

Swan View Coalition

Nature and Human Nature on the Same Path



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NCDE Conservation Strategy
USFWS
University Hall, Room 309
Missoula, MT 59812

Re: Comments on NCDE Conservation Strategy
Submitted as PDF to NCDECS@fws.gov

Dear Dr. Servheen and others at FWS;

Please enter these comments on the Draft NCDE Grizzly Bear Conservation Strategy (hereafter "CS") into the public record.

A. EXECUTIVE SUMMARY

While we appreciate the opportunity to comment on the CS, it has not been preceded by the development of habitat-based recovery criteria FWS promised the D.C. District Court and plaintiffs after the Court found fault with FWS's Grizzly Bear Recovery Plan. The CS is premature and neither accomplishes nor sustains recovery. It instead puts an end to it.

We ask that you abandon plans to de-list either the NCDE or Yellowstone populations until at least 5,000 bears and their habitat are adequately protected in the Lower 48 States so that both male and female bears can move freely between the six Recovery Zones. We are not asking that bears be returned to all of their historic range in the Lower 48. We are simply asking that you actually recover bears in and between the six Recovery Zones you have established in Montana, Wyoming, Idaho, and Washington before proposing any de-listing - and that you base that de-listing on the prior development of habitat-based recovery criteria.

There is no shame in admitting these bears, among the slowest reproducing mammals in North America, still have a long path to full recovery in spite of the progress you and others have made on their behalf. Human developments continue to increase in bear habitat and a rapidly warming climate will only make matters worse. What is shameful is to propose a CS stating the NCDE will be a "population source" for bears venturing forth to reconnect with other Recovery Zones while

simultaneously proposing to decrease the NCDE population, relax mortality limits and cease habitat-securing measures credited with increasing the population!

Below we detail the shortcomings of the CS, but nowhere should you construe this letter to suggest the CS can be remedied at this point in time to provide adequate bear and bear habitat management in lieu of Endangered Species Act (ESA) protection.

B. HABITAT v. POPULATION ESTIMATES

1. Where are the Habitat-Based Recovery Criteria?

In settling the lawsuit we and others brought against the 1993 Grizzly Bear Recovery Plan, FWS promised to “establish habitat-based recovery criteria” (HBRC) prior to proposing delisting any bear population (USDOJ 1997, attached). No HBRC for the NCDE have been developed nor has the agreed-to public involvement process for developing such criteria been initiated. Yet FWS has now issued a draft CS finding the NCDE bear population has recovered, based primarily on questionable estimates of the NCDE bear population size and trend.

In essence, the CS declares the NCDE population recovered in 2011 after seven years of 3% annual increase to 942 bears from Kendall’s 2004 estimate (Kendall et al. 2009) of 765 bears. It then assumes that habitat conditions that existed in 2011 are “compatible with the increasing grizzly bear population” and proposes to maintain habitat at 2011 security levels, while simultaneously allowing the population to be reduced to 800 bears through sport hunting and a relaxation of mortality quotas. (CS Executive Summary at iii and pages 37-39).

Recovery, if one can call it that, is being based once again on shaky population estimates, not on HBRC. Basing recovery on population estimates and then assuming adequate habitat and security exist is not the same thing as firstly measuring recovery against promised and legally required HBRC. It is instead arbitrary, capricious and an abuse of agency discretion.

2. Population and Trend Estimates Remain Unreliable

Dr. Richard Harris’ analysis (CS App. 2, Sec. C, at 9) finds that although “a precise estimate of total population size has been published, there is, at present, no protocol in place for updating this estimate; consequently, yearly population size of NCDE grizzly bears remains unknown.” In other words, Kendall’s 2004 estimate of 765 bears (Kendall et al. 2009) can be applied only to that year - at a price tag of over \$5 million.

Harris then finds “the conventional level of statistical certainty” cannot be found in Mace et al.’s (2012) estimate that the NCDE population is increasing about 3% each year, “because sample sizes were limited and the time period of this investigation spanned only 6 years.” Harris concludes that calculating sustainable mortality levels

for the population “is fraught with difficulty” because considerable “uncertainty surrounds both estimates of the number of bears dying, and the vital rates of the standing population.” (CS App. 2, Sec. C, at 9).

The CS nonetheless simply adds 3% per year to Kendall’s 765 bears (Kendall et al. 2009) without adequately disclosing how uncertain those yearly estimates truly are. What we are witnessing here is a replay of FWS’s overreliance on sightings of females with cubs of the year, only FWS has now switched horses mid-stream and is gauging recovery solely against Kendall’s DNA-based 2004 population estimate (Kendall et al. 2009) extrapolated by applying uncertain trend estimates to successive years.

3. A Return to Habitat-Based Recovery Criteria Required

What FWS is failing to do is to firstly measure recovery against HBRC, even though it promised the D.C. District Court it would do so after the Court found the 1993 Grizzly Bear Recovery Plan unlawful and inadequate for failing to do so in the first place. (*Fund for Animals v. Babbitt*, 903 F. Supp. 96, Dist. Court, Dist. of Columbia, 1995, opinion attached, and USDOJ 1997, attached). The Court in that case flatly rejected FWS’s claim that the females with cubs and occupancy criteria “together serve as an indicator of adequate habitat management (Delisting Factor 1).” The Court continues:

"The FWS has not explained how minimum bear population and grizzly distribution goals consider how much habitat and of what quality is necessary for recovery or how the answers to these questions can be derived from the 'females with cubs' and 'occupancy' criteria.

Nor does the [Recovery] Plan's requirement that a Conservation Strategy (that will include minimum habitat values and additional monitoring methods) be implemented before any delisting process is commenced address this deficiency. The promise of habitat based recovery criteria sometime in the future simply is not good enough. The purpose of the habitat recovery criteria is to measure the effect of habitat quality and quantity on grizzly recovery. See FWS Recovery Guidelines, A.R. Tab 78 at I-5. Such monitoring is not possible if there is no scale against which to gauge the status of the habitat. Defendants have not met their burden to develop objective, measurable criteria by which to assess present or threatened destruction, modification or curtailment of the grizzly bear's habitat or range." (*Fund for Animals v. Babbitt*, 903 F. Supp. 96, Dist. Court, Dist. of Columbia, 1995, opinion attached).

