



*White-Tailed Deer
Management Program*

2021 Deer Management Plan

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Massachusetts Department of Conservation & Recreation and
Massachusetts Division of Fisheries & Wildlife



Commonwealth of Massachusetts

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Secretary



Department of Conservation & Recreation

Jim Montgomery
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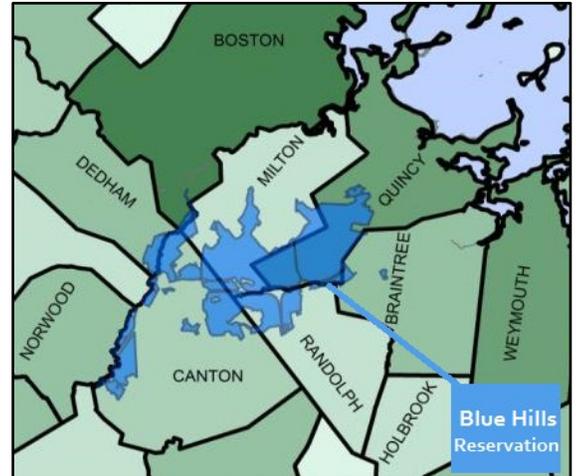
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1.0 The Blue Hills Reservation

The Massachusetts Department of Conservation and Recreation (DCR) manages and stewards the Blue Hills Reservation. The Reservation encompasses an area of over 7,000 acres and is situated less than ten miles south of downtown Boston in the communities of Braintree, Canton, Dedham, Milton, Quincy, and Randolph. A small portion of Fowl Meadow (north and west of the Neponset River) is located within the Hyde Park neighborhood of the City of Boston. The protection of this area as public open space began over 120 years ago with its establishment in 1893 by the Metropolitan Park Commission. As a public parkland and forested area, the Reservation contains a wide variety of natural resources, vegetation, wildlife, and cultural and archaeological resources, and its topography includes prominent hills (Great Blue Hill and Chickatawbut Hill), as well as open fields and several ponds and streams.



2.0 Context for Deer Management in the Blue Hills

The Massachusetts Department of Conservation and Recreation (DCR) and the Massachusetts Division of Fisheries and Wildlife (MassWildlife) have legislative mandates and missions to protect and manage a myriad of natural resources including forests, wildlife, and the habitats upon which a diversity of wildlife depends. From the canopy to the understory, healthy forest ecosystems are made up of trees and plants of multiple species and age classes and the diversity of vegetation provides suitable and sustainable habitat for a rich and varied wildlife community. From the perspective of long-term forest management, tree regeneration is critical to the long-term survival of forests and their ability to recover from natural disturbances. Forests that contain high deer population densities are vulnerable to deer over-browsing young trees, which can prevent forest regeneration. In addition, extremely high deer densities can promote the spread of some invasive species and significantly reduce biodiversity.

DCR's management of the Blue Hills Reservation is guided by the existence of a comprehensive Resource Management Plan (RMP) that was approved by the DCR Stewardship Council in April 2011. In 2015, the DCR put forth the first Blue Hills Deer Management Plan detailing the context for the hunt.¹ In addition to following the recommendations within the Blue Hills RMP, DCR and MassWildlife were issued a legislative mandate in the 2014 Environmental Bond Bill ([Chapter 286 of the Acts of 2014](#)), which was signed into law by former Governor Deval Patrick in August 2014.

¹ To view a copy of the approved 2011 Blue Hills Resource Management Plan, and the 2015 Blue Hills Deer Management Program, please use the following links:

<https://www.mass.gov/files/documents/2016/08/mz/sections1-4.pdf>

<http://www.mass.gov/files/documents/2016/08/xd/appendices.pdf>

<https://www.mass.gov/doc/2015-blue-hills-deer-management-plan/download>



3.0 Rationale & Objectives for Deer Management in the Blue Hills

The primary objective and rationale for developing and implementing a deer management program is to maintain an ecologically sustainable deer density that allows for the continuous growth and development of forest regeneration. DCR is trying to reduce the negative impacts that high deer densities have on the regenerating forest to ensure a healthy forest composed of an adequate diversity of tree species and age classes. DCR's program for white-tailed deer management is not intended to provide a new recreational opportunity in the Blue Hills. Rather, the program provides a concrete, practical, and workable solution intended to deal with a critical environmental problem.



