NEW JERSEY FISH AND GAME COUNCIL

COMPREHENSIVE
BLACK BEAR
(*Ursus americanus*)
MANAGEMENT POLICY

Prepared by Black Bear Policy Committee

Submitted to **Lisa P. Jackson**
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_____date

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I. INTRODUCTION

This document defines the New Jersey Fish and Game Council's (Council) comprehensive black bear (*Ursus americanus*) policies and recommendations regarding the continued management of resident black bears (bears) to ensure their continued existence in suitable habitat in New Jersey. As is the case with any wildlife species under its jurisdiction, Council will periodically re-evaluate its policies, recommendations and regulations as information on the species' status and the needs of NJ's citizens warrant. Policy considerations regarding black bears cannot be based solely upon the biological carrying capacity of the land to support black bears. Black bear policies and management goals must consider the number of black bears that can co-exist compatibly with the local human population in a given area.

Department of Environmental Protection Policy for Environmental Protection

The Council's goals for bear management reflect the legislative mandate of the Department of Environmental Protection (DEP) and the Council (N.J.S.A. 13:1B-28 et seq.) and DEP mission and goals as identified on the Division of Fish and Wildlife's (DFW) web page and annual reports.

Mission: To protect and manage the state's fish and wildlife to maximize their long term biological, recreational and economic values for all New Jerseyans.

Goals:

To maintain NJ's rich variety of fish and wildlife species at stable, healthy levels and to protect and enhance the many habitats on which they depend.

To educate New Jerseyans on the values and needs of our fish and wildlife and to foster a positive human/wildlife co-existence.

To maximize the recreational and commercial use of NJ's fish and wildlife for both present and future generations.

New Jersey Court Orders and Decisions on Bear Management

On February 28, 2005, the NJ Supreme Court held that a black bear hunt must conform to a comprehensive black bear management policy developed by the Council and approved by the DEP Commissioner (U.S. Sportsmen's Alliance vs. NJ Dept. of Env. Protect. 182 NJ. 461 (2005)). The opinion indicated that comprehensive policies should include: 1) black bear management objectives, 2) a detailed outline for meeting those objectives, 3) the tools at the Council's disposal, and 4) the criteria used to determine which tools are selected.

Pursuant to the Supreme Court's mandate, Council developed a draft Comprehensive Black Bear Management Policy (CBBMP) that was released for public comment on September 6, 2005. Public comment on Council's draft CBBMP was solicited during the 30-day comment period from September 6 through October 6, 2005. DFW received comments from 2035 individuals, including 854 letters, 1057 emails and 124 oral comments at the public hearing held on September 21, 2005. In reference to the proposed hunting of bears contained in the 2005 CBBMP, 1130 opposed hunting bears and 905 supported bear hunting.

After reviewing the public comment, Council finalized the CBBMP, and the CBBMP as approved by the DEP Commissioner on November 14, 2005 (Wolgast et. al. 2005). The annual hunting regulations (Game Code) provided that the 2005 bear hunting season was contingent on the approval of this CBBMP. This wording adopted by Council clearly reflects the Supreme Court order that a bear hunt "could not take place" prior to the adoption of a CBBMP.

The NJ Animal Rights Alliance, et al. filed a lawsuit in NJ Superior Court Appellate Division against NJDEP, NJDFW, NJ F&G Council et al. contesting the approval of the 2005 Comprehensive Black Bear Management Policy (which would stop the 2005 bear hunting season) and filed a motion for emergent relief and stay of the hunt pending the outcome of the lawsuit. Safari Club International, et al. and U.S. Sportsmen's Alliance Foundation, et al were accepted as intervenors in the lawsuit. On December 2, 2005, the NJ State Supreme Court denied the motion for a stay of the 2005 bear hunt. The 2005 bear hunting season was conducted successfully and the lawsuit is still pending.

Council readopted the Game Code portion of Chapter 25 on May 8, 2005. As adopted N.J.A.C 7:25-5.6 (a) states that a bear season would be held concurrent with the six-day firearm buck season provided that the Commissioner approves a comprehensive policy for the protection and propagation of black bear. The entire Game Code was proposed for readoption with amendments on February 20, 2007.

DFW operated under the guidelines set by the 2005 CBBMP until DEP Commissioner Lisa P. Jackson rescinded former Commissioner Campbell's approval of the 2005 CBBMP on November 15, 2006. DFW then reverted back to the DFW Black Bear Rating and Response Criteria (BBRRC) (NJDFW BWM 2000) that was in place until the Council developed the 2005CBBMP.

In disapproving the 2005 CBBMP, the DEP Commissioner stated that non-lethal methods of bear management must be implemented and analyzed before allowing a hunt to proceed. This CBBMP describes the further implementation of these non-lethal measures, most of which were also contained in the 2005 CBBMP. . A regulated hunting season will take place in December 2008 if these non-lethal methods do not result in a significant reduction in Category I incidences by September 8, 2008. If these non-lethal methods are successful in reducing Category I complaints by thirty percent (30%), no hunt will take place. However, if Category I incidences are not reduced by an additional thirty percent (30 %) by September 7, 2009, a regulated hunt will take place in December

2009. This policy reflects the DEP Commissioner's overall environment policies as they pertain to the management of black bears.

The Commissioner's decision to disapprove the 2005 CBBMP is the subject of a pending lawsuit brought by the New Jersey State Federation of Sportsmen's Club, Safari Club International Foundation and the U.S. Sportsmen's Alliance, challenging Commissioner Jackson's November 15, 2006 decision and also seeking emergent relief to invalidate the Commissioner's disapproval. On November 22, 2006, the Appellate Division denied appellants' motion for emergent relief, and the New Jersey Supreme Court denied a motion for leave to appeal on November 29, 2006. This lawsuit is still pending.

Subsequently, NJDEP and DFW filed a motion to remand the matter to the agencies for the development of a new CBBMP. On March 6, 2007, the Appellate Division granted the motion and directed that the remand be completed by August 10, 2007.

Role of the Fish and Game Council

Council has historically worked closely with DFW, utilizing the scientific expertise of its biologists to regulate the taking of wildlife in order to ensure its abundance and minimize wildlife related damage. Council's ability to manage is primarily through its rule-making authority to regulate hunting and trapping (Game Code) and fishing (Fish Code). The ability to implement various Council policies is constrained by the fiscal and human resources of governmental agencies, particularly DEP and DFW, as well as those of interested non-governmental organizations. Therefore, with regard to the Supreme Court opinion concerning the ability to determine the absolute population size of New Jersey black bears, the Council recognizes that the ability to measure wildlife populations is subject to the scientific tools available, and that the population status is most often measured through the use of population indices and estimates, as opposed to absolute counts. Except for highly visible small populations such as bald eagles, it is impossible to obtain absolute counts on wildlife species. The CBBMP relies on estimates of abundance within the bear study areas as well as the changes in human-bear related incidences when considering bear management decisions.

Council was established by the legislature in 1945; Council's current makeup of 11 members was established in 1979. The makeup and authority of Council was upheld by the NJ Supreme Court in 1976 (Humane Society of the U.S. vs. NJ State Fish and Game Council, 70 N.J. 565 (1976), appeal dismissed 429 U.S. 1032, 50 L. Ed. 2d 744.) and more recently the Superior Court in 2002 (Mercer Cty. Deer Alliance vs. NJDEP, 349 NJ Super. 440). The Governor, with advice and consent of the Senate, appoints each member. Three members of the Council are farmers, recommended by the Agricultural Convention; six members are sportsmen, recommended by the State Federation of Sportsmen's Clubs; one member is a public member knowledgeable in land use management and soil conservation practices, and the final member is the Chairperson of the Endangered and Nongame Advisory Committee (N.J.S.A 13:1B-24).

Council is mandated with the responsibility of protecting and conserving game birds, mammals and fish and providing an adequate supply for recreational and commercial harvest. This mandate is carried out through Council's adoption of the Fish and Game Codes, which determine " under what circumstances, when and in what localities, by what means and in what amounts and numbers [fish and game species] may be pursued, taken, killed, or had in possession so as to maintain an adequate and proper supply thereof...." (N.J.S.A. 13:1B-30, 13:1B-32).

"In addition to its powers and duties otherwise hereinafter provided, the Fish and Game Council shall, subject to the approval of the commissioner, formulate comprehensive policies for the protection and propagation of fish, birds and game animals …" (N.J.S.A. 13:1B-28). It is this statutory authority that provides the basis for the CBBMP.

Based upon scientific evidence presented to it by DFW, Council opens and closes seasons, and sets season lengths, bag limits and manner of take to ensure long-term stable populations and to maximize and equitably distribute recreational opportunity to user groups. Additionally, with some species such as black bear, white-tailed deer (*Odocoileus virginianus*), wild turkey (*Meleagris gallopavo*) and beaver (*Castor canadensis*), hunting and trapping can be used to control populations. Historically, Council has adjusted hunting and trapping seasons to control these species in order to minimize agricultural, residential or environmental damage. Further, the Council recognizes that the most cost effective method of population control for these species is provided through regulated hunting and trapping seasons.

Council has directed that DFW manage black bears to assure their continued survival in NJ, while addressing the property damage and safety concerns of residents and farmers. In addition, Council recognizes that, although instances of black bears injuring or killing humans are rare and no person in NJ has been killed by a black bear since 1852, human safety concerns must be considered as part of black bear management decisions. With careful management, the black bear can be a benefit for the citizens of NJ in the form of hunting, photography and wildlife observation and appreciation.