The Court made it quite clear that HBRC cannot simply be bootstrapped into the Recovery Plan via a Conservation Strategy or subsequent documents and that the “purpose of the habitat recovery criteria is to measure . . . recovery.” The fact that FWS has now abandoned monitoring females with cubs in favor of Kendall’s 2004 population estimate (Kendall et al. 2009) and Mace’s trend estimate (Mace et al. 2012) changes absolutely nothing about the requirement to develop HBRC and

measure recovery against them - regardless of the level of confidence in the population and trend estimates.

Current population estimates and trend estimates serve no better as “an indicator of adequate habitat management” than females with cubs and occupancy do, nor has FWS explained how they do or should. FWS simply assumes they do and expects the public to make the same assumption, without providing any reliable rationale whatsoever to support the assumption.

The CS is premature and fatally flawed for not being preceded by the development and monitoring of HBRC, no matter to what degree it includes minimum habitat values and additional monitoring methods. As stated above, the CS declares recovery based solely on estimated population numbers and trend, rather than on the HBRC promised the Court and plaintiffs.

As one of the plaintiffs in *Fund for Animals v. Babbitt*, we respectfully ask that you withdraw the draft CS until such time as you have complied with the terms of the *Fund for Animals v. Babbitt* settlement agreement approved by the Court in 1997. (*Fund for Animals v. Babbitt*, 967 F. Supp. 6, Dist. Court, Dist. of Columbia, 1997, opinion attached, and USDOJ 1997, attached). This means you must for the NCDE, as you did for Greater Yellowstone Ecosystem, “establish habitat-based recovery criteria for that population’s ecosystem in accordance with the process set forth in paragraphs 1 and 2” which require you to:

1. Release draft HBRC for the NCDE for public review.
2. Hold a public workshop during the public review period, convened in cooperation with the Interagency Grizzly Bear Committee (IGBC).
3. Consider all information provided during the workshop and public comment period in finalizing the NCDE HBRC.
4. Address in writing significant public comments made during the workshop and public comment period.

FWS has done none of this for the NCDE, even though it committed in the settlement agreement, “to develop such sufficient information and criteria within a reasonable period of time . . .” (USDOJ 1997). As ruled by the Court and argued above, the period AFTER release of a draft CS is not a reasonable period of time in which to develop HBRC. The HBRC must be developed and recovery measured against them BEFORE a CS can be reasonably drafted and reviewed by the public.

We hereby incorporate by reference all briefs and other documents filed in the above-mentioned lawsuits.

C. HABITAT CRITERIA

1. Introduction and Disclaimer

This section will discuss various habitat-based criteria used by FWS, other agencies and independent scientists, some of which could perhaps serve as one aspect of

HBRC. It's discussion here, however, is intended to highlight inadequacies in the CS and should not be construed to substitute for the legally required process for developing HBRC outlined immediately above and in the *Fund for Animals v. Babbitt* settlement agreement (USDOJ 1997, attached).

2. Habitat Security Criteria

Member agencies of the IGBC developed methods for assessing the impacts of motorized vehicles and high levels of non-motorized human activity to bears (IGBC 1994 and 1998). These methods were based on research finding that bears avoid not only roads open to motorized vehicles, but also roads closed simply with gates due to their trespass by motorized vehicles and/or continued high levels of non-motorized human use due to continued existence of the road bed. (See generally Mace and Manley 1993, Mace et al. 1996, and Mace and Waller 1997). As a result, Open Motorized Route Density (OMRD), Total Motorized Route Density (TMRD) and percentage of a Bear Management Subunit qualifying as Security Core were established as three primary indices of bear habitat security (IGBC 1994 and 1998, with Security Core defined as greater than 500 meters from any road or trail open to motorized vehicles or high levels of non-motorized human use).

Forest Plan standards were subsequently issued on numerous National Forests to implement limits on maximum levels of OMRD and TMRD and minimum levels of Security Core. Flathead Forest Plan Amendment 19, for example, established standards requiring no more than 19% of a Subunit have OMRD in excess of one mile per square mile, no more than 19% of a Subunit have TMRD in excess of two miles per square mile, and no less than 68% of a Subunit qualify as Security Core (USFS 1995).

FWS subsequently issued biological opinions (BiOp) that included Incidental Take Statements (ITS) on Amendment 19 (and others) making the Flathead's 19/19/68 standards "nondiscretionary" measures, terms and conditions that must be implemented. FWS reasoned that these standards, when exceeded, constitute "harm" to grizzly bears through displacement from their habitat. FWS also reasoned that meeting these standards is necessary to limit "incidental take" to levels "not likely to result in jeopardy to the species." (USFWS 1995a). It is important to reiterate that these numeric thresholds were taken directly from research conducted by Mace and others, who documented statistically significant bear displacement from habitats where human impacts exceeded these thresholds.

3. CS Treatment of Habitat Security Criteria

The CS treatment of these habitat security criteria, however, is wholly inadequate and based on faulty assumptions. FWS in its BiOps finds meeting 19/19/68 habitat security standards is necessary to avoid jeopardy to the NCDE bear population (USFWS 1995a). The CS nonetheless arbitrarily concludes that whatever areas met these criteria in 2011 is not only good enough to avoid jeopardy to the population but plenty good enough to sustain recovery of the population, concluding that bear

habitat security need not be improved any further (CS at 19, while simultaneously acknowledging “this approach contains some level of uncertainty related to how long changes in habitat translate into detectable changes in population parameters”). In other words, what is required long-term in FWS BiOps to prevent the bears’ demise is considered by the CS to be an unnecessary luxury in all areas where minimum habitat security standards weren’t already achieved by 2011 - with no scientific justification provided whatsoever!

Even more remarkably, the CS goes on to relax habitat security standards in additional ways that will not maintain the promised 2011 “baseline” status quo, let alone a recovered NCDE population. On pages 21-23 the CS removes trails receiving high levels of non-motorized human use from calculations of OMRD, TMRD and Security Core. On pages 51-55 the CS allows the 19/19/68 standards to be exceeded by an additional 5%, 3% and 2%, respectively, to allow for greater impacts to bears during timber sales and other projects. To make matters worse, these excesses are to be averaged over 10-year periods that mask the actual annual increases (the example of an acceptable scenario shown on page 53, for example, shows OMRD increased an additional 12% and Security Core decreased an additional 6%). And last but not least, page 55 provides a list of loopholes by which the 2011 baseline standards can be violated either temporarily or permanently!

