

To: Regional Director, Region 6, Denver, CO.

From: Mike Jimenez, Wolf Management and Science Coordinator for the NRM

Subject: Service Review of the 2015 wolf population in the NRM DPS

Date: April 4, 2016

In the 2009 rule to delist wolves in the Northern Rocky Mountains (NRM) Distinct Population Segment (DPS), except Wyoming, (74 FR 151123, April 2, 2009) the U.S. Fish and Wildlife Service (Service) committed to monitor the status of the NRM DPS wolf population and any potential threats to it for at least 5 years post delisting and make that review available for public inspection. The Service's obligation to monitor delisted species is set forth in the Endangered Species Act, 16 U.S.C. § 1533(g).

Gray wolves are no longer federally listed as an endangered species and are managed under state authority in Idaho, Montana, eastern Oregon, eastern Washington, and north central Utah. Each state is required by post-delisting rules to submit an annual report to the Service. Wolves remained federally listed in Wyoming in 2015 and were managed by the USFWS under the 1994 10(j) rule.

We reviewed the Northern Rocky Mountain 2015 Interagency Annual Report (USFWS et al. 2016) (<http://fws.gov/mountain-prairie/species/mammals/wolf/annualrpt14/index.html>) to make this analysis and determination. This memorandum constitutes the Service's review of the status of the 2015 wolf population in the NRM and our determination of any possible threats to it.

Wolf Population: In 2015, the wolf population in MT, ID, and WY (hereafter referred to as NRM states) was  $\geq 1,704$  wolves in  $\geq 282$  packs, including  $\geq 95$  breeding pairs (packs containing  $\geq 1$  adult male,  $\geq 1$  adult female, and two or more pups on December 31, 2015) (Table 1). The minimum recovery goal of an equitably distributed wolf population containing at least 300 wolves and 30 breeding pairs in the NRM states for at least 3 consecutive years (managed to maintain over 150 wolves and 15 breeding pairs in each state) has been exceeded since 2002. The NRM wolf population continued to expand west from the original NRM DPS boundary in eastern OR and WA into the ESA listed portions of those states. The entire wolf population (including all of OR and WA) included a minimum of  $\geq 1,904$  wolves in 316 packs (including  $\geq 114$  breeding pairs).

Table 1. NRM states, OR, and WA estimated wolf populations in 2015.

Area	# Wolves	# Packs	# Breeding Pairs
OR	110	16	11
WA	90	18	8
OR and WA	200	34	19

Area	# Wolves	# Packs	# Breeding Pairs
NRM States	1,704	282	95
OR and WA	200	34	19
<b>Total Wolf Population</b>	<b>1,904</b>	<b>316</b>	<b>114</b>

Area	# Wolves	# Packs	# Breeding Pairs
ID	786	108	33
MT	536	126	32
WY	382	48	30
NRM states	1,704	282	95

Wolf Mortality: For strictly comparative purposes, we estimated the minimum number of wolves thought to be alive in the NRM states by combining the 2015 minimum population estimate of 1,704 wolves (based on state estimates) with all known mortalities from all causes ( $n=717$ ). This sum represented a minimum estimate of 2,421 wolves thought to have been alive at some point in the NRM states during 2015 (MT=812, ID=1,143, and WY=466). The minimum estimate was only used to compare relative rates of the various causes of mortality to wolves in the NRM states.

We recorded the mortalities of 717 wolves in the NRM states (~30% of the minimum NRM population) in 2015 from causes including natural, misc. human-caused, unknown, harvest, and control. When only human-caused mortality (control, harvest, and other human-caused mortality) was included, 684 wolves (~28% of the minimum NRM estimated wolf population) died due to human-causes (Table 2).

Table 2. Causes of mortality in the NRM states, OR, and WA in 2015. The numbers in parentheses represent the percentage of the minimum estimated wolf population removed by human-caused mortality and total mortality.

Area	Natural	Misc. Human	Unknown	Harvest	Control	Total Human-Caused	Total
MT	3	26	3	205	39	270 (33%)	276 (34%)
ID	2	21	3	256	75	352 (31%)	357 (31%)
WY	11	8	11	0	54	62 (13%)	84 (18%)
NRM States	16	55	17	461	168	684 (28%)	717 (30%)

Area	Natural	Misc. Human	Unknown	Harvest	Control	Total Human-Caused	Total
OR	1	4	2	0	0	4	7
WA	0	3	1	3	0	6	7
OR and WA	1	7	3	3	0	10	14

**Wolf Depredations:** Although confirmed depredations result in a comparatively small proportion of all livestock losses, wolf damage can be significant to some livestock producers. Total confirmed depredations in 2015 by wolves in the NRM states included 148 cattle, 208 sheep, 3 dogs, and 3 horses. Wolves killed 10 cattle, 10 sheep, and 1 dog in WA and OR (Table 3). Sixty-one of 358 known wolf packs (17%) that existed at some point in 2015 were involved in at least 1 confirmed livestock depredation in the NRM states, OR, and WA.

