



# Resolution of the Township of Bernards

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**Resolution #080420 - Authorizing Submission of the Bernards Township 2008-2009 Application for Approval of a Community Based Deer Management Permit and Submission of the Final Report on Results of the 2007-2008 Bernards Township deer management program to the New Jersey Division of Fish and Wildlife**

**WHEREAS**, the Bernards Township Deer Management Advisory Committee has submitted to the Township Committee, Township of Bernards, a proposed Application for a Community Based Deer Management Permit for the 2008-2009 Season, and therewith a Final Report on the 2007-2008 Bernards Township deer management program, a portion of which was conducted under a Community Based Deer Management Permit, and

**WHEREAS**, the Township Committee, Township of Bernards, has reviewed and hereby endorses and approves said Application and Final Report.

**NOW THEREFORE BE IT RESOLVED**, by the Township Committee of the Township of Bernards that the Application for a Community Based Deer Management Permit for the 2008-2009 Season, and the Final Report for the 2007-2008 Bernards Township deer management program, are hereby authorized for submission to the New Jersey Division of Fish and Wildlife.

Agenda and Date Voted: 10/14/2008

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**Application for Approval of a Community Based Deer Management Permit**

**1. Municipality (Municipalities), Airport, County Board of Agriculture, or State governing body making application.**

Bernards Township, Somerset County, New Jersey

Date of application: 10/14/2008

Copy of Resolution #080420 of the Township Committee of the Township of Bernards is attached.

Please note this application seeks permission to continue with the eighth year of an ongoing multi-year deer management program to be conducted in part (as was the 2007-2008 season) under a Community Based Deer Management Permit.

**Summary**

This year's application is essentially the same as last year's (as amended) in that it requests a CBDM Permit for an extension beyond the February 21, 2009 conclusion of the 2008-2009 Winter deer hunting seasons, through March 31, 2009, excepting Sundays.

Last season's six-week extension was productive, yielding 54 of the total 269 deer harvested, or 20%. As the Township's deer population is reduced, extending the culling season via CBDM Permit is an important part of the Township's deer management program.

Other features of the program are:

Exclusive utilization of controlled hunts by two Township based sport hunting groups, Whitetail Solution and Bernards Township Protective Association, via bow and arrow by both groups, and via firearm, as permitted by State regulations, by the latter.

Controlled hunting on designated municipal and Somerset County properties, the latter subject to the approval of county authorities. The Bernards Deer Management Administrator, who is delegated the operational and safety oversight of the CBDMP program by the Township Committee, Township of Bernards, will, with county approval where needed, determine which designated hunting tracts will be used for hunting via archery and which via firearm, and when, subject to State regulations governing the methods used.

Commencement of the CBDMP program February 23, 2009, i.e., following the conclusion of the regular Winter deer hunting seasons. (Note that from October 1, 2008 through February 21, 2009 an otherwise-identical municipal deer management program will be conducted under Bernards Township authority.)

The final report of the 2007-2008 Bernards Township deer management program, including that portion conducted from February 18, 2008 through March 31, 2008 under a Community Based Deer Management Permit, is provided as Appendix A.

Efforts will continue as before to encourage private property owners to volunteer their lands for sport hunting by invitation under the State's September 13, 2008 to February 21, 2009 seasons and rules. The success of these efforts to date is demonstrated by the fact that such hunting accounted for almost half (43%) of the total deer harvest last season in Bernards Township.

(Note that such private activities take place separately from and are independent of the Township's deer management program.)

**2. *Please describe the nature and extent of property damage in the proposed special deer management area. Be specific. If possible, include the estimated monetary loss due to deer depredating on gardens or crops. Include photographs of deer damage, if possible.***

In response to a DFW request a Township wide survey of residential property damage and related costs was conducted during 2003.

To the question: "Has your property sustained deer damage to foundation or landscape plantings in the past three years?" 86% of households responded: "Yes." And to the question: "Has the damage been minor, or significant?" 73% judged it: "Significant."

