

March 9, 2012

**TOWN OF ISLESBORO
DEER REDUCTION COMMITTEE**

REQUEST FOR AUTHORIZATION TO CONDUCT A SPECIAL HUNT

INTRODUCTION

The Deer Reduction Committee of the Town of Islesboro (DRC) requests authorization from the Maine Department of Inland Fish & Wildlife to begin a deer reduction program on Islesboro and 700 Acre Island by means of a Special Hunt, the first to be held in December 2012. The purpose of the hunt is to reduce the incidence of tick-borne disease and other deer-related problems on the islands. The committee anticipates that a Special Hunt would be held for up to five consecutive years.

This request comes after several years of study and discussion by the Town of Islesboro and the community.

1997, 2006	Tick counts by the Vector-borne Disease Laboratory, Maine Medical Center (V-bDL).
2008	Following the diagnosis of 18 new cases of Lyme disease (LD), Islesboro Health Center prepares report about LD and related issues.
2009	Town approves \$15,000 for Stantec Consulting deer survey. Third V-bDL tick survey.
2010	Stantec Consulting conducts deer survey. Selectmen form Tick-borne Disease Prevention Committee (T-bDPC). Fourth V-bDL tick count.
2011	T-bDPC issues report and recommendations. Second Stantec survey. Town approves the following article by a vote of 100-28: <i>To support and establish a wildlife management plan with the goal of reducing the deer population to 10 deer per square mile and maintaining the population at that level, in order to reduce the incidence of tick-borne disease. The plan will be developed by a committee of local residents appointed by the Selectmen. The Selectmen will take said plan and any subsequent plans to the voters for approval before implementation. Selectmen appoint Deer Reduction Committee (DRC).</i>
2012	DRC conducts a written survey of all property owners about the possibility of a Special Hunt.

Islesboro's request to MDIF&W is based upon three conclusions made by the DRC:

- The Extended Archery season currently in effect on Islesboro does not reduce the herds sufficiently to address the threat of tick-borne disease, damage to vegetation and danger of vehicle accidents.

- Reducing the deer herds to 10 per square mile can only be achieved through the use of firearms.
- For safety reasons, the Islesboro community will never accept an open season with firearms. We believe that the community will support a three-week, highly-controlled Special Hunt limited to qualified hunters who are local residents.

BACKGROUND

THE ISLANDS

Islesboro is located approximately three miles off the coast of Lincolnville in the Penobscot Bay. Approximately 14 miles long and two miles wide, Islesboro has 14.3 square miles (8,445 acres). The winter population is 566; there are approximately 2,000 seasonal residents. The ferry ride from Lincolnville to Islesboro takes 20 minutes.

As its name implies, 700 Acre Island has about 700 acres (1.09 square miles). The winter population is three people; there are approximately 80 seasonal residents. 700 Acre can only be reached by private boat.

There are approximately 15 small islands surrounding Islesboro and 700 Acre Island.

THE DEER-RELATED PROBLEMS

The increasing number of cases of Lyme disease and other tick-borne diseases is the primary concern. Islesboro's large deer population has also damaged the island's vegetation and caused vehicle accidents.

- *The abundance and infection of deer ticks collected on Islesboro is increasing rapidly.*

YEAR	ADULT TICKS/HOUR	PERCENT INFECTED
1997	0.5	0.0
2006	3.5	24.0
2009	5.0	48.4
2010	8.3	49.3
2011	24.7	55.3

Data from the Vector-borne Disease Laboratory

- *Tick-borne disease in humans and animals.* Although the deer tick can infect people with a number of diseases, in humans only cases of Lyme disease have been diagnosed on Islesboro. The first case was diagnosed in 2003; the number of cases has increased steadily, with spikes in 2008 and 2011.

YEAR	CONFIRMED CASES	“POSSIBLE” CASES
2003	1	
2004	0	
2005	3	
2006	4	
2007	7	
2008	18	1
2009	7	2
2010	7	1
2011	27	1

A serological study of 65 island dogs conducted in 2009 by the Vector-borne Disease Laboratory at Maine Medical Center found that four of the five dogs who had not been protected against Lyme disease by vaccination or treated with anti-tick products were Lyme positive, and two had been exposed to the agent of anaplasmosis; one dog had been exposed to both diseases.