Fish and Game Council Black Bear Management Objectives

Council has set the following objectives for management of the NJ black bear population:

- Preserve a robust black bear population as part of NJ's natural resource base.
- Reduce and stabilize the population at a level commensurate with available habitat and consistent with reducing risk to public safety and property.
- Educate the public on legal prohibitions and common-sense practices that reduce the risk of black bears to humans, their homes, and their communities.
- Advance the scientific understanding of black bears.

- Fully implement non-lethal nuisance abatement procedures, including developing additional alternate and non-lethal damage control methods.
- Ensure that sport hunting remains a safe and effective management tool, when deemed necessary and appropriate, to provide recreation and control NJ's black bear population.

Council recognizes that management of NJ's expanding black bear population to meet these goals requires a range of measures to reduce public safety risk Council recognizes that regulated sport hunting cannot be an exclusive element of NJ's management strategy. Stabilization of the currently expanding population, and ultimate reduction of the population to levels commensurate with available habitat and acceptable levels of public safety risk, will take years. A well managed black bear population will require enhanced public education, proper waste management, enforcement, bear control, aversive conditioning, and other measures to reduce risk to people living close to black bears.

This policy differs from the 2005 CBBMP (Wolgast et. al. 2005) that contained a goal for black bear population reduction. It also differs from the 1997 BBMP, which, consistent with the policy of New York and Pennsylvania, set a population goal of 1 bear for each 2½ square miles of available habitat. In order to achieve the 1997 population goal, DFW would have had to severely reduce NJ's current black bear population. As acknowledged in the previous policies, this reduction appears to be far greater than necessary to reduce risk, and is not likely to be achieved with the restrictive hunting seasons conducted in 2003 and 2005. Moreover, the significant reduction of nuisance bear incidents following the limited hunt conducted in 2003, suggests that New Jersey can sustain a black bear population at higher levels than previously without unacceptable risk. Accordingly, this policy proposes to reduce New Jersey's black bear population to 2002 levels, and to stabilize the population at that level, over the five-year span of this policy.

Thus, the focus of this policy is to determine the effects of a management policy that prioritizes and strives to fully implement non-lethal control measures, and the analysis of these measures, to determine whether a hunt is needed to manage the black bear population**.** Council reiterates the conclusion of the 1997 BBMP that the New Jersey bear population is large enough to support a regulated recreational hunting season.

More importantly, Council recognizes that the increasing bear population has resulted in a significant increase in the level of serious bear related incidences and the Council is not willing to subject the citizens of New Jersey to this level of risk to public safety and property damage for more than a year. The goal of this policy is to reduce high-risk bear incidences that are a threat to public safety and property damage. Therefore, if these non-lethal control measures have not been successful in reducing Category I incidences by 30% as of September 8, 2008, a regulated hunt will be implemented in December 2008. If these non-lethal methods are successful, no hunt will occur. If an additional reduction of 30% of Category I incidences does not occur by September 7, 2009, a hunt will be implemented in December 2009.

As more fully discussed below, Council has selected a range of management tools adopted in this policy according to criteria of consistency with current law, practicability in light of current resource constraints, and demonstrated efficacy.

II. HISTORY

The black bear occurred statewide in NJ through the 1800's, however, by the mid-1900's less than 100 existed and these were restricted to the northern portion of the state (Lund 1980, McConnell et al. 1997). In 1953, Council classified black bears as a game animal, thereby protecting bears from indiscriminate killing. This protection stabilized the population. DFW wildlife control agents (later wildlife technicians) responded to citizen complaints to alleviate black bear damage. Limited hunting was legal in 10 seasons from 1958-1970 and resulted in a harvest of 46 black bears. Based upon data gathered through the regulated hunting seasons the bear population status was assessed and Council closed the black bear hunting season in 1971 (Lund 1980).

Historically, management of black bears has always been funded through the Hunters and Anglers Fund. This fund is derived by the sale of hunting and fishing licenses. Additional funding is obtained from Federal Aid to Wildlife Restoration (Pittman – Robertson Funding for these grants is derived from a federal excise tax placed on hunting related equipment and ammunition that is passed on to State wildlife agencies for research, education and management activities).

Since the 1980's the black bear population has increased, and its range has expanded due to the protection afforded it by game animal status. Also contributing to this population increase were black bear population increases in Pennsylvania and New York and improved habitat in NJ provided by the maturation of forested areas (McConnell et al. 1997). Using data collected from 1988 to 1992, DFW estimated a 1992 population of between 450-550 black bears in the 681 square mile Kittatinny (Western) and Bearfort (Eastern) study areas (Figure 1). Because of agricultural damage attributed to black bears, DFW and Council recognized that the level of human/bear conflict had become untenable in northern NJ and the black bear population was large enough to sustain a limited, regulated hunting season (McConnell et al. 1997).

The 1997 Black Bear Management Plan (BBMP) recommended that DFW stabilize NJ’s black bear population using regulated hunting seasons in bear management zones (BMZs), institute a statewide ban on feeding black bears, install bear-proof (bear-resistant) dumpsters at public campgrounds within black bear range, educate beekeepers on the use of electric fences to deter black bear depredation, institute a black bear depredation permit for landowners suffering damage to property, agricultural crops or livestock, continue to analyze NJ black bear data as new technology and data becomes available, and protect critical habitat and reduce illegal killing of bears (McConnell et al. 1997).

Council notes that since 1997 great strides have been made in implementing the recommendations listed above. However, bear-resistant dumpsters, as originally recommended in the 1997 BBMP, must continue to be installed in all public campgrounds as the black bear range expands. Equipping parks with bear-resistant dumpsters is an ongoing effort that will become more expensive as bear occupied range expands. Although the BBMP recommended a bear season in 1997, Council did not take action until 2000 when Council supported but then cancelled the first bear season in 30 years.

In FY01 and FY02 DFW received appropriations from the General Treasury amounting to $1.7 million dollars, which allowed DFW to expand the black bear management team to 2 full time biologists, 7 bear technicians, 2 education specialists and 1 police training officer. Since FY03 due to budgetary reasons, the number of personnel devoted to black bear management was reduced to one full-time biologist, one full-time wildlife technician, one part-time biologist, one part-time training officer and one part-time education specialist. The Hunters and Anglers Fund and the Federal Aid Grant funded these positions for FY03 through FY07.

In 2000, DFW biologists estimated a bear population of 1056 in the Kittatinny and Bearfort study areas.. Council amended the 2000 Game Code to reinstate the black bear hunting season. However, as part of a court challenge to the hunt, Council granted a request for a stay and suspended the hunt in favor of a more aggressive black bear operating policy (Carr 2001). DFW estimated a 2003 population of between 1600-3200 bears in an area north of Route I-80 and west of Route I-287 (NJDEP 2003); in the research study areas (Figure 2), the population was estimated at 1490. Council reinstated a limited hunting season using a conservative format, resulting in a harvest of 328 bears in December 2003 (Carr and Burguess 2004). The hunting season was closed by order of the NJ Supreme Court in 2004.

Pursuant to the Supreme Court's mandate, Council developed the 2005 CBBMP, which was approved by the former DEP Commissioner and the hunting season was conducted, resulting in a harvest of 298 bears in December 2005. DEP Commissioner Lisa P. Jackson withdrew the former Commissioner's approval of the 2005 CBBMP in November 2006, effectively canceling the 2006 hunt. In disapproving the prior Commissioner's approval, Commissioner Jackson committed to provide funding to adequately implement and analyze the effectiveness of non-lethal tools (such as education, garbage management, research and training) before allowing a hunt to proceed.

While in the proposed 2007 Game Code Council has maintained a black bear hunting season structured like the 2005 hunting season within the current Game Code, this season is contingent upon the Commissioner approving a CBBMP that allows for a bear hunting season.

In FY08, Governor Corzine included a supplemental appropriation in the State budget of $850,000 to assist in implementing non-lethal black bear management policies. The

purpose of this appropriation is to increase DFW personnel by six additional staff (two conservation officers, two assistant biologists and two wildlife technicians), and to emphasize and evaluate bear education, expand research and implement and monitor control methods. Additional DEP staff has been reassigned to assist with bear education efforts.

III. INTEGRATED BLACK BEAR MANAGEMENT STRATEGY

DFW utilizes an integrated approach to managing black bears; this integrated black bear management strategy includes monitoring the black bear population, educating people about black bear ecology and adjusting human activities while in bear range and minimizing human-bear conflicts from nuisance bear activity. DFW's bear management program received the Association of Wildlife Agencies' Ernest Thomas Seton Award for professional excellence. In November 2000, DFW instituted a more aggressive integrated black bear management strategy (an enhanced educational effort, increased research and monitoring activities, and more aggressive control measures).

Since 1980, the DFW has been conducting research on the black bear population, and has utilized an integrated approach to managing black bears. This multi-prong approach is necessary because the black bear population is increasing and expanding into all New Jersey counties (Fig. 4). Coupled with the growing human population in rural northwestern New Jersey and the increased residential and commercial development, it has become an imperative to have a full-blown, comprehensive approach in place to address the growing potential for human/bear conflicts.

A. Education

Policy:

Council believes there is a continued need to educate NJ residents and visitors on how to coexist with black bears. Residents, campers and outdoor enthusiasts within bear country can minimize negative interactions with black bears by following simple adjustments to their activities. There is general support from the public, DEP, DFW and Council for increasing bear education efforts.

Discussion:

It is important to make the educational message available to as many citizens as possible. While education alone will not solve all the problems associated with bears, those who adjust their activities to take into account bear activity will be less likely to have problems. While not entirely conclusive, a recent decline in nuisance complaints involving bear damage to beehives, garbage and bird feeders suggests that DFW bear education program is having a positive effect.