From the survey responses, foundation planting and landscaping damage for the three year period queried by the survey, extrapolated Township wide, totaled \$13,487,000, not including condo association, etc. costs for damages to communal property.

Projected damages to vegetable gardens, plus costs for deer fencing/netting, deer repellents, and deer tick insecticide spraying, added \$5,270,000 to the total. Anti-deer fencing and netting costs contributed \$3,422,000 to the total, and deer repellent costs as projected also totaled over one million dollars (\$1,165,000). Vegetable garden damage estimates totaled over \$683,000, and deer tick insecticide costs were \$653,000.

The total projected cost for the previous three years queried by the survey was \$19,410,000, or \$6,470,000 per year, not including communal living properties, for which the data could not be obtained.

The survey results reflected a much more serious economic impact of the deer overpopulation problem in Bernards Township than anticipated.

After the last four seasons numerous anecdotal reports of reduced property damage have been received, coincident with the continuing reduction of the Township's deer population (see below), although it is still too early to consider a follow-up survey.

**3. *Please estimate the number of vehicle collisions caused by deer in the proposed Community Based Deer Management Plan area and estimate of costs to motorists caused by deer – vehicle accidents.***

The estimated total for the latest Deer Biological Year, or "bioyear" (April 1, 2007 through March 31, 2008, or DBY 2008) is up somewhat from the previous DBY, to 191 from 172. This includes a 15% allowance for off-road kills plus an estimated 40 killed on the 15.2 miles of Interstate highways within Bernards Township. Road kills on municipal and county roads within Bernards Township by actual police log count rose from 94 in DBY 2007 to 131 in DBY 2008. This increase was unexpected, given the continued reduction in the estimated deer population, and largely occurred during the months of December and January. This raises the possibility that the extremely mild winter weather last year may have played a role, since deer become less active and less mobile in cold and snowy winter conditions (which were largely absent in the winter of 2007-2008). We are further evaluating the pattern of road kills to see if increased traffic volume could also have played a role.

The reduction in road kills by actual police count continues to be significant and important, nonetheless. In the base year of DBY 2001 (ending March 31, 2001, and immediately preceding commencement of the deer management program in Bernards Township) the figure was 289.

We continue to maintain detailed police logs of all road kills on municipal and county roads within the Township.

For DBY 2008 the road kill average per mile for the Township was 0.75 deer/mile. In DBY 2007 it was 0.54/mile. Both numbers are based on the actual municipal and county road kill totals within the Township.

In 2004 the Township undertook a second township wide survey. This survey asked for detailed information about the number, cost and medical consequences of deer/vehicle collisions within the Township.

At an average damage cost of \$2,166 per vehicle, based on the survey's results, the projected cost of the 191 deer/vehicle collisions estimated to have occurred in Bernards Township in DBY 2008 is \$413,706 – still too high, but much less than the \$935,700 estimated cost in DBY 2001, before the deer management program began.

**4. *Please describe that portion of the Municipality (Municipalities) proposed for inclusion in the Community Based Deer Management Plan or attach a map.***

The Bernards Township CBDMP area as proposed will, as before, include the entire Township (24.5 square miles). Permission is herewith requested for approval of the same 34 municipal or county tracts that were approved last season, initially or via amendment to the Application, comprising 31 municipal tracts and three Somerset County properties. Please see accompanying map and tract legend for details.

No private properties are included in this year's application.

**5. *Describe the proposed alternative control methods to be used to reduce the number of deer in the special management area. Include detailed information including but not limited to the capture methodology, the type of traps and destination of the deer to be removed, or the method of euthanasia; the culling methodology, shooting methodology such as baiting, shooting from elevated platforms or detailed information on other methods to be employed.***

The program as proposed is the same as last year's and will utilize two Township authorized and based hunting groups, Whitetail Solution and Bernards Township Protective Association, at Township and/or county designated times and only with Township (and county, where applicable) approval.

Bow and arrow, and shotgun and muzzleloader, will be utilized, with archery and sometimes firearms from temporary tree stands over bait. State regulations governing archery and firearms usage will be followed.