- *Vegetation damage.* Heavy deer browsing is impacting forest regeneration throughout Islesboro and 700 Acre Island, and invasive plant species such as Japanese barberry are spreading. The deer survey prepared by Stantec Consulting in 2011 reports: *Field observations by Stantec indicate the current deer density exceeds the carrying capacity of the island’s forest communities and is not sustainable over the long term. Present high deer population levels are significantly impacting the general ecological and silvicultural health of the island forests, and in particular, current forest regeneration.*
- *Vehicle Accidents.* Up until two years ago, there were approximately 15 accidents per year involving deer and vehicles. In the past two years, that figure is believed to have decreased somewhat.

DEER DENSITIES

Despite current hunting opportunity, deer densities on Islesboro have remained quite consistently high over the years.

Until recently people have guessed at the deer numbers – about 500 was the accepted estimate for Islesboro. In 2008, when the number of new Lyme disease cases rose to 18, the Islesboro Health Center determined that Islesboro should establish a tick-borne disease prevention program. The first step was a professional deer count, and the committee researched the most appropriate method for our islands’ topography. The Town chose Stantec Consulting of Topsham, ME to do two deer pellet surveys, one in March 2010 and one in April 2011.

- 2010 (Islesboro only). Using a 95 percent confidence interval, the population density was determined to be 62 (+/- 6) deer per square mile for a total of 744 deer on the island.

- 2011. Using a 95 percent confidence interval, the population on Islesboro was determined to be 48 (+/- 4) deer per square mile on Islesboro for a total of 528, and 53 (+/-) per square mile on 700 Acre Island for a total of 62.

DEER HUNTING

History. Hunting laws on Islesboro go back to 1939, when a closed season was established that prohibited hunting deer on the island. In 1959 the closed season was continued except for hunting with bow and arrow during October and November. In 1997 the closed season was once again continued but allowed for an expanded archery season beginning in September till the end of the regular firearms season in Waldo County, usually the last Saturday in November. The length of the archery season was further expanded in 2003.

Harvest Numbers. The following table illustrates deer harvest trends on Islesboro in the past decade.

Year	Adult		Fawn		Unk	Total	Total Per Sq. Mi.
	Buck	Doe	Buck	Doe			
1992	22	9	1	1	0	33	2.3
1993	8	9	1	0	0	18	1.3
1994	20	3	1	0	0	24	1.7
1995	20	15	0	0	0	35	2.5
1996	24	9	1	1	0	35	2.5
1997 ^a	33	21	2	2	1	59	4.2
1998	37	20	1	3	0	61	4.3
1999	39	33	2	1	2	77	5.4
2000	44	35	1	3	0	83	5.8
2001	59	71	4	5	1	140	9.9
2002	18	109	0	2	8	137	9.6
2003	44	64	6	10	3	127	8.9
2004	61	69	7	8	3	148	10.4
2005	41	89	12	11	1	154	10.8
2006	42	70	12	11	1	136	9.6
2007	61	83	17	14	0	175	12.3
2008	64	117	21	21	1	224	15.8
2009	75	111	30	14	2	232	16.3
2010	49	63	16	17	1	146	10.3
2011	Not yet available.						

^aExpanded archery season implemented in 1997 to present.

HUNTABLE LAND

- *Islesboro.* Approximately 45% of the land is presently open to hunting. About 75% of that land is owned by seasonal residents, who do not hunt themselves; they give permission to individual hunters from Islesboro and elsewhere. Because of safety concerns, landowners usually limit the numbers of hunters.
- *700 Acre Island.* Ninety-eight percent of the land is owned by seasonal residents, who do not hunt themselves. 100% of that land is open to hunting. Because in past years off-island hunters have behaved in inappropriate ways, Acre landowners give responsibility for managing hunting on the island to Carol Macaulay, a hunter and full-time resident.