4.0 Context & Need for Continued Deer Management

4.1 – Continued Deer Abundance

Between March and May of 2021, DCR conducted deer abundance surveys in the Blue Hills utilizing the pellet count survey methodology. This methodology has been used over the last several years in the Blue Hills and is also used by DCR's Division of Water Supply Protection (DWSP) to estimate deer abundance at the Quabbin Reservoir Reservation.

Recent advances in pellet count survey methodology have allowed more accuracy in these surveys. Counting deer droppings instead of individuals has several distinct advantages:

- Deer droppings are easy to see, don't move, and can be counted over a longer period of time.
- Counting droppings is relatively straightforward and can be done with a minimal amount of equipment or personnel.
- Pellet count surveys allow a finer-scale look at deer numbers by area within the Reservation.
- Pellet counts allow data to be collected in a more representative and random way in and around the Reservation and does not rely on the roads and trail network, which can limit the bias and lead to more realistic estimates of density.

In addition to this, a recently-published paper has provided a solid frame work for conducting this type of survey over large forested areas.² For additional information regarding previous year pellet surveys, readers are encouraged to read Section 7 of the [2016 Program Overview & Results / 2017 Results of Deer Abundance Surveying](#) report and Section 4 of the [2018 Blue Hills Deer Management Plan](#) and [2019 Blue Hills Deer Management Plan](#).

² DeCalesta, D.S. 2013. Reliability and precision of pellet-group counts for estimating landscape-level deer density. *Human-Wildlife Interactions* 7(1):60-68.

The table below lists the various survey sites and provides density estimates for the most recent pellet survey conducted in spring 2021. Due to COVID-19, the pellet survey was not completed in 2020. For comparative purposes, density estimates from the past three years pellet surveys are also provided in the table.

Study Site	2021 Density Estimate (# of deer/mi ²)	2019 Density Estimate (# of deer/mi ²)	2018 Density Estimate (# of deer/mi ²)	2017 Density Estimate (# of deer/mi ²)
Fowl Meadow/Little Blue	67.3/ mi ²	47.1 / mi ²	Not Surveyed	136.4 / mi ²
Great Blue/Houghton’s Pond	19.0/ mi ²	20.4 / mi ²	22.5 / mi ²	25.4 / mi ²
Wampatuck/Chickatawbut	16.5/ mi ²	17.8 / mi ²	29.6 / mi ²	29.5 / mi ²
Ponkapoag/Brookwood Farm/Nike Site	12.3/ mi ²	21.7 / mi ²	11.2 / mi ²	20.4 / mi ²
Blue Hills – Overall	22.8/ mi ²	26.4 / mi ²	Not Calculated	51.6 / mi ²

The 2021 pellet survey provided an overall density estimate of 22.8 deer/mi² for the Blue Hills. In general, the results of this pellet survey show deer numbers continue to track lower than they were in previous years. Throughout most of the Reservation, however, deer densities remain just above the MassWildlife’s statewide goal of 6-18 deer/mi² with the ideal target of 12 deer/mi². It is important to maintain densities in this range to reduce the negative impacts high deer populations have to the habitat and forest within and around the Blue Hills Reservation.

4.2 – Long-Term Effort & Commitment

In the [2015 Blue Hills Deer Management Plan](#), DCR and MassWildlife noted that most deer management programs designed to address extremely high deer densities typically start with an aggressive reduction phase during the initial years. Once densities are reduced to a suitable level, a long-term management phase can be implemented utilizing more moderate hunting efforts to maintain the accomplishments achieved during the reduction phase. With the deer densities being on the cusp of reaching the desired levels, it is reasonable to believe a long-term management strategy will be implemented in the near future. This model was successfully implemented as part of the Quabbin Reservoir Watershed deer management program, which began in 1991 with nine (9) days of shotgun hunting. Within a few years, deer densities at the Quabbin were substantially reduced and the program moved from a reduction phase toward a maintenance phase.