Council recognizes that DFW has conducted an extensive educational campaign to provide NJ residents and visitors with techniques and methods for living in areas where black bears exist. Especially emphasized is the importance of never feeding bears, either intentionally or unintentionally. Some of the efforts include the following: (1) developing and distributing educational materials for campers and homeowners to reduce negative encounters with bears; (2) producing brochures, bookmarks, bumper stickers, coloring books and book covers for distribution to schools, municipalities, libraries, parks and environmental education centers; (3) conducting public presentations on living with black bears for various schools, service organizations, township meetings, parks, camps and clubs; (4) producing and distributing radio and TV public service announcements (PSA's) and news releases statewide providing bear information and bear-proofing techniques; (5) addressing media inquiries and providing interviews regarding bears; and (6) providing bear information and bear-proofing techniques to all persons who contact DFW regarding bears.

The bear education effort conducted by DFW peaked in FY2001 and FY2002 when general appropriations supplemented education efforts already being funded through the Hunters and Anglers Fund. Until the recent commitment of funding by Governor Corzine for FY08, no general funds had been available to continue the extensive black bear education initiative since FY02. Only one staff member was assigned to bear education on a part-time basis. Only surplus educational materials purchased with FY02 funds were available for distribution to the public.

DFW provides NJ residents and visitors with techniques and methods for living in areas where black bears exist. The primary message is "Do Not Feed Bears," either intentionally or unintentionally. DEP developed and issued news releases during the peak spring and fall activity periods alerting the public to increased bear activity and reminders on how to minimize conflicts. DFW's Web Page (www.njfishandwildlife.com) provides additional black bear biology, natural history and bear-proofing information, including a black bear slide show and sources for bear-resistant garbage containers.

Since 1998, the DFW has produced and distributed nearly 2.5 million pieces of educational material. The material produced and distributed includes:

300,000	'You Are in Bear Country' brochures (for park, campground and outdoor recreationists)
566,000	'Living in Bear Country' brochures (for residential households)
53,000	Signs for use in parks and campgrounds
200,000	Camper behavior in bear country cards
206,000	Garbage can fliers for residential households
500,000	Educational brochures for children
40,000	Educational coloring books for children
350,000	Educational bookmarks
110,000	Educational bookcovers

45,000 'Do Not Feed the Bears' bumper stickers

During the same period, staff have made over 300 presentations or manned exhibits that have provided black bear information to over 30,000 people, including school groups, camp groups, service organizations, clubs, Boy and Girl Scouts, police and township meetings. Radio public service announcements (PSA's) are aired for the bear activity seasons in spring, summer and fall.

The overall bear education effort received an education award in 2000 from the Association of Conservation Information. The ½ hour television video " Bear Country NJ" produced by DFW and NJN received an Emmy, and more recently, the "Welcome to Bear Country" camping video won a "Telly" award for educational video.

The need to educate New Jersey's citizenry will increase as bears expand their range throughout the state. Bear education efforts have been concentrated in northern and central New Jersey counties. However, it is now necessary to begin education efforts in the southern counties since there are confirmed bear sightings in all New Jersey counties.

Council recognizes there are data indicating that intense education of campers and visitors to several national parks (Yellowstone, Yosemite and Great Smokey Mountains) has resulted in a reduction in bear nuisance complaints. Council agrees that educating campers and visitors to parks is a valid and successful way to minimize negative human-bear interactions in the campsite/park situation.

In 2007, Governor Corzine provided additional revenue in the FY08 budget to enhance the bear education effort. These funds have allowed the DFW to hire a full-time wildlife education biologist devoted to bear education, launch a major bear education media campaign and replenish education materials for distribution. Additionally, an education specialist was transferred to DFW from another agency within DEP, resulting in three personnel assigned to bear education.

Recommendations:

1. Education efforts should be broadened to include the southern counties since bears occur in all NJ counties
2. In addition to educational material and PSA's produced in English, educational products should be developed in the Spanish language.
3. The General Treasury should continue bear education funding at its enhanced, current FY' 08 level.

B. Control of Human–Derived Food

Policy:

Council believes that, although public education is necessary to ensure that human-related food sources and garbage do not unintentionally become a source of food for bears, additional legislation and enforcement initiatives are necessary to minimize human-derived food sources.

Discussion:

Council recognizes that in 2003 legislation was passed which banned the intentional feeding of black bears (NJSA 23:2A-14). The intentional feeding of bears was made illegal because bears habituated to human food sources through intentional feeding can cause problems for entire communities. Enforcement of this statute is not within Council's authority but rests with state and local law enforcement officials. Under the direction of Commissioner Jackson, during the months of March and April 2007, DEP environmental officers canvassed scores of homes and businesses in Sussex, Passaic, Bergen, Morris and Warren counties to determine if the public is doing all it should to avoid attracting bears. Conservation officers, environmental inspectors and park police asked residents and business owners a host of questions including how and where they store garbage, pet-feeding practices and their experiences with bear encounters. It is the goal of this educational and enforcement effort to work towards a reduction in human-bear conflicts. In addition to DEP's outreach efforts, DEP personnel are working with legislators to amend the feeding ban statute to clarify that intentional or unintentional feeding of bears is prohibited and to tighten the enforcement provision contained in the law.

In 2005, DEP provided a $200,000 Community Grant to West Milford Township, Passaic County to purchase and deploy bear-resistant garbage cans in selected neighborhoods. In July 2007, West Milford distributed 3,000 cans. DFW personnel will monitor bear activity in those neighborhoods with the bear resistant garbage cans against those neighborhoods without the bear resistant cans, and will evaluate the effectiveness of bear-proof cans on reducing human/bear interactions and nuisance calls.

The DEP has trash policy of "Carry In – Carry Out" that reduces the garbage at DEP-managed parks and forests. DEP has installed bear resistant garbage dumpsters in North Jersey, and placement of bear resistant dumpsters has begun in Central Jersey park and forest locations.

Although great strides have been made in educating citizens regarding garbage management, the expense of bear-resistant garbage cans and commercial containers has hampered their wide spread use. No municipalities have mandated bear-resistant garbage cans, so use is strictly voluntary. Because Council does not have the authority to mandate the use of bear-resistant cans, Council recognizes the need for local authorities to mandate the use of bear- resistant cans with coordination of local garbage haulers. In order to deter bears, entire communities will have to adopt such measures. Regulations, funding and coordination with local garbage contractors is necessary in order to implement a successful program.

Although it has been suggested that improved garbage management would result in a drop in the reproductive rate of NJ's bear population, data from other states indicate that bear populations within the entire mid-Atlantic region benefit from a diverse source of natural foods and agricultural food sources, in addition to garbage. Mid-Atlantic region bears do not suffer from mast failures or droughts that negatively affect the reproductive potential as documented for other regional bear populations. No data exists that demonstrates that reduction of provisioning from garbage sources will result in a decrease in fecundity within this region. Council recognizes, however, that eliminating bear access to human provided food will result in a decreased habituation and decrease nuisance and public safety related complaints in the future.

Recommendations:

1. Require public and private campgrounds in habitat occupied by black bears to install bear-resistant dumpsters and food boxes, and seek legislation, if necessary, to require public and private campgrounds in bear habitat to install bear resistant dumpsters and food boxes.

2. DEP should seek legislation that would require home owners associations or gated communities to make a bear-resistant community dumpster facility available to their residents.

3. DEP should continue to work with legislative sponsors of the "no bear feeding" legislation to amend the legislation to clarify that both intentional and unintentional feeding of bears is prohibited and to tighten the enforcement language in the statute.

4. If use of bear- resistant cans is shown to effectively reduce human/bear interactions DEP should seek/identify funding/grant opportunities and/or incentive programs to assist public and private entities in the implementation of the conversion to bear-resistant systems.

C. Research

a. Decision Making

Policy:

Council's current and future management decisions regarding black bears will be based upon the best available scientific data, including up-to-date population monitoring. Based upon scientific evidence presented to it by DFW, Council opens and closes seasons, and sets season lengths, bag limits and manner of take to ensure long-term stable populations and to maximize and equitably distribute recreational opportunity to user groups.

Discussion:

From FY03 through FY07, bear research and control activities were carried out by one bear biologist and one technician with assistance on an as needed basis by DFW WSU biologists and technicians. Additionally, several DFW volunteers, and university partnerships, and wildlife graduate students also assist staff in research activities.

The FY08 supplemental appropriation added one additional biologist and two additional wildlife technicians to enhance research and control activities. As funds allow, seasonal employees will be utilized to augment research and bear response. Additionally, DEP will continue its reliance on volunteers, students, university partnerships and the growing number of bear response trained local police officers.

Council recognizes that DFW has conducted extensive research on the black bear throughout northern NJ and more specifically in the Kittatinny and Bearfort regions. Bear population monitoring includes an analysis of population growth and range expansion and the effects on the citizens of NJ. The black bear population has been spreading south and east, impacting people in areas of NJ that have not had bears in this century.

Also, emigration of NJ black bears into neighboring Pennsylvania and New York has impacted these states. The concurrent expanding human population and black bear population in this region of NJ, PA and NY provides potential for conflict. The 1997 BBMP recommended managing New Jersey black bears at the same density (1 bear / 2½ square miles) as our neighboring states since black bears living along our respective borders are essentially one regional population. Recent research conducted by DFW indicates that in some areas in northwestern New Jersey, black bear densities are as high as 2 – 3 bears / square mile. This is 5 to 7 times higher than the desired density.