D. Habitat Security Criteria Inappropriately Bootstrapped to Arbitrary and Contradictory Population Recovery Thresholds

1. Introduction

This section will use an analogy to help explain why CS population recovery thresholds are both arbitrary and contradictory in light of stated CS objectives, which themselves are often contradictory. This analogy will also help illustrate how the CS fails to adequately and fairly represent the relationship between population size estimates, population trend estimates, habitat security, carrying capacity, bear dispersal, source-sink population dynamics, and ecosystem connectivity.

2. The Analogy

It is instructive to think of the six Lower-48 Recovery Zones as individual semi-porous terracotta bowls able to hold water, just as ecosystems with enough secure bear habitat are able to hold bears. Each bowl, however, contains stones of various sizes which displace water - just as human impacts displace bears from otherwise preferred habitats.

Water vapor and bears that die while in the Recovery zone can be thought of as evaporating from the surface of the water, while others can either disperse over the rim of the bowl when full (at carrying capacity) or more slowly through the terracotta boundary of the Recovery Zone.

The area between the bowls/Recovery Zones can be thought of as a broad table of scattered and sometimes clustered stones. It is difficult for water or bears to migrate through this field of stones to other bowls/Recovery Zones without the aid of troughs of secure habitat connecting them to one another.

The depth of each bowl can be thought of as representing the ability of an ecosystem's basic habitat quality to support bears, with higher quality habitats able to support greater densities of bears. The NCDE's generally wetter habitats, for example, can support greater densities of bears than Greater Yellowstone's generally drier and more open habitats, meaning the NCDE bowl is deeper than Yellowstone's.

The breadth of the bowl represents the size and breadth of the Recovery Zone where special protections for bears and their habitat are provided. Throw in some stones representing human impacts and we are ready to discuss what it takes to increase bears inside and outside the Recovery Zones.

It's pretty hard to increase a Recovery Zone's underlying habitat quality short of improving the climate to foster higher quality habitat, so we can't easily increase the depth of the bowl to hold more water and bears. We can however, remove stones and human impacts from the bowl so there is less displacement of bears and water, providing more habitat security and room for more bears. Similarly, we can make more room for bears by increasing the size and breadth of the Recovery Zone bowl through an expansion of the area to which special protections are applied.

Conversely, adding stones and human impacts to the bowl displaces water and bears and leaves less room for them. So does decreasing the breadth of the bowl/Recovery Zone to which special protections are applied. Diminishing bear habitat quality through outright destruction of that habitat (as opposed to displacing bears from their habitat) via human development or climate change are ways to trim back the rim of the bowl, rendering it shallower and able to hold less water and bears.

3. Arbitrary Population Thresholds

Firstly, the CS commits the unacceptable sin of implying that Kendall's 2004 DNA-based population estimate (Kendall et al. 2009) can be compared to previous population estimates using other methods, which is like comparing apples to oranges and is without scientific integrity. For example, the CS at 12 concludes "Despite this loss [of whitebark pine seeds], the grizzly bear population is larger in size than once thought and increasing . . ." Key here are the words "once thought," clarifiers whose use nonetheless still implies the population had been increasing prior to Mace's recent estimate of a 3% per year population increase (Mace et al. 2012). You can't make two guesses at how many beans are in a jar and logically conclude there are actually more beans just because your second guess was bigger than the first!

As detailed above, Dr. Richard Harris' critique of the CS (App. 2, Section C) concludes Mace's population trend estimate (Mace et al. 2012) cannot be made "with the conventional level of statistical certainty." So we once again find ourselves guessing at population size and trend, rather than measuring recovery against HBRC. In terms of our analogy, this is the equivalent of trying to measure how much water is in a bowl from time to time by twirling our finger in it, knowing we can't simply pour all the bears into a measuring cup to be more certain!

Again, what the CS fails to do is measure recovery against something less ephemeral and easier to measure, such as HABITAT QUALITY and HABITAT SECURITY, i.e. HBRC. As discussed above, for example, FWS determined in 1995 that assessing and limiting levels of motorized and high-intensity non-motorized human access to grizzly bear habitat (using OMRD, TMRD and Security Core as primary indices) is absolutely essential in the long-term to prevent jeopardy to the bear population. Why then is FWS in the CS not measuring recovery against how many of these stones still need to be removed from the NCDE bowl to avoid jeopardy, rather than arbitrarily assuming enough had been removed in 2011 to achieve recovery?

If the existence of a stable to increasing population is the recovery goal, then one could argue the population has been recovered ever since it first began increasing - perhaps soon after its listing as "threatened" in 1975. Indeed, FWS implied the NCDE bear population was already increasing in 1975 when it justified the hunting of those bears:

[The] grizzly bear population is large enough that bears are now wandering into settled areas where they threaten human safety and commit significant depredations on legally present livestock.

(40 Fed. Reg. at 31,735; emphasis added). "Stable to increasing" is a wholly arbitrary population recovery threshold that disregards the conditions and amounts of habitat needed to bring about grizzly bear recovery in the Lower 48 through an adequately robust and interconnected metapopulation.

As far as minimum population requirements, the CS at 36 states (however wrongly to be discussed later) that only 400 bears would be needed to maintain adequate genetic diversity if the NCDE were genetically isolated from Canada. The CS argues it is not isolated and implies this means even fewer bears are needed - perhaps just a handful? The CS at 37 goes on to appear gracious in claiming that maintaining twice that number of bears (800) will be enough to achieve the goal of having NCDE bears disperse to Greater Yellowstone and other Recovery Zones (even though this had not been accomplished by the 942 bears estimated to exist in 2011).

In short, the choice of 2011's estimated 942 bears as the recovery threshold is wholly arbitrary in terms of bears' needs and appears instead to have everything to do with having spent millions of dollars collecting bear hair in order to estimate their numbers using DNA analyses. FWS is wasting taxpayer time and money twirling its finger in the NCDE bowl of water, claiming recovery has been accomplished because it is now able to prove with greater confidence that its finger is wet. It should instead be getting on with removing the stones it has previously determined

must be removed from the bowl to prevent the demise of the bear caused by significant displacement from its habitat.

4. Conflicting Goals and Statements

a. The CS claims it will maintain a recovered population of bears so robust that bears will disperse to other Recovery Zones, while simultaneously relaxing mortality limits and reducing the current size of the NCDE bear population:

“[T]he NCDE should eventually serve as a source population for genetic and demographic rescue of other grizzly bear populations in the lower 48 States.” (CS at 14).

