

In March of 2013, the Department of Natural Resources (DNR) held 4 public meetings across the state to provide information on the potential public harvest of wolves in Michigan and to gather input on the issue. At those meetings, attendees were able to submit written questions that were answered at the meeting. The DNR committed to providing a summary of the questions and answers on the website.

Below is a list of the questions and a summary of the answers provided at the meetings. The questions are placed into broad categories to try to organize them. If similar questions were asked at multiple meetings they were combined. The letter preceding each question indicates the location of the meeting(s) at which the question was asked. Meetings were conducted in Ironwood (I), Marquette (M), Gaylord (G), and Lansing (L).

Hunting and Trapping Specifics

- (I) How much would a license cost?
 - \$100 for residents, \$500 for nonresidents. If a lottery is used, there would also be a \$4.00 application fee.
- (I, M, L) Would trapping be allowed?
 - At the time of the meetings, the DNR was unsure if trapping would be included as an option. Trapping is included in the recommendation up for consideration. Private land only (not including CFA), foothold traps only.
- (G) (L) (I) (M) How many wolves would be taken (or tags issued)?
 - The hunt is designed to help resolve conflicts, not to reduce the population to some predetermined level. In the recommendation, we outline our target harvests for 3 units. A total of 43 wolves for all 3 units combined. There are two options in the recommendation for license allocation, one would use a lottery draw for 1,200 licenses, the other would allow licenses to be sold over the counter. In both options, the DNR would use a call-in system to close the season when the target harvest has been reached to avoid harvest levels significantly above the target.
- (I) Hunts have already occurred in WI, MN. Why are we dragging our feet? Why delay?
 - We're not dragging our feet, Minnesota and Wisconsin were quicker, but people weren't happy with that process. Also, the Legislature in both states had designated wolves as a game species earlier, either giving the authority to the Department of Natural Resources or establishing the conditions of a hunt. That did not occur in Michigan until 2012 PA 520 was signed into law on December 28, 2012. At that time, the Natural Resources Commission (NRC) had authority to consider the public harvest of wolves. In January, a process was outlined to be able to evaluate and consider the potential for harvest by the fall of 2013. That process includes public meetings, meeting with tribes, evaluating data, NRC meetings and sound scientific management.
- (I) Straight answer- how likely is it we'll have a hunt?
 - It is difficult to know for sure due to the many factors that could play a role in such a decision. The Natural Resources Commission has a recommendation before them for consideration that, if approved (in May) would establish a limited season for 2013. The NRC has the sole authority to make this determination and is weighing many factors in their consideration. However, there is also an active referendum that is attempting to put the issue on hold until November 2014 to allow voters to weigh in on the issue of wolves as a game species. In addition, a pending lawsuit over the federal delisting process could also affect whether wolves are hunted in Michigan.
- (I) If we boycott buying hunting licenses will you still control wolf populations?
 - If license sales declined significantly, the DNR would have to cut back all operations.

- (M) How does one go about being a guide in an overpopulated area?
 - Guiding for the take of wolves is currently not allowed since there is no season for the take of wolves. Guiding for the take of wolves, should a season be adopted, would follow the same regulations as guiding for other species.
- (M) How will you ensure a harvest does not exceed the target harvest?
 - The Department's recommendation includes the use of a call-in system, similar to what was used in Minnesota and Wisconsin, to be able to keep track of harvest on a daily basis. If the target harvest is reached, or anticipated to be reached, the season would be shut down. There are two options in the recommendation. One would also set a license quota and restrict the number of licenses that could go to non-residents. The other option allows the sale of licenses over the counter. Both have the call-in system to allow the Department to close a unit when the target harvest has been reached.
- (M) How will you prevent hunting from spreading to the whole UP based on hunter demand?
 - Hunter demand would only apply to recreational hunt, which the DNR is not recommending at this time. The objectives for the current recommendation are only to help resolve conflict in specific areas. The recommendation includes specific zones that would be open for the take of wolves. Harvest outside of these zones would be illegal.
- (M) Does sport hunting reduce illegal kills? Compared to other states?
 - In some cases it is possible that regulated harvest may reduce illegal killing of wolves. It is impossible to know exactly how a wolf season may impact illegal kills in Michigan at this time. The objectives and strategies used in other states are different than what has been recommended for Michigan. It is difficult to make a direct comparison.
- (M) Would a wolf hunt be counterproductive to the Pure Michigan campaign?
 - No. The DNR is committed to maintaining a viable wolf population. Pure Michigan promotes the positive aspects of the state and reaches out to promote tourism. The Pure Michigan campaign could be used to support eco-tourism related to wolves. Public harvest of wolves to help resolve conflicts is not inconsistent with the Pure Michigan message.
- (M) What about orphan pups?
 - A public harvest season recommendation would not occur at a time when there are pups or young animals that are dependent on adults for survival.
- (M) How many convictions of illegal take? What's the penalty? And has illegal take gone down since delisting?
 - Estimates of annual losses to illegal killing are quite variable from year to year. It is too early to determine if illegal take has gone down after delisting.
- (M) Would issuing more permits be less expensive than hunting?
 - It is difficult to compare the overall costs of using permits as opposed to a regulated harvest season. Permits would continue to be used to help resolve conflict issues. However, permits are also not always an effective way to resolve conflicts. Both are tools that can be used to help achieve wolf management objectives.
- (M) What is the hunting management plan regarding collared wolves?
 - Wolves with collars would not be protected and hunters would be able to harvest collared wolves. Hunters would have to return radio collars to the DNR.
- (G) What factors determine whether to include trapping?
 - The DNR weighed many positives and negatives when looking at whether or not to recommend to the NRC to use trapping as a tool to help in the management of wolves. Trapping has been shown to be an

efficient and effective tool in both Minnesota and Wisconsin. Foothold traps only are recommended for use on private lands. Lethal traps are NOT recommended as a legal device.