HUNTERS

Number of Hunters

- *Islesboro.* According to MDIF&W records (see below), over the past ten years, an average of 167 hunters have hunted annually during the expanded archery season. Of these, an average of 23 have been island residents and an average of 137 hunters have come from off-island. In the past four years, approximately 25% of the off-island hunters have come from out-of- state. Islesboro hunters tend to take as many deer as they can use for meat, not more. There is anecdotal evidence that a good many off-island hunters who come to Islesboro are inexperienced and/or do not know the island, causing safety problems.

IslesboroCountByHunterRes				
Year	Total	IsleRes	MaineRes	NonRes
2000	83	20	63	
2001	140	35	105	
2002	137	32	105	
2003	127	22	105	
2004	148	29	119	
2005	151	20	131	
2006	136	20	116	
2007	175	25	150	
2008	224	26	173	25
2009	232	16	194	22
2010	146	14	121	11
2011	198	25	156	17

- *700 Hundred Acre.* During the expanded archery season approximately 16 hunters hunt on Acre Island. Of these, one is a year-round island resident who manages the off-island group.

Hunter Issues

- *Access.* As such a high percentage of hunters must secure landowner permission, access is the primary issue for people wanting to hunt on Islesboro.
- *Interference from other hunters.* Interference has been an occasional issue; it has reportedly been provoked by inappropriate behavior by off-island hunters.

COMMUNITY OPINION

Of the 950 property owners (1266 properties) who received the DRC's survey in January 2012, 557 responded (59%). Of the 511 respondents who answered the question, "Are you in favor of the concept of a Special Hunt?" 86% answered "Yes."

DRC'S PROPOSED PLAN

The DRC requests authorization from MDIF&W to conduct a Special Hunt in December 2012 in order to begin the process of reducing the deer herds on Islesboro and 700 Acre Island to 10 deer per square mile.

SPECIFICS

- *Timing.* The season would begin on Monday, December 10, 2012 and end on Saturday, December 29, 2012.
- *Hunters.* Only residents of Islesboro who are living on Islesboro and members of their immediate families would be permitted to hunt. Hunters who routinely come from the mainland during the regular season would not be permitted to participate in the Special Hunt. In DRC's January 2012 survey of property owners, 84 respondents indicated that they would like to participate as hunters in the Special Hunt.
- *Criteria for participation.*

The following would participate:

- Residents of Islesboro who customarily are living on the island from September through December of the year of the Special Hunt and members of their immediate families (parents, siblings, spouses, children, and grandchildren).

- Non-residents of Islesboro who own properties on the island that include habitable, taxable dwellings which they occupy for part of the year of the Special Hunt and members of their immediate families (as defined above).

All participants must possess valid, current, and appropriate hunting licenses as required by the State of Maine, and must follow all Maine hunting laws.

In order to qualify for participation, all participants must attend and pass the following to be conducted by the Deer Reduction Committee in each year of the Special Hunt:

- A 90-minute refresher course on Hunter Safety.
- A firing range exercise to demonstrate proficiency with their chosen hunting method. Participants must be able to hit an 8" x 11" target at 25 yards for firearms or 15 yards for archery.

Following qualification, all participants must obtain a specific authorization from the Deer Reduction Committee to hunt in the Special Hunt.

All participants must obtain written permission from landowners or a landowner's designee to hunt on any property not owned by the hunter or a member of his/her immediate family.

All participants as defined above may hunt on all of Islesboro, subject to criteria specified by the Deer Reduction Committee, except for 700 Acre Island. Participants hunting in the Special Hunt on 700 Acre Island will be designated by the Deer Reduction Committee.

- *Hunting Methods.* Archery and shotgun.
- *Regulations.* Standard MDIF&W regulations pertain to Special Hunts. For instance, night hunting, Sunday hunting and baiting would not be permitted.
- *Violations.* Anyone not hunting under the MDIF&W provisions/permits and Town of Islesboro criteria would be illegal.
- *Anticipated level of harvest in the first year of implementation:* Approximately 100.
- *Number of deer per hunter.* Unlimited.
- *Available land.* To date, survey results indicate that 542 parcels comprising 4,371 acres would be open to hunting during the Special Hunt. This represents 52% of the Town's total land (8,445 acres).
 - Archery only would be allowed on 132 parcels comprising 778 acres.
 - Shotgun only would be allowed on 21 parcels comprising 234 acres.
 - Archery and shotgun would be allowed on 389 parcels comprising 3,350 acres.