All participants from the above two sport hunting groups will have been approved by the Bernards Township Deer Management Administrator, who is also a member of the Bernards Township Police Department. Screening and testing for proficiency with firearms will be done by the Deer Management Administrator, who is a Certified (New Jersey Division

of Criminal Justice; National Rifle Association) Firearms Instructor. Screening and proficiency testing of bowhunters will be done by a Certified (New Jersey Division of Fish and Wildlife) Archery Instructor.

**6. *On what dates or during what period will the alternate control methodology be employed?***

From on or after the Monday following the February 21, 2009 conclusion of the New Jersey Winter bow hunting season, and continuing through March 31, 2009, excepting Sundays, and as otherwise governed or restricted by State sport hunting regulations. Note that an identical program, under local municipal auspices and authorization, will precede the Permit period and will operate from October 1, 2008, excepting Sundays, through the conclusion of the State Winter hunting seasons.

**7. *During what hours will the agent operate?***

During daylight hours only (one-half hour before sunrise to one-half hour after sunset).

**8. *What type of weapon and ammunition will be used?***

Compound bows for the archery portions of the controlled hunts will be used by both sport hunting groups. Firearms will also be used as permitted by regulation by members of the Bernards Township Protective Association.

**9. *Will unplugged guns be used?***

No. All controlled hunting with shotguns will utilize plugged guns.

**10. *Will the agent shoot from a motor vehicle?***

No.

**11. *Will the agent shoot across closed roads?***

No.

**12. *Will the agent carry a loaded firearm in the vehicle for culling purposes?***

No. All firearms will be transported in an unloaded condition.

**13. *Will the agent be required to wear hunter orange?***

Archery hunters will not. All controlled hunt participants using firearms must wear hunter orange.

**14. *Is there a number of deer culled or trapped and transferred above which will not be exceeded?***

No.

**15. *To where will trapped deer be transferred?***

Not applicable.

***What is the quantitative estimate of the deer population or the deer population density in the special management area? How was this estimate obtained? What is the intended target population or density?***

We estimate the current population as 20 or less per square mile, but probably at least 15/square mile. A definitive, Township-wide aerial census is intended within the next year or two to get an actual count.

In previous years we have used an assumed reproduction rate of 35% in doing our population estimates, but we now believe the actual rate is probably several percentage points higher, i.e., 36 or 37%. The reason we say this is that after the previous season the estimate was 21/square mile, or 524 deer. Doing the math using a 35% repro rate and this season's road kill and hunting totals yields an impossibly low number. Therefore, the actual reproduction rate must be higher than the 35% we've previously assumed, and which was based on the 35-40% range indicated by the DFW study done some years ago in Zones 9 and 13.

A partial aerial survey done this past January to validate the methodology, and which overflowed an area which has not been accessible thus far to our deer management program, showed approximately 30 deer per square mile in the strip surveyed, which jibes with the above estimate of 15-20 per square mile overall.

The basis for annual population estimates is the aerial census done in 2002, which yielded a population estimate, post-fawning, of 2,899 (118/square mile).

The Bernards Township deer management program's results continue to be encouraging, but the goal of reaching a balance between societal needs and a resident deer population has not yet been achieved. Serious property damage continues in some areas, woodlands understory recovery is just beginning, and the Township's deer/vehicle collision rate, while significantly reduced, is still unacceptably high.

Given the results to date, we still aim for an overall Cultural Carrying Capacity of no more than 10 deer/square mile, with the added proviso that still-existing "pockets" of over-population must also still be addressed.

- 17. Describe the extent to which traditional hunting is currently being used to control deer numbers in the special management area, or why traditional hunting is not applicable.**

The Bernards Township CBDMP program in 2008-2009 will continue to utilize traditional hunting *only*, as it did in the past four seasons.

In addition, sport hunting on private lands within the Township remains a critical co-contributor to the deer control effort. Sport hunters operating on private properties took 34%, or a third, of the Township's total deer harvest of 407 this past season. Of the 138 deer taken privately, 60, or 43%, were taken by hunters who were not members of Bernards Township Protective Association or Whitetail Solution.