- (G) (M) Is hound hunting of wolves being considered?
 - The DNR has not recommended the use of hounds for hunting of wolves. The use of hounds for wolf hunting is not a necessary tool for wolf management and is likely to create much controversy. This issue is highly controversial in Wisconsin.
- (G) How will you assure that a specific number of wolves would be harvested?
 - The DNR recommends a call-in system that would allow a unit to be closed once the target harvest for that unit has been reached or is likely to be reached very soon. Hunters who have taken wolves would be required to call in to report a harvest and also to verify that a unit is open before hunting. License quotas may or may not be used.
- (G) What would you use a wolf for?
 - Pelts could be kept or sold.
- (G) Would a hunting season be a trial hunt to be evaluated later?
 - The DNR utilizes adaptive management to continuously evaluate whether the tools used are accomplishing objectives. If a tool is not functioning in the way desired, regulations would be modified to try to ensure that those objectives are reached.
- (G) (L) Would you consider a lottery system like there is with elk and deer?
 - This is an option that is included in the current recommendation under consideration by the NRC.
- (G) Reason for a hunt...?
 - Hunting and trapping of wolves is an additional tool that could aid in resolving conflicts when other lethal and non-lethal techniques do not work or are not logistically feasible.
- (L) Would non-residents hunt wolves?
 - Statute (2012 PA 520) outlines fees for both Michigan residents (\$100) and non-residents (\$500). The DNR recommendation includes non-resident licenses. There are two options under consideration. One option would limit the number of licenses that could go to non-residents, the other does not.
- (L) How is wolf trapping considered humane? Can you discuss what traps would be used, how the animal dies, how long it takes to die, how often traps would be checked, and how you can justify causing an animal to experience so much stress?
 - Trapping is an effective, humane tool when used according to law. The DNR recommendation would restrict trapping to the use of specific size foothold traps (traps designed to hold an animal alive by the foot) on private lands only. Traps would be required to be checked once every 24 hours. Lethal traps are not recommended as legal devices for the take of wolves. The DNR supports and encourages trappers to use Best Management Practices that outline methods that promote effective traps that also hold animals with minimal injury or stress.
- (L) How will you determine who can and how many tags will be issued?
 - The DNR recommendation includes two license options. One would create a random draw lottery for 1,200 licenses. The second would allow licenses to be sold over the counter with no quota. In both cases a call-in system would be used to allow the DNR to close a unit when the target harvest of wolves has been reached or is expected to be reached. The call-in system makes the number of licenses less significant because it creates a control on the number of wolves that can be taken in a season. Target harvests were determined for each of the 3 units and were designed to reduce local wolf numbers but not affect the overall trend in the UP wolf population.

- (L) Are there bounties on wolves?
 - No and the DNR has no plans to create a bounty on wolves or other species.
- (L) Will a hunt be in the east or west UP and why?
 - The recommendation under consideration by the NRC has 3 units. Two are in the West UP and one is in the East UP. Units are based on areas which have had a history of unresolved conflicts. Please see the recommendation for more details.
- (L) Will you allow the killing of pups in dens?
 - No, the proposed season is structured, in part, to prevent taking of young pups and to avoid breeding season.
- (L) Can a landowner refuse hunting of wolves?
 - Yes.
- (L) Will you make farmers or hunters prove the take?
 - The proposed season would require that someone that has taken a wolf call in and report the take by the end of the day in which it was taken. The animal would then have to be taken to a DNR registration station and registered within 72 hours of take.
- (I) Why should hunting and trapping be a last resort wolf control method?
 - The DNR recommendation follows the 2008 Wolf Management Plan. The Plan was developed using guiding principles developed by a diverse group of stakeholders (the Wolf Roundtable). The Plan recommends the use of non-lethal and targeted lethal measures but supports the use of public harvest in some situations. Conditions exist in the UP that warrant the use of public harvest to help reduce conflicts. This tool was considered as soon as it was a tool available to the DNR and NRC. The legislature must add species to the game species list before the use of public harvest can be considered. This occurred on December 28, 2012.
- (L) Do you expect that public hunting pressure will help resolve situations where wolves have lost fear of humans, regardless of a successful take?
 - It is possible. One outcome to the use of public hunting and trapping is that it may function to change wolf behavior and cause them to avoid humans. Re-establishing those types of behaviors in packs with territories near urban areas or farms may reduce conflicts even if the number of wolves taken is relatively low.

Re-Listing of Wolves

- (L) How does the “ballot initiative” work?
 - Michigan allows the public to challenge some legislation (laws without an appropriation) through a referendum. A Petition must be filed and a specific number of signatures collected in a certain amount of time. If that occurs, the issue is brought before the public in the next general election (in this case November of 2014). The legislation described in the petition is put “on hold” until the vote. If the public supports the referendum, the legislation (in this case making wolves a game species) would be repealed. In 1996, the public supported the management of wildlife resources using the best available science and supported allowing the NRC, a 7 member Commission appointed by the Governor, to determine how wildlife is managed. The DNR and NRC are moving forward with consideration of the take of wolves while the referendum is under review.