“[T]his Conservation Strategy aims to demonstrate a clear commitment to establish the NCDE as a source population to the Greater Yellowstone, Bitterroot, and Cabinet-Yaak grizzly bear recovery ecosystems . . .” (CS at 36).

The CS at 7 provides “a 2011 population estimate of 942 bears,” yet proposes on page iii “to maintain a genetically diverse NCDE grizzly bear population with at least 800 grizzly bears. We will achieve this goal by including . . . a high adult female survival rate, and sustainable mortality limits that will not result in long term population decline.” Allowing or causing the population to decline from 942 bears to 800 does not keep the NCDE population on the road to recovery, nor will it provide more bears venturing off to rescue other Recovery Zones!

Indeed, the 2011 estimate of 942 bears is based on a 3% annual population increase since 2004, which is in turn based on an independent female bear survival rate of 0.95. Nonetheless, the CS proposes to relax this mortality limit to 0.90, which would reduce the current estimated annual population increase of 3% to zero (CS at 7, 37-39 and App. 2, Sec. C, at 11). The CS stops recovery rather than sustaining it.

Worse yet, this and other mortality limits would be applied only to the Primary Conservation Area (PCA) and Zone 1 (CS at 34-41), as though the deaths of bears moving out into Zones 2, 3 and beyond don’t affect the survival rates and trend of the overall NCDE population (or PCA / Zone 1 portion) they came from!

In terms of our analogy, the CS would have us believe bears are either going to permeate the terracotta boundaries of the NCDE or flow over the rim of a full bowl to run off and rescue other ecosystems. In fact, the CS will not only stop the current estimated annual population increase of 3%, it will allow the population to decline to 800 bears from an estimated 942 before even questioning the decline. Worse yet, it would allow the population to fall to 500 bears before requiring consideration of an emergency re-listing under the ESA. (CS at 109). You don’t get water to flow over the top of a bowl by lowering the level of the water in the bowl, nor does lowering the level of the water in the bowl provide more opportunity for bears to migrate through its boundaries.

A careful reading of the CS reveals its intent is to provide the narrowest notion of recovery to which it can be held accountable, for solely the NCDE population. The rest of the flowery language about NCDE bears dispersing to rescue other ecosystems is neither integral nor accountable to NCDE recovery. It is instead a bunch of misleading and wishful thinking trying to make a deliberate, hasty retreat from bear recovery look like a robust and overflowing success.

b. The CS envisions the NCDE fulfilling the source role in a source-sink relationship wherein NCDE bears disperse to rescue other Recovery Zones, while simultaneously violating the principles of source-sink dynamics:

“This Conservation Strategy envisions the NCDE serving as a ‘source population’ for grizzly bear populations in the Cabinet-Yaak, Bitterroot, and Greater Yellowstone ecosystems.” (CS at 32; see also point 4.a, immediately above).

NCDE “mortality standards will only apply to the PCA and Zone 1.” (CS at 34-41).

“Grizzly bear mortalities occurring in Zone 2 or Zone 3 will not be counted against the NCDE survival standards as these are not necessary to maintain a recovered grizzly bear population in the NCDE.” (CS at 35-36).

No clearer, contradictory, arbitrary, and wrong statement could possibly be made than the latter statement above. The point of monitoring bear mortalities is to insure they don’t exceed sustainable limits and to help estimate population trend. Any bear death that exceeds sustainable limits is a bear that was needed to maintain the population, no matter where it occurs, provided that bear originated in that population! This wrong-headed approach is all the more remarkable given the CS, at 41, acknowledges “any grizzly bear found in Zone 3 to date has originated from the NCDE and this will likely remain the case for the vast majority of Zone 3.”

The CS strategy of not counting the deaths of dispersing bears flies in the face of the simplest of source-sink population dynamics. The whole point is to acknowledge that bears may be moving from areas of higher bear densities to lower densities - and that those lower density “sinks” are often lower density precisely because bears tend to die there due to higher levels of human activity and mortality risk. One cannot simply dismiss mortalities that occur in the “sink” as though those bears did not come from the “source” population! (See generally Doak 1995).

Mace and Waller (1998) concluded the NCDE’s Swan Mountains population was decreasing at over 2% per year due to bears leaving source areas to die in greater numbers in sink areas like the Swan Valley. Would they have reached this conclusion if they had arbitrarily decided to not count the bears that died in the higher mortality sink areas?

The CS, at 20, readily acknowledges “Zone 3 will likely always rely on the core population within the PCA of the NCDE to serve as a source for more bears . . .” Yet the CS fails to count the mortality in those dispersing bears, which will absolutely

result in an undercounting of mortality in the NCDE population and skew the estimation of population trend.

Sadly, it once again appears that the CS is armoring up its narrow claim to recovery in the heart of the NCDE by dismissing mortalities and habitat protections in areas absolutely essential to the ability of bears to live long enough to migrate from the NCDE to other Recovery Zones. It becomes increasingly clear that FWS's objective is to de-list one Recovery Zone at a time without firstly insuring they are genetically and demographically connected. This makes CS claims that "the NCDE should eventually serve as a source population for genetic and demographic rescue of other grizzly bear populations in the lower 48 States" ring absolutely hollow. (CS at 14).

To return to our analogy for a moment, FWS would have us believe that it can guarantee the level of water in the NCDE bowl will not decrease while it absolutely ignores the amount of water seeping through the terracotta and evaporating before it can be channeled to another Recovery Zone. That's a no sale by all accounts!

c. The CS would have us believe that the amount of secure habitat present in 2011 is enough to allow bears to continue to prosper without securing any more habitat, even while relaxing mortality limits and allowing hunting of bears to resume:

"The [Interagency Grizzly Bear] Guidelines used motorized access management as the primary habitat management tool and these restrictions were instrumental in recovery of the grizzly bear in the NCDE." (CS at 47).

" Due to [Mace's] measured increasing population trend and the fact that motorized route density decreased between 2004 and 2001, 2011 was chosen as the baseline year for measuring levels of human activities . . . compatible with a stable to increasing grizzly bear population . . ." (CS at 18-19).

"The key population management element that allowed recovery was conservative habitat and mortality standards." (CS at 35).

Nonetheless, the CS would no longer be conservative with its habitat and mortality standards. It arbitrarily determines that habitat on public lands need not be made any more secure after 2011, even though habitat on private lands becomes less secure by the day, recreation on public lands continues to increase rapidly, and many public lands persist with habitat security levels below those FWS previously determined necessary for the population to survive. Moreover, the CS would indeed relax previously "conservative" mortality standards substantially. (See 4.a, above).