Since 1981 DFW personnel have tagged over 1900 black bears, including more than 630 young-of-the-year, and collected data from an additional 925 bears killed as a result of vehicle strikes, control actions, hunting seasons or other types of mortality. Recent tag and release captures include: 234 bears in 2006, 274 in 2005, 247 in 2004, 264 in 2003, 241 in 2002 and 154 in 2001. DFW has verified the following vehicle killed bears: 85 in 2006, 58 in 2005, 47 in 2004 and 55 in 2003. DFW continues to radio-collar and monitor bears using radio telemetry to acquire information on reproduction, survival, mortality, home range size and habitat use. DFW currently has 31 female bears fitted with radio collars to monitor reproduction and survival. The average litter size is 2.7 cubs per litter. The most common litter size is 3 (43%), followed by litters of 4 (23%) and 2 (22%).

The Kittatinny (Western) and Bearfort (Eastern) bear populations (Figures 1 and 2) have been studied since 1980 and represent a solid long term and extremely valuable database upon which to make management decisions.

The additional personnel now available will allow continued bear trapping in the established study areas as well as a newly established study area in the lower bear density area between I-80 and I-78. Data will be collected on bears from trap lines, winter den work, bear control activities and dead bears recovered as a result of vehicle strikes or other types of mortality.

The purpose of establishing a new study area is to gain bear population parameters (density, birth rates and survivability) in an area occupied by bears but which exhibits different habitat characteristics and human development pressures compared to the two study areas already established and studied for the past thirty years. Information collected in the new study area is expected to enable biologists to more precisely extrapolate the population level and growth rate in this area of the State, and enhance bear management decisions.

Population monitoring will include determining individual identity by DNA analysis of hair collected from bear hair snares and live trapping as part of a mark/recapture study. WSS personnel will continue to radio-collar and monitor bears using radio telemetry to acquire information on reproduction, survival, mortality, home range size and habitat use in the existing and new study areas. A statistically-valid sampling protocol for DNA analysis will be established and cooperating university graduate students will be assigned to conduct the research. The population analysis will be conducted in conjunction with university statisticians.

Currently the bear population in southern NJ is small. Although there is sufficient habitat for black bears to survive in the Pinelands, productivity and survival in this area will be different than in northern NJ, as is the case for white-tailed deer and wild turkey (Burke and Predl 1990, McBride 2003). Trapping bears at the current low density would not be cost effective at this time, limiting research opportunities within this region.

Recommendations:

1. DFW should continue to conduct trapping and tagging studies and analyze NJ's database on the black bear population within the long term study areas in the Kittatinny (Western) and Bearfort (Eastern) regions, which can be used as an index to the population within prime black bear range.

2. DFW should continue using sophisticated statistical analysis as new data and data analysis tools become available to obtain the most accurate density and population estimates.

3. DFW should continue to develop the simulation model of NJ's black bear populations in the Kittatinny and Bearfort regions to evaluate the effect of various recruitment and mortality factors and other factors contributing to bear population dynamics as new data is added to the existing database.

4. DFW should establish a new study area in the lower bear density area between I-80 and I-78, to gain bear population parameters (density, birth rates and survival) in an area occupied by bears but which exhibits different habitat characteristics and human development pressures compared to the two study areas already established and studied for the past thirty years.

5. DFW should, as limited resources allow, conduct research in southern NJ.

6. The General Treasury should, at a minimum, fund research at its current FY08 level. .

b. Bear Habitat Analysis for NJ's Bear Management Zones

Policy:

Council believes that NJ contains suitable habitat to support a viable, robust black bear population and that habitat analysis is necessary to properly manage this renewable and valuable resource.

Discussion:

Council recognizes that DFW developed a ranking of bear habitat throughout NJ (Figure 5) based on bear use of varying landscapes as defined by 2002 Land Use / Land Cover data for NJ (DEP GIS 2002, McLaughlin et al. 1987, Rogers and Allen 1987, MacKenzie 2003, Niles et al. 2004). The Deer Management Unit (DMU), an area of approximately 14 square miles, was overlaid with the 1995/97 Land Use/Land Cover shape file, then analyzed using an Arcview GIS computer system. This method standardized the habitat evaluation. The percentage of land as a Generalized Land Use Category (TYPE95) for forested, wetland, agriculture, urban land, barren land and water was determined in each DMU. Excellent bear habitat consists of >= 51% forest land and <=33% urban land and <=26% agricultural land.

The term Bear Management Zone (BMZ) is used to more accurately describe areas for bear management, which may or may not be open to hunting. BMZ now defines the boundaries for all areas of the state and are designated as zones where bears should be managed at various densities consistent with land use.

BMZs 1 and 3, which contain the black bear research study areas, have an average forest cover of 68% and are designated as excellent bear habitat. Mark-recapture studies have shown that the bear density in BMZs 1 and 3 was 2.56 bears per square mile in 2003 (Carr and Burguess 2004).

BMZs 2 and 4 have an average forest cover of 43%, and are designated as good bear habitat. The bear population is undetermined in these BMZs but is likely to exist at a lower density than BMZs 1 and 3.

BMZ 5 contains an average forest cover of approximately 32% with a mosaic of forest, farmland, wetlands and urban land, which makes it fair bear habitat. The bear population is undetermined in this BMZ but is likely to exist at a lower density than BMZs 2 and 4.

BMZ 6 has been designated as bear habitat in southern NJ. Although there is sufficient habitat for black bears to survive in the Pinelands, productivity and survival in this area will be different than in northern NJ, as is the case for white-tailed deer and wild turkey (Burke and Predl 1990, McBride 2003). Currently the bear population in southern New Jersey is small and undetermined.

BMZ 7 is classified as unsuitable bear habitat. The lack of suitable bear habitat in BMZ 7 makes it unlikely that a viable population could be established. Although small areas of forested habitat remain, they are isolated and cannot sustain a viable bear population. Additionally, the preponderance of suburban and urban land in BMZ 7would result in almost certain bear-human conflicts.

Council notes that the 1997 BBMP discussed the establishment of bear free zones where land use and human population densities make the areas unsuitable for bears. Unsuitable habitat was defined as a DMU with greater than 60% Urban Land, less than 30% Forest Land and less than 30% Wetland. It is clear now, as it was in 1997, that bears can not live in densely populated suburban and urban areas without daily conflicts involving property damage and public safety. This holds true even considering the tremendous effort on the part of DFW to educate the public on how to coexist with bears.

Recommendations:

1. DFW should update the habitat analysis as new data becomes available.

2. The General Treasury should, at a minimum, maintain the FY08 appropriation level for the continued bear research efforts that benefit all residents. The Hunters and Anglers Fund should not be the sole source of funding for this purpose.

c. Cooperative Research

Policy:

Council encourages cooperative research. DFW should continue to partner with research institutions and adjacent state agencies, which have the expertise, staff and economic resources to enhance the knowledge base on the NJ black bear population.

Discussion:
Council recognizes that DFW has participated in a number of cooperative studies with such institutions as Rutgers University, Montclair State University, Tufts University (MA), East Stroudsburg State University (PA) and the adjacent states of Pennsylvania and New York. These research studies are intended to expand knowledge about NJ black bears and to collect scientific information on which to base management decisions. These projects have included research on home range and habitat use, food habits, reproduction, diseases (West Nile Virus and Toxoplasmosis), aversive conditioning, use of contraceptive techniques for population management, genetic relatedness using DNA and developing habitat suitability models. Current and ongoing research being conducted in a cooperative effort with the New Jersey Division of Fish and Wildlife and East Stroudsburg University (Applied DNA Sciences Center, Northeast Wildlife DNA Laboratory (NEWDL) and Fish & Wildlife Microbiology Laboratory (FWML)) has provided the opportunity to sample biological material from black bears. The studies being conducted by graduate students and faculty at ESU have the following goals:

- To generate a black bear population estimate using microsatellite analysis;

- To build a black bear database using samples from NJ, PA and NY to determine genetic identity and diversity. This database will also be used for investigation of forensic DNA;

- To determine population health of NJ black bears using samples collected from oral, nasal and anal orifices, resulting in the compilation of bacterial assemblages, red blood cell parasites, and the prevalence of *Trichinella.*

- To build a serum database from blood collected which provides information for managing wildlife health, including revealing where and to what extent wild animals carry disease that may affect human or domestic animal health;

Council also recognizes that DFW biologists met with biologists and administrators from NY, PA, the Delaware Water Gap National Recreation Area, and the U.S. Forest Service to discuss research, population monitoring, aversive conditioning and population control.

The FY08 appropriation for black bear research will allow DFW to evaluate several non-lethal management strategies to determine their effectiveness. The results of this research, most likely in cooperation with several universities, will benefit not only management decisions in New Jersey but will also provide valuable information to assist other states dealing with similar black bear issues.

Evaluation of Non Lethal Black Bear Control

As people continue to develop and use black bear habitat and the bear population continues to expand in New Jersey, interactions between humans and bears may increase.

DFW will coordinate with universities, such as Rutgers, Montclair State and East Stroudsburg University, to describe the distribution of black-bear human conflicts in NJ as they relate to spatial and temporal variables including anthropogenic development, habitat features, and the demographic makeup of the human and nuisance bear populations, to evaluate non-lethal management techniques and to implement effective human education tools.

In a three-pronged approach, the main objectives of the research efforts will be:

- Determining how human development affects the ecology of black bears, including daily and seasonal movements, age, sex, weight, food habits, demographics, and home range;

- Evaluating the effectiveness of aversive conditioning treatments for reducing conflict by altering bear behavior and movement; and

- Determining the effectiveness of an educational campaign on residents and visitors to alter human behavior including the use of bear resistant garbage cans.

The researchers will employ Global Positioning System (GPS) software to plot the spatial and temporal distribution of bear-human conflicts in the state and GPS radio-collars on black bears to collect bear locations. Researchers will also collect baseline natural and anthropogenic food availability data. Concurrently, the researchers will investigate the possibility of differences between bears using human food sources and those only foraging on naturally-available foods. DNA genetic analysis will be used on collected hair samples to identify individual bears involved in bear-human conflicts.