- (G) What is the HSUS trying to achieve with the petition?
 - The petition would remove the wolf from the game species list and thus make consideration of the public harvest of wolves impossible.

- (I) What about a county-wide vote to remove animals totally? What is target number to reduce by?
 - The NRC has the sole authority for determining if and how wolves will be taken through the use of hunting and trapping. The current recommendation under consideration by the NRC uses conflict reduction as the objective. We do not manage wolves based on a specific population goal but rather to maintain a viable population and to resolve or manage wolf-related conflicts. The DNR’s recommendation would remove 43 wolves total from three different areas. These areas have had a history of conflicts and continue to have conflict issues despite the use of other tools.

Population Numbers

- (M) What percentage of wolves are found shot?
 - 42% of the mortality of our radio-collared wolves from 1999-2012 was attributed to illegal take. The average mortality rate (including all sources) for collared wolves from 1999-2005 was about 28%.
- (M) How low would a non-viable population be?
 - The Department considers a population below 200 animals in the UP to be at risk (potentially non-viable). The intent is to ensure populations are not at risk of reaching this level.
- (M) Does the DNR have county-level wolf numbers?
 - Wolves are monitored with a UP wide population estimate. We do use smaller survey units when conducting our population survey but we rotate which units we count each time we conduct the survey. It is difficult to apply this information to counties with any accuracy. Wolf territories do not follow county boundaries and survey units in one county may fall on different years.
- (M) If a hunt doesn't reach the goal, will there be another plan?
 - The objective for the public harvest of wolves is conflict resolution rather than achieving a specific population goal. If conflict resolution objectives are not met, changes to the season structure would probably be recommended.
- (M) Mortality rate of wolves?
 - The average annual mortality rate, estimated from radio-collared wolves from 1999-2005 was 28%. Average life span is 5 years.
- (L) What is the targeted population number in the UP?
 - The DNR does not have a specific wolf population goal. The stated objectives are to maintain a viable population while managing wolf-related conflicts. The current harvest recommendation could only affect local wolf densities in 3 areas but would not impact the population trend for the UP wide population.
- (L) Would pack size affect the moose population?
 - No, wolves rarely take moose in the UP. Wolf territories and moose range do not overlap in most cases due to the high snowfall levels and low deer numbers found in moose range. Climate change is more of an issue for moose.
- (L) Are the numbers growing stable or declining?
 - Our most recent estimate (2013) is 658. This point estimate is down slightly from the 2011 estimate of 687, however the confidence limits of these two estimates overlap indicating that we cannot say with confidence that the population has changed. Surveys are run every other year. Although there was a slight drop in the last two years, the long-term wolf population trend is still increasing but the growth rate is declining.
- (L) Now that we're at the log growth phase, isn't it counterintuitive to have a hunt now?
 - No. The management strategy for wolves is different from classic population management. Management of wolves at this time is focused on resolving wolf-related conflicts at a local scale, not managing the UP wolf population as a whole. The DNR does, however remain committed to maintaining a viable population.
- (G) (L) (I) How many packs are in Gogebic County?
 - Although the DNR does not monitor wolf packs or populations at the county level, if we look across multiple survey years and survey units our best estimate is that there are approximately 24 packs with territories in Gogebic County. The average pack size in the UP is 5 wolves.

- (I) What is the biological carrying capacity?
 - Biological carrying capacity is often difficult to quantify. For wolves an analysis of pack territories and prey availability is necessary. Several studies have estimated that biological carrying capacity for wolves may be somewhere between 600-1350 wolves in the UP, 50-70 wolves in the NLP. Wildlife populations are seldom managed at biological carrying capacity but rather some lower level determined by social carrying capacity (the number of animals people will tolerate) or other management objectives.
- (I) Why are there differences between summer and winter wolf numbers?
 - Wolf populations, like all other wildlife populations, have an annual population fluctuation. Populations are highest in the spring just after pups are born. As animals die from disease, predation, human caused mortality, injury, etc, the population declines. Populations are lowest in late winter/early spring just before pups are born.
- (I) What about conflict with wolves and deer?
 - Predator-prey relationships are a very complex system. It is difficult to determine the causes of declines in prey (deer) populations. Severe winters can significantly impact deer survival in the UP. Michigan is about midway through a long-term research project to examine the interactions between deer, weather, and predators (wolves, bears, coyotes, bobcats) in the UP. It is expected that this research project will help inform the DNR on this system and will aid in future management discussions about these species. For more information on the Predator/Prey Project visit: <http://fwrc.msstate.edu/carnivore/predatorprey/>
- (M) Do wolves manage deer and limit coyote numbers?
 - Multiple species of predators will limit prey more than a single predator species. Please see the answer above for more information on Michigan's Predator-Prey Project. Environmental conditions also affect prey species. Coyotes populations can be affected (lowered) by wolves but coyotes find ways to adapt to the presence of wolves.
- (I) Are UP wolves cross-breeding with coyotes?
 - No.
- (M) What implications would a wolf hunt have on deer herds and forest health?
 - The proposed wolf harvest would have very little effect on wolf or deer numbers thus no change in understory vegetation, browsing, etc. would be expected as a result of the recommendation made by the Department.
- (M) Could the wolf population suffer from a severe winter or disease?
 - It is possible. The DNR monitors winter conditions, tracks disease in wolves (through direct examination of carcasses, monitoring of wolves found dead or otherwise killed, or by reports from the public), and conducts a population survey every other winter. This monitoring activity allows the Department to track wolf population and disease trends to be able to adapt management actions to maintain wolf populations.
- (L)How does the DNR monitor diseases in the wolf population?
 - The Department examines road killed wolves, illegally and legally killed wolves, and wolves captured for research to look for disease (e.g., parvovirus, rabies, mange, etc) The DNR will continue to monitor and adjust management should disease issues arise.
- (L) Is it true that wolves kill for the fun of it and won't eat all the deer?

