 249,300
540 Westside Rd	\$ 287,200
564 Westside Rd	\$ 257,000
568 Westside Rd	\$ 368,400
578 Westside Rd	\$ 404,300
592 Westside Rd	\$ 209,200
614 Westside Rd	\$ 422,700
615 Westside Rd	\$ 136,500
633 Westside Rd	\$ 100,400
652 Westside Rd	\$ 526,700
658 Westside Rd	\$ 346,600
662 Westside Rd	\$ 549,900
668 Westside Rd	\$ 437,300
663 Westside Rd	\$ 224,100
667 Westside Rd	\$ 179,900
676 Westside Rd	\$ 609,400
680 Westside Rd	\$ 498,900
682 Westside Rd	\$ 451,500
684 Westside Rd	\$ 269,400
686 Westside Rd	\$ 270,800
690 Westside Rd	\$ 267,200
700 Westside Rd	\$ 611,000
708 Westside Rd	\$ 295,800
720 Westside Rd	\$ 467,100
712 Westside Rd	317,400
	\$ -
726 Westside Rd	\$ 369,300
732 Westside Rd	\$ 318,100
542 Forest Lake Rd	\$ 199,200
631 Forest Lake Rd	\$ 515,300
For@27Lake Rd	\$ 208,800
619 Forest Lake Rd	\$ 229,100
609 Forest Lake Rd	\$ 164,500
596 Forest Lake Rd	\$ 521,400
595 Forest Lake Rd	\$ 501,400
536 Forest Lake Rd	\$ 263,000

668 Westside Rd	\$	138,100
533 Forest Lake Rd	\$	413,900
531 Forest Lake Rd	\$	498,200
		-
530 Forest Lake Rd	\$	130,700
527 Forest Lake Rd	\$	324,200
526 Forest Lake Rd	\$	200,800
521 Forest Lake Rd	\$	328,200
513 Forest Lake Rd	\$	522,800
504 Forest Lake Rd	\$	256,000
505 Forest Lake Rd	\$	523,100
499 Forest Lake Rd	\$	482,600
555 Forest Lake Rd	\$	381,200
553 Forest Lake Rd	\$	659,400
		-
543 Forest Lake Rd	\$	601,400
539 Forest Lake Rd	\$	572,800
619 Forest Lake Rd	\$	144,000
525 Forest Lake Rd	\$	297,300
467 Forest Lake Rd	\$	694,000
491 Forest Lake Rd	\$	290,100
481 Forest Lake Rd	\$	469,700
477 Forest Lake Rd	\$	573,200
495 Forest Lake Rd	\$	303,800
468 Forest Lake Rd	\$	217,000
356 Forest Lake Rd	\$	407,200
350 Forest Lake Rd	\$	336,900
318 Forest Lake Rd	\$	225,500
298 Forest Lake Rd	\$	138,500
365 Forest Lake Rd	\$	335,200
343 Forest Lake Rd	\$	417,300
349 Forest Lake Rd	\$	341,700
325 Forest Lake Rd	\$	322,700
319 Forest Lake Rd	\$	477,400
315 Forest Lake Rd		•
	\$	848,900
313 Forest Lake Rd	\$	693,000
311 Forest Lake Rd	\$	755,000
309 Forest Lake Rd	\$	606,100
305 Forest Lake Rd	\$	298,600
299 Forest Lake Rd	\$	
		884,100
279 Forest Lake Rd	\$	414,700
24 Memory Ln	\$	694,300
20 Elgosin Dr	\$	299,800
14 Elgosin Dr	\$	259,600
9 Memory Ln	\$	602,900
•		
11 Elgosin Dr	\$	109,100
21 Memory Ln	\$	125,000
26 Memory Ln	\$	357,800
30 Casino Rd	\$	554,300
	7	,500

30 Memory Ln	\$	640,300
32 Newell Ln	\$	803,600
248 Forest Lake Rd	\$	114,600
3 Newell Ln	\$	108,300
38 Newell Ln	\$	422,200
44 Newell Ln	\$	267,000
48 Newell Ln	\$	414,900
52 Newell Ln	\$	267,600
54 Newell Ln	\$	619,000
58 Newell Ln	\$	356,900
62 Newell Ln	\$	
	ې د	280,700
64 Newell Ln	\$	284,300
66 Newell Ln	\$	456,800
70 Newell Ln	\$	493,700
88 Newell Ln	\$	355,700
90 Newell Ln	\$	361,500
96 Newell Ln	\$	233,100
237 Forest Lake Rd	\$	183,100
214 Forest Lake Rd	\$	345,700
178 Forest Lake Rd	\$	266,100
890 Faraway Rd	\$	242,400
848 Faraway Rd	\$	126,600
820 Faraway Rd	\$	177,000
806 Faraway Rd	\$	189,300
48 Fawn Rd	\$	439,900
20 Fawn Rd	\$	401,500
84 Fawn Rd	\$	232,800
89 Fawn Rd	\$	321,300
Fawn Rd	\$	121,200
99 Fawn Rd	\$	579,500
958 Faraway Rd	\$	281,200
985 Faraway Rd	\$ \$	296,800
959 Faraway Rd	\$	154,700
899 Faraway Rd	\$	322,000
889 Faraway Rd	\$ \$ \$	243,600
790 Faraway Rd	\$	306,100
758 Faraway Rd	\$	181,700
728 Faraway Rd	\$	269,900
837 Faraway Rd	\$	246,600
364 Mountain Rd	\$	207,800
352 Mountain Rd	\$	461,900
318 Mountain Rd	\$	488,700
278 Mountain Rd	\$	253,600
188 Mountain Rd	\$	290,400
186 Mountain Rd	\$	452,300
413 Mountain Rd	\$	106,700
377 Mountain Rd	\$	152,000
	Ψ	,

317 Mouintain Rd \$ 608,800 259 Mountain Rd \$ 1,091,300 225 Mountain Rd \$ 636,000



GSL NCES AVRRDD Turnkey Four Hills Lebanon Conway Carroll W. Carroll E. Shelburne Population 510 340 7,741 9,933 29,142 3,830 1,119 568 482 102