Aversive Conditioning Evaluation. DFW, through the Northeast Wildlife Administrators Association (NEWAA), will participate in a multi-state cooperative study to evaluate aversive conditioning techniques for black bears, and provide standardized recommendations for dealing with nuisance bears. This study will provide an assessment of the aversive conditioning techniques, evaluating biological feasibility, effectiveness for nuisance abatement and economic practicality. This study, funded in part by the FY08 appropriation provided by the Legislature, at the request of Governor Jon Corzine and DEP Commissioner Lisa Jackson, will include aversive condition techniques, such as projectiles (most common: rubber buckshot, paintballs), pyrotechnics, dogs, and capture and on-site release; focus on methods and application; and standardize evaluation of success of this non-lethal management tool.

Garbage Can Evaluation. Another non-lethal black bear research topic that will be addressed is the efficacy of bear-resistant garbage cans. The current West Milford bear can program, discussed under III. B, (Control of Human-Derived Food) above which uses treatment and control communities, requires an evaluation element to statistically determine whether using these cans would reduce human-bear conflicts. DFW staff will

monitor incident reporting in the participating and surrounding neighborhoods to determine the efficacy of using bear-resistant garbage cans.

Immunocontraception. The DEP Division of Science, Research and Technology provided technical support to DFW and funded a project to conduct an independent literature review and assessment of the feasibility of using fertility control to manage New Jersey black bear populations. This study determined that managing black bear populations using fertility control is unlikely to succeed as a statewide bear management tool and would be more technically difficult and more costly than in other wildlife species, such as enclosed or small, semi- isolated and easily approachable deer populations, where this technique has been successfully applied. Council will continue to approve permits for researchers working on enclosed and semi-isolated deer populations in order to further research on wildlife fertility control.

Recommendations:

1. DFW should continue its cooperative research with university institutions on the topics discussed above.

2. DFW should continue to participate in the bear summits with the bear biologists from the neighboring states of New York and Pennsylvania at regular intervals to continue to coordinate black bear management strategies and to ensure the success of black bear management efforts for this tri-state regional population.

3. DFW biologists should continue to meet regularly with bear biologists from the region, eastern seaboard and North America to stay abreast of up-to-date research and management tools and techniques.

4. DFW should scientifically evaluate non-lethal control measures regarding their effect on bear behavior and bear related problems.

D. Bear Control

Policy:

Council supports the current DFW Black Bear Rating and Response Criteria (BBRRC) (NJDFW BWM 2000), which is the operating policy for response to bears that are a threat to human safety, agricultural crops, and/or property or are a nuisance. Despite educational efforts, situations will arise that will require private citizens, farmers, local police officers or DEP personnel to take action against problem bears.

Council supports DFW policy, which allows farmers, via special permit, to destroy black bears depredating crops and livestock (N.J.A.C. 7:25-5.32).

Discussion:

Council recognizes that the increase of human development in NJ's rural northwestern counties, the concurrent increase of the bear population within these counties and the expansion of bear range south and east has resulted in an increase in human-bear conflicts. Incidents involving bear damage to property and livestock remain high in frequency and severity (Figure 6, Table 1). DFW's Wildlife Control Unit (WCU) receives complaint calls and provides response and control using the BBRRC.

Council recognizes that DFW has had a policy of responding to problem black bears since the 1980's and a more aggressive black bear operating policy was instituted on November 16, 2000. Council and DEP approved this policy. The BBRRC defines three categories of black bear behavior and dictates how DEP and other governmental agency personnel should respond.

Category I black bears are those exhibiting behavior that is an immediate threat to human safety or which cause agricultural damage to farmland as defined pursuant to the Farmland Assessment Act (N.J.S.A. 54:4-23.1 et seq.) or significant damage (>=$ 500) to property. Examples of Category I behavior are human attacks, home entries, attempted home entries, agricultural crop damage and killing or injuring livestock or pets. Category I black bears are euthanized as soon as is possible in order to protect the public or eliminate further damage to agricultural crops or property.

Category II black bears are nuisance bears which are not a threat to life and property. Examples of Category II behavior are habitual visitors to dumpsters or birdfeeders and cause property damage less than $500. Category II black bears are aversively conditioned using rubber buckshot, pyrotechnic charges and bear dogs so they receive a negative experience associated with the nuisance location and people. If trapped, nuisance bears are released on site and aversively conditioned, or if conditions are unsuitable, taken to the nearest state land where they are released and aversively conditioned.

The number of traps set and bears captured at Category I and II locations since 2003:

	2003	2004	2005	2006
Number of Traps Set	95	52	53	97
Number of Bears Captured	40	26	42	46

The number of bears captured includes both target and non-target animals

Category III bears are animals that are exhibiting normal behavior and are not creating a threat to the safety of the public or a nuisance. In general, these are animals observed and reported to DFW's WCU by the public or local authorities. Such animals may be considered by the caller to be a danger or a nuisance because the caller has not had the experience of interacting with bears. Category III black bears include dispersing animals

that wander into densely populated areas, black bears passing through rural and suburban neighborhoods and black bears observed by hunters, hikers, campers and others using facilities in black bear habitat. Category III bears may occasionally utilize birdfeeders and trash containers as supplemental food sources in the course of their activities. Until a Category III black bear returns to a particular site and repeats utilization of these food sources, it is not considered to be a nuisance or problem animal (Category II). The WCU offers assistance in the form of technical advice on bear-proofing surroundings to callers reporting Category III encounters. No attempt is made to capture a Category III bear unless it is confined in a fenced area or treed in an urban area during daylight and any further movement will result in a threat to safety of the public or the animal due to potential vehicle collision.

The 2005 CBBMP recommended that bears that must be removed from urban areas within BMZ7 should be euthanized upon capture. Since the enactment of the 2005 CBBMP in November 2005, 5 bears (5M:0F) have been euthanized in BMZ7. This approach, however, proved unpopular and is being abandoned in this CBBMP.

The Council notes that the disapproval of the 2005 CBBMP by Commissioner Jackson resulted in the DFW reverting to the DFW Black Bear Rating and Response Criteria (BBRRC) (NJDFW BWM 2000). The BBRRC dictates that Category III bears from urban or suburbia settings that must be extracted will be released to the nearest State owned property with suitable bear habitat. Although relocation has been criticized by municipal officials in the towns where the bear are released, Council recognizes that it represents the most acceptable public policy at this current time.

The BBRRC requires that all Category III bears, which are extracted from an urban setting, be released at the nearest state land with suitable habitat. Recent captures of such bears in urban areas in central NJ have required releasing bears in state owned land in adjacent counties. Although forested state owned land existed within the county of capture, the isolated habitat was judged not large enough to support a viable bear population. Additionally, since these state lands were surrounded by suburban and urban areas, it was likely that released bears would re-enter suburban/urban areas again. These bears were, therefore, released on more distant state land in adjacent counties, resulting in negative feedback from local government officials and citizens, who either believed their safety was being compromised or believed they would have to contend with future bear-human conflicts resulting from the release. Additionally, releasing bears in adjacent BMZs where suitable habitat does not exist is counter-productive.

Council recognizes that, some problem bears will be eliminated through regulated hunting seasons. Past history has shown that some problem bears are eliminated during such seasons, thereby reducing bear related problems without cost to the taxpayer. Additionally, Council recognizes that without a regulated sport hunting season designed to reduce then maintain a viable bear population in NJ at densities compatible with the human population, human-bear conflicts may continue to increase.

Overall, Council considers serious bear complaints reported to DFW and law enforcement agencies to be high (Figure 6, Table 1). Council recognizes that many factors contribute to bear related incidences including individual bear and human behavior. Small year to year fluctuations are attributed to environmental factors. For example, natural food scarcity such as mast failures, may cause bears to seek alternate food supplies resulting in more negative bear-human incidences. It is clear, however, that over time, serious incidences have increased dramatically with the increase in the bear population. Figure 10 depicts the increase in serious bear incidences since 1995. Property damage was not classified as Category I or II until 2001 so property damage was removed from this figure for the sake of comparison over time. Of particular concern to the Council are significant increases in Category I incidences as the bear population expanded. Although the number of overall complaints has decreased since 1999 (Table I), Category I complaints remain unacceptably high.

The drop in bear complaints reported to DFW from 1999 to 2006 is attributed to the following: (1) residents calling local police who have been trained by DFW for bear response; (2) euthanizing Category I bears thereby eliminating further negative behaviors by those animals; (3) DFW's education program successfully reaching residents who bear-proof their yards including proper garbage management; (4) an increased tolerance of bears by the public due to DFW's policy of destroying Category I bears; and (5) the short term population reduction achieved by the 2003 and 2005 black bear hunting seasons which included the harvest of nuisance bears by hunters.

Council recognizes that DFW continues to explore new means of handling nuisance bears. The use of specially trained dogs to assist in the harassment of bears as part of the aversive conditioning process is a method often recommended by citizens and organizations opposed to the lethal control of problem bears. DFW purchased Black Mouth Yellow Cur dogs that are used for aversive conditioning of nuisance black bears.

Council recognizes that integral to the implementation of the bear response policy is the cooperation of all law enforcement personnel from all levels of governmental agencies within black bear range. Since January 2001, DFW has trained over 700 municipal, county and state law enforcement officers from 123 municipalities and 29 state, county and federal parks to assist DFW in black bear control. Council recognizes that there will continue to be a need to respond to bear complaints. As bears expand their range in NJ, such response will increasingly become the responsibility of local law enforcement agencies. . The Council notes that some local enforcement agencies which have received bear response training from DFW have not filed annual reports on bear incidents as agreed upon when training was received. This lack of information has the potential to negatively impact bear management decisions made by the DFW and Council. Thus, as part of the cooperation between DFW and local law enforcement agencies, DFW will emphasize the importance of filing these reports.