- No. Wolves are basically in a controlled state of starvation throughout their lives. If the opportunity arises, they will kill more than one deer, eat what they can and will come back to eat the rest. But often they lose some to ravens and other scavengers.
- (G) Given territory size, how would you characterize the wolf population?
 - At a landscape level, they are not very numerous. But in certain counties (e.g., Gogebic County), wolf densities are high. Researchers have estimated biological carrying capacity at 600-1350 wolves in the UP. Social carrying capacity is another important consideration and measures how many wolves people will tolerate. Annual growth rate has slowed and territories have decreased in the Western Upper Peninsula and could be reaching the place where social and biological carry capacities meet.
- (G) How long will it take for the wolf population to get to a harmful level?
 - "A harmful level" is a subjective idea and depends on your perspective and how you define harm. The current management focus is on managing conflicts while maintaining a viable population not on maintaining wolves at a specific population level.
- (G) How many wolves are in the east UP?
 - Our survey methods are not that specific but generate an estimate for the entire UP. The current UP-wide estimate is 658 wolves. There are far fewer wolves in the east UP compared to the west.

Management Plan and Education

- (M) How much does public input matter?
 - Biology tells us a range of appropriate decisions. Public input is used to help narrow the range of acceptable options for management decisions. Incorporating public input also provides the best chance for support of a management recommendation or direction. Michigan's Wolf Management Plan was developed with a significant amount of public input. The DNR is committed to utilizing public input in developing management recommendations.
- (M) Where does the plan talk about lethal and non-lethal control in relation to public harvest?
 - Section 6.12.1 page 63
- (M) Does the plan require action requirements based on effectiveness?
 - If a wolf season is implemented, the DNR will evaluate effectiveness after the season to see if goals are met. Season structure, target harvests or other changes may be made if the objectives of the season are not met. The Plan supports adaptive management- adjusting management actions if goals and objectives are not met.
- (M) Hard copies of wolf management plan?
 - The Wolf Management Plan may be found here:
http://www.michigan.gov/documents/dnr/Draft_Wolf_Management_Plan_030708_227742_7.pdf
- (I) Why has the DNR done so little to promote positive aspects of wolves?
 - The Department does work to promote the positive aspects of wolves through school programs, presentations, partnering with other organizations, promotion of Wolf Awareness Week, etc. The Department is working to try to increase these efforts.
- (G) Why wasn't there a public meeting in southeast Michigan?
 - We tried to balance several considerations such as driving distance, staff time, and other meeting conflicts. The southernmost wolf meeting was in Lansing because about 80% of Michigan's population is within 2 hours of Lansing.
- (L) Rather than catering to hysteria, why not focus on education?
 - Education is a priority that is outlined in the Wolf Management Plan. The Department's recommendation on a wolf season is not based on unfounded hysteria, but is related to conflict resolution (e.g., depredation, human safety) as outlined in the Wolf Management Plan.
- (L) Is the Wolf Management Plan out-of-date?
 - The Wolf Management Plan is still relevant and, although approved in 2008, was forward thinking and addressed wolf management topics such as management tools after federal delisting and the topic of the public harvest of wolves in anticipation of those issues becoming significant as they have in the past few years. The Plan has a recommended 5-year revision timeline. The Department will begin looking at possible Plan revisions in the near future.

Monies

- (L) How frequently does Wildlife Services need to take a nuisance wolf?
 - Rarely, although in the last three years, USDA Wildlife Services has been authorized by the Department to take wolves in Ironwood for human safety reasons.

- (M) (I) (L) (G) How much money gets spent on wolf management each year?
 - The Department estimates that \$260,000 was spent on wolf management and research in fiscal year 2012. About half of that expenditure was on research and the other half to the wolf survey and depredation work.

- (M) How much money is spent each year to kill wolves?
 - It is difficult to answer this question since the Department does not track wolf expenditures on this basis. However, all authorized take of wolves for conflict resolution is done by USDA Wildlife Service. Wildlife Services currently has one person on staff to conduct wolf related activities including wolf monitoring, nonlethal control measures and targeted lethal control. This year, the Department of Natural Resources contributed \$30,000 to help cover the cost of this position.

- (I) How much revenue has been lost in deer hunting license sales since it's maximum in the late 90's, early 2000's? How much of this loss has been recovered due to wolf eco-tourism?
 - The Department does not have estimates of revenue generated by wolf eco-tourism. This question also implies that deer license sales are tied directly to wolf numbers which is not something that has been shown to be true.

- (I) Is USFWS still involved? If so, how much?
 - The US Fish and Wildlife Service is required to monitor wolves for 5 years after delisting. They are relying on the DNR population survey (conducted every other winter) for monitoring. The Department and USFWS maintain a working relationship on wolves.

Regulations and NRC and Re-listing

- (L) Why did the DNR speed up the review to the NRC?
 - At the March NRC meeting, the NRC requested the timeline be moved up 2 months since all public meetings would have been conducted and other information pertinent to their decision would be gathered by April and available by the time the NRC could make a decision in May.

- (L) The DNR seems to be doing a good job. Do you really need hunters to help wolf management?
 - Yes, we think using the public for a targeted harvest could be an effective component of wolf management.