- 18. Identify any organization that will participate in the implementation of the alternative control methods. Include appropriate credentials. Include documentation indicating that volunteers or employees of the cooperator or their agents which will cull deer using firearms possess a valid firearm hunting license, a valid rifle permit if required, and a valid New Jersey Firearms Purchaser Identification Card or proof that the person is in compliance with the applicable laws of the person's state of residence.**

As was the case the last three seasons, two Township based sport hunting groups, Bernards Township Protective Association and Whitetail Solution, will participate. All members function as volunteers and are New Jersey licensed hunters. Whitetail Solution employs archery exclusively. BTPA members use shotgun, muzzleloader and/or bow and arrow. All BTPA firearms users will have a valid firearm hunting license and a valid New Jersey Firearms Purchaser Identification Card or proof that the person is in compliance with the applicable laws of the person's state of residence. The Bernards Township Deer Management Administrator will verify the documentation of all proposed participants.

- 19. Describe the methods that will be used to notify the public, including residents located within and adjacent to the Community Based Deer Management Program's municipal and County hunting tracts, of the alternative control methods and the specific places when and where they will be used. Such methods shall include written notice to adjacent landowners when the**

***control method includes shooting at night, shooting with rifles and/or shooting with silencers or suppressors.***

As was done last year, notices will be mailed to Township residents and non-resident property owners whose properties adjoin any of the 34 proposed municipal and county hunting tracts prior to the deer management program's commencement in October, 2008, and explaining the necessity for the program, the tracts that may be utilized, the control measures to be used and the safety precautions that will be taken. The local newspaper will also be utilized as before, via a published Public Notice in advance of the program's start.

In accordance with Bernards Township policy, the Township's website, which is now a principal means of communicating Township information, was also used last season to communicate advance notice of the program to Township residents and all interested others and will be utilized again this season.

In addition, the Township will again employ a telephone "hot line" (with the telephone number and its purpose included in the advance notices described above) so that Township residents and residents of adjoining communities can obtain timely information as to what public (municipal and county) hunting tracts will be utilized in the coming week.

Finally, procedures were implemented several years ago and will be continued so that routine inquirers to the Police Department can also obtain current information as to which tracts are actually in use that day.

The 34 requested public hunting tracts have previously been inspected by the Bernards Township Deer Management Administrator.

- 20. Describe the precautions that will be taken to ensure the safety of the public. Such precautions shall include the use of local police or appropriate law enforcement authority to enforce the closure of roads if necessary, and the restriction of the normal use of public land not normally open to hunting.***

The Bernards Township Deer Management Administrator has approved all proposed culling tracts and their bait site locations and will administer the controlled hunting schedules and monitor the tracts and their active bait sites. Controlled hunting at sites within Township parks and other public lands may require periodic closure or access restriction by the Township police.

Off-duty Township patrolmen can be employed if needed to provide supervision of temporarily closed areas.

All tracts to be used will be posted in advance by Bernards Township or Somerset County, as was done the last three seasons.

- 21. Document the written consent of each affected landowner for access to that person's land, if access to private property is necessary to implement the plan.**

Not applicable. No private properties are included in this application.

- 22. Describe the proposed disposition of any deer captured or harvested as part of the plan. Please use your best efforts to ensure donation of venison to the needy and describe the means of transportation of the deer carcasses to a USDA approved butcher.**

Controlled hunt participants may keep their deer. As in previous years, the Township will underwrite the cost of butchering any surplus or unwanted deer and delivery of the venison to a recognized New Jersey community food bank. Last season 76 excess deer were donated to food banks after butchering by either of the two USDA approved firms used, Custer's Last Stand and V. Roche and Sons Co. The butchering firms delivered the venison to the food banks.

As noted, Bernards Township underwrote this cost, at \$70 per deer, or a total of \$5,320. Assuming a dressed weight of 85 pounds per deer, the contribution of venison to the needy was 3.23 tons.

Deer will be field-dressed at a site or sites provided by the Township, as was the case last season, and will be transported to a USDA approved butcher in accordance with DFW requirements.