4.3 – Commitment to Continued Deer Management in 2021

The use of licensed public hunters in managing deer populations is one of the most widely used management methods employed throughout the United States. In Massachusetts, it is the primary management tool supported by MassWildlife and has been shown to be successful in addressing situations involving deer overabundance and vegetation over-browse. The Quabbin Reservoir controlled deer hunt is the most notable example. In addition, DCR manages thousands of acres of forest and parkland across the Commonwealth where licensed hunters are allowed to hunt during the regulated seasons.

In light of DCR’s commitment to long-term deer management in the Blue Hills and the successful efforts undertaken between 2015 and 2020, DCR will continue to implement controlled hunting in the Blue Hills in 2021. Based upon the experience of implementing and assessing the outcomes of six controlled hunts and the success of controlled hunting efforts in 2020, DCR will implement a controlled hunting plan in 2021 that mirrors the permitted archery hunting activities that conducted in 2020. All areas included in this year’s hunts have already been opened to archery hunting in previous years.



5.0 Permitted Archery Hunting During November

Over the last several years (and even prior to DCR’s initiation of controlled deer hunting in the Blue Hills Reservation) a number of private property owners near or adjacent to the Blue Hills have voluntarily allowed archery hunters onto their land during the annual archery season to hunt deer. This informal program has been successful in harvesting a number of deer each year and highlights the importance of cooperation between landowners and deer hunters.

5.1 – Timing and Length

To supplement the efforts already taking place on nearby and adjacent private property and to enhance DCR’s overall Deer Management Program for the Blue Hills Reservation, DCR will continue to permit limited archery hunting in certain designated areas of the Blue Hills on Mondays through Thursdays between **November 15th through December 2nd**. There will no hunting on Thursday, November 25, 2021 in observance of the Thanksgiving holiday. In accordance with state hunting regulations, hunters will be allowed to start hunting one-half hour before sunrise to one-half hour after sunset.

5.2 – Management Areas and Hunter Distribution

Archery hunting will be limited to the areas of the Reservation listed in the table below and outlined on the map that follows.

In order to organize and distribute hunters effectively, archery hunters will be separated into two groups and each group will be assigned to one of two archery zones. Each zone will include several management areas. Hunters assigned to Zone 1 may hunt in any of the management areas listed within that zone. Hunters assigned to Zone 2 may hunt in any of the management areas listed within that zone. Hunting zones and the management areas within each zone are outlined in the table on the following page:

