



IEA Comments
United States Department of the Interior

TAKE
PRIDE IN
AMERICA

FISH AND WILDLIFE SERVICE
Rocky Mountain Arsenal National Wildlife Area
Building 111
Commerce City, Colorado 80022-2180

IN REPLY REFER TO:

August 4, 1993

Office of the Program Manager
for Rocky Mountain Arsenal
AMXRM-PM (ATTN: Mr. Charlie Scharmann)
Building 111
Commerce City, Colorado 80022-1748

boqus

Dear Mr. Scharmann:

The U.S. Fish and Wildlife Service (Service) has reviewed comments from the various parties regarding the U.S. Army's proposed Section C.7. of the Integrated Endangerment Assessment document which is entitled "Health and Diversity of Fish and Wildlife at Rocky Mountain Arsenal". First, the Service will not yield to any other agency its responsibility for the protection of its trust species. As the natural resource trustee for endangered species and migratory birds, the Service advises all parties involved at the Arsenal that the Service's opinion of the final plan for appropriate protection of these species is paramount with regard to environmental remediation efforts at the Rocky Mountain Arsenal National Wildlife Area (Arsenal). Additionally, the Service now has authority to manage all wildlife at the Arsenal and will ultimately regard all wildlife occurring at the site as its trust responsibility. The Service does not accept the view that the Army, Shell Oil Company, the Environmental Protection Agency (EPA), the State of Colorado (State), and/or any other parties should determine the level of protectiveness afforded to wildlife at the Arsenal and then hand over a potentially problematic responsibility to the Service.

Furthermore, the Service views the purported interests of the parties suddenly interested in wildlife issues at the Arsenal with some suspicion. Specifically, the Service has observed that the State has been more interested in acquiring additional control of the cleanup effort than in achieving any resolution of issues that would lead to actual cleanup activities on site. EPA supports the State's efforts to obfuscate even minor issues at the Arsenal by viewing cleanup issues affecting wildlife in the context of residual contamination remaining post-remediation rather than in the context of actual effects on wildlife and overall wildlife values. For example, the EPA deferred to the Service regarding comments on the Biota Risk Assessment in 1989 but now presents its views on wildlife issues unrelated to its area of expertise. The Service appreciates all of these parties' points of view and understands that these views may be the most appropriate for their respective responsibilities. Concomitantly, the Service will defend its trust responsibilities.

The Service believes that the State and EPA are ignoring, in many cases, common sense with respect to their comments on health and diversity of wildlife at the Arsenal. They raise many theoretical questions that they argue will require additional study. The Service welcomes the opportunity to continue its investigations of wildlife at the Arsenal, but suspects most of the State and EPA's arguments are primarily related to legal and political posturing that might support their own agendas. For example, their assertion that the Arsenal functions as a "wildlife sink" with many animals continually lost to the effects of contamination but subsequently replaced by immigration is absurd. Although this may occur to a very limited degree, the Service's on the ground observations over a period of six years by over twenty biologists certainly contradicts this innuendo. Simply stated this argument could only be offered by someone thoroughly ignorant of the behavior of wildlife population dynamics at the site or by someone hoping to skew reality by favoring strained theoretical objections over field observations. The Service views endless calls for more studies under the guise of the need for more quantitative information as irresponsible given the complexity of the biological factors involved and the need to address substantive concerns in a timely manner. One area meriting further study is a plan for monitoring the effects of remedial actions being considered for implementation in the Detailed Analysis of Alternatives (DAA) and the Record Of Decision (ROD). Such a plan should ensure that the benefits of site specific contaminant removal are not offset by the adverse effects of the removal action. The Service believes that irresponsible decisions on remediation efforts could result in additional natural resource damages rather than mitigate for past effects of contamination.

NOT
without
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designed
studies

The Service remains interested in working with other agencies to ensure appropriate environmental remediation efforts at the Arsenal. Please encourage these entities to contact us if they would like to discuss any of the statements related in this correspondence.

Sincerely,



Donald R. Gober
Project Leader

Enclosure: Specific Comments

Copies Furnished:

- Mr. Bradley Bridgewater, U.S. Department of Justice, 999 18th Street, Suite 501 North Tower, Denver, Colorado 80202
- Mr. Connally Mears, Coordinator for Rocky Mountain Arsenal Cleanup, U.S. Environmental Protection Agency, 999 18th Street, Suite 500, Denver, Colorado 80202
- Mr. William McKinney, Shell Oil Company, 1700 Lincoln Street, Suite 4100, Denver, Colorado 80202
- Mr. Jeff Edson, Colorado Department of Health, 4300 Cherry Creek Drive South, Denver, Colorado 80222-1530
- Dr. Glenn Tucker, Agency for Toxic Substance and Disease Registry, One Denver Place, Suite 500, 999 18th Street, Denver, Colorado 80202-2405
- Mr. John Spinks, Deputy Regional Director, U.S. Fish and Wildlife Service, 134 Union Boulevard, Lakewood, Colorado 80228
- Mr. Robert Jacobsen, Assistant Regional Director-Ecological Services, U.S. Fish and Wildlife Service, 134 Union Boulevard, Lakewood, Colorado 80228
- Mr. Skip Ladd, Assistant Regional Director, Refuges and Wildlife, U.S. Fish and Wildlife Service, 134 Union Boulevard, Lakewood, Colorado 80228
- Document Tracking Center, Office of the Program Manager for Rocky Mountain Arsenal, Building 111, Room 132, Commerce City, Colorado 80022-1748