- 23. Describe plans to be implemented to discourage the feeding of deer.**

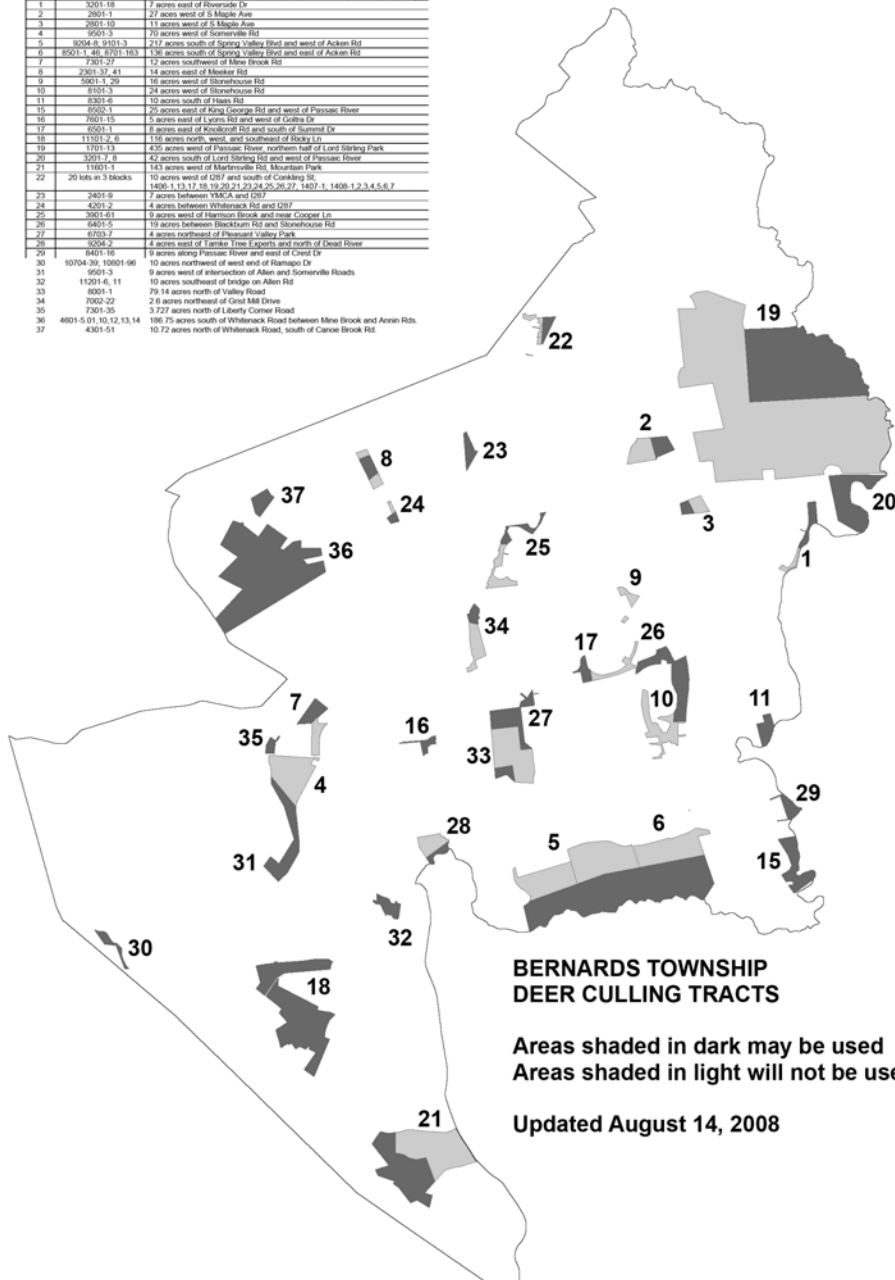
A "Please don't feed" message, based on the scientific literature, will again appear on the Township website and will be mailed as part of the advance notice of the deer management program's commencement.

- 24. Describe plans to support traditional hunting where practical.**

The proposed program exclusively employs traditional hunting, by local and area residents. Additionally the Deer Management Advisory Committee continues to serve as a referral resource for private property owners interested in supporting sport hunting.