When a Category I bear must be destroyed, DFW and local law enforcement follow euthanasia procedures recommended by the American Veterinary Medical Association (Beaver et. al. 2001). DFW and local law enforcement personnel follow procedures for

animal welfare and care with respect to humaneness, pain and suffering as addressed in USDA WS WI (2002) and CA FED (2000)

Council recognizes that DFW and local law enforcement officers cannot respond immediately to situations involving depredating black bears and that farmers can alleviate damage caused by black bears if allowed the opportunity. Council has adopted rules that allow the DFW to issue bear depredation permits to allow them to control the offending bears.

Allowing farmers to act quickly to protect their crops, livestock and/or property constitutes responsible action by DFW to manage the growing black bear resource while minimizing negative impacts to humans, their pets, agricultural crops, livestock and property. The policy errs on the side of human safety

Recommendations:

1. DFW should continue to train State and local police officers, State Park Police officers so that they can respond to problem black bears.

2. Category I bears should continue be destroyed immediately by DFW personnel, law enforcement officers, State Park Police officers and park rangers trained by DFW.

3. Council recommends that DFW relocate category III bears to the closest State property with suitable habitat when captured in BMZ 7.

4. DFW should continue to develop aversive conditioning techniques for Category II bears. Council recommends that DFW continue to refer Category II complaints to local law enforcement agencies, which can more quickly respond.

5. DFW should open a dialogue with representatives of those municipalities which have failed to file the agreed upon annual reports on their bear response activities. A letter stressing the importance of reporting should be sent to all participating agencies.

6. DFW should continue issuing depredation permits to farmers because the circumstances and permit criteria regulating the taking of black bears and other wildlife under the special depredation permit has been addressed.

7. The General Treasury should, at a minimum, maintain FY 08 funding for DFW bear training and response because these activities benefit all NJ residents.

E. Habitat Protection

Policy:

Council supports the DEP's open space acquisition program that has been instrumental in protecting valuable bear habitat.

Discussion:

Council recognizes that DFW has undertaken an effort to identify and protect critical black bear habitat. Council also recognizes that DEP, through its Green Acres Program and Wildlife Management Area system, has acquired a significant amount of habitat which is important to black bears. Council recognizes that the recent Highlands Protection Act will ensure that bears remain part of NJ's landscape. Council believes their support for the monumental effort by the DEP to preserve wildlife habitat through an aggressive Green Acres Program and Highlands legislation is adequately covered in the Policy.

Recommendations:

1. DEP should continue to protect black bear habitat as it becomes available through the State's open space acquisition programs.

2. DFW should create a wildlife management plan that addresses the management and control of bears and other wildlife for all new lands purchased by or deeded to the DEP.

3. DFW should continue to use GIS technology to identify and rank black bear habitat and travel corridors.

F. Bear Population Management

Policy:

Council supports the population goal of maintaining bears at a density that minimizes human/bear conflicts, that provides for a sustainable population within suitable bear habitat, and that minimizes emigration of bears to unsuitable habitat in suburban and urban areas. Before resorting to a hunt to meet this policy objective, non-lethal methods of bear management must first be implemented and evaluated to determine their efficacy. To be considered effective, these non-lethal methods must result in a 30% reduction in Category I incidences by September 8, 2008 and a further 30% reduction in these incidences by September 7, 2009. If a hunt is initiated, the management goal is to stabilize the black bear population at the 2002 level over the next five years.

Discussion:

While Council is adopting a plan that prioritizes non-lethal management methods, population reduction plans may be deemed necessary or appropriate consistent with DEP Commissioner's overall environment policies as they pertain to the management of black bears.

Council previously endorsed a NJ bear density of 1 bear / 2½ square miles as discussed in the 1997 BBMP. The problems associated with New Jersey's high density bear population on adjacent counties in New York and Pennsylvania were reflected in the letters of support received by their environmental commissioners for the Council's proposal for black bear hunting seasons in 2003, 2004 and 2005 (Appendix A). Pennsylvania increased its bear hunting season in counties adjacent to New Jersey in 2002 due to an increase in the bear population and problems in this region. New York is currently considering increasing the season length in the Catskill region. It is clear that to properly manage this tri-state population, density goals must be similar.

This low density was recommended because complaint data indicated a very low number of negative human-bear conflicts. Council notes, however, that, except for the short-term reductions resulting from the 2003 and 2005 bear hunting seasons, the current level of bear related complaints received by DFW and cooperating law enforcement agencies, in total, remains high, particularly the Category I complaints (Figure 6, Table 1). The results of these negative interactions not only result in an unacceptable level of threat to public safety, an economic loss to individual citizens, but also have created a severe budgetary burden on responding agencies, particularly DFW. Maintaining the level of bear response by DFW will require continued funding from the legislature.

The tools available for population reduction are few. Council must set criteria for evaluating which tools should be used. As noted in the recent Supreme Court decision, Council should consider the size of the population, the harmful human-bear interactions and the fiscal and human resources available. Council believes it is necessary to also consider the proven efficacy of the tools and the experience of other states.

As previously stated, recent research by DFW indicates that bear densities in New Jersey are as high as 2 to 3 bears / square mile, or 5 to 7 times the density that the Council previously thought desirable. Serious negative interactions, which have increased dramatically in the last five years, include attacks on humans, livestock and pet kills and home entries and attempted home entries (Figure 5, table I). Of these, only isolated livestock kills were an issue in 1997. The current bear population level in the research study area is estimated to be 1606 (Figure 7).

The Council did not authorize a hunt or other black bear population reduction measure in any of the more than six years from 1997 forward that NJ's black bear population was reported as exceeding the management goal for the black bear population articulated in

the 1997 BBMP. Council initially approved a hunt in 2000, but then, as part of a court challenge to the hunt, Council granted a request for a stay and suspended the hunt in favor of a more aggressive black bear operating policy (Carr 2001), which included enhanced education, public outreach and sound garbage management practices. The level of reported nuisance incidents and increased emigration of black bears (due to pressures of overpopulation) to areas lacking sufficient black bear habitat did not reach a level of significant public safety concern until 2002.

Wildlife managers, confronted with conflicting public perceptions of bears as both a nuisance and a valued game animal, are faced with a dilemma: how to maintain healthy populations of black bears while minimizing conflicts between bears and humans (USDA WS WI 2002). Council reviewed opinions from homeowners on both sides of the hunting issue. Some persons opposed to bear hunting living adjacent to public land in the heart of bear country claimed to have rarely or never seen a bear. Other families in the same area claimed that they could not let their children play outdoors because of the frequent visits by bears, even though they practiced sound garbage management.

Council notes that it is generally recognized that responsible management, not passive preservation, is necessary when managing agricultural and natural resources, or protecting property and human health and safety (USDA WS WI 2002). Integrated Wildlife Damage Management (IWDM) seeks to prevent, reduce or stop wildlife damage by integrating a combination of methods sequentially or concurrently (USDA WS WI 2002).

Council recognized the concerns of citizens regarding the population effect of hunting bears. Therefore, Council adopted a conservative approach to population reduction by regulated hunting in order to ensure the public that the long-term viability of the bear population would be maintained. The 2003 and 2005 bear hunts clearly demonstrated that the outcome of the bear hunt could be predicted based upon previously collected data on the New Jersey bear population and the results of similar hunts in adjacent states and the harvest of bears could be controlled via season length, bag limits and permit quotas.

Moreover, the Council's conservative, incremental approach to reintroducing a bear hunt in 2003, and the limited hunt put forth in the current New Jersey Game Code, make clear that the population goal set in the 1997 BBMP level simply cannot be achieved within the five-year time frame considered for this policy, even if the scope and duration of regulated black bear hunting in the game code are progressively expanded over the course of those years.

1. Relocation:

Council believes that, although relocation can be used to establish or reestablish bear populations, no state has successfully used relocation as a means of population control. Council recognizes that southern NJ contains quality long-term habitat for black bears. Over 1.1 million acres is contained in the Pinelands National Reserve, of which one third is publicly owned. Council also recognizes that in the early 1980's DFW conducted an

Environmental Assessment of a plan to relocate black bears to the Pinelands (Lund et al. 1981). At that time, local opposition to the relocation of bears to southern NJ put a halt to this option. However, as a result of the population pressures created by an expanding northern NJ bear population, bears now occupy all NJ counties (Figure 4).

Council also believes that the bear population that is reestablished in southern NJ will grow. Once all available bear habitat is occupied, there will be no additional space for relocation in NJ. Council has determined that no other state or provincial agency in North America would accept excess bears from NJ.

Additionally, Council believes that relocation of nuisance and/or problem bears to unoccupied range comes with a level of risk. Dedication of the necessary staff and funding to subsequently handle the resultant nuisance complaints from citizens in southern NJ will place an additional burden on already strained budgets.

2. Alternative Methods of Population Control:

DEP have investigated alternate means of population control to determine if these techniques are viable for control of wild populations of bears. Council's position on bear fertility control was presented in the 2005 CBBMP (Wolgast et. al. 2005). Council will consider for approval those methods that meet the special permit requirements for wildlife reproduction defined in N.J.A.C. 7:25-5.37.

Alternative non-lethal population control methods are still in the experimental phase and have yet to be tried on free roaming populations of bears. Current contraceptive techniques have been uneconomical or infeasible for practical implementation even in small localized populations of game species. The species for which contraceptives have been primarily tested (long-lived species such as deer and horses) are least suited for population reduction through use of fertility control (Fagerstone et. al. 2002). In the spring of 2006, federal authority to regulate fertility control agents on free-ranging wildlife was transferred from the FDA to EPA. Neither FDA nor EPA has approved any chemical fertility control on an experimental basis for any wild population of bears. Although physical sterilization does not require FDA or EPA approval, the costs of trapping bears for such purposes would be prohibitive. Since New Jersey bears have a very high annual survival rate and are known to live over twenty years, population reduction, if any, through sterilization or fertility control would be slow.