We certainly hope the NCDE population is increasing and that it is a response to removing stones from the bowl via limits on motorized use since the mid-1990s if not before, leaving more room for bears. What doesn't logically follow, however, is the CS implication that the population will have room to continue to grow without either removing more stones from the bowl or enlarging its breadth. (Then again, the CS is apparently only joking about the NCDE producing more bears to venture

off and rescue other ecosystems - because the population will in fact be reduced instead - see 4.a, above).

Equally as important is the faulty assumption that habitat security levels the CS argues were adequate to allow a 3% increase in the population without grizzly bear hunting will remain adequate to sustain the population when mortality limits are relaxed to allow more mortality at the hands of wildlife managers and hunters. You can't pull the mortality limit lid further off the bowl without expecting more bears to evaporate and you can't expect more bears to occupy the bowl if you don't make room by removing more of the stones!

Worthy of notice here is the CS observation that, "based on preliminary analysis of trend data from bear rub monitoring," the NCDE population grew faster outside Glacier National Park than inside the Park from 2004 - 2011. (CS App. 2 at 21). It could be possible this difference is due to the fact habitat security was being increased through increased limits on motorized vehicles outside the Park while habitat security remained pretty much unchanged inside the Park. It is also possible that the population outside the Park is still responding positively to not being hunted since 1991, while Park bears were not hunted to begin with. Or this could be a combination of both or more factors. Regardless, it sends the signal that we are doing something right outside the Park and we certainly shouldn't stop doing it!

E. WHAT RECOVERY SHOULD LOOK LIKE AND HOW THE CS FAILS IT

1. Genetic v. Demographic Rescue Effects Between Ecosystems

The CS repeatedly emphasizes the NCDE will "eventually serve as a source population for genetic and demographic rescue of other grizzly bear populations in the lower 48 States." (CS at 14, 32 and 36). This, even though the NCDE itself is becoming demographically isolated from Canadian bear populations, especially north of Canada Highway 3.

Genetic rescue is accomplished by male or female bears migrating to another ecosystem and successfully breeding there. Demographic rescue requires that those successful migrants and breeders be female. (Procter et al. 2012). The CS errs in citing Procter et al. (2012) to claim the NCDE is adequately linked to secure Canadian bear populations in terms of demographic rescue effects. (CS at 7 and 13).

Indeed, Procter et al (2012) find the following:

Near the Canada-US border area, we found extensive fragmentation that corresponded to settled mountain valleys and major highways . . . Although we detected enough male movement to mediate gene flow, the current flow rate of female movement detected among areas is insufficient to provide a demographic rescue effect between areas in the immediate future (0-15 yr) . . .

Without female connectivity, small populations are not viable over the long term . . .

Our results suggest that diminishing demographic connectivity in our southeastern study area [Alberta, SE British Columbia, their border areas shared with the U.S., the NCDE, and Greater Yellowstone] has transformed a once inter-connected grizzly bear population into a human-induced, predominantly female-fragmented metapopulation . . .

Currently, female interchange is limited in the subpopulations of our southeastern study area to the extent that natural demographic rescue of small threatened subpopulations is likely not possible (or very limited at best) . . .

Genetic connectivity . . . does not ensure demographic connectivity . . .

The CS instead focuses almost solely on genetic connectivity as though it does ensure demographic connectivity. This is most obvious when the CS finds the following:

Proctor et al. (2012) documented 11 movements (10 males and 1 female) between the NCDE and grizzly bear populations north of Hwy. 3 in Canada, indicating the NCDE appears to be well connected to Canadian populations and its population size means there is currently little risk of significant reduction in the present level of genetic diversity.

A primary point of Proctor et al. (2012), as noted above, is that human developments like Canada Highway 3 have largely severed the ability of female bears to move between fragments of ecosystems and thus “ensure demographic connectivity.” One female bear moving across Highway 3 since 1998 is certainly no guarantee of demographic rescue, even if she did survive long enough to breed and reproduce! The CS essentially is shadow-boxing by inappropriately substituting genetic rescue and demographic rescue for one another and deliberately using connectivity between the US and Canada to imply adequate connectivity north and south of Highway 3 in Canada.

The upshot is that the NCDE is not securely connected demographically with Canada north of Highway 3 and there is reasonable cause for concern that the international border area of Canada may be functioning as a population sink for U.S. populations. (Dr. Brian Horejsi as cited in Bader 2000). This is all the more reason the NCDE must retain protection under the ESA until it and enough areas between Recovery Zones have adequate habitat protections demonstrating sufficient numbers of female bears are migrating between ecosystems and successfully breeding as migrants.

2. Population Sized for Long-Term Persistence

The CS at 36 errs in claiming 400 bears can maintain genetic diversity. Allendorf et al. (1991) initially found a population of some 2,000 bears “necessary to maintain evolutionary significant quantities of genetic variation.” This was used by Bader (2000) in his mapping and determination of the spatial needs of a recovered population of northern Rockies grizzly bears.

Allendorf and Ryman (2010) later revisited the question of long-term persistence and concluded some 5,000 grizzly bears are necessary, concluding as Bader (2000) did this will not be possible “without greatly increasing the connectivity among populations over a wide geographic area.” Traill et al. (2009) also conclude the scientific literature “collectively shows that thousands (not hundreds) of individuals are required for a population to have an acceptable probability of riding-out environmental fluctuation and catastrophic events, and ensuring the continuation of evolutionary processes.”

Reed et al. (2003) reviewed population viability models for 102 vertebrate species based on actual life history data, concluding “conservation programs, for wild populations, need to be designed to conserve habitat capable of supporting approximately 7,000 adult vertebrates in order to ensure long-term persistence.” This the CS and Recovery Plan simply do not do. Indeed, upon her retirement from the USGS, Kendall (2013) concludes of the NCDE: “On the other hand, 1,000 bears over 8 million acres isn’t very many.”

Nowhere do the CS or the Recovery plan describe the HBRC by which the Lower 48 Recovery Zones will be adequately sustained and connected to provide for a healthy metapopulation of some 5,000 bears or more. They provide absolutely no road map on how our six bowls of water are going to remain full enough and able to successfully channel water from one to another.