As the last of the completed surveys come in, these numbers may increase somewhat.

Please see the attached color-coded map prepared by the Town Assessor and Aerial Survey & Photo, Inc., Norridgewock, ME.

- *Community Safety.* Islesboro residents would be fully informed about all aspects of the hunt through public hearings, publications and a map indicating where hunting is permitted.
- *Tagging station.* There would be a Town-funded tagging station near the ferry during both the regular special archery season and the Special Hunt.
- *Biological analysis.* At the Town's expense, tagging station staff would take deer measurements and extract teeth. The teeth would be analyzed according to State procedures in order to ascertain the history and condition of the deer herd.
- *Butchering.* Butchering would be provided at a mainland facility and would be subsidized by the Town. Deer meat not wanted by hunters would be made available to island residents and to Hunters for the Hungry.

MEASURES OF SUCCESS

- *Social.* The DRC will keep careful record of hunter participation, landowner satisfaction and the public's reaction to safety issues.
- *Empirical.* Working with MDIF&W and other agencies, the DRC will keep record of the several categories of data:
 - Deer harvest.
 - Deer numbers. The Town expects to underwrite a deer survey at approximately 3 year intervals.
 - Tick numbers. The Vector-borne Disease Laboratory at the Maine Medical Center expects to continue its yearly tick counts on Islesboro.
 - Tick-borne disease. Working with the Islesboro Health Center, the DRC will monitor the incidence of Lyme disease and other tick-borne diseases.
- *Environmental.* Working with MDIF&W, the DRC will monitor the regeneration of the islands' forests.
- *Vehicle accidents.* Working with the Islesboro Public Safety Office, the DRC will monitor the incidence of deer-related road accidents.

LONG RANGE

The DRC estimates that in order to reach the goal of 10 deer per square mile, the Special Hunt could have to be held for up to five consecutive years. During that time the DRC, working with MDIF&W, would monitor the deer numbers through harvest trends, pellet count/s, evidence

provided by the biological analysis, vehicle accident statistics and the MDIIF&W vegetation study.

Once the DRC and MDIF&W were satisfied that the goal had been reached, monitoring of the deer population would continue. If, as in the past, the extended archery season turns out to be insufficient to prevent the deer population from rising, we anticipate working with MDIF&W on an annual basis to secure permits allowing a select number of local hunters to reduce the herd to the desired number.

OTHER DISEASE PREVENTION MEASURES

As the benefits of the deer reduction program would not be felt for at least a year or more, the Islesboro Health Center plans to mount a focused Lyme disease prevention campaign beginning in March 2012. This will include instruction in personal protection, what to do when bitten by a tick, landscape modification and the use of sprays in small areas, particularly those made from “food grade” botanical compounds. The Health Center plans to inform the Islesboro community through meetings, articles in the local newspapers and signs at key spots around the island. Gordon Murphy, PA-C, will head up the program, and the Vector-borne Disease Laboratory has offered assistance.

CONCLUSION

The large numbers of deer on Islesboro and 700 Acre Island have caused a rising number of tick-borne disease cases in both humans and animals, damage to the vegetation and vehicle accidents. In order to reduce the risk of these problems, the Town has voted to reduce the deer populations to 10 per square mile. The Deer Reduction Committee, charged with formulating a plan to meet this goal, has concluded that the current extended archery season does not reduce the herds sufficiently to address the problems. The committee proposes a deer reduction program by means of a Special Hunt, the first to be held in December 2012, immediately following the regular archery season. The hunting methods would be archery and shotgun.

DEER REDUCTION COMMITTEE

Fred Thomas, Chair; Pete Anderson; Jacob Bethune; Andrew Coombs; Linda Gillies, Secretary; Paul Hatch, Jr.; Philo Hutcheson; Don Johnson; Carol Macaulay; Gilbert Rivera; Rachel Rolerson-Smith; Scott Sienkiewicz; William Tilden

C: Susan Schnur, Chair, Islesboro Board of Selectmen
Janet Anderson, Acting Town Manager