DEP's Division of Science and Research commissioned a literature review of fertility control on bears and other wildlife, which concluded that fertility control is very unlikely to be a feasible means of managing the black bear population in NJ (Frakker et al. 2006). The expense of fertility control will never compete favorably with the revenue that can be produced by licensed hunting. While fertility control may not affect survival of individual bears, it can easily be lethal to populations (Hobbs et al. 2000). Animals with good immune systems will be most likely to mount a strong immune response when given an immunocontraceptive agent and so would be least likely to reproduce. Animals with a poor immune system, either due to genetics, injury or disease, would be affected

less, therefore be most likely to reproduce. The long-term implications of immunocontraceptives in wildlife populations would be that immunocontraception could artificially select for those individuals that are immunodeficient and produce populations of animals with weak immune systems and high susceptibility to disease and population fluctuations (Muller et. al. 1997).

Council has encouraged DFW and independent researchers to explore alternative population control techniques, which may have future value. Council has adopted criteria that will allow DFW, with Council approval, to issue permits for legitimate research on fertility control when captive studies indicate that there is potential for controlling wild populations (N.J.A.C. 7:25-7.37). Council has approved several fertility studies for white-tailed deer, however, Council recognizes that fertility control research for bears is not nearly as advanced. Council further recognizes that in November 2002, the DEP entered into a Memorandum of Understanding with the Humane Society of the United States (HSUS) to investigate the feasibility of fertility control as a means of controlling the black bear population. DEP is also monitoring a study investigating using sterilization as a means of controlling the black bear population. To date, no results have been made available from these two studies.

Although immunocontraception using GnRH has been researched for over 20 years, the vaccine has had mixed success (Miller et. al. 2004). Miller et. al. (2003) reported that GnRH vaccine has significant potential for limiting fertility of both males and females of many domestic and wildlife species, but they also reported that vaccine trapped in fat may not be released to the immune system, and therefore may be unavailable to induce an immune response in seals and black bears. GnRH immunocontraception may represent a broad tool for population control of wildlife; however, in almost every report, a series of treatments was required for adequate immunity and a portion of animals failed to respond to treatment and remained fertile (Levy et. al. 2004). These ambiguous results would indicate that more testing needs to be completed, including testing regarding the possible harm to the bear population by allowing animals with compromised immune systems to continue breeding (because these animals failed to respond to treatment and remained fertile).

Council notes that alternative methods of control have been tried on small populations of free-ranging ungulates, primarily white-tailed deer, which are far easier to capture. To date, no published studies have indicated that such programs have been successful. The primary problem is the inability to capture and treat enough individual bears to effect a population reduction. This problem is not only a result of the labor cost involved, but also the result of the individual behavior of target animals, some of which are too wary to capture.

Council reiterates its support for continued testing of fertility control by credible scientists on enclosed populations despite DEP's finding that fertility control is unlikely to be a feasible means of managing the black bear population in NJ (Frakker et al. 2006), and the other scientists' conclusions that fertility control will not limit the growth of wild black bear populations.

While Council recognizes these limitations, Council remains committed to advancing the science of non-lethal population control measures for the black bear population, including immunocontraception. As part of that policy, Council has set a goal of completing DFW's current immunocontraceptive research with captive populations so that a decision can be made on securing regulatory approval (if needed) for field-testing within three years.

3. Regulated Hunting:

While Council is adopting a plan that prioritizes non-lethal management methods, population reduction plans may be deemed necessary consistent with DEP Commissioner's overall environment policies as they pertain to the management of black bears.

Hunting is a safe, legal, responsible use of the wildlife resource and a legitimate and effective means to control over-abundant game species in a cost-effective manner. As with other species such as waterfowl and deer, bear hunting relies on the principle of adaptive management as described by Walters (1986). This approach relies on managing wildlife populations through experience and monitoring which allows the management agency to make necessary changes to maintain the natural resource (bear population) in the desired condition. Because monitoring is ongoing, any changes that are needed can be made by annually reviewing hunting regulations.

Black bear populations can withstand regulated hunting on an annual basis (CA FED 2000, Williamson 2002, Ternent 2005) and historically, managed hunting has been an effective system for protecting bear populations because it has enlisted a clientele interested in the continued abundance of the resource, and it transfers the killing of a species which can become a public nuisance or threat from the general public to a smaller group of people (hunters) (Garshelis 2002). In other words, sport hunting engenders a conservation minded constituency group, hunters, who ensure the continued abundance of the species of interest, and who support and are willing to pay for research, habitat protection and conservation measures necessary to meet that end. Additionally, hunters provide an important service to the public while decreasing the general tax burden.

Although the activity of sport hunting black bears results in the death of individual bears, specific safeguards, including an in-season closure mechanism and bag limit will assure that bear harvests are below the population's sustained-yield capabilities. No significant negative effects, individually or cumulatively, on bears as a species are expected to result from hunting (CA FED 2000).

No other method of black bear population control has been identified and implemented in states with resident bear populations. Hunting is considered one element of an integrated approach to manage bear populations. The purpose of the 2003 and 2005 hunting seasons was to provide recreation, gather data on hunter participation and success rates, and begin

to reduce the black bear population density in order to reduce the associated human/bear conflicts, including property damage caused by bears.

In 1953, the Council classified black bears as a game animal, thereby protecting bears from indiscriminate killing. This protection stabilized the population. Based upon DFW recommendations, limited hunting was authorized in 10 seasons from 1958-1970 and resulted in a harvest of 46 bears. The Council's decision in 1970 to stop the black bear hunt was critical to the recovery of the black bear population to its current level.

Research on the bear population by the DFW resulted in the development of a bear management plan. The 1997 Black Bear Management Plan stated that "continual fragmentation of habitat and the projected growth of the human population has made it untenable to continue maintaining a black bear population at its present level and density" (McConnell et al. 1997, p. 76) and that the black bear population could sustain a limited, regulated hunting season (McConnell et al. 1997, p. 78). Hunting is the primary means of managing and regulating black bear populations in 29 states.

Although the 1997 BBMP recommended that bears be hunted, the Council did not consider this option until 2000, when the Game Code was amended to reinstate the black bear hunting season. However, this season was later suspended by the Council at the request of former Governor Whitman, who recommended that the DEP adopt a more aggressive black bear operating policy as an alternative to the hunt.

In 2003 and 2005, Council adopted a Game Code that included a limited, regulated bear hunting season concurrent with the Six-Day Firearm Buck Season. These conservative bear hunting seasons allowed for data to be collected without negatively impacting the black bear population. By placing the season in December, the concern regarding the possibility of over-harvest of the population was addressed because most pregnant females would be denned and not available for harvest. Conflicts with other outdoor recreational activities was minimized by holding the bear hunting season during the most popular hunting season when 80,000 hunters are already afield hunting deer. The majority of applicants for the limited number of bear permits were hunters who already had permission to hunt deer within the bear hunting area.

Bear hunting was limited to an area north of Route I-78 and west of Route I-287, an area of 1558 square miles. A quota of 10,000 permits was established and applicants were required to attend a mandatory bear hunting orientation seminar. Hunters were allowed to use a shotgun not smaller than 20 gauge nor larger than 10 gauge with slugs only or a muzzleloading rifle of .45 caliber or greater. The season bag limit was one bear per hunter and all harvested bears had to be taken to a mandatory bear check station where biological and geographical information was obtained. The Council authorized the Commissioner of DEP, with consultation with the Director of the DFW and the Chairman of the Council, to call off the bear season with 24 hours notice if biologists determined the harvest was excessive based on tagged bear returns in the harvest. Based upon success rates in adjacent states with similar seasons, and the number of permits issued,

the DFW estimated a harvest of between 272 and 408 bears. Such a harvest would not surpass yearly recruitment into the population.

The Council believes that the 2003 black bear hunting season was a success because it met the objectives established for the hunt: 1) the target harvest was obtained; 2) the hunt was conducted safely with no hunter accidents and without incident of trespassing or other complaints; and 3) biological data on bears, hunter success and hunter participation was collected. The results (Appendix C) followed the predictions of DFW biologists based upon the conservative format. Hunter participation (5,450 hunters) was less than 10% of the 80,000 licensed firearm hunters. The total hunter harvest was 328 bears. Hunter success rate was 6%, within the 5 to 7.5% predicted. Biologists also predicted that the bear population, which is extremely productive with a high survival rate, could withstand a harvest rate up to 25%. Based upon bears tagged within the hunt area (north or Route I-78 and west of Route I-287) in 2003 which were harvested during the season, a harvest rate of 22% was achieved. Based upon statewide population estimates by the Independent Bear Panel in 2003 (1600 to 3200 bears) (NJDEP 2003), the harvest rate was between 10.2% and 20.5%. As predicted, the sex and age structure of the harvest matched that of bears captured during research and control activities.

A survey of bear permit applicants indicated 47% had previously hunted bears and 86% stated that they intended to hunt bears where they traditionally deer hunt. Participation by non-resident hunters (4.3%) was consistent with other hunting seasons such as deer and turkey. Additional statistics regarding the season are found in Appendix C.

No specific landowner complaints involving bear hunters and no hunter accidents were reported. The hunt successfully established that hunters could safely harvest black bears in a controlled manner. Biological data on the bears and demographic data on hunter success and participation collected during the season is valuable for designing future management actions. Prior to the season, 7 lawsuits regarding the hunt were filed, including a case heard in the Federal District Court, Third Circuit involving bear hunting on federal land within New Jersey. All lawsuits were decided in favor of the bear hunting season.