3. Providing for Adequate Connectivity

Bader (2000) and Alliance for the Wild Rockies (undated) provide maps of the northern Rockies demonstrating grizzly bear migration corridors connecting the region’s five Recovery Zones can be established largely on public lands, though not without crossing areas of human settlement. Proctor et al. (2012) conclude the “long-term persistence of this large carnivore in landscapes that overlap significant human densities will require extraordinary management beyond that normally applied to most ungulates and/or black bears.”

The CS and Recovery Plan, however, provide no such road map or any such extraordinary management for bear migration corridors. This even though the CS at 9 acknowledges that, because dispersing young bears establish home ranges within or overlapping their mother’s, this “type of movement makes dispersal across the landscape a slow process.”

The CS and Recovery Plan fail to develop and measure recovery against HBRC that would allow for female bears with young to successively establish overlapping home range “stepping stones” necessary to demographically reconnect the various ecosystems. This in spite of the fact FWS has already found the Swan Valley Grizzly Bear Conservation Agreement, for example, would fail to ensure adequate habitat and security for females with young to establish home ranges. (See USFWS 1995b and F.3.b, below).

The CS instead cancels time-proven habitat-securing programs in the heart of the NCDE and suggests even weaker habitat and mortality management as one moves out from the PCA to lesser management Zones. It does so, in part, because some females with young have been documented in the Salish Mountains, reasoning that habitat management and security there must already be OK. The CS fails to detail, however, the degree to which these females with young are able to set up permanent home ranges with their young and survive long enough so the young will then be able to extend further away from the PCA with their home ranges.

As detailed above, FWS and other agencies have already utilized Mace and Manley (1993), Mace and Waller (1997) and other research to determine what levels of habitat security from motorized and other high-intensity human uses bears need to establish successful, reproductive home ranges. The CS, however, fails to apply these Amendment 19-style security standards in any meaningful way to habitats needed for genetic and demographic connectivity between ecosystems and Recovery Zones. And, again, FWS has failed to firstly develop HBRC by which to measure recovery and dispersal.

The CS would remove ESA protection from dispersing bears and allow them to be killed in greater numbers by hunters, wildlife managers, and other “permitted citizens,” not to mention those who may chose to shoot a bear in self defense or out of spite without fear of ESA-based penalties. (CS at 102 and 120-124). Without retention of ESA protection, the CS and FWS’s plans for bears to successfully disperse from the NCDE to other ecosystems will be directly at odds with Montana law and Montana Department of Fish, Wildlife and Park’s (MDFWP) dictate to “use proactive management to control grizzly bear distribution and prevent conflicts, including trapping and lethal measures.” (CS at 123, emphasis added).

Absent ESA protection, successful demographic rescue among and between ecosystems is a baseless pipe dream. Indeed, the CS would not even bother monitoring dispersal of female bears with young outside the PCA and Zone 1 (CS at 34)! It appears the CS could care less about its stated goals of the NCDE being a source population for other ecosystems. Absent ESA protection, HBRC, and an adequate habitat protection and monitoring plan, bears will simply not be able to successfully migrate because they will be left to compete with essentially unfettered human use of the land, along with hunting and trapping programs that target dispersing bears, among others.

F. LACK OF ADEQUATE REGULATORY MECHANISMS

1. The CS itself is not an adequate regulatory mechanism:

The CS at 110 states “Delisting of the grizzly bear will remove the regulatory certainty provided by the ESA . . .” It is precisely that uncertainty that is fatal to the CS. Indeed, the CS, at 3, states clearly that it contains neither the legal mechanisms nor the authority needed to implement it.

Moreover, the Memorandum of Understanding itself finds “The adequacy of the regulatory mechanisms demonstrated by this Conservation Strategy are dependent upon funding being available to fully implement the management and monitoring actions in this document.” (CS at vii). We doubt any of the Memorandum agencies currently have adequate funding nor have any reasonable expectation they will receive adequate funding in the future, especially given our country’s devolution into the current cycle of recession and sequestration.

Conditioning the implementation of standards upon future, uncertain funding does not constitute adequate regulatory mechanisms. Regulations implementing the National Environmental Policy Act (NEPA) allow federal agencies to identify as “essential mitigation” measures that must firstly be funded before development projects are implemented. If the money isn’t there for the mitigation, the project does not get funded and implemented either. (40 CFR 1505.3). The CS, however, places no such conditions on activities that may harm bears, meaning they can proceed whether or not the funds are available to implement the CS. And the agencies have a long history of funding development projects and plans before funding monitoring and enforcement of protective measures, if ever.

2. Forest Plans are not legally enforceable and hence are not adequate regulatory mechanisms:

We have brought numerous lawsuits against FWS and the Forest Service to enforce timely implementation of the nondiscretionary “terms and conditions” of Amendment 19’s 19/19/68 limits on motorized access on the Flathead National Forest. The Ninth Circuit Court of Appeals ruled “the motorized access objectives set forth in Amendment 19 to the Forest Plan [but] not incorporated into project decisions are statements of priorities, not legally binding commitments enforceable under [the] National Forest Management Act.” (*Swan View Coalition v. Barbouletos*, U.S. Court of Appeals, 9th Circuit, No. 08-35685, October 8, 2009.)

In other words, the Forest Plans can say and promise whatever they like but, unless the Forest Service chooses to carry that promise forward into a project decision, it is meaningless and legally unenforceable. We use this adverse ruling as an example here because the pertinent part, above, is not an ESA claim (that could no longer be brought against a Forest Plan after the bear is de-listed). It is instead a claim based on what the bear will be left with after delisting, the NFMA.

To emphasize the point, however, we must note that Flathead Forest Plan Amendment 19 objectives and standards are backed up with the full weight of the ESA as nondiscretionary terms and conditions in FWS's BiOp and ITS (USFWS 1995a). Indeed, before it would approve Amendment 19, FWS required the Flathead to clarify in the Amendment that the "grizzly bear objectives and standards of Amendment 19, which are required by the Terms and Conditions of the U.S. Fish and Wildlife Service's Biological Opinion on Amendment 19, are not discretionary." (USFS 1995).

Nonetheless, the Ninth Circuit has ruled these Forest Plan objectives and standards are essentially discretionary under the NFMA, which is what the bear will have for protection in the absence of the ESA. And we can't expect any better Forest Plan protections under the new Forest Planning Rules (77 FR 21162-21276, April 9, 2012) or their resultant Plan revisions.