- (L) How confident are you that the NRC will follow your recommendations?
 - The NRC has the exclusive authority to set harvest regulations for game species. The Department carefully develops a recommendation for the NRC to consider but the NRC may elect to accept, modify or reject the recommendation.

- (M) Might enacting a hunt invite lawsuits?
 - There are very strong opinions related to wolves and the potential for a public harvest of wolves. The Department can't prevent lawsuits however the Department recommendation attempts to incorporate as many views as possible to try to have a proposal that will address our management needs and reduce the likelihood for a lawsuit.

- (M) Why is the DNR moving so quickly toward a hunt when there are so few wolves?
 - The Department is using a deliberative process to examine the Wolf Management Plan and the conditions that exist now in the UP. The use of public harvest was not an option until the end of 2012. Now that it is an option, and is supported as a management tool in the Plan, it makes sense to determine if it is appropriate to implement harvest now. Michigan's wolf population has exceeded 200 animals (level necessary for population viability) since 2000. Public harvest is not meant to be a population management tool but a tool to help resolve persistent conflicts in localized areas. The proposed level of harvest will not affect the overall wolf population trend.

- (L) Would the DNR even be considering a wolf hunt if politicians had not passed legislation labeling them as a game species?
 - The Department could not consider a wolf hunt or any form of regulated harvest by the public unless the Legislature designated wolves as a game species. Until that occurs, a species cannot be taken by hunting or trapping. When the Legislature designated wolves as a game species, it allowed the Department to review the Wolf Management Plan to determine if the public harvest of wolves was supported by the Plan and that conditions are such that the use of that management tool are warranted.

Pack Dynamics

- (I) Could killing of pack members (breeding pair) increase depredation?
 - Currently, there is no empirical data that could be used to evaluate that potential, but the impacts of a harvest season, should one be approved, would be monitored.

- (M) Impacts of hunting on pack behavior?
 - The Department currently can't predict the impact of harvest on individual pack social dynamics. Loss of a breeding animal in a pack may not impact pup survival or reproduction in the following year. Loss of both breeders would likely affect reproduction in that pack the following year. There is currently little data or research that provides information on pack dynamics in a population (or segment of the population) with a harvest such as that being recommended by the Department. The impacts are not likely to be severe considering the scope of the recommendation. Even on a larger scale, removal of wolves from packs is unlikely to cause a dramatic shift in pack dynamics beyond that to which wolves are adapted to handle. Wolf populations without harvest see a considerable amount of mortality.

- (M) Pack dispersal from west to east?
 - Wolves are a very mobile species. Movement occurs across the UP. There is a regular exchange of wolves across state lines as well as wolves coming from Ontario. Currently, all of the suitable wolf habitat in the UP is occupied.

- (G) (M) Is there a map of the wolf pack territories?
 - No, there is not a single map of pack territories. The sample of collared wolves changes from year to year.

- (I) (L) If an alpha male or female is taken, what are the expectations for the pack?
 - Wolves do not mate for life so another pack member could replace the lost individual because the hunt would occur before the mating season. There is some research from Canada and Alaska suggesting hunting may affect reproduction, but that is a very different environment and perhaps not applicable to Michigan.

Depredations / Complaints

- (I) Nuisance permit... boundaries are difficult to define, and what if these nuisance wolves have a range that goes into WI?
 - Wolf nuisance permits are based on the farm on which depredation is occurring or has occurred. The boundaries for these permits are the landownership of the farm with problems. It is possible that a wolf pack's territory goes outside these boundaries (or even into Wisconsin). The entire territory is not opened to the take of wolves under a control permit.
- (I) Is there an issue with canine diseases if overpopulated?
 - The Department monitors wolves to track disease prevalence and to monitor for potential impacts of diseases on the wolf population. As with most wildlife diseases, diseases can be more severe in high density situations. High densities of this type are unlikely with wolves although interactions between individuals can facilitate the spread of some diseases.
- (L) How many permits were issued in 2012 for kill methods?
 - The Department issues permits to remove wolves from farms with a history of wolf depredation. This is a tool to try to decrease depredations before they occur and is recommended in the Wolf Management Plan. In 2012, 15 farms were issued permits. Eleven wolves were taken on these permits.
- (I) If we're killing to prevent livestock depredation, won't other wolves just move in and also get killed?
 - Wolves will likely move into areas of good habitat if those areas are not occupied by other wolves. However, not all wolves depredate. The presence of wolves near farms does not necessarily mean there will be livestock depredation. The Department has recommended opening areas with a history of conflicts despite using multiple tools to try to reduce those conflicts. In the future, there may be areas which are open for a period of time and then closed.
- How many farms in the UP have experienced depredation?
 - Seventy two farms (or 8%) have had depredation since 1998 which is a relatively small proportion of farms in the UP. The Department's recommendation is based on conflict resolution in areas with persistent conflict issues despite control measures. Proposed units are intended to be focused around the packs known to be causing conflicts to try to remove those animals which are responsible for depredation or other conflict behavior.
- (M) Only two farms have a problem that wasn't solved with current lethal and non-lethal control?
 - There are 8 or more farms with depredation issues that have not been solved with current lethal and non-lethal techniques. No single technique is effective. Although some farms have seen depredation issues end, others have not, despite the use of the same types of tools. These areas of persistent problems are the areas being proposed for public harvest.
- (M) Why were more permits issued before a hunt is allowed?
 - The Department uses guidelines for which farms qualify (proven depredation). Some farms may not qualify or may not be interested in using permits. It is also difficult and time consuming to kill a wolf on a specific farm. On some farms it has taken nearly a year to kill a single wolf other permitted farms never killed a wolf with the permit. Targeted permits will remain a tool that can be used to help resolve depredation issues. The use of public harvest would just be an additional tool to help resolve these issues and may be a tool that is more feasible and effective.
- (M) How far does a wolf attack on a dog go when you can shoot the wolf?
 - Wolves that are in the act of attacking a dog may be shot as provided by 2008 [PA 318](#). Take of wolves must be reported to the DNR.