Council provided an evaluation for the 2003 black bear hunting season in the 2005 CBBMP (Wolgast et al. 2005); Appendix A contains information on the bear hunting seasons. No specific landowner complaints involving bear hunters and no hunter accidents were reported. These hunting seasons established that hunters could safely harvest black bears in a controlled manner. Biological data on the bears and demographic data on hunter success and participation collected during the season is used to design future management actions.

The hunting season data from 2003 and 2005 suggests that hunting can alleviate damage and nuisance incidents caused by problem bears. Twenty percent of the tagged bears in the 2003 and 2005 harvests were bears tagged at nuisance sites or in urban situations. Damage and nuisance calls to DFW decreased by 40% and Category I reports to DFW decreased by 37% in 2004, after the 2003 season. Damage and nuisance calls to DFW

increased by 37% and Category I reports to DFW increased by 35% in 2005; damage and nuisance calls to DFW decreased by 13% and Category I reports to DFW decreased by 7% in 2006, after the 2005 season.

Both West Milford and Vernon Township officials have reported that their level of bear complaints dropped significantly in 2004, a year after the hunt, but then increased in 2005 and subsequently dropped again in 2006, again a year after a hunting season. Other townships where hunting occurred showed similar trends.

Harvest 2003/ 2005	**Township**	**Cat I & II Complaints 2003/ 2004/ 2005/ 2006**
38/ 33	Vernon	174/ 58/ 128/ 102
24/ 31	West Milford	159 / 51/ 99/ 88
25/ 14	Montague	23/ 7/ 11/ 5

The 2005 season yielded different harvest rates by sex and age class compared to the 2003 season. This was not unexpected by DFW biologists, as the season format is set late in the year, thereby protecting the pregnant females, which will already be in dens. The alternate year harvest (season open in 2003 and 2005, closed in 2004), combined with the alternate year breeding strategy (cubs produced every other year), resulted in the female cohort producing cubs in odd-numbered years available for harvest both seasons, while the female cohort producing cubs in even-numbered years protected.

Although the data suggest that there is a correlation between the hunt and a reduction in damage and nuisance incidents caused by problem bears, similar data has not been collected to determine if a fully implemented, non-lethal bear management strategy would have similar impacts.

In addition to suggestions that hunting may alleviate damage and nuisance incidents, hunting has been used as a tool to reinforce the aversive conditioning methods employed by DFW and trained law enforcement officers. After conducting a review of the scientific literature, Conover (2001) determined that hunting reduces wildlife damage by reinforcing an animal's fear of humans and causing animals to avoid areas where they might come into contact with humans. Conover also stated that hunting should increase the effectiveness of non-lethal techniques because the animals learn to associate humans with negative consequences. Although some nuisance bears are eliminated during hunting seasons, others are pursued but not harvested, thereby imparting a negative experience on the bear. This negative interaction for the bear contrasts the positive food reward in other human/bear interactions. While hunting is one way to effectuate aversive

conditioning, this Policy includes the other methods of aversive conditioning, such as rubber buckshot, paintballs, pyrotechnics, dogs, and capture and on-site release. .

DFW biologists have developed population projections for the research study areas (Kittatinny and Bearfort) based on the data collected from research activities (litter size, productivity, survival and mortality) and the 2003 and 2005 bear hunting seasons (harvest rate, harvest by sex and age class). These data allow DFW to generate a bear population size estimate in the study areas and to project population estimates for the study areas into future years, Using a deterministic model (Kontio 1998) (Figure 8). DFW will continue to calculate population projections, bolster the robustness with additional data collection and verify past estimates by comparison to updated models.

All states with bear hunting seasons allow archery, shotgun and muzzleloaders to be used. Past bear seasons in NJ allowed both archery and shotgun bear hunting. Council notes that many of these states charge an additional permit fee for bear hunting that is used to support bear research and management.

Council believes that the adaptive management process will guide the future structure of bear management. This is a dynamic process that must evaluate the results of the bear hunting season, if there is one, on the bear population and bear related conflicts. The desirable bear population level will be influenced over time by many dynamic factors such as the amount of available bear habitat, human population growth and resulting development; and changes in human tolerance for bears brought about by education and the willingness to change lifestyles to adapt to living in bear county.

As is the case with other polygamous species such as deer, management of the bear population is affected by management of the female segment of the population. Population benchmarks will provide a quantitative assessment of the effect of hunting on the bear population and guide future hunting season structure. For example, a deterministic model using productivity, survival and mortality of the New Jersey research study population yields population stabilization at a hunting harvest rate of 0.2 females per square mile and 8% reduction at 0.3 females per square mile. The Council will continue to rely on the expertise of DFW biologists, who through data collection and analysis provide recommendations regarding the structure and timing of future seasons which will ensure black bear populations are maintained in appropriate habitat at desired densities compatible with existing land use.

In reviewing the tools available for population control and the costs associated with each, the Council concludes that relocation will never be a viable tool for bear population control. Additionally, non-lethal tools such as sterilization and chemical fertility control are unproven at this time. However, research in this area should continue.

Recommendations:

1. Council is adopting a plan that prioritizes non-lethal management methods. If non-lethal methods do not result in a significant (30%) reduction in Category I incidences by September 8, 2008, a regulated hunting season will be held in December 2008. If these non-lethal mehtods are successful in reducing Category I complaints by thirty percent (30%), no hunt will take place. However, if Category I incidences are not reduced by an additional 30% by September 7, 2009, a regulated hunt will take place in December 2009.

2. DFW should not use relocation as a means of population control.

3. DFW should continue to investigate alternative population control techniques, such as fertility control.

4. In the event that non-lethal strategies are unsuccessful in reducing Category I incidences and population reduction is deemed necessary, DFW should, in preparation, develop a long-term structure for bear hunting seasons to reduce and then stabilize the bear population at a level compatible with the availability and quality of habitat, and consistent with public safety, and residential and agricultural concerns. Future season structures should be based on data collected from the 2003 and 2005 bear hunting seasons, and population monitoring. Permit quotas and season length should be adjusted as necessary to regulate hunting pressure in BMZs. Season formats should use all hunting implements legally available including archery and muzzleloaders.

5. In the event that non-lethal strategies are unsuccessful in reducing Category I incidences and population reduction is deemed necessary, DFW should use harvest parameters (female harvest per square mile) as a benchmark to gauge the progress of the population reduction and stabilization, and trigger adjustments to future season structures. Yearly female harvest rates will be analyzed using the deterministic model. The results of the model simulation will be used to determine if the season structure needs to be adjusted. If the model indicates that low female harvest rates will result in a failure to meet the population goal within the stated time frame, lengthening the season and/or increasing permit quotas will be warranted. Conversely, if the model projects that the goal is met in advance of the time frame, a reduction in permit quotas and/or season length will be instituted.

6. DFW should include BMZ 7 in future Game Code proposals to legally harvest bears by properly licensed hunters with bear permits during the established deer hunting seasons.

7. In the event that non-lethal strategies are unsuccessful in reducing Category I incidences and population reduction is deemed necessary, DFW should charge a bear hunting permit fee. Hunters will pay for the privilege to participate in a regulated hunting season with the fees used to cover the costs of administering the hunt. A bear permit fee comparable to the deer permit ($28) has the potential to generate $280,000.

IV. CONCLUSION

This 2007 Policy is intended to further integrate responsible non-lethal strategies into black bear management, which will allow for the determination of whether and to what extent a bear hunt should occur. However, Council recognizes that the bear population is at a level that can support a regulated recreational hunt. Further Council recognizes that bears are causing considerable damage to personal property, and that the amount of damage and threats to public safety have increased commensurate with the bear population. Home entries and attempted home entries increased significantly in the late 1990s and remain unacceptably high despite intensive efforts to eliminate problem bears and despite intensive education efforts. Therefore, a prolonged period of evaluation of the effectiveness of non-lethal methods, many of which have been employed for many years, is not an appropriate public policy given the resultant threats to public safety and the burden of property damage currently endured by New Jersey citizens. Council is not willing to subject the citizens of New Jersey to this level of risk to public safety and property damage for more than a year. Implementation of this policy must reduce high risk bear incidences that are a threat to public safety and property damage.

In order to reduce this risk, Council recommends that DFW should continue to focus on an integrated strategy for black bear management that includes continuing the educational campaign, pursuing legislative initiatives, conducting research and population monitoring, continuing appropriate control measures, investigating alternate population control methods and implementing population reduction through a regulated hunting season if non-lethal methods do not reduce Category I complaints according to the goals set forth in this policy.

Adequate funding for black bear management is estimated to be $ 1.25 million. (Appendix B). This includes the FY08 supplemental appropriation of $850,000 from the General Treasury. This amount, combined with Hunters and Anglers and federal funds, must continue in order to maintain an adequate black bear management program. It is unrealistic to believe that NJ's sportsmen and women share the sole responsibility for paying for this cost. Since responsible bear management benefits all citizens of NJ, it is appropriate that it continue to be funded through an appropriation from the General Treasury. If the population is allowed to continue to increase, the cost of managing bears will increase proportionately over time.

Council supports the population goal of maintaining bears at a density that provides for a sustainable population within suitable bear habitat, minimizes human-bear conflicts and reduces emigration of bears to unsuitable habitat in suburban and urban areas. Council will continue to evaluate the level of serious Category I incidents as an indicator of success in managing through non-lethal methods the NJ bear population. Council is confident that with careful management for this species, black bears will be able to thrive in suitable habitat in NJ where they can safely coexist with NJ residents.

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