Specific Responses to EPA Comments on
Health and Diversity Chapter, Section C.7.,
Integrated Endangerment Assessment

August 5, 1993

page 1, second paragraph:

The last sentence states "(t)he cited studies can therefore be qualitatively discussed, but cannot quantitatively be used to infer that populations have not been impacted by contamination at RMA". The Service agrees and would add that these studies cannot be used to infer that there are impacts to wildlife populations at the Arsenal either. With very few exceptions, these studies have not been designed to address the endpoints considered in this chapter and should therefore not be used for this purpose.

Page 2, first paragraph:

EPA has requested information on habitat restoration. Overall this habitat restoration represents a small amount of acreage. To date this has had little relevance on the total health and diversity of wildlife on the Arsenal.

Page 2, 4th paragraph:

An extensive amount of inventory work has been conducted by the Colorado Division of Wildlife, as well as many biologists in years past to establish expected species assemblages. There are extensive species lists/accounts for which animals occur in which habitat types. By taking advantage of published literature it is possible to determine expected species assemblages for the habitat types present at the Arsenal.

Page 3, 8th paragraph:

Accurate data can be found in the report titled THE POTENTIAL EFFECTS OF ROCKY MOUNTAIN ARSENAL CLEANUP AND DENVER METROPOLITAN TRANSPORTATION DEVELOPMENT ON BALD EAGLES.

Page 3, last paragraph:

The statement is made that "no data support the statement that 'blood chemistry data do not suggest any adverse effects of RMA contamination on bald eagles.'" The blood chemistry statement is true. The data that were collected did not suggest any problems.

Page 4, 2nd paragraph:

A table of contaminant levels found in bald eagle blood can be found in the Service's FY92 Annual Progress Report.

Page 4, 4th paragraph:

By looking at the myriad of literature available on great horned owls, the average brood size/number of fledglings can be determined. It is not a complicated procedure to determine the average brood size on the Arsenal and compare it to average brood sizes in the literature. Specifically, Houston (1971) reported that an above average year in

Saskatchewan consisted of an mean number of young greater than or equal to 2.3 young per nest, greater than or equal to 5% of nests with 4 young per nest, and less than 12% of nests with only 1 young per nest. According to this definition, the Arsenal had an above average year in 1992 for great horned owl production.

Page 4, paragraph 5:

First, see Plumpton 1992 for extensive citations on comparisons with "other areas". EPA has a copy of this thesis and should refer to it before asking questions about burrowing owls. This is one of the most comprehensive documents on burrowing owls available. The population data referred to on page 32 includes number of adults breeding, successful nests, number of young produced, nest site characteristics, etc. The basis for drawing conclusions about the population (of burrowing owls) at the Arsenal comes from the fact that 100% of the owls have been studied for last the three and half years. We believe this information is conclusive with regards to populations of burrowing owls at the Arsenal.

page 6; comment 6:

The Service disagrees with characterizing the Arsenal as a "sink". First, the Service has previously suggested that caution be used when presenting this type of information so that uninformed readers do not draw improper or unsubstantiated conclusions.

Second, the word "sink", when applied biologically, implies that animals that arrive at the Arsenal do not leave because they die of contamination. This concept is currently unsubstantiated at the Arsenal, based entirely on fiction, and therefore should not be presented even as an "educated guess". The Service feels that the EPA is drawing factual conclusions based on an admitted lack of information. Although occasionally, the Arsenal may in fact attract wildlife displaced from other areas, the Service would like to point out that many species that occur at the Arsenal have no local habitats from which to be drawn. However, available data actually indicates that more often, dispersing animals leave the Arsenal (see Hein's thesis on coyotes and Plumpton's thesis on burrowing owls).

Third, this comment requests that "the possibility of hormonal suppression could be related to these (anomalies)" be presented in the text. The Service sees little reason to address hormonal suppression in any species of wildlife at the Arsenal. Also, the Service has reported that these "anomalies" have been documented in free-ranging herds completely separated from the Arsenal. Unless these anomalies can be proven to be Arsenal-related, they should only be considered as a product of natural variation. Data from a deer health report conducted in 1991 indicated that 4 deer had testicular atrophy. These four deer were specifically collected to determine why these deer retained velvet on their antlers. Of the 600 deer present on the Arsenal during the study this represented less than 1% of the herd. All other deer collected during the study were in excellent health. All does were pregnant with twins. There may be several reasons for the problems seen in these four deer. If contaminants were causing hormonal problems in

yes
reason
no
studies

deer, then the problem should be much more wide spread than has been seen on the Arsenal.

