

**DECISION  
AND  
FINDING OF NO SIGNIFICANT IMPACT  
FOR THE ENVIRONMENTAL ASSESSMENT:**

**MANAGEMENT OF  
WOLF CONFLICTS AND DEPREDATING WOLVES  
IN WISCONSIN**

**May 7, 2008**

Gray wolf (*Canis lupus*) populations in North America, including the wolf population in Wisconsin, have undergone a dramatic recovery in recent years due to protection from human persecution. As a result of this recovery, the United States Department of the Interior, Fish and Wildlife Service (USFWS) announced a final decision to remove gray wolves from the list of federally-protected threatened and endangered species (delisting) on February 8, 2007 (Federal Register 72:6052-6102). However, the combination of an increasing Wisconsin wolf population, human encroachment on wild habitats and conversion of natural landscapes to agricultural and urban environments has led to increased conflicts between wolves and humans. Conflicts with wolves include injury and depredation on livestock and pets, and threats to human safety. Management of conflicts with wolves is addressed in the Wisconsin Wolf Management Plan (WWMP; WDNR 1999, 2007, Guidelines for Conducting Depredation Control on Wolves in Wisconsin Following Federal Delisting, May 24, 2007, and in the USFWS Eastern Timber Wolf Recovery Plan (USFWS 1992). Prompt, professional management of damage and conflicts with wolves is an important component of wolf management because it facilitates local public acceptance and tolerance of wolves (Fritts 1993; Mech 1995; WDNR 1999, 2006; 50 CFR 17.40(o)). The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service, Wildlife Services (WS) is the Federal program authorized by law to aid in reducing damage caused by wildlife. The Wisconsin Department of Natural Resources (WDNR), organizations, associations, groups, and individuals have requested WS assistance with the management of wolf conflicts and wolf damage in Wisconsin.

In February 2008, WS, the USDA Forest Service (USFS), and the Wisconsin Department of Natural Resources requested public comment on a predecisional Environmental Assessment (EA) on wolf damage and conflict management in Wisconsin. The analysis documented the need for wolf damage management (WDM) in Wisconsin and compared potential environmental and social effects from the various alternatives for responding to wolf damage problems. Comments from the public involvement process for the EA were reviewed for substantive issues and alternatives (Appendix A). The present Decision document provides notification of WS' choice of a management alternative and determination regarding the environmental impacts of the chosen alternative.

The 2008 wolf damage management EA replaced a 2006 EA on managing wolf damage and conflicts in Wisconsin that was prepared while wolves were federally-listed as an endangered species. The new EA includes analysis of changes to the WDNR wolf damage management procedures that were made after wolves were removed from the federal list of threatened and endangered species. Changes to the WDM measures established by the WDNR, include an increase in the distance around depredation sites where WDM may be conducted; permitting landowners to take wolves caught in the act of depredating domestic animals; permits for individuals to take wolves on property with verified wolf damage, a reduction in the

special protections for particular age and sex classes of wolves, and the use of Proactive Control Areas to reduce damage at sites with chronic depredation problems.

WS has selected Alternative 3, Revised Integrated Wolf Damage Management (RIWDM) for use in addressing wolf damage and conflicts on public and private lands in Wisconsin. This alternative includes implementation of the new provisions for WDM outlined in the May 24, 2007 WDNR wolf depredation control guidelines. The RIWDM approach, which is commonly known as Integrated Pest Management (WS Directive 2.105), involves the simultaneous or sequential use or recommendation of a combination of methods to reduce damage. The wolf damage and conflict management methods used by WS are not based on punishing offending animals, but are components of damage management strategies developed and implemented using the WS Decision Model thought process (Slate et al. 1992, USDA 1997 revised, WS Directive 2.201). All WDM activities would be conducted in compliance with relevant laws and regulations, including the Endangered Species Act of 1973.

## **WILDLIFE SERVICES ROLE IN WISCONSIN WOLF DAMAGE MANAGEMENT**

WS was the lead agency in the preparation of the EA, and the USFS and WDNR were cooperating agencies. The Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and the Wisconsin Ho-Chunk Nation were consulting agencies in the production of the EA. The WDNR and tribes have regulatory authority for the management of wolves. WS is the Federal program authorized by law to provide assistance with the reduction of damage caused by wildlife. WS does not have regulatory authority for wolf management. All WS WDM activities will be conducted in accordance with applicable laws and regulations.

The EA only evaluated alternatives for WS involvement in WDM and cannot change WDNR wolf management policy as established in the WWMP (WDNR 1999, 2007). The WDNR has stated that it will take action to resolve wolf damage problems, in accordance with their management plan and authority, even if WS is not involved in WDM. This means that the Federal WS program has limited ability to affect the environmental outcome (*status quo*) of WDM in the state, except that the WS program is likely to have lower risks to nontarget species and less impact on wildlife populations than some actions that may be taken by resource owners/managers. Despite the limitation to WS' influence on the environmental *status quo* and associated limit to federal decision-making, this EA process is valuable for informing the public and decision-makers of the substantive environmental issues and alternatives for management of wolf damage and conflicts in Wisconsin.

The Tribes retain the right to manage wolves within reservation boundaries and share management authority for wolves in the ceded territories. When requested, WS will cooperate with Tribes with managing wolf conflicts if complaints occur within 6 miles of Tribal boundaries. WS also notifies GLIFWC of WDM actions conducted in the ceded territories.

## **AGENCY AUTHORITIES**

### **Wildlife Services**

WS is the Federal program authorized by law to reduce damage caused by wildlife (the Act of March 2, 1931 (46 Stat. 1468; 7 U.S.C. 426-426b) as amended, and the Act of December 22, 1987 (101 Stat. 1329-331, 7 U.S.C. 426c)). The mission of the USDA/APHIS/WS program is to provide federal leadership in managing conflicts with wildlife. Wildlife Services' mission, developed through its strategic planning process (USDA 1999), is: 1) "to provide leadership in wildlife damage management in the protection of

*America's agricultural, industrial and natural resources, and 2) to safeguard public health and safety.”* WS recognizes that wildlife is an important public resource greatly valued by the American people. By its very nature, however, wildlife is a highly dynamic and mobile resource that can cause damage to agriculture and property, pose risks to human health and safety, and affect industrial and natural resources. WS conducts programs of research, technical assistance and applied management to resolve problems that occur when human activity and wildlife conflict. WS is involved in wolf management and research in Wisconsin as a designated agent of the WDNR.

### **United States Department of Agriculture, Forest Service, Chequamegon-Nicolet National Forest (USFS)**

The Forest Service has the responsibility to manage the resources of federal lands for multiple uses including livestock grazing, timber production, recreation and wildlife habitat, while recognizing the state's authority to manage wildlife populations. The Forest Service recognizes the importance of reducing wildlife damage on lands and resources under their jurisdiction, as integrated with their multiple use responsibilities. These uses are outlined in the 2004 Chequamegon-Nicolet National Forest Land and Resource Management Plan. Occasionally, wildlife damage management actions may be taken on National Forest Service lands to protect resources on adjacent properties. For these reasons, the Forest Service has entered into a national MOU with WS to facilitate a cooperative relationship regarding the management of wildlife damage and conflicts.

### **Wisconsin Department of Natural Resources (WDNR)**

The WDNR was a cooperating agency in the production of the EA. The WDNR, under the direction of a Governor appointed Natural Resources Board, is specifically charged by the Legislature with the management of the State's wildlife resources. Although legal authorities of the Natural Resources Board and the WDNR are expressed throughout Wisconsin Administrative Code (WAC), the primary statutory authorities include establishment of a system to protect, develop and use the forest, fish and game, lakes, streams, plant life, flowers, and other outdoor resources of the state (s. 23.09 Wis. Stats.) and law enforcement authorities (s. 29.001 and s. 29.921 Wis. Stats.). The Natural Resources Board adopted mission statements to help clarify and interpret the role of WDNR in managing natural resources in Wisconsin. They are:

- To protect and enhance our natural resources: our air, land and water; our wildlife, fish and forests and the ecosystems that sustain all life.
- To provide a healthy sustainable environment and a full range of outdoor opportunities.
- To ensure the right of all people to use and enjoy these resources in their work and leisure.
- To work with people to understand each other's views and carry out the public will. And in this partnership consider the future and generations to follow.