**CULLING TRACTS MAP -- 2008-2009 SEASON**

Tract ID	Block-Lot or Block-Lots	Size, Location, Comment
1	5001-18	7 acres east of Riverside Dr
2	2801-1	27 acres west of S Maple Ave
3	2001-10	11 acres west of S Maple Ave
4	9501-3	70 acres west of Somerville Rd
5	8004-8, 8101-3	217 acres south of Spring Valley Blvd and west of Ackon Rd
6	8501-1, 46, 8701-103	136 acres south of Spring Valley Blvd and east of Ackon Rd
7	7401-27	12 acres southwest of Mine Brook Rd
8	2301-37, 41	14 acres east of Moxter Rd
9	9601-1, 20	16 acres west of Stonehouse Rd
10	8101-3	14 acres west of Stonehouse Rd
11	8301-6	10 acres south of Heas Rd
15	6501-1	20 acres west of King George Rd and west of Passaic River
16	7601-15	9 acres east of Lyons Rd and west of Cordia Dr
17	6501-1	8 acres east of Knockoff Rd and south of Summit Dr
18	1101-2, 8	16 acres north, west and southeast of Rocky Ln
19	1701-13	435 acres west of Passaic River, northern half of Lord Sterling Park
20	3201-7, 8	42 acres south of Lord Sterling Rd and west of Passaic River
21	1161-1	143 acres west of Marlborough Rd, Mountain Park
22		20 lots in 3 blocks 1409-1, 13, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 1407-1, 1408-1, 2, 3, 4, 5, 6, 7
23	2401-9	7 acres between YMCA and D97
24	4201-2	4 acres between Whitnack Rd and D97
25	2601-01	8 acres west of Harrow Brook and near Cooper Ln
26	6401-5	19 acres between Blackburn Rd and Stonehouse Rd
27	6701-7	4 acres northeast of Pleasant Valley Park
28	6004-2	4 acres east of Farnen Tree Experts and north of Dead River
29	6401-16	19 acres along Passaic River and east of Cord Dr
30	10704-36, 10801-06	10 acres northwest of west end of Ramapo Dr
31	9501-3	9 acres west of intersection of Allen and Somerville Roads
32	11201-6, 11	10 acres southeast of bridge on Allen Rd
33	8001-1	79.14 acres north of Valley Road
34	7002-22	2.9 acres northeast of Grid Mill Drive
35	7301-35	3.722 acres north of Liberty Corner Road
36	4601-5-01, 10, 12, 13, 14	186.75 acres south of Whitnack Road between Mine Brook and Arnan Rds.
37	4301-51	10.72 acres north of Whitnack Road, south of Carow Brook Rd.