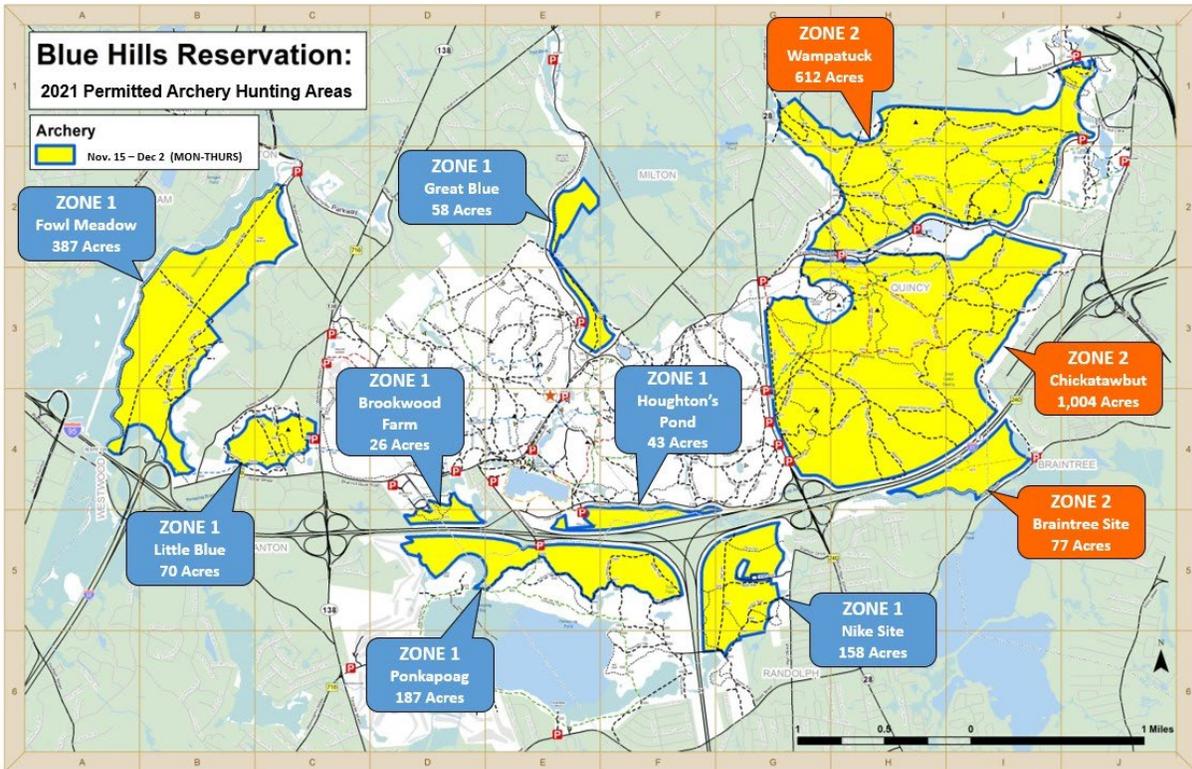
Archery Zone	Management Area	Acres Open to Hunting (Per Management Area)	Acres Open to Hunting (Per Zone)	Number of Hunters
ZONE 1	Fowl Meadow	387	929	100
	Little Blue	70		
	Brookwood Farm	26		
	Great Blue	58		
	Houghton’s Pond	43		
	Ponkapoag	187		
	Nike Site	158		
ZONE 2	Chickatawbut	1,004	1,693	125
	Wampatuck	612		
	Braintree Site	77		
TOTAL		2,622	2,622	225

5.3 – Hunter Selection and Access Permitting

Licensed archery hunters must complete and submit an application to DCR to participate in this archery hunting opportunity. All applicants are required to have a valid 2021 Massachusetts hunting license.

From among the applicant pool, DCR will conduct a random lottery to select 225 archery hunters to receive access permits. These access permits will be valid on all days in which archery hunting will be allowed in designated areas of the Reservation (as outlined above) during the hunting period and permitted hunters will be allowed to hunt based upon their schedule and availability. Given this flexibility, it is highly unlikely that there will be 225 archery hunters in designated management areas on any given day.

If selected to participate, any archery hunter under the age of 18 must be accompanied while hunting by an adult over the age of 21 who is also a registered hunter possessing a valid Massachusetts hunting license. The accompanying adult must participate in the mandatory virtual orientation session and will not be allowed to hunt.



5.4 – Antlerless Permits

MassWildlife will make antlerless deer permits specific to the Blue Hills Reservation available to applicants selected to receive an archery access permit. Selected hunters will be able to purchase their antlerless permits online or at any licensed vendor. Hunters selected to participate will be required to purchase at least two (2) antlerless permits. The use of any Zone 10 antlerless permits will be prohibited from use in the Blue Hills.

5.5 – Hunter Orientation

All archery permittees will be required to complete a virtual orientation. Among other topics, the virtual orientation will cover the elements of the Blue Hills deer Management Plan, the goals and objectives of the program, an orientation to the area, and safety considerations. Any selected archery hunter who fails to fulfill this requirement will not receive an access permit and will not be allowed to hunt in the Blue Hills.

5.6 – Public Recreational Access

General public access for recreation will not be restricted in those areas in which hunting will take place. Members of the general public who choose to enter those areas in which hunting will be taking place are advised to take proper precautions by wearing blaze orange clothing, vests, and hats.



6.0 COVID-19 Considerations

In accordance with the Commonwealth's response to the COVID-19 pandemic, all hunting activities are still permitted in accordance with the regulations (including licenses) for the appropriate hunting season.

Permitted hunters participating in the 2021 archery hunt will be asked to abide by current state or local public health restrictions that are in place.