The statement is made that no attempt was made to evaluate species diversity and abundance in contaminated versus uncontaminated areas and; therefore, there may be biases drawn from the data. This is certainly true since the Service has made efforts to try to eliminate wildlife use from contaminated sites. This has included removing perching/roosting structures (such as large trees and power poles), planting of vegetative barriers, installation of visual barriers, distress calls and noise makers. Any survey done would in fact be biased by these management actions and; therefore, of little use.

Page 7, paragraph 5:

The information written in the Health and Diversity chapter was incorrect. Only 1 out of 62 breeding pairs of burrowing owls was a parent/offspring mating. Thus, the occurrence of this situation was only 1.6%, not 13%. The statement was also made that the study was not designed to look at breeding aspects. One of the objectives of the study was "to determine the behaviors, productivity, and food habits of burrowing owls breeding on the RMA". The Service concurs as Plumpton's thesis states that burrowing owl populations are of sufficient size at the Arsenal to evaluate breeding characteristics.

Page 7, paragraph 6:

EPA is incorrect in stating that no real population data exist for wildlife at the Arsenal. The statement that "population data do not reveal adverse effects on the population at RMA" is a true statement.

Page 7, paragraph 7:

The basis supporting the statement that "total abundance and species richness of raptors at RMA are both quite high" is based on the data produced by 5 years of raptor surveys done on the Arsenal and comparing them to information provided by the Colorado Division of Wildlife (CDOW), Denver Field Ornithologists (DFO), Denver Audubon and numerous other references too lengthy to cite for many other areas. This information is available.

page 8; last bullet:

EPA contends that the populations of wildlife at the Arsenal are a result of animals being pulled from off-post locations onto the Arsenal. As EPA pointed out in their opening paragraph "... several interpretations are possible based on existing data". There is data to indicate that the Arsenal is actually serving as a reservoir and providing dispersing animals to off-post locations. Telemetry data on coyotes, badgers, kestrels, and deer indicate this is true.

EPA presents two divergent opinions of wildlife populations at the Arsenal: one is that populations are "healthy" and self-sustaining; the other that populations are not "healthy" and are maintained only by individuals from outside populations. EPA should recognize that these are two extremes of a continuum, not two alternative possibilities, and that the truth is somewhere in-between. EPA further states that NO study has measured survival rates, immigration, or emigration.

Therefore the basic population parameters are unknown for all species at the Arsenal. We believe this statement is untrue. Data from the Denver Museum of Natural History (DMNH) has shown abundant and diverse small mammal populations on the Arsenal. The majority of deer mice, spotted ground squirrels, or prairie dogs do not move on or off of the Arsenal. These smaller mammals are relatively sedentary. Additionally, telemetry studies on mammals and birds have demonstrated emigration as well as immigration. Finally, aquatic surveys have documented self-sustaining populations of largemouth bass, bluegill, and northern pike; including successful spawning, overwinter survival of young, recruitment into older year classes, growth rates of tagged fish comparable to other fish living along the Front Range of Colorado, and old fish as determined by scale aging. Also, fish densities are consistent with other Front Range warm- and cool-water Colorado fish populations. Immigration of carp and fathead minnows does occur via the Highline Lateral. Immigration of largemouth bass, bluegill, and pike is unlikely given Highline Lateral water conditions, and they have not been observed in the Lateral. A screen on the Lower Derby Lake outlet, coupled with the fact that the lakes have no outlet, prevents emigration of fishes.

A third scenario to be considered is that the Arsenal's wildlife populations are self sustaining and are acting as a reservoir for off-post wildlife. That is to say, that surplus animals are dispersing past the boundaries of the Arsenal. EPA should recognize short- and long-term natural variation in population size and structure, and the causes of this variation.

This comment further states that the cited studies cannot be used to provide conclusive information about the toxicological health of Arsenal populations. The Service agrees with the EPA on acknowledging the inconclusiveness of some of the information available, but disagrees with providing contrary and confusing alternatives or conclusions.

The degree of conclusiveness sought by EPA appears to be more goal oriented in trying to ensure interpretation of existing or unavailable data in the most unfavorable terms with regard to wildlife. Perhaps this interpretation would support extraordinary cleanup activities for the sake of contaminant occurrence rather than effects on wildlife, but the Service strenuously objects to the lack of perspective and common sense provided in EPA's comments. The Service is the preeminent agency with fish and wildlife expertise and responsibility at the Arsenal. The Service believes that extensive wildlife information available at the Arsenal is sufficient to draw some conclusions. Endless calls for never ending studies may be supported theoretically, but make little sense in the real world.