The CS makes large of the new Forest Planning Rules, at 110 and 115, and notes that "standards" are mandatory while "guidelines" can be departed from. These Planning Rules, however, while requiring both standards and guidelines be included as overall Forest Plan components, only require that standards be included to limit the size of clear-cuts. In all other instances, including the provisions to maintain diversity of plant and animal communities, the Plan can include either "standards or guidelines." (77 FR 21162-21276, April 9, 2012, emphasis added).

In other words, the Forest Service is not required to include any mandatory standards for the protection of bears in its Forest Plans (other than those that coincidentally limit the size of clear-cuts to comply with NFMA-mandated limits on clear-cut size). It can instead include only guidelines if it so chooses.

Even if the Forest Service does include mandatory bear standards in its Forest Plans to satisfy FWS's approval of the CS and Memorandum of Understanding, the new Planning Rules allow the Forest Service at its own discretion to "modify, or remove one or more plan components, or to change how or where one or more plan components apply to all or part of the plan area. . ." This can be accomplished by a simple Forest Plan amendment accompanied by no more NEPA process than the issuance of a decision to categorically exclude the amendment from the prior preparation of an Environmental Impact Statement or Environmental Assessment (77 FR 21268, April 9, 2012)!

In other words, the Forest Service can renege on its Forest Plan standards (as if they were legally enforceable to begin with) by simply removing them once the bear is de-listed. FWS and citizens will have no ESA legal authority under which to challenge amendments removing bear standards.

3. Other Plans Neither Adequate Nor Legally Enforceable

An adequate regulatory mechanism must firstly be adequate to sustain bear recovery and secondly be legally enforceable. We've shown above how numerous CS provisions are not adequate to sustain recovery and we've shown that Forest

Plans are not legally enforceable mechanisms. We will now turn to other Plans and agreements that fail both tests.

a. DNRC's Habitat Conservation Plan (HCP) is inadequate:

DNRC's HCP is for a 50-year term and does not adequately provide for adjustments that may become necessary due to climate change. It does not protect habitat for bears, but instead protects DNRC's logging program.

The HCP eliminates secure core area on the Stillwater State Forest in favor of a 4-year activity/8-year rest scheme. This should be rejected for several reasons: 1) The rest period is not a surrogate for secure core because it has many loopholes that allow salvage logging and use of closed roads by DNRC. 2) DNRC is allowed to maintain up to 8 miles of temporary roads at any one time. 3) DNRC is relying on adjacent Forest Service core area to provide grizzly bear security yet their own ARMs do not allow them to restrict their activities to make up for deficiencies on adjacent lands. DNRC can't have it both ways. 4) The HCP characterizes adjacent Plum Creek lands as having "efforts to avoid or minimize take." However, Plum Creek does not have an HCP for grizzly bears so is not bound by any legal measures to minimize take. 5) This scheme has not proven to protect grizzly bears in the Swan Valley under the Swan Valley Grizzly Bear Conservation Agreement (SVGBCA), which serves as a population "sink" to the Swan Mountains "source" population, causing the population to decline by over 2% per year. (Mace and Waller 1998). And, as noted before and below, FWS has found the Swan Valley Grizzly Bear Conservation Agreement would fail to ensure adequate habitat and security for females with young to establish home ranges in the Swan Valley. (See USFWS 199b and F.3.b, below).

The HCP project area excludes more than 50,000 acres of state trust lands planned for transition and/or development.

What DNRC claims are 50 foot no-cut buffers on streamside riparian zones are riddled with exceptions. Exemptions allow for borrow pits in the Streamside Management Zones; roads in Riparian Management Zones (RMZ's), Wetland Management Zones and avalanche chutes; cable logging corridors in RMZs; multiple harvest entries and salvage logging in RMZs that allow up to 20% to be logged.

The HCP purports to "minimize" the road system. However, road miles will instead increase from the current total road density of 3.1 miles of road/square mile to 4.7 miles of road/square mile because 1,100 miles of new roads will be constructed.

The HCP considers climate change a changed circumstance that will be dealt with at a later time.

Activities sanctioned by the HCP were not analyzed to see whether they are consistent with recovery criteria. There are no biological goals in the HCP only logging and road building goals.

The HCP does not have habitat-based criteria to make sure that good bear habitat is always available.

b. The Swan Valley Grizzly Bear Conservation Agreement is inadequate:

The Swan Valley Grizzly Bear Conservation Agreement (SVGBCA) does not meet the 19/19/68 criteria of Amendment 19 determined necessary for female bears to establish and retain home ranges with their young. It instead essentially provides “no net loss” of existing Security Core and “no net gain” in motorized route densities in Bear Subunits where the Forest Service owns less than 75% of the land (not unlike what the CS now proposes in simply maintaining the 2011 baseline). This essentially allows habitat security to persist at the low levels contributing to the Swan Valley being a bear population sink. (Mace and Waller 1998).

Indeed, in its 1995 Biological Opinion on the SVGBCA, FWS (1995b) found:

... high road densities in lower elevations may continue to preclude the establishment of home ranges by (successful reproducing) adult females ...

... blocks of core [security] habitat of sufficient size to be functional are absent at lower elevations in the Conservation Area, and would remain absent under the terms of the Agreement ...

... there remains a concern with habitat conditions in the Conservation Area, and the anticipated incidental take of grizzly bears as defined in the [Endangered Species] Act.

The CS misses a choice opportunity to improve bear habitat management in the Swan Valley now that the Forest Service owns Legacy Lands that once belonged to Plum Creek, bringing the percentage of Forest Service ownership in numerous Subunits to greater than 75%. Rather than apply Amendment 19's 19/19/68 criteria as required by Amendment 19, the CS would have these lands remain managed under the less stringent SVGBCA. This most certainly will not help remedy the Swan Valley as a bear population sink!

The SVGBCA is inadequate for managing bear habitat on federal, state, Plum Creek, and private lands. Similarly, the CS's proposed management of its limited Demographic Connectivity Areas (DCA) is not adequate to insure females with young will be able to set up “stepping-stone” home ranges aimed at reconnecting demographically to other ecosystems. This is all the more true in areas needed for demographic connectivity beyond the reach of the limited DCAs.

c. CS population monitoring and review provisions are inadequate:

As noted above, the CS fails to monitor, report and include in mortality and trend calculations bear mortalities that occur outside the PCA and Zone 1. This renders

population trend and mortality estimates inadequate, and renders the flawed mortality monitoring and limits entirely inadequate as regulatory mechanisms.