**BERNARDS TOWNSHIP  
DEER CULLING TRACTS**

Areas shaded in dark may be used  
Areas shaded in light will not be used

Updated August 14, 2008

**BERNARDS TOWNSHIP DEER CULLING TRACTS  
2008-2009 SEASON**

<b>Tract ID</b>	<b>Block--Lot or Block--(Lots)</b>	<b>Size, Location, Comment</b> (Acreages represent portions of approved tracts that may be used for culling.)
1	3201-18	7 acres east of Riverside Dr
2	2801-1	27 acres west of S Maple Ave
3	2801-10	11 acres west of S Maple Ave
4	9501-3	70 acres west of Somerville Rd
5	9204-8; 9101-3	217 acres south of Spring Valley Blvd and west of Acken Rd
6	8501-1, 46; 8701-163	136 acres south of Spring Valley Blvd and east of Acken Rd
7	7301-27	12 acres southwest of Mine Brook Rd
8	2301-37, 41	14 acres east of Meeker Rd
9	5901-1, 29	16 acres west of Stonehouse Rd
10	8101-3	24 acres west of Stonehouse Rd
11	8301-6	10 acres south of Haas Rd
15	8502-1	25 acres east of King George Rd and west of Passaic River
16	7601-15	5 acres east of Lyons Rd and west of Goltra Dr
17	6501-1	8 acres east of Knollcroft Rd and south of Summit Dr
18	11101-2, 6	116 acres north, west, and southeast of Ricky Ln
19	1701-13	435 acres west of Passaic River, northern half of Lord Stirling Park
20	3201-7, 8	42 acres south of Lord Stirling Rd and west of Passaic River
21	11601-1	143 acres west of Martinsville Rd, Mountain Park
22	20 lots in 3 blocks	10 acres west of I287 and south of Conkling St; 1406-1,13,17,18,19,20,21,23,24,25,26,27; 1407-1; 1408-1,2,3,4,5,6,7
23	2401-9	7 acres between YMCA and I287
24	4201-2	4 acres between Whitenack Rd and I287
25	3901-61	9 acres west of Harrison Brook and near Cooper Ln
26	6401-5	19 acres between Blackburn Rd and Stonehouse Rd
27	6703-7	4 acres northeast of Pleasant Valley Park
28	9204-2	4 acres east of Tamke Tree Experts and north of Dead River
29	8401-16	9 acres along Passaic River and east of Crest Dr
30	10704-39; 10801-96	10 acres northwest of west end of Ramapo Dr
31	9501-3	9 acres west of intersection of Allen and Somerville Roads
32	11201-6, 11	10 acres southeast of bridge on Allen Rd
33	8001-1	79.14 acres north of Valley Road
34	7002-22	2.6 acres northeast of Grist Mill Drive
35	7301-35	3.727 acres north of Liberty Corner Road
36	4601-5.01,10,12,13,14	186.75 acres south of Whitenack Road between Mine Brook and Annin Rds.
37	4301-51	10.72 acres north of Whitenack Road, south of Canoe Brook Rd.

*Appendix A*

*FINAL REPORT*

*2007-2008 COMMUNITY BASED DEER MANAGEMENT PLAN*

**To: Township Committee, Township of Bernards, New Jersey**

From: Bernards Township Deer Management Advisory Committee

Subject: Final Report on 2007-2008 Community Based Deer Management Plan

Date: September 3, 2008

The following report is hereby submitted for the Township Committee's information, approval, and transmission as required by the State to the New Jersey Division of Fish and Wildlife.

The 2007-2008 Bernards Township municipal deer management program was conducted from October 1, 2007 through February 16, 2008 under regular State sport hunting rules and regulations, and thereafter to its conclusion March 31, 2008 under a CBDM Permit approved by the NJ Fish and Game Council.

Bernards Township's request for a deer check station within the Township for use by the deer management program was again granted by DFW. This permitted local check-in of all deer from the 2007-2008 program and greatly expedited the culling efforts.

Similar to the preceding four seasons, the program comprised the following elements: 1) controlled hunting via archery by qualified members of two Township-authorized and based private hunting groups, Whitetail Solution and Bernards Township Protective Association, on designated municipal or Somerset County owned tracts from October 1, 2007 through March 31, 2008, and 2) controlled hunting via firearm by the latter group on a limited number of the above tracts during the same time frame as permitted by State sport hunting regulations for firearms use. The Township Committee-approved program and the State permit authorized extensions of the Winter archery and firearms deer hunting seasons beyond February 16, 2008 for the Bernards Township deer management program. Thirty-two tracts were originally approved for use and two additional tracts were later added, for a total of 34 tracts. There were no incidents or accidents involving the program, and no shot deer went unretrieved.

The two authorized hunting groups took a total of 269 deer from Township and Somerset County lands during the 2007-2008 season, compared with 247 during the 2006-2007 season.

Of the 269 total, 54 deer, or 20%, were taken during the CBDM Permit's authorized extension of the regular sport hunting season. As the Township's deer population is

reduced, extending the culling season via CBDM Permit therefore is an important part of the Township's deer management program.

The 269 deer harvested under the program this past season represented 66% of the total number of deer taken (407) within the Township. The remaining third (138 deer) were taken by sport hunters on private lands during the regular 2007-2008 whitetail deer seasons.