Table 3. Confirmed livestock depredations in the NRM states, OR, and WA in 2015.

Area	Cattle	Sheep	Dog	Horses
Idaho	35	125	3	1
Montana	41	21	0	2
Wyoming	72	62	0	0
NRM States	148	208	3	3

Area	Cattle	Sheep	Dog	Horses
OR	3	10	1	0
WA	7	0	0	0
OR and WA	10	10	1	0

Area	Cattle	Sheep	Dog	Horses
NRM States	148	208	4	3
OR and WA	10	10	1	0
<b>Total Depredations</b>	<b>158</b>	<b>218</b>	<b>5</b>	<b>3</b>

**Wolf Population Recovery:** By every biological measure the NRM DPS wolf population remains fully recovered and secure under State management. Resident packs have saturated suitable habitat in the core recovery areas and the population has exceeded recovery goals since 2002. Dispersing wolves routinely travel between NRM and Canada and successfully breed, demonstrating that the 3 subpopulations function as a single large NRM meta-population.

**Post Delisting Monitoring:** As the NRM DPS wolf population has grown larger, our minimum population estimates have become less precise. However, after reviewing field methods used by Montana Fish, Wildlife and Parks, Idaho Fish and Game, the Nez Perce Tribe, and the Wyoming Dept. of Game and Fish to monitor the wolf population in their respective states (Jimenez and Cooley 2012), the Service is confident that wolves in Montana, Idaho, and Wyoming far

exceeded recovery goals at the end of 2015, and monitoring methods adequately documented this.

The 2009 rule to delist wolves in the NRM DPS, except Wyoming (74 FR 151123, April 2, 2009) and the 2012 rule to delist wolves in Wyoming (77 FR 55530, September 10, 2012) included a list of scenarios that could lead the Service to conduct a status review:

1. If the wolf population falls below the minimum NRM wolf population recovery level of 10 breeding pairs of wolves or 100 wolves in either MT, ID, or WY at the end of the year.
  - Recovery level was exceeded in MT, ID, and WY at the end of 2015.
2. If the wolf population segment in MT, ID, or WY falls below 15 breeding pairs or 150 wolves at the end of the year in any one of those States for 3 consecutive years.
  - A minimum of 15 breeding pairs and 150 wolves was confirmed in MT, ID, and WY at the end of 2015.
3. If a change in State law or management objectives would significantly increase the threat to the wolf population.
  - On August 24, 2011, the Service reviewed Idaho Department of Fish and Game wolf hunting and trapping regulations. The review determined that the regulations did not meet the threshold of a “significant threat” because they were consistent with a Service-approved plan, harvest limits were imposed in areas where genetic connectivity is a concern, and mandatory hunter and trapper reporting an adequate regulatory mechanism (Cooley 2011).
  - On August 17, 2012, the Service reviewed changes in the 2012-2013 Idaho wolf hunting season and determined they did not represent any significant threat to the Idaho wolf population (Cooley 2012). The Service decided that annual reviews of state wolf hunting seasons may not necessarily occur every year but will be done on a year-by-year basis.
  - On November 19, 2012, the Service concluded that changes in Montana’s 2012-2013 Wolf Hunting Regulations did not present significant threats to the MT wolf populations, thus a full status review was not initiated (Sartorius 2012).
  - On February 22, 2013, the Service concluded that changes in State laws that affected wolf hunting in WY and MT did not represent significant threats to the MT and the WY portions of the NRM wolf population (Jimenez 2013).
  - On April 18, 2014, the Service reviewed changes in the Idaho Department of Fish and Game 2014-2015 wolf hunting and trapping regulations, and concluded that the changes did not represent a significant threat to the Idaho wolf population (Cooley 2014).

To summarize, none of the status review criteria have been met and the NRM wolf population continues to far exceed recovery goals (as demonstrated by pack distribution and the number of wolves, packs, and breeding pairs in 2015). Documented dispersal of radio collared wolves and effective dispersal of wolves between recovery areas determined through genetic research further substantiate that the metapopulation structure of the NRM DPS has been maintained solely by natural dispersal. No threats to the NRM wolf population were identified in 2015. Potential

threats include: A. The present or threatened destruction, modification, or curtailment of its habitat or range; B. Overutilization for commercial, recreational, scientific, or educational purposes; C. Disease or predation; D. Inadequacy of existing regulatory mechanisms; and E. Other natural or man-made factors affecting its continued existence (including public attitudes, genetic considerations, climate changes, catastrophic events, and impacts to wolf social structure) that could threaten the wolf population in the NRM DPS in the foreseeable future. Delisting the NRM DPS wolf population has enabled the States, Tribes, National Park Service and Service to implement more efficient, sustainable, and cost-effective wildlife programs that will allow them to maintain a fully recovered wolf population while attempting to minimize conflicts.