### **Great Lakes Indian Fish and Wildlife Commission (GLIFWC)**

The Great Lakes Indian Fish and Wildlife Commission was a consulting agency in the production of the EA. GLIFWC is an agency of eleven Ojibwe nations in Minnesota, Wisconsin, and Michigan, with off-reservation treaty rights to hunt, fish, and gather in treaty-ceded lands and waters. It exercises powers delegated by its member tribes. GLIFWC assists its member tribes in the implementation of off-reservation treaty seasons and in the protection of treaty rights and natural resources. GLIFWC provides natural resource management expertise, conservation enforcement, legal and policy analysis, and public information services. GLIFWC's member tribes include: the Bay Mills Indian Community, Keweenaw Bay Indian Community and the Lac Vieux Desert Band in Michigan; the Bad River, Red Cliff, Lac du

Flambeau, Lac Courte Oreilles, Sokaogon and St. Croix Bands in Wisconsin; and the Fond du Lac and Mille Lacs tribes in Minnesota. All member tribes retained hunting, fishing and gathering rights in treaties with the U.S. government, including the 1836, 1837, 1842, and 1854 Treaties.

GLIFWC's Board of Commissioners, comprised of a representative from each member tribe, provides the direction and policy for the organization. Recommendations are made to the Board of Commissioners from several standing committees, including the Voigt Intertribal Task Force (VITF). The VITF was formed following the 1983 Voigt decision and makes recommendations regarding the management of the fishery in inland lakes and wild game and wild plants in treaty-ceded lands of Wisconsin.

### **Wisconsin Ho-Chunk Nation**

Wolves play an important role in tribal culture and spiritual beliefs. Tribal wolf management decisions are outside the scope of this analysis and decisions made in this EA do not alter the tribes' authority or rights relating to wolf management. However, this analysis does include the types of assistance WS may offer the tribes, if requested. Additionally, wolves move freely across boundaries of tribal lands and the WDM actions proposed in this EA can impact tribal wolf management and vice versa. The Ho-Chunk Nation do not have formal reservation boundaries, but own and occupy scattered parcels across central Wisconsin, especially within the Central Forest wolf range. The Ho-Chunk have been monitoring the wolf population in cooperation with the WDNR and have donated radio collars for tracking wolves. The health of the Central Wisconsin wolf population is of great concern to the Ho-Chunk Nation. It is for these reasons that the Wisconsin Ho-Chunk chose to be a consulting agency in the production of this EA.

### **MONITORING**

WS will continue to monitor the impacts of its activities on wolves and non-target species that could be affected by WDM activities. This will primarily be done by reporting and closely coordinating WS WDM activities with the WDNR to ensure that cumulative impacts of WS' actions in combination with all other wolf management activities are not having an adverse impact on the wolf population. The EA will also be reviewed each year to ensure that there are no new needs, issues or impacts meriting additional analysis.

### **PUBLIC INVOLVEMENT**

The draft EA was made available for public comment on February 20, 2008 and the comment period closed on March 24, 2008. The draft EA was made available to the public through a "Notice of Availability" (NOA) published in the *Wisconsin State Journal* and on the WS website [http://www.aphis.usda.gov/wildlife\\_damage/nepa.shtml](http://www.aphis.usda.gov/wildlife_damage/nepa.shtml), and through direct mailings of the NOA to interested parties.

A total of nine comment letters were received. All comments were analyzed to identify substantial new issues, alternatives, or to redirect the program. Responses to specific comments are included in Appendix A. All letters and comments are maintained at the Wildlife Services State Office, 732 Lois Dr., Sun Prairie, WI 53590. This decision document will be made available to the public using legal notices in the same papers as for the EA.

## MAJOR ISSUES

The EA analyzed a range of management alternatives in context of issues relevant to the scope of the analysis including:

- Effects on wolf populations in Wisconsin
- Effects on non-target species populations, including threatened and endangered species
- Effects on public and pet health and safety
- Humaneness of methods to be used
- Sociological issues including impacts on aesthetic values

## AFFECTED ENVIRONMENT

Under the Proposed Action, wolf management could be conducted on private, Federal, State, tribal<sup>1</sup>, county, and municipal lands in Wisconsin with the permission of the appropriate land owner/manager. Most WDM activities would be conducted on private land. WDM activities are only likely to be conducted on public land if that land is within the damage management perimeter around the site of a verified depredation event on private land, inside a designated Proactive Control Areas (does not include USFS Wilderness Areas), in the unlikely instance that a wolf preys on livestock legally present on public lands<sup>2</sup>, or in the rare instance that a wolf is exhibiting behavior that poses a threat to human safety. Consultation will occur between the WDNR, WS, GLIFWC (if in ceded territory), and the appropriate public land manager if WDM is going to be conducted on public land.

It is more likely that wolf trapping and radio-collaring for wolf population monitoring and research would be conducted on public land (state, county and national forest lands). The public lands where wolf trapping for the purpose of radio-collaring and population monitoring has been conducted include Great Divide Ranger District of the Chequamegon–Nicolet National Forest, as well as County and WDNR land.

WS will notify GLIFWC if it plans to conduct wolf damage management activities in the ceded territories. Additionally, for tribes requesting notification, WS will contact the tribe if a wolf complaint is within six miles of tribal lands and will attempt to co-investigate. If a complaint is verified, WS will consult with the tribe on WDM activities.

## ALTERNATIVES THAT WERE FULLY EVALUATED

The following four alternatives were developed to respond to the issues. Four additional alternatives were considered but not analyzed in detail (EA Section 3.4). A detailed discussion of the effects of the alternatives on the issues is described in Chapter 4 of the EA. The following is a summary of the alternatives.

**Alternative 1 - Non-lethal WDM Only.** Under this alternative, WS would only provide technical and operational assistance with non-lethal WDM. However, the state could still use and authorize others to use lethal WDM techniques. Consequently, the cumulative environmental impacts of this alternative are likely to be similar to Alternative 2.

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<sup>1</sup> WS wolf damage management would only be conducted on tribal lands with the Tribes request/consent and only after appropriate documents had been signed by WS and the respective Tribe.

<sup>2</sup> WS is aware of a limited number of instances where livestock is or has been allowed to graze on State and county land.

**Alternative 2 - Integrated WDM (No Action).** The No Action alternative serves as the baseline against which the impacts of management alternatives can be compared and can be defined as being the continuation of current management practices (CEQ 1981). In this instance, this means WS would be able to participate in WDM activities in accordance with the policies and procedures of the 1999 WWMP, and 2005 *Wisconsin Guidelines For Conducting Depredation Control On Wolves In Wisconsin While Federal Listed As “Threatened” Or “Endangered” Status*. WS’ actions under this alternative would be the same as the preferred WDM alternative selected by WS in the March 13, 2007 FONSI on Wolf Damage and Conflict Management in Wisconsin (USDA 2007). Similar programs for WDM in Wisconsin have been used by WS at intervals from April 1, 2003 through present either under 4(d) provisions of the ESA or under special permit from the USFWS while wolves were federally classified as either threatened or endangered (Sections 1.3.1, 1.3.10, Table 1-3 and USDA 2003, 2006). For purposes of analysis, we are using Alternative 2 as the “No Action” baseline when comparing the other alternatives to determine if the real or potential adverse affects are greater, lesser or the same.