- (G) Do bells or beepers on hounds prevent depredations?
 - A verified attack on bird dogs has not been confirmed to date. Of the 72 dogs killed or injured by wolves, 63% of dog depredations have been bear or rabbit hounds. In recent years, there has been an increase in depredations on rabbit hounds. Depredations occur by chance encounters, are not predatory but territorial, and seem to be random. Bells and beepers may help, but proximity of dog to hunter is the most important factor in preventing depredations.
- (G) How is livestock depredation reimbursement handled?
 - The Department of Natural Resources (DNR) and Department of Agriculture and Rural Development (MDARD) are both involved in depredation reimbursement. The DNR investigates claims of depredations, if the DNR determines that a wolf was responsible for the depredation, the state will reimburse the owner. MDARD determine the amount to be reimbursed and pay the producer for the loss.
- (L) How are compensation prices determined?
 - Reimbursements are determined by MDARD and are based on fair market value at the time the farmer intended to sell it.
- (L) Have you conducted studies on livestock depredation and effective control measures?
 - The Department has conducted no studies per se, but have utilized diverse methods (e.g., donkeys, radios in barns, flagging, flashing lights, sirens, cracker shells, propane cannons, rubber buckshot, recommended changes to animal husbandry practices, etc)) and evaluated their effectiveness. There is no single preventative measure for every farm, including lethal control. A harvest would be one more tool to minimize negative impacts of wolves.
- (L) How many of the farms with 2012 depredation permits still had depredations?
 - About half. It is difficult for famers to spend time looking for wolves.
- (L) Why would a hunting season be at a time of year different than the time most depredation occurs?
 - The objective of the recommended hunt is to reduce wolf-related conflicts. Harvest can occur at a different time of year and still affect the behavior of individual wolves or packs and reduce conflicts hopefully before they occur. Conflicts may also be reduced if the animals causing the problems are removed regardless of when they are removed. Proposed unit boundaries were drawn to include entire pack territories of the packs known to cause problems and exclude packs which have not caused problems. Season timing also fits with the natural history of wolves, avoiding breeding season and the time period when there are dependent pups present.
- (I) How is it determined that chronic conflicts with depredation and/or dog conflicts are in fact wolf conflicts and not coyote conflicts?
 - Depredations are investigated by trained staff that are able to determine the cause of the depredation.
- (I) Who reports/investigates to determine it is in fact a wolf conflict and not a dog or coyote conflict?
 - Trained Department staff or trained USDA Wildlife Service staff.
- (I) Are conflicts identified by public complaint?
 - That is one way that conflicts may be identified. Reports of depredations, human safety concerns, dog depredations, etc. A public complaint may not always be considered a conflict.
- (I) How do you define a wolf problem? Is the destruction of our deer herd a wolf problem?
 - Wolf-related conflicts may mean many things to different people. The Wolf Management Plan offers a number of different types of issues that may be considered a conflict such as depredations of livestock and pets, human safety concerns, and other issues. If wolves are found to be the cause of a decline in deer numbers in a way that conflicts with other Departmental/social objective, it would be considered a

wolf-related conflict. In that case, the situation could be evaluated to determine if public harvest was a tool that may help to resolve the issue. Currently, the Department is conducting a research project to help understand the dynamics between deer, weather and predators (wolves, coyotes, bears, bobcats) to help inform future discussions about deer populations and deer management. For more information about this project please click here: <http://fwrc.msstate.edu/carnivore/predatorprey/>

- (I) Why do wolves have to be a “problem” in order to hunt them? We have hunted many animals that are not problems.
 - That is true. Harvest regulations are set based on certain objectives. For many species that are hunted in Michigan, the primary objective is to provide recreational opportunities and allow the take of animals for their meat or pelts. Harvest for these reasons is implemented if the populations can sustain harvest. In the case of wolves, the primary objective is the reduction of wolf-related conflicts. This objective was established in the Wolf Management Plan after a 3 year process of evaluating the biology of wolves and the social perspectives and realities in Michigan. The Department’s recommendation on the public harvest of wolves is consistent with the Plan, which reflects a common ground approach that was broadly supported by a wide range of diverse views on wolves and wolf management.