To the degree the CS does monitor mortality and other bear population parameters, it averages those mortalities and allows them to persist over such long time periods that it renders remedial action as most likely too little, too late. By the time the mortalities and mortality rates are monitored, reported and a management review is initiated, 12 years will have already passed and the management review will likely take several more. And, as Doak (1995) notes, habitat degradation can occur for over a decade before it can be detected in population monitoring. Hence, habitat quality and security can be in decline for well over two decades before it is detected by CS population monitoring (if indeed detected at all), by which time reversal of the habitat degradation may be either irreversible or simply too late to stop the population decline.

Moreover, a decline in the current independent female survival rate of 0.95 (Mace et al. 2012) can drop to and remain as low 0.90 under the CS without triggering any alarms or reviews into what may be causing the decline (CS at 37). Even were the population to fall to less than 500 bears, independent female survival rates to fall below 0.85 for two consecutive 6-year periods, and population decline to be greater than 5% for three consecutive 6-year periods - this still would not trigger a mandatory re-listing of the bear under the ESA. It would only require FWS to consider it!

d. Monitoring of habitat-based recovery criteria is inadequate:

The CS is inadequate as a regulatory mechanism because it does not require the monitoring of HBRC and the maintenance of habitat quality and security at or above those levels. This the CS cannot do because it does not include HBRC in the first place. The CS cannot contain HBRC for the NCDE because such ecosystem-specific HBRC have not yet been developed by FWS according to the public process it has promised the D.C. Court. (USDOJ 1997, attached).

There is good reason the D.C. Court found HBRC must be established so recovery can be measured against it and found that population criteria “cannot serve as an indicator of adequate habitat management.” (See Section B, above). Moreover, research has demonstrated that monitoring population size rather than habitat parameters can result in a delay of over a decade before habitat degradation may show up in population numbers, by which time “it will probably be too late to prevent critical amounts of habitat degradation from occurring.” (Doak 1995).

Doak (1995) speaks directly to the inadequacies of the Grizzly Bear Recovery Plan:

The Recovery Plan . . . sets criteria that are either indirectly based on population numbers (e.g., number of females with cubs seen per year) or rely on population size estimates (i.e., human-caused mortality as a percentage of estimated population size) and uses census data as the primary measures of continuing population health (Shaffer 1992). Although the plan is careful to

state that the recovery criteria are not explicitly population number goals, all the criteria are in fact directly related to population size. At the same time, no clear plans are set forth to assess the impacts on bear populations of further development in the national parks and forests that comprise most of the grizzly ecosystems in the lower 48 states. Thus, population monitoring data appear to be the only measures of the continuing, incremental effects of road building for mineral exploration, logging, and tourism.

My analysis indicates that the planned data collection will not adequately safeguard bear populations from this habitat degradation. Rather, analyses of how much degradation is too much and how best to monitor for degradation effects must be completed before degradation proceeds.

These are essentially the same arguments we made to the D.C. Court, which ruled the Recovery Plan inadequate. (*Fund for Animals v. Babbitt*, 903 F. Supp. 96, Dist. Court, Dist. of Columbia, 1995). These same arguments still apply to the Recovery Plan and render the CS premature and equally inadequate as any sort of reasonable monitoring or regulatory mechanism.

e. Hunting, Trapping and Other Intentional Mortality Controls Inadequate:

In 1975, FWS issued special rules alongside its listing of the Lower 48 grizzly bears as “threatened.” These allowed the killing of grizzly bears by persons in self-defense or in defense of others, by federal or state officials in removing “problem” bears, and by citizens possessing Montana grizzly bear hunting permits in the NCDE. In the latter case, sport hunting kills were to be limited so that total mortality from all sources would not exceed 25 bears each year. (40 Fed. Reg. 31,735; 1975).

Total annual known human-cause mortality limits were reduced to 15 total or 6 female bears in 1985 and further to 14 total or 6 female in 1986. (50 Fed. Reg. 35,087; 1985 and 51 Fed. Reg. 33,753-60; 1986, respectively). These 1975, 1985 and 1986 rules all relied on FWS’s finding that “grizzly bear population pressures definitely exist” in the NCDE. This finding was needed to purportedly comply with the ESA requirement that FWS can only authorize a sport hunt of a “threatened” species in the “extraordinary case where population pressures within a given ecosystem cannot otherwise be relieved.” (16 USC 1532(3)).

Swan View Coalition and others challenged the sport hunt in 1991 in U.S. District Court in the D.C. District, after MDFWP decided to add a Spring grizzly bear hunt along the Rocky Mountain Front to its long-standing Fall bear hunt elsewhere in the NCDE. The federal lawsuit was brought, in part, because plaintiffs had been unable to stop the Spring hunt in Montana State Court absent ESA claims and since FWS itself had been unable or unwilling to stop Montana from continuing the 1991 Spring hunt prior to the deaths of three healthy bears. (USFWS 1991).

FWS’s primary objection to the Spring hunt was that intentional hunting mortality would occur early in the out-of-den season with a likelihood that known human-caused mortality limits could then inadvertently be exceeded by other unavoidable

human-caused bear mortalities later in the year (as opposed to Fall bear hunts occurring late in the season when most unavoidable mortalities have already been accounted for). “[W]e realize that we have no authority to carry excess mortality from one year forward to the next year and correct for it [so] we have concluded that the spring grizzly bear hunt should be halted and we have requested the [MDFWP] to stop the hunt immediately.” (USFWS 1991).

The lesson to be learned here is that, even with ESA grizzly bear protection in place, FWS has difficulty policing itself and other agencies - and was unable to prevent the intentionally killing of three bears in 1991, one of them a near-record-aged, non-problem male bear of over 21 years. You don’t live 21 years as a bear if you have been raiding cattle ranches or chicken coops, and you don’t deserve to die under a hunt touted to target “problem” bears! What can bears hope for with ESA protections removed?

We were successful in our lawsuit, stopping the NCDE sport hunt that we documented had caused 48% of all known human-caused mortality in the NCDE from 1975-1990. (Hammer 1991). The D.C. Court found FWS failed to demonstrate bear population pressures existed in the NCDE:

FWS itself has taken the position, in the course of explaining its 1986 [hunting] regulation, that the movement of grizzly bears out of their natural range and into inhabited areas could be due to any of numerous factors, only one of which is an actual increase in bear population:

This movement may be attributable to one or a combination of