**Alternative 3 – Revised Integrated WDM (Proposed Action).** This is the proposed alternative for implementing WDM in Wisconsin. This alternative differs from the No Action Alternative (Alternative 2) because it gives WS greater flexibility in formulating damage management strategies to resolve individual wolf damage complaints as outlined in the WDNR 2007 *Guidelines for Conducting Depredation Control on Wolves in Wisconsin Following Federal Delisting*. A comparison of the differences between this alternative and Alternative 2 are summarized in Table 1-3, Section 1.3.10 of the EA. As with Alternative 2, WS would be able to use the complete range of lethal and nonlethal WDM techniques. Landowners/managers will be held to the same requirements for farm plans, use of non-lethal methods and fencing standards as are required under Alternative 2. Wildlife Services would continue to assist the WDNR with radio-collaring and monitoring the Wisconsin wolf population and the removal of wolf-dog hybrids from the wild. Landowners, lessees or occupants of private property may kill wolves caught in the act of attacking a domestic animal.

Under this alternative, the distance from wolf depredation sites where WDM could be conducted would vary depending on the Wolf Management Zone. The WDNR, in consultation with the tribes, land owners/managers, WS and GLIFWC, as appropriate, could also alter the area where WDM may be conducted on a case-by-case basis if there is evidence available that delineates the packs territory and available information indicated that members of non-depredating packs would not be impacted. Unlike Alternative 2, there are no special provisions for protecting lactating females and wolf pups.

**Alternative 4 - No Federal WDM in Wisconsin.** Under this alternative, WS would provide no assistance with WDM. However, the state could still use and authorize others to use lethal WDM techniques. Consequently, environmental impacts of this alternative are likely to be similar to Alternatives 2 and 3.

## **DECISION AND FINDING OF NO SIGNIFICANT IMPACT**

I have carefully reviewed the EA prepared for this proposal and the input from the public involvement process. I believe that the issues identified in the EA are best addressed by selecting Alternative 3 - Revised Integrated WDM (Proposed Action) and applying the associated Standard Operating Procedures discussed in Chapter 3 of the EA. Alternative 3 is selected because (1) it best enables the management agencies to provide prompt, professional assistance with wolf conflicts and will help maintain local public tolerance of wolf recovery in Wisconsin; (2) it offers the greatest chance at maximizing effectiveness and benefits to resource owners and managers while minimizing cumulative impacts on the quality of the

human environment that might result from the program's effect on target and non-target species populations; (3) it presents the greatest chance of maximizing net benefits while minimizing adverse impacts to public health and safety; and (4) it offers a balanced approach to the issues of humaneness and aesthetics when all facets of these issues are considered. WS decision to adhere to the Standard Operating Procedures and limits to activities proposed in the EA and annual monitoring insures that environmental impacts including WS take of wolves and impacts on the wolf population, risks to non-target species, impacts on public and pet health and safety, humaneness of methods to be used and sociological issues will remain as described in the EA.

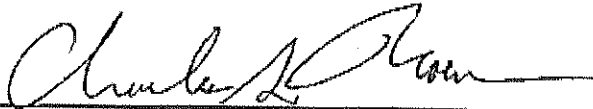
The analysis indicates that there will not be a significant impact, individually or cumulatively, on the quality of the human environment as a result of this proposed action. I agree with this conclusion and therefore find that an EIS need not be prepared. This determination is based on the following factors:

1. Wolf damage management as proposed in the EA is not regional or national in scope.
2. Analysis of the cumulative impacts for this or other anticipated actions within the State or other Mid-west states indicates that the proposed action would not threaten the continued existence of the wolf population. Based on the rate of increase for the Michigan and Wisconsin wolf populations, the wolf population is large enough and healthy enough that even while the proposed action and all other mortality factors have adverse affects on individuals, they are not likely to adversely impact the viability of state wolf population.
3. The proposed action would pose minimal risk to public health and safety. Risks to the public from WS' WDM methods were determined to be low in a formal risk assessment (USDA 1997 Revised, Appendix P).
4. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected. Built-in mitigation measures that are part of the action agencies' Standard Operating Procedures and adherence to laws and regulations will further ensure that the agencies' activities do not harm the environment.
5. The effects on the quality of the human environment are not highly controversial. Although there is opposition to WDM proposed in the preferred alternative, this action is not highly controversial in terms of size, nature, or effect. Public controversy over wolf management has been acknowledged and addressed in the EA.
6. Based on the analysis documented in the EA and the accompanying administrative file, the effects of the proposed damage management program on the human environment would not be significant. The effects of the proposed activities are not highly uncertain and do not involve unique or unknown risks.
7. The proposed action would not establish a precedent for any future action with significant effects. Authorization issued by the WDNR will have to be reviewed and renewed annually.
8. No significant cumulative effects were identified through this assessment. The EA discussed cumulative effects on non-target species populations and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within the State.
9. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any

loss or destruction of significant scientific, cultural, or historical resources. If an individual activity with the potential to affect historic resources is planned under the selected alternative, then site-specific consultation as required by Section 106 of the NHPA would be conducted as necessary (EA Section 1.8.2.3).

10. The USFWS has determined that the proposed program would have no effect on or is not likely to adversely affect any Federal listed threatened or endangered species. This determination is based upon an Intra-Service Section 7 consultation completed by the USFWS for activities described in the EA and an August 23, 2006, consultation with the USFWS regarding the impacts of statewide WS program activities, including possible WDM activities on lynx. In addition WS and the WDNR have determined that the proposed program will not adversely affect any State-listed threatened or endangered species.
11. The proposed action will be in compliance with all federal, state, and local laws. The proposed action is consistent with the Wisconsin Coastal Zone Management Program.

Therefore, it is my decision to implement the proposed action (Alternative 3) as described in the Final EA. Copies of the Final EA are available upon request from the Wisconsin Wildlife Services State Office, 732 Lois Dr, Sun Prairie WI 53590, (608) 837-2727, on the WS website at: [http://www.aphis.usda.gov/wildlife\\_damage/nepa.shtml](http://www.aphis.usda.gov/wildlife_damage/nepa.shtml).



Charles S. Brown, Regional Director  
USDA-APHIS-WS, Eastern Region

5/14/08

Date



## APPENDIX A

### RESPONSES TO COMMENTS

Nine comment letters on the predecisional EA were received from organizations and members of general public. This appendix contains issues raised by the public during the comment period for this EA and the agencies' response to each of the issues. Comments from the public are numbered and are written in bold text. The agencies' response follows each comment and is written in standard text.

It should be noted that the Wisconsin Wolf Management Plan and the Guidelines for Wolf Damage Management in Wisconsin were established by the WDNR which is not required to subject its management decisions to NEPA analysis. The WDNR has stated that it will implement the management decisions in these documents with or without the involvement of WS. Therefore, the content and policies established in these documents are outside the scope of this EA. The purpose of the EA is to analyze the environmental impacts of WS involvement, if any, in the implementation of the WWMP and Guidelines for Wolf Damage Management.

Issues raised in comment letters which are outside the scope of the EA because they pertain to WDNR policies and regulations which cannot be altered by this EA include:

- The conditions under which landowners may take wolves
- Status of wolves as Protected Wild Animals (nongame species)
- Desire for or opposition to a hunting season for wolves
- Need for more wolf management zones
- Need to manage wolf predation on deer, elk and moose
- Need to conduct WDM to protect hunting dogs
- Issuance of permits to landowners to take wolves
- WDNR policy for reporting wolf depredation on dogs
- WDNR wolf damage management thresholds and wolf population management objectives

**1 Statement regarding assumption about wolf population continuing to increase (Section 2.1.1) assumes all other sources of mortality will remain stable and is not accurate.**

The statement provided was a general indication of anticipated population trend based on recent trends for the Wisconsin wolf population and should not be substituted for the detailed analysis of impacts of the alternatives on the wolf population provided in Chapter 4. However, we agree that the statement likely oversimplifies the situation and have adjusted the sentence accordingly. Detailed analysis of anticipated impacts on the wolf population is provided in Chapter 4.

**2. EA needs to consider impacts on nontarget wolves.**

The commenter made reference to studies of coyote predation on livestock indicating that most instances of depredation on livestock appear to be caused by breeding pairs (Blejwas et al. 2002, Sacks et al. 1999). There is also data indicating that these individuals may be less vulnerable to capture with methods like traps and snares than transient animals and nonbreeding individuals. There is no equivalent data available on predation by wolves and the relative vulnerability of wolves to predation. Caution must be taken when extrapolating information from coyotes to wolves. Although coyotes may form packs, pack size and dynamics including foraging are not necessarily the same as for wolves. For example, cooperative hunting appears to be more common for wolves than for coyotes even though coyotes do form packs. Geese and Grothe (1995) documented that group foraging in coyotes observed in Yellowstone National

Pack differed from that observed in wolves in that with coyotes, the majority of the kills were made by 2-3 members of the pack, usually the alpha pair or at least including the alpha male while the rest of the pack watched. In wolf packs many members of the pack are involved in the chase and kill (Mech 1970, Camenzind 1978, Bekoff and Wells 1980). Consequently, in wolves, it seems likely that more individuals than the alpha pair may be involved in depredation on livestock. Additionally, wolves are social hunters and we would expect that group learning occurs, and that even though only one or two pack members may be the killers of livestock, other pack members will learn that livestock are acceptable food sources. Young wolves will learn appropriate prey without making kills themselves. In Wisconsin, three wolves translocated as pups from depredating packs, eventually started livestock depredation as adults. Pups exposed to livestock as food may learn to hunt and kill livestock as adults. (See also responses to Issues 23, 25, 30)

**3. Definition of wildlife acceptance capacity (cultural carrying capacity) is not accurate. Cultural carrying capacity depends on how we define “coexist” and “compatible” and people’s tolerance for property damage and encounter’s with wolves.**

Wildlife acceptance capacity, as defined by Decker and Purdy (1988) and discussed in Decker et al (2001), is the wildlife population in a given area that is acceptable to people. Decker and Purdy (1988) also defined it as the maximum wildlife population acceptable, but the term can also be used to define a lower limit for a wildlife population. Wildlife acceptance capacity varies among individuals. There can be several wildlife acceptance capacities for a given wildlife species in a particular area depending upon the relationship of the individuals to the species and individual values. Wildlife acceptance capacity can vary over time based on new information, changes in individual values, interaction with the species in question, and management practices such as the availability of assistance with damage problems. Cultural carrying capacity has been defined as the aggregate acceptance capacity of a community or other collection of stakeholders (Ellingwood and Spignesi 1986, Minnis and Peyton 1995, Decker et al. 2001). Decker et al. (2001) noted that cultural carrying capacity can be difficult to measure because it generally requires weighting of the wildlife acceptance capacities of individuals and/or groups within the community. The challenges inherent in defining and using cultural carrying capacity in wildlife management were evident in comments provided on the EA stating that the State population management objective for wolves needed to be revisited to place more or less emphasis on the opinions of individuals living in areas with wolves.

**4. No proof that statement saying that “Wildlife acceptance capacity is usually lower than biological carrying capacity” is accurate.**

As noted above, wildlife acceptance capacity will vary among individuals and groups. The statement in question was made in context of situations where there is a conflict with wildlife. In these situations it is commonly the case that, for at least some members of the community, the current population level of the problem species has exceeded the wildlife acceptance capacity (Conover 2002).

**5. Use of lethal methods should be reviewed by outside party to determine if commitment to emphasis on nonlethal is being implemented. What if producers fail to implement reasonable nonlethal methods?**

Assistance with wolf damage and conflicts needs to be provided in a timely fashion and field people need flexibility to determine suitability of lethal and nonlethal controls based on local conditions. Long waits would reduce the chance of capturing the offending wolves. Normal wolf behavior includes returning to kills until the carcass is consumed. Immediate responses, including lethal WDM where appropriate, allow WS to be most specific in removing offending wolves. WS completes project reports for each

verified instance of wolf depredation or conflict for the WDNR. Project reports including a description of the site, nonlethal methods currently employed and/or recommended by WS and the management action, if any, taken by WS. All WDM by WS is subject to review by the WDNR. Additionally, on private lands within recognized reservation boundaries and in negotiated buffer zones around tribal lands, WS will ask the private landowner to allow a tribal representative to co-investigate wolf complaints. WS will inform the complainant of the cultural and spiritual importance of wolves to Native Americans. The private landowner may choose to not allow the tribe to co-investigate wolf complaints on their property. Copies of wolf project report including photos and other details of the incident may be provided to tribes by the WDNR regardless of the landowner's decision concerning co-investigation. WS, WDNR and the tribe will consult regarding a course of action to address or resolve verified wolf complaints on these lands. In the ceded territory, WS and WDNR notify GLIFWC of verified wolf damage complaints including strategies that will be used to resolve verified complaints.

The EA states in Section 3.5 and Appendix E that lethal WDM will not be used at sites with repeat wolf depredation problems unless a farm management plan has been developed which outlines practices the producer can implement which may reduce risk of predation at the site. Individuals requesting compensation or assistance with lethal WDM must be in compliance with carcass disposal requirements of ss. 95.50, Stats., for livestock claims and, for farm-raised deer claims, the farm-raised deer fencing requirements of ss. 90.20 and 90.21, Stats. WS and WDNR regularly recommend animal husbandry and farm management practices to producers as a means of reducing conflicts with wolves. State law also sets specific requirements for carcass disposal that must be met. There are no additional regulations setting requirements that must be met prior to receiving assistance with lethal WDM. WS and the WDNR recognize the importance of good husbandry and management practices in helping to reduce wolf damage and conflicts. If improved husbandry practices would likely reduce a predation problem, WS makes recommendations promoting these practices. However, WS and WDNR policy is to respond to all requests for assistance within program authority and responsibility.

**6. Lethal should not be permitted in defense of human life. Current level of risks to human life is negligible and should be addressed preventively by offering equipment and education to prevent attack.**

The EA Section 1.3.8 addresses the issue of risks to human safety from wolves. We concur that risks to human safety from wolves are rare. The data provided by McNay (2002) indicates the importance of human behavior management and public education programs in the prevention of adverse human-wolf encounters. These efforts coupled with nonlethal techniques designed to reduce or prevent wolf habituation to humans will likely prevent or resolve most situations where wolf behavior causes concern for human safety. However, we do not concur that all risks to human safety can be appropriately resolved through the exclusive use of nonlethal and preventive methods. There will be rare instances where removal of the problem wolf may be necessary. For example, lethal removal may be the appropriate response to aggressive behavior by a wolf which appears sick. There are also liability concerns for the WDNR if a wolf with a history of aggressive behavior was allowed to remain or was relocated and then subsequently injured a person. The lead and cooperating agencies have and will continue to use lethal methods to address risks to human safety sparingly.

Between 2003-2007, there have been three instances when lethal methods were used to address risks to human safety. There was one situation where a wolf was acting aggressively towards automobiles that slowed or stopped in a certain area along a major northern highway. Acting on a request from WDNR, WS attempted to trap the animal but was unsuccessful. One wolf was lethally removed when it attacked two different dogs and approached a child near a home. In late winter and spring 2007 an adult male with mange, left the main portion of his territory, and along with a female pack mate, began to habituate to

people in Florence County. After showing bold behavior toward a logger and frightening him from a timber sale, as well many other complaints, the wolves were captured and euthanized.

**7. Use of term “humane” should not be used to refer to methods used to kill wildlife. Killing is contradictory to the definition of the term “humane”.**

We realize that the death of any animal is unacceptable to many people and regrettable. We also understand that there are people who find the use of lethal methods distressing and, in many cases, ethically unacceptable. However, the agencies do not concur that the use of lethal methods precludes behaving in a humane and compassionate manner. The AVMA defines euthanasia as “the act of inducing humane death of an animal” and further states, “it is our responsibility as veterinarians and human beings to ensure that if an animals life is to be taken, it is done with the highest degree of respect, and with an emphasis on making the death as painless and distress free as possible” (AVMA 2001). WS has improved the selectivity and humaneness of management techniques through research and development. Research is continuing to bring new findings and products into practical use. WS personnel in Wisconsin are experienced and professional in their use of management methods so that they are as humane as possible under the constraints of current technology, workforce and funding.

**8. EA should note that livestock producers are liable for anything their livestock do once run through fences by wolves. Indirect cost of wolves also includes cost of time, fuel and equipment to relocate animals, locating and recapturing/returning animals, getting feed to animals until they can be returned, and payments for any damage caused by animals while they were out.**

Noted, thank you. Other indirect costs of wolf predation are also addressed in EA Section 1.3.7.

**9. WDM should be specific to depredating pack.**

We agree that when depredations appear to be associated with a pack, damage management efforts should focus on the depredating pack. Sign from the depredation site can be used to determine if the depredation was caused by an individual wolf or a pack. Measures used to identify and target depredating wolves include but are not limited to careful analysis of wolf sign at the site by trained professionals, review of information on radio-collared wolves and wolf observations in the area near the depredation site. Traps will usually be set close to kill sites, and normally wolf packs responsible for making the kills would be the ones most likely visiting such kills. Because wolves are very territorial, with typical territories being 6 to 10 miles across, most farms occur within only one pack territory, and strange wolves would not likely enter another packs area or feed on kills made by other packs. Data on wolf activity and territory size would be used to identify other areas used by the pack where traps may be set and reduce risks to nontarget packs.

**10. There is no need to control the wolf population.**

WDNR wolf depredation management guidelines and associated management actions are intended to be a means of addressing damage problems. The goal of WDM is to quickly and efficiently resolve localized wolf conflicts. The aim of WDM is not to annually remove the maximum number of wolves above an established threshold or to reduce the statewide wolf population, but to resolve specific conflicts at specific sites. Although the new 2007 WDNR guidelines permit the use of Proactive Control Areas as long as the wolf population off of Native American Reservations is in excess of 350 wolves and reactive lethal WDM when the off-reservation wolf population is in excess of 250 wolves, neither WS or the WDNR anticipate that the maximum permitted wolf take would occur in any given year. Furthermore, Proactive Control Areas would be defined and managed to address problems with a specific pack and are

not intended as general population control measures. Analyses in the EA indicate that the proposed action will not adversely impact the Wisconsin wolf population although short-term local reductions in the immediate area where wolf removals are conducted may occur.

**11. Issuance of permits for wolf control is thinly veiled attempt to create wolf hunting opportunities.**

We disagree. Permits are only intended for use in resolving specific damage problems. Permits to take wolves would only be issued by the WDNR to individuals who have a confirmed case of wolf depredation on their property and individuals with domestic animals vulnerable to wolf depredation within Proactive Control Areas (e.g., areas used by packs involved in chronic depredation problems). These individuals may only take wolves from their property. The permits specify the number of wolves that may be taken, the methods that may be used and the duration of the permit. Permits are rescinded by the WDNR if the number of wolves estimated to make up a specific pack are removed. No fee is charged for the permits and they are not intended as a revenue generating system.

**12. Incentives or disincentives for WS to engage in different management approaches should be discussed.**

Under various acts of Congress, the Secretary of Agriculture is authorized to carry out wildlife control programs necessary to protect the Nation's agricultural and other resources (46 Stat. 1468-69, 7 U.S.C. §§ 426-426b, as amended and Public Law No. 100-202, § 101(k), 101 Stat. 1329-331, 7 U.S.C. § 426c). This authority has been delegated to the WS program. WS is a cooperatively funded, service-oriented program that only responds to damage situations after a request for assistance is received and an Agreement for Control is signed by the landowner/ administrator for other comparable document is in place. WS cooperates with other Federal, State, Tribal, and local government entities, educational institutions, private property owners and managers, and with appropriate land and wildlife management agencies, as requested, with the goal of effectively and efficiently resolving wildlife damage problems in compliance with all applicable Federal, State, and local laws.

**13. Reports of loss and complaints of wolf problems (Tables 1-3 and 1-5) are exaggerations.**

We do not agree. The WDNR only pays compensation for loss of and injuries to domestic animals (Table 1-3) that have been confirmed to be taken by wolves by trained professionals. False claims of damage by wolves would not be confirmed. Table 1-5 shows the value of professional involvement in addressing complaints of conflicts with wolves. Only roughly half the total complaints received by WS are verified as being caused by wolves. In some instances, there was insufficient evidence or the evidence was not of sufficient quality to confirm the source of the problem. Accurate identification of cause of loss or injury to an animal can be difficult for untrained observers. In other instances, the problem was determined to have been caused by other predators (e.g., coyotes, bears, or feral dogs), or the animal may have died from natural causes (e.g., disease, exposure, lightning).

**14. Level of human tolerance is being inappropriately determined by heeding the input from a limited minority segment of the human population. Wildlife acceptance capacity usually reflects the views of a minority of people that already have contempt for the wolf or live where wolf conflicts occur and ignores the majority of the public that also have a stake in the outcome of wolf management and do support recovery. Wolf management should be based on sound science and not the unwillingness of some people to coexist with wildlife or the desires of some individuals to reduce the wolf population.**

Rapid, effective assistance to problems is critical to maintaining support for predator populations, not just among affected stakeholder groups but the public in general. For example, data from a survey of 9,900 Michigan residents conducted in fall 2005 indicate a strong majority of Michigan residents support removal of wolves involved in depredation (R.B. Peyton, Michigan State University, unpublished data). Similar research by Naughton et al. (2005) show strong public support for lethal control on problem wolves in Wisconsin (Section 1.3.10). Although the agencies agree that wolves are a public resource belonging to all citizens of the U.S., they also acknowledge that it is the response of individuals in the areas where wolves occur that may have the greatest impact on wolf recovery efforts. These individuals have the greatest opportunity to illegally take wolves if they feel sufficiently provoked and/or frustrated with agency actions in response to wolf damage and conflicts with wolves (EA Section 1.3.10). The purpose of the proposed action is not to limit the size of the Wisconsin wolf population and based upon data from Minnesota, Wisconsin, and Michigan, there is no evidence supporting the concept that the Wisconsin wolf population will be limited by the proposed action.

**15. No lethal wolf removal should be conducted until the litigation on the status of wolves is completed. WS and the WDNR are not abiding by court decisions.**

WS and the WDNR have and will continue to abide by all relevant court decisions regarding the management of wolves in Wisconsin. Wolves have been officially removed from the federal list of threatened and endangered species. The USFWS decision to remove the Western Great Lakes Distinct Population Segment of wolves from the list of threatened and endangered species is currently under review by federal court. However, the court has not issued any orders prohibiting the transfer of management of wolves to the states or the use of lethal methods for WDM.

**16. Only a small portion of the population has problems with wolves so no federal money should be used to resolve problem. It is inappropriate to use taxpayer money to pay for WDM.**

The presence of a wolf population has broad public benefits for ecological, scientific, social, recreational and aesthetic values, but generally does not directly benefit individual farmers. Individual farmers generally have little control over the ability of wolves to live next to them. Because of the broad public benefits of wolves and possible disproportionate costs to individual farmers from wolves, we feel it is appropriate for public funds to be used to control problems to farmers. Furthermore, WS is the Federal agency authorized by Congress to conduct wildlife damage management to protect American agricultural, industrial and natural resources, property and human health and safety from damage associated with wildlife (Act of March 2, 1931 as amended 46 Stat. 1486; 7 USC 426-426c). As such, it is entirely appropriate for WS to assist with WDM.

**17. Improved monitoring and law enforcement followed by stiff penalties for violations are more likely to enhance the survival of the species than lethal WDM.**

There already exist stiff penalties for taking listed species, including prison time. However, much of the area in Northern Wisconsin where wolves are located is very sparsely populated. Illegal actions can easily go unnoticed even if law enforcement personnel were greatly increased. In addition, if legal remedies are unavailable to owners suffering depredation events, public sympathy will gravitate to their perspective, making law enforcement even more difficult. Conversely, if there are reasonable and effective legal alternatives to depredation, the general population will be more inclined to assist law enforcement personnel when illegal take does occur.

**18. Stop “population monitoring” it’s a waste of taxpayer time and money.**

We do not concur. Population monitoring is an essential component of effective wolf population management. The WDNR uses wolf population monitoring data to monitor sources of mortality for the wolf population and to ensure that cumulative impacts are not having an adverse impact that would jeopardize the health of the Wisconsin wolf population. Information from population monitoring, especially information on radio-collared wolves, is also used to assess wolf pack movements and to refine use of damage management efforts so that they focus on wolves most likely to be involved in depredation. Additionally, Section 4(g) of the Endangered Species Act (Act) requires the Service to monitor, for a minimum of five years, any species that is delisted due to its recovery (USFWS 2008). The current Wisconsin wolf monitoring program is part of the USFWS monitoring plan for wolves in the Western Great Lakes Distinct Population Segment.

**19. Interests of all people in the state and not just special interest groups should be considered. Livestock producers who are living in wolf habitat cannot be the only 'voice' used in wolf management.**

The EA does consider the interests of all people in the state. The EA addresses the issue that some individuals will feel that lethal WDM is morally or philosophically objectionable in Section 2.1.5, and in the discussion of the impacts of each alternative on stakeholders in Chapter 4. The EA also considers the importance of wolves in Native American culture. The Ho-Chunk Nation, Lac du Flambeau Band of Lake Superior Chippewa Indians and GLIFWC have expressed that, on moral and cultural grounds they do not wish lethal WDM methods to be used, or have substantial reservations about and want strict restrictions on the use of lethal WDM methods (Section 1.3.5). See also response to Issue 14.

**20. EA contains too many old references. EA should not rely on old data.**

EA does not rely on old data for its conclusions. Roughly 10% of the citations in Appendix B were published during or before 1980. In contrast, approximately 39% of the studies were written in 2000 or later. More importantly, the agencies do not believe that the validity or utility of a study/report is solely determined by its publication date. Data from older reports was used in discussions which provided historical context on wolves and wolf management, evaluations of wolf damage management strategies, or provided basic information which has not changed since the report was written (e.g., a report describing that wolves are known to have preyed on certain types of wild animals). As such, the agencies feel the use of these reports is eminently justified and enhances the overall understanding of wolves and wolf management needed for this analysis.

**21. It would be more productive to spend time and money using nonlethal methods to resolve underlying issues contributing to a problem. Reliance on lethal methods without addressing underlying issues just perpetuates problem. Producers should be required to employ a full battery of nonlethal methods and “best management practices” with financial and technical assistance with the use of these methods prior to receiving assistance with lethal.**

See Section 3.4.10. WS routinely implements non-lethal abatement on farms prior to depredations occurring when wolves are present near cattle and calves. During the past three years (2005 - 2007), WS has installed fladry, electronic guards and flashing lights on more than 30 different farms. The efficacy of some non-lethal methods declines as cattle are released onto grazing pastures and the herd begins to separate over a much larger area. WS provides literature and when applicable recommends the use of livestock guard animals. WS has referred several farmers to a reputable livestock guard dog owner for advice or purchase of guard dogs. WS has provided information to farmers that have considered non-

lethal methods concerning the Bailey Wildlife Foundation providing financial assistance and is aware of at least two recent instances when the Foundation has assisted producers with WDM supplies.

The agencies strive to prevent wolf damage and wolf damage management from becoming an undue burden on individual producers. However, there is a limit to the state's funding for WDM and most funds available for landowner assistance are used for the compensation program. In some instances the state has been able to provide limited assistance with damage prevention materials. WS and WDNR are aware of the Bailey Wildlife Foundation and have worked with the foundation to provide assistance for Wisconsin livestock producers. WDNR and WS will continue to explore new control methods and alternate funding sources and will examine whether there would be possible resources available to WI producers in this program.

The EA states in Section 3.5 and Appendix E that lethal WDM will not be used at sites with repeat wolf depredation problems unless a farm management plan has been developed which outlines practices the producer can implement which may reduce risk of predation at the site. WS and WDNR regularly recommend animal husbandry and farm management practices to producers as a means of reducing conflicts with wolves. However, in some situations, wolf depredation occurs even though the producer is employing the farm management practices likely to be practical and effective for their situation. In these situations, repeating recommendations for methods that have proven ineffective would not be productive.

Commenter appears to use "Best Management Practices" as a term to define sound farm management practices that will reduce risks of wolf depredation. We are not aware of any universal list of best management practices approved by livestock specialists that likely reduce wolf depredation under most circumstances. We have avoided the use of this phrase in the EA because of the potential for confusion with the BMPs most commonly published for livestock production. These BMPs place an emphasis on healthy and successful livestock production but are not necessarily intended to prevent predation. Some recommendations commonly found in cattle BMPs may include actions contrary to the prevention of predation risks. For example, BMPs general advise against practices that repeatedly concentrate animals in smaller areas as might occur if night penning is used to prevent depredation and calving in buildings or corrals may reduce depredation, but could increase disease risk. See also Section 1.3.7 information on indirect impacts of wolf predation.

## **22. Lethal control should only be used after all feasible non-lethal methods have been exhausted.**

This alternative is addressed in Section 3.4.4. This alternative was not considered in detail because, the proposed alternative, Revised Integrated Wolf Damage Management, as outlined in the EA is similar to a nonlethal before lethal alternative because WS and WDNR would encourage and consider the use of nonlethal methods before lethal methods (WS Directive 2.101, WDNR 1999, 2007). The WWMP further states that lethal WDM methods can only be used if the producer has a signed depredation management plan for the property and follows abatement/husbandry recommendations. Therefore, adding a nonlethal before lethal alternative and the associated analysis would not add additional information to the analysis for the public or decision maker.

## **23. Opposed to removal of special protection for sex and age classes. Do not kill female wolves while their pups are still dependent upon them for food.**

Unlike the wolf depredation management guidelines used while wolves were federally protected, the WDNR no longer requires special considerations for pups and lactating females, except under unusual circumstances. WDNR was the first wildlife agency to place restrictions on its actions concerning lactating females. While listed as endangered or threatened the additional protective measures seemed



appropriate. With a recovered population these protections seem less critical. Permitting a lactating female return to the landscape in a highly agricultural area will likely contribute to the next generation of depredators. On isolated farms in wildland areas or edge of Indian reservations, the agencies may release lactating females, but release of lactating females will not be done as a routine activity.

Although the occasional trapping of lactating females could cause incidental death of pups, if pups are near weaning age other pack members will help feed pups (Packard 2003, Also addressed in analysis of impacts on wolf population – EA Chapter 4). During early lactation, the female generally remains close to the den, reducing risk of capture (Packard 2003). Unintentional death of pups due to capture of lactating females would be a relatively rare mortality factor for Wisconsin wolf pups. Records indicate that during 2003-2006 there have been 91 wolves euthanized during WDM efforts. Only two of the 91 wolves were lactating females. One was captured on 19 June when pups were likely to be able to survive without the female. One was captured on 22 May when the risk of pup mortality was higher. However, at this depredation site depredations reoccurred in July and two pups were captured on 17 July at this site indicating that at least some pups survived after the lactating female was euthanized.

Additionally, wolves are social hunters and we would expect that group learning occurs. Young wolves will learn appropriate prey without making kills themselves. In Wisconsin, three wolves translocated as pups from depredating packs, eventually started livestock depredation as adults. Pups exposed to livestock as food may learn to hunt and kill livestock as adults.

#### **24. Opposed to increasing maximum trapping distance because of increased risks of capturing nontarget individuals.**

While wolves were a federally-protected species a 0.5 mile trapping distance limit was established to provide very conservative protections for wolves during their recovery period. The limits were intended to help ensure that lethal wolf removals only impacted wolves in the pack associated with the damage problem. Although the protections were deemed appropriate for a federally protected threatened/endangered species, at times they were an impediment to prompt and effective resolution of damage problems.

Wolf packs range widely, the mean territory size of 18 adult radio-collared wolves in Wisconsin during the winter of 2005-2006 was 32.4 square miles (WDNR wolf progress report 2006) which is comparable in size to Wisconsin townships. Average winter territories can extend up to 10 miles in one direction (Adrian Wydeven, WDNR, pers. comm.). In some areas, wolf packs have access to multiple farms within their territory. WS and the WDNR have documented instances of single wolf packs killing livestock on multiple farms during the same grazing season, but the core area of wolf activity was located between farms and outside the permitted trapping distances. The inability to conduct WDM activities in the core area complicated efforts to manage the depredation problems. For example, during the last three years there have been 24 different farms located in northwestern Wisconsin (Douglas and Bayfield Counties) that have had verified wolf depredations by seven different wolf packs. WS WDM activities during 2003-2006 addressed these complaints reactively within the constraints of the 2005 guidelines for wolf damage management which often resulted in the wolf pack moving to a different farm where depredations were continued. Allowing more flexibility for reactive trapping could increase the effectiveness of removing offending animals and reduce depredations on multiple farms by the same pack.

The trapping distances in the new WWMP guidelines have been set in accordance with the suitability of the areas as management zones. Trapping distances are the most restrictive in Wolf Management Zones 1 and 2 which have been identified as primary wolf habitat. The new WWMP guidelines extend the trapping distance to one mile for all lethal WDM projects in Wolf Management Zones 1 and 2 (primary

wolf habitat). Trapping distances can only be extended beyond that distance if a case-by-case consultation with the WDNR indicates that the pack responsible for the damage may be targeted at locations greater than one mile from the damage site and data indicate that expanding the trapping distance will not impact wolves in non-depredating packs (e.g., data from packs that have radio-tagged individuals, territories delineated using snow track surveys/observations). In Zone 3 which is less suitable wolf habitat, the distance has been extended to five miles. In zone 4 which has some of the highest densities of agriculture and development and is least suitable wolf habitat, trapping can occur at any distance from a verified complaint location. In all Zones, the purpose of WDM trapping is, and will continue to be, to reduce the damage problem. WS will not set traps in an area unless WS has reasonable cause to believe that the wolves associated with the damage problem can be captured at the trap site. Trapping will only be conducted on lands where written authorization has been obtained from the landowner/manager.

**25. If lethal control is implemented, every effort must be taken to target the individual wolf(ves) responsible for the depredation. If the identity is not known, every effort must be made to determine it's identity by backtracking, setting up remote cameras at the kill site in case the animal returns, etc.**

WS and WDNR always strive to target the specific wolf and or wolf packs involved in the depredation problem. WS and WDNR staff are highly trained in the methods of identifying wolf depredations, and use sound scientific information to assess wolf depredation (Acorn and Dorrance 1990). WS strives to target the specific wolves involved in depredation but cannot guarantee that the wolf taken is always the specific individual involved in the depredation. Identification of depredating individuals is complicated by the pack hunting behavior of wolves. In instances when a pack is involved in a depredation incident, multiple individuals may have been involved in the predation event. Measures used to identify and target depredating wolves include but are not limited to careful analysis of wolf sign at the site by trained professionals and review of information on radio-collared wolves and wolf observations in the area near the depredation site. Sign from the depredation site can be used to determine if the depredation was caused by an individual wolf or a pack. Traps will usually be set close to kill sites, and normally wolf packs responsible for making the kills would be the ones most likely visiting such kills. Because wolves are very territorial, with typical territories being 6 to 10 miles across, most farms occur within only one pack territory, and strange wolves would not likely enter another packs area or feed on kills made by other packs.

Based on field experience, the additional methods proposed in the comment are not practical in most situations (e.g., the logistics and economics of trying to radio-collar and closely monitor all wolves in the vicinity of a depredation event) and would require that the individual experiencing damage tolerate the risk of, or actual occurrence of, additional damage while identification efforts requested by commenters are implemented. See also Issues 2, 23, and 24.

**26. Please provide clarification on the “property damage” caused by wolves.**

In Wisconsin, property damage by wolves has consisted of damage to a building (damage to vinyl siding, bites on electrical box) which appeared to have been caused by a wolf attempting to capture an animal that had run behind a woodpile next to a house and an instance of wolves chewing on wires to frost sensors at a cranberry farm. In the former instance, the damage was determined to be an isolated incident and no action was taken. In the latter instance, WS used rubber bullets to harass the wolves from the damage site.

**27. Limit lethal WDM to 10 days after depredation. It is inappropriate to use of proactive control in advance of depredations or even years after an incident occurs (proactive depredation management). Waiting months after a depredation incident has occurred to initiate WDM only reduces chances that wolves that caused the problem are still in the area. Use of proactive controls will not be sufficiently specific to target animals.**

The WDNR established provisions for lethal proactive wolf damage management (PWDM) to help reduce the risk of depredation on domestic animals in areas where previous depredations have been verified by reducing or eliminating the wolf packs that have been involved in these depredations. Lethal PWDM would only be permitted in specially designated Proactive Control Areas. A Proactive Control Area is defined as the area occupied by a wolf pack or group that depredate livestock on chronic farms (farms that have had at least two depredations in different years during the previous five year period) or depredates domestic animals on two different farms. The size and location of each Proactive Control Area would be defined by WDNR in consultation with WS, GLIFWC (if the Proactive Control Area includes ceded territory), and the public land manager (if the proposed Proactive Control Area includes public land) and/or Native American Tribes (if the Proactive Control Area includes land within six miles or other negotiated buffer area around recognized Native American reservations). Proactive Control Areas would encompass the territory of the wolf pack (determined using tracking, radio-collar data and/or local wolf reports/ observations) that has caused depredations using roadways, waterways, natural landscape features, and the state boundary. Because wolves are very territorial, there is little likelihood that strange wolves would be found in another pack's territory. Use of data on wolf activity and territory size to define Proactive Control Areas reduces risks to nontarget wolves. Furthermore, Proactive Control Areas are not intended to remain in effect indefinitely. Proactive Control Areas would remain in effect until the wolf pack has been removed and or the maximum take for Wisconsin under this provision has been achieved. Proactive Control Areas will be reviewed each year after the mid winter wolf population census has been completed.

**28. Overzealous WDM promotes ill-conceived conceptions about the species and places wolves at risks of re-listing.**

The agencies do not concur that the use of Proactive Control Areas and the other changes in the 2007 Guidelines for Wolf Depredation Control constitutes an overzealous response to damage problems. As noted for Issue 32, Proactive Control Areas would only be established in areas with a history of depredation problems, would be defined using best available science and data on the pack associated with the problems, and would be subject to annual monitoring and reevaluation. We believe this process provides the flexibility needed to address chronic depredation problems while also ensuring that the actions taken will not jeopardize the Wisconsin wolf population. Wolf population impact analysis for Alternative 3 indicates that the proposed action will not adversely impact the viability of the Wisconsin wolf population and will not put the population at risk of delisting. Annual wolf population monitoring by WDNR enables the agency to evaluate the cumulative impacts of WDM and all other sources of mortality. In the unlikely event that cumulative impacts did appear to be causing an unanticipated decline in the wolf population, the WDNR and WS would be able to adjust actions permitted for WDM accordingly in order to protect the population. Additionally, the USFWS will also provide oversight and monitoring of the wolf population for at least five years after the decision to remove the species from the federal list of threatened and endangered species. See also responses to Issues 28 and 29.

**29. Lethal proactive controls have been proven to be ineffective in reducing damage.**

Commenter provided no references in conjunction with this statement. To the best of our knowledge there have been no studies done testing the type of targeted Proactive Control Areas proposed for use by

the WDNR. The WDNR Proactive Control Areas are intended as a means to facilitate the removal of entire packs in areas where there is a history of chronic deprecations on domestic animals. Limits on the areas are based on best available current information on the activity of the pack in question and will be evaluated annually and more often as needed based on occurrence or cessation of deprecations. In this respect, except for the temporal aspect, actions in the Proactive Control Areas are not dissimilar to reactive efforts which involve removal of entire packs. Furthermore, WS and the WDNR will continue to encourage landowners in Proactive Control Areas to continue implementing reasonable and effective damage prevention measures in order to reduce the likelihood that a new pack might also engage in depredation. Based on efficacy of past and current integrated programs to reduce wolf damage, the agencies believe the proposed use of Proactive Control Areas will be effective in reducing damage.

**30. Worried about impacts of wolf removal on pack structure. Losing pack members to predator control the may cause the pack to have reduced efficiency in obtaining natural prey and may increase efforts to kill livestock.**

While it is true that wolf removal can have a short-term disruptive impact on pack structure, that disruption does not appear to result in adverse impact on the overall wolf population. In Minnesota where lethal wolf removal has been used as part of an integrated wolf damage management program since the late 1970s, the wolf population increased from an estimated 1,500 wolves in 233 packs in 1988-98 to 2,445 wolves in 385 packs in 1997-1998 and 3,020 wolves in an estimated 485 packs in 2004. Similarly the wolf populations in Michigan and Wisconsin continued to increase although lethal removal of wolves was used as a WDM technique from 2003-2005.

In Michigan and Wisconsin, previous WDM efforts (2003-2005) were almost identical to those of the proposed action. Increased depredation by affected packs did not occur. Furthermore, in MN where lethal WDM methods have been used since the late 1970's, there is also no evidence that WDM would result in increased losses to wolf depredation. Bradley (2004) determined that packs where alphas were removed were no more likely to depredate again within the same year as packs where non-alphas removed.

**31. Objects to state use of “proactive” in plan. Conservation agencies use this to refer to actions which reduce or prevent conflicts and also prevent unnecessary killing of wolves in response to conflicts. Subverting the term by using it to describe a lethal only program impedes conservation goal for such actions.**

The EA makes use of the term “proactive” to refer to nonlethal and lethal WDM methods (EA Section 1.3.12). Use of the term proactive to describe nonlethal damage management methods is consistent with definition of commenter. Use of term proactive to define lethal WDM methods and the term “Proactive Control Areas” is consistent with use of the term and phrase in the WDNR management plans and guidelines which regulate WDM in the state.

**32. Agencies must continue public education efforts through distribution of educational materials to resource owners about ways to prevent conflicts with wolves. Problems with social tolerance can be addressed with educational programs and it is not acceptable to use unnecessary lethal control instead.**

We agree. Education is an important component of maintaining support for wolf populations and is discussed in Section 3.2.2.1. WDNR and WS have produced publications to educate farmers and dog hunters, as well as numerous news releases, and other reports with information on living with wolves. However, education alone is not sufficient to prevent the development of negative public attitudes among

stakeholders, especially livestock producers experiencing actual depredation problems. Maintenance of public support demands effective resolution of these problems, at whatever frequency they occur.

Education and public outreach activities by the WDNR and WS include a pamphlet for farmers, “Wolves and Farm Country”, <http://dnr.wi.gov/org/land/er/mammals/wolf/wolvesinfarms.htm>, a pamphlet for hunters who hunt with dogs <http://dnr.wi.gov/org/land/er/mammals/wolf/wolfhoundog.htm>, and periodic new releases, and presentations to farmers and hunters by WDNR & WS.

**33. A population of 350 wolves may be at or below ½ biological carrying capacity may be difficult to manage for and put the population in jeopardy. Damage control should not be used for population control.**

See Issue 10 – purpose of WDM is to address specific damage problems not to reduce state wolf population. Damage management actions are not expected to reduce state wolf population based on analysis in Chapter 4. Difficulties inherent in attempting to reduce population to 350 wolves are outside scope of analysis.

**34. The argument that depredation management benefits the wolf population by improving social tolerance is misapplied in this instance. For the argument to be valid, the wolf population needs to be managed at the level of social tolerance, not below it. There is little evidence to suggest that most people in the state are not “tolerating” the current population level. Increasing social tolerance to higher level would have no meaning if the state takes steps in the future to reduce the wolf population to its currently state goal.**

The benefits of improved social tolerance are not just measured in terms of an increase in cultural carrying capacity. Improved social tolerance also impacts the fate of individual wolves and risks to the environment from inappropriate wolf removal efforts. Considerable information from prominent social theory and research shows that tolerance toward a wildlife species is influenced by the value of losses attributable to that species, the benefits attributable to the species by the affected individual, and by the perception of the risk of losses as controlled or voluntary (Slovic 1987). Risks considered involuntary by an individual are less likely to be viewed as acceptable whereas risks that can be controlled are generally considered to be more acceptable. In this context, the availability of prompt and effective WDM has value. Improving social tolerance can result in an increase in the number of animals that can be supported without provoking increases in inappropriate behavior towards wolves (e.g. poaching). Social tolerance is a relevant issue for wolf population management at any level at which wolf damage and conflicts occur. The Wisconsin wolf population exceeded the management objective of 350 wolves between the 2003 and 2004 late winter wolf population surveys.

In recent years we have evidence that tolerance toward wolves is declining in Wisconsin. In the 1990s illegal kill declined to about 20% of overall mortality among radio collared wolves, but it has begun to rise in recent years. During the regular 9-day gun deer season of 2006, nine wolves, including five radio collared wolves were killed illegally. In recent years radio collared wolves represent about 10-15% of the overall population, thus it can be assumed total kill was much higher. In 2006, 67% of radio collared wolves found dead were due to illegal kills. Illegal kills were increasing despite continued federal listing during this period. We feel providing more responsive controls on problem wolves will reduce these illegal kills which occur throughout wolf range, including areas of highly suitable wolf habitat.

**35. Commenter does not support lack of distance limits for WDM in Wolf Management Zone 4. Definition suggests this zone is an eradication area and would seem to preclude tolerance of wolves**

**that are not causing problems. It may also prevent a dispersing individual from returning to suitable habitat.**

The purpose of the EA is to determine WS' role in wolf damage management in Wisconsin. WS will only conduct lethal wolf removal in response to specific instances of wolf depredation on domestic animals and/or a risk to human safety from wolves. WS will not remove wolves that are not associated with damage problems such as transient individuals passing through an area. However, within Zone 4, few wolves are likely to occur, thus when a depredation occurs it generally can be assumed any wolves occurring near the depredation were likely involved.

**36. Concerned that level of tribal consultation in establishment of Proactive Control Areas will be inadequate.**

At the request of the tribe, the WDNR and WS will consult with any tribe that has a formal reservation within six miles of a proposed Proactive Control Area, and will consult with GLIFWC on the designation of Proactive Control Areas within the Ceded Territories.

**37. Use of Proactive control shifts management from wolves to geographic areas. This could have negative impacts on non-depredating and lone dispersing wolves, especially where Proactive Control Areas are adjacent to one another and may serve to restrict corridor connections between areas of suitable habitat.**

Proactive Control Areas will be established using best available information on the current activities of specific packs involved in depredations. Certain landscapes do have high probability at having depredations on livestock when wolves settle into these areas (Treves et al. 2004). As such, Proactive Control Areas are expected to be highly specific to depredating packs. See Issues 2 and 25 for discussion of impacts on nontarget wolves. We do acknowledge that there may be some risks to lone dispersing wolves that may be moving through a pack's territory, but unless dispersers settle into these landscapes, they will not likely be captured and euthanized. Wolves that settle into these landscapes are likely to become depredators in the future. Over the period of 2003-2006, 12 packs were involved in depredating domestic animals in multiple years. There were 138 wolf packs in the spring 2007 wolf count. Using an annual average of three packs per year involved in multi-year chronic depredations, only 2% of the state wolf packs would be in Proactive Control Areas. At this level, risks to dispersing wolves are likely to be very low, as are risks of restricting corridor connections between areas of suitable habitat. Proactive Control Areas are most likely to be established in marginal areas at the edge of wolf range. Wolves passing beyond these areas may be lost to the wolf population, and captures in control actions will likely be a minor factor compared to the many other mortality factors affecting these wolves. Transient wolves have higher natural and human mortality than wolves established in packs in the core wolf range. Capture of transient wolves in Proactive Control Areas will represent a minor component of all mortalities for these populations.

## APPENDIX B

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