The Township again agreed to cover the cost of butchering and transport to New Jersey food banks of the venison from surplus deer taken under the program. Venison from a total of 76 deer was donated to community food banks. Assuming an average dressed weight of 85 pounds per deer, this represents three and a quarter tons of venison.

Although not part of the Bernards Township deer management program, both hunting groups also operated on private lands within the Township in 2007-2008, by owner invitation and during the State sport hunting season only. WS and the BTPA took an additional 78 deer on private lands in the Township, and other sport hunters took 60, or 43% of the 138 total taken from private lands.

After the last six seasons it is evident that the Township's deer population has been significantly reduced. Estimates based on the last full aerial census, done in 2002, and an assumed 35% reproduction rate indicated that the population should be down to slightly over 21 per square mile as of a year ago, i.e., after the 2006-2007 season. It is clearly down further after this past season's results, but we now believe the reproduction rate assumption used in past years should have been several percentage points higher, i.e., perhaps 36 or 37%, since doing the math using a 35% assumed reproduction rate and this season's road kill and hunting totals yields an impossibly low number. We note that a state study of actual reproduction rates in the two Wildlife Management Zones that traverse Bernards Township, Zones 9 and 13, showed a reproductive rate range of 35% to 40%.

A full aerial census is planned in the next year or two, which should provide the actual deer population count. Right now, and pending such census, our best estimate is that the population is at or somewhat under 20 per square mile, but is not yet at or close to the desired figure of no more than 10 deer per square mile. It is, however, a major improvement over the estimated 118 deer per square mile in 2002.

A partial aerial survey done this past January to evaluate methodology, and which overflowed an area that has not been accessible to our deer management program thus far, showed approximately 30 deer per square mile in the strip surveyed, which jibes with the above estimate.

The results thus continue to be encouraging, but the goal of reaching a balance between societal needs and a resident deer population has not yet been achieved. Wildlife biologists generally recommend a Biological Carrying Capacity (i.e., deer population) of no more than 20/square mile, and a maximum Cultural Carrying Capacity of no more than 10 deer/square mile. The former refers to the impact on the biosystem (the woodlands' "understory") and the latter to the effect of the deer population on vehicular accidents, property damage, and disease (most notably Lyme disease).

Moreover, whitetail deer are not migratory, and the Township still contains significant over-concentrations of deer in some areas that have not as yet been accessible to the program or other hunting.

The Deer Management Advisory Committee continues to use a Deer Biological Year standard, comprising 12-month periods from April 1 to March 31. Each DBY or bioyear thus commences just prior to the annual spring fawning season and concludes after the hunting season. We have police-logged (by date and location) road kill data from the fall of 1999 through the present.

For DBY 2008 (ending March 31, 2008) the roadkill total by actual Police Department count on municipal and county roads within the Township was 131 deer, which is an increase over the previous DBY's total of 94, albeit still a major reduction from DBY 2001's total of 289. This increase was unexpected, given the continued reduction in the estimated deer population, and largely occurred during the months of December and January. This raises the possibility that the extremely mild winter weather last year may have played a role, since deer become less active and less mobile in cold and snowy winter conditions. We are further evaluating the pattern of roadkills to see if increased traffic volume could also have played a role.

Cost of the 2007-2008 Bernards Township deer management program was \$30,323.38, or \$112.73 per deer harvested. The previous year's final cost was \$17,354.57, and the cost per deer was \$70.26. The 2007-2008 total cost, however, includes \$8,020.00 for the partial aerial survey and \$1,499.84 for training and tuition, as well as \$7,155.80 for personnel costs (Deer Management Administrator, secretarial services). It also includes \$5,320.00 for the 76 surplus deer donated to community food banks (at \$70 per deer for butchering and transport). Bait cost was \$3,859.70. The remainder went for tract signs, legal ads and printing and mailing of notices, \$779.59; disposal costs, 1312.34; hunter cost defrayments, \$2,000.00, and miscellaneous supplies, \$298.11.

Respectfully submitted,

William R. Darrow, M.D., Ph.D.  
Chair, Bernards Township Deer Management Advisory Committee