Research

- (I) Would it be prudent to wait until lethal control impacts are known?
 - While the specific tool of issuing permits to farms with a history of damage before new depredation occurs has only been in place for a year, the Department has a considerable amount of information on how targeted lethal control has been working in Michigan. In some areas and situations it has been effective while in others it has not. The Department's recommendation proposes opening areas to public harvest in areas where targeted lethal and non-lethal methods have not been effectively resolving the issues.
- (I) Can you describe the wolf population survey methodology?
 - Wolves are counted during a winter track survey; these counts are supplemented with aerial counts of some packs that have a radio collared member. The UP is divided into 21 survey units and the survey uses a stratified random sample of these units. Our current sampling design has been evaluated by a Michigan Technological University study. Survey unit counts are then used to generate a minimum winter estimate of the overall UP population size.
- (I) Has DNR consulted with other states with wolves?
 - The Department regularly works with Minnesota and Wisconsin and shares data for collaborative partnerships with other states particularly when considering harvest.
- (M) How many wolves collared?
 - About 40.
- (M) Will you talk to other wolf experts and if so who?
 - Yes. Throughout the Department's review of the issue of public harvest of wolves there have been discussions with experts from other states and well as experts within the state. Michigan is active in the Wolf Stewards meeting which is a gathering of both agency and university professionals that deal with wolves. This year, the Wolf Stewards meeting is being hosted by Michigan. The NRC has also requested having experts come in at both the April and May NRC meetings to provide testimony to help inform the NRC's decision on the public harvest of wolves.
- (G) Has the DNR reviewed methods that other states have used for wolf population control?
 - Yes. The three upper Great Lakes states discuss common management challenges. Minnesota and Wisconsin contract most wolf conflict actions to USDA Wildlife Services. Michigan uses Wildlife Services for some actions (targeted lethal control, and assistance with monitoring, depredation, etc) but also uses Department staff. Michigan uses similar techniques to those used by other states to resolve wolf conflicts.
- (L) How are wolves radio collared?
 - Wolves are trapped by Department staff or USDA Wildlife Services using foot-hold traps to ensure the safety of the wolf. Traps are checked frequently. Occasionally a coyote trapper may accidentally catch a wolf and may contact the Department. If the wolf is in an area where a collared animal is needed, the Department may collar the wolf before it is released.
- (L) How comfortable are you of your wolf survey?
 - The Department is confident in our survey methodology and the results produced.
- (L) In the 21st century, with our astonishing technological advancements , why is your "wildlife management" Neanderthal?
 - This question seems to be asking if there is a need to allow the hunting and trapping of wolves. The Department has examined and implemented many types of control measures aimed at reducing conflicts

in non-lethal or targeted lethal ways. These tools will continue to be implemented however they are not adequate on their own to manage wolves in a way that is biologically and socially responsible. Harvest of wolves and other wildlife species for specific objectives or uses is an appropriate management technique and use of a resource.

- (I) Do you know locations of dens?
 - No, den locations move regularly and are hard to track. The Department may learn of den locations on occasion, however.
- (I) A respected officer told me Gogebic and Ontonagon counties are not counted in wolf population survey?
 - The UP is divided into multiple survey units. Some of these units (such as the westernmost unit in the UP which is in Gogebic County) are surveyed every year the survey is conducted (currently every other year). Other units are rotated so that each unit is surveyed every third time the survey is conducted. Sampled survey units are analyzed and an estimate is developed for the entire UP. Surveying a sample of units has been verified as being an effective and accurate way to estimate wolf population abundance at a significant cost and time savings for the Department.

Biology

- (G) How big is a litter and how old can wolves get?
 - Average litter size is 5 wolves. Typically, only one female in a pack has pups. Wolves can live up to 8 or 9 years however the average life span is 5 years.
- (G) I've seen wolf tracks near my house. Would wolves attack you if you tried to protect your dog?
 - The chances of a wolf attacking a person is extremely low—there has never been a verified attack in the lower 48 states but attacks have occurred in Canada and Alaska. If a wolf, or any animal, acts aggressive or doesn't seem afraid of you it should be treated with respect.
- (G) How many deer are taken by wolves in the UP?
 - A few studies have cited 25-40 deer/year/wolf, depending on factors such as the age of wolf, the age of deer, habitat conditions and winter severity. Predator-prey relationships are very complex. Michigan currently has a study underway to look at the dynamics of deer populations in relation to weather and predators in the UP. Please visit the Predator-Prey Project website for more information.
<http://fwrc.msstate.edu/carnivore/predatorprey/>

Human Safety

- (I) How do you define human safety issues?
 - The definition of “human safety issues” certainly varies depending on your perspective. Human safety issues could include bold behavior, having wolves treat an urban area as part of a pack’s territory and killing deer, chasing dogs, standing their ground rather than running away from people, etc. The Department tries to examine complaints and evaluate the safety risks. If wolves seem habituated to people and exhibit a loss of fear of people, a decision will be made to remove wolves. The Department’s objective is to try to resolve such issues before any human injuries occur. To date, we have had no attacks on humans in Michigan.
- (I) How many cases of attacks on humans has there been?
 - In Michigan, one report has been investigated that ended up being a dog attack, not a wolf. There are no known attacks on people in the lower 48 states. Attacks have occurred in Alaska and Canada. All wildlife have the potential to be dangerous (moose are the most dangerous in Alaska).
- (I) What will the DNR do when a kid gets attacked?
 - The Department’s hope is that there is never a wolf attack on a human, however, in the unlikely event that an attack does occur, the offending wolves responsible for any attack on a person would be killed.
- If wolves are attracted to an area because of baiting/feeding deer, is there a bounty if/when they become a threat to human safety?
 - We assess when wolves need to be removed for human safety but people need to be aware of what happens when you attract wolves by feeding deer. We will not have a bounty system.
- (L) Since there are no documented attacks on people, why is the department perpetuating the fiction that proximity means danger?
 - There are documented cases of predatory attacks in places like Alaska and Canada so the Department is erring on the side of caution but not in a haphazard fashion. In Ironwood, the Department tried 30 days of non-lethal methods with no effect and therefore had to use lethal methods. It is a problem when any species loses fear of humans. The situation in modern times is also different than in the past. As predators and humans begin to live in close proximity but with a lack of negative conditioning for those predators and as habitat, abundant prey and urban areas become intermingled, there is an increasing chance that attacks will occur. The Department wants to avoid that type of situation.
- (M) What was the situation in Ironwood that prompted the removal of wolves?
 - Wolves were becoming habituated to people, exhibited boldness and a loss of fear of people. Territories were established in the city. Dogs were attacked in yards. These types of behavior can be precursors to aggressive behavior toward humans.
- (M) How many wolves have been killed for public safety reasons?
 - 27, which includes habituated or sick animals.

Wolves in the Lower Peninsula (LP)

- (L) (G) (M) Are there wolves in the NLP? (I) Are you tracking wolves in the LP?
 - We conduct a targeted winter survey in the LP. This survey follows up on potential wolf sightings to try to verify the presence of wolves in the LP. While it is likely there may be a few wolves in the LP, they are at such a low level that the Department cannot currently verify their presence.

- (L) (G) Would the management plan be the same in the UP and the LP?
 - Accordingly to the Plan, the Department will not facilitate wolves expanding to the LP. If wolves naturally move to the LP, they will be treated the same as they are in the UP. Conflicts would be managed if they occurred.

- (G) Are you saying the individuals that are 70-100 lbs in Cheboygan County are coyotes?
 - The Department cannot make that determination without investigating. It is possible that an animal of that size is a wolf. The Department is interested in verifying wolf presence in the LP and encourages anyone seeing an animal in the LP that may be a wolf to report it to a local DNR office. The Department is aware of a few individual animals that exhibit some of the physical characteristics of wolves (large feet, long legs) but behave as coyotes. These animals have been genetically tested and were found to be coyotes with an eastern wolf as an ancestor from many generations ago. There is currently a lot of scientific debate about canines in North America. Genetic research is uncovering a lot of complexity in what were historically thought of as distinct genetic species boundaries. While gray wolves (*Canis lupus*) cannot interbreed with coyotes (*Canis latrans*) it appears that interbreeding between coyotes and eastern wolves (*Canis lycaon*), a species some scientists don't recognize, may rarely occur.

Miscellaneous

- (L) With the passing of “proposition” G in the 1990’s, why are we letting emotion (public opinion) influence how we manage, or not manage, wolves in Michigan?
 - Proposal G outlines the use of the NRC for making natural resources decisions and supported the use of the best available science in making these decisions. However, it also requires an opportunity for public input and legislative notification. Science includes social science. It is also critical to understand public opinions and what types of actions will have public support in order to manage the State’s wildlife resources effectively. The goal is to manage in a biologically appropriate, socially acceptable manner.
- (G) (L) What weight is given to tribal input regarding the hunt?
 - The Department and the NRC take the tribal perspective very seriously. The Department and NRC have hosted a series of meetings to consult with the tribes and hear their perspective. The Department is also committed to the 1836 Consent Decree and will be consulting with the 5 tribes that are part of that agreement. Wolves hold a very significant cultural status for the Michigan tribes. The Department also has an obligation to manage wolves in Michigan. It is a very complex issue.
- (L) What was the cause of death for the wolves reintroduced in 1974?
 - Two were shot, one was trapped and shot and the other was killed by a vehicle. The wolves currently in the UP naturally returned to the UP from Wisconsin and Ontario.
- (L) Is mining resurgence increasing the push to hunt wolves?
 - No, wolf presence is not affecting mining operations and mining activity has not been a factor in considering the public harvest of wolves.
- (L) Do you keep data on the cost of non-lethal control methods?
 - Not directly, however, for a two year period (2011 and 2012) the Department had a grant providing over \$40,000 on non-lethal control measures. In addition, \$3,000-\$6,000 has been spent on other control measures such as flagging, flashing lights, sirens and replacement batteries. These control measures are reusable and will be serviceable for many years to come. Other measures such as cracker shells, rubber projectiles, and propane cannons are used with other wildlife as well. Radio collars and trapping also serve a dual purpose with research and in some cases can help with non-lethal control. The Department has also funded USDA-WS over the year using DNR funds for both lethal and non-lethal control.
- (G) Is deer baiting banned in the problem areas?
 - No. The Department has met with city officials to work on local ordinances and citizens to address this issue.
- (M) If hunting is not implemented, how realistic is it that wolves will be illegally hunted?
 - It is likely there will always be illegal take of wolves. Although the Department can’t predict how a public harvest will affect illegal take, it may reduce the number of wolves taken illegally.
- (M) Would a public vote keep the public happy?
 - As is the case with most issues that go to vote, the result will almost certainly be that some people will be satisfied with the outcome and some will not.
- (G) (M) Can problem wolves be translocated?
 - Relocation is generally not a good solution for problem animals. Often the problem is simply moved to another area, impacting other people. There is also a potential to transport or move disease. In Michigan, most, if not all, suitable wolf habitat is now occupied and the stress of relocation would be followed by a wolf being placed in the territory of a new pack. When wolves were at low densities in

portions of the UP the Department did move some animals to unoccupied areas. It is not a viable solution now.

- (M) Where did the wolves from the wolf sanctuary go?
 - Canada

- (I) I am a private land owner. I pay taxes on the property. I don't want ANY wolves on the land I own. How do you propose to keep wolves off of private property?
 - The Department does not propose a means to keep wolves from entering specific parcels of property.

- (L) Is there any regard given to non-targeted victims, "collateral damage," i.d. "sorry I killed your dog, I thought it was a wolf."?
 - Killing of a dog would be considered illegal and would be investigated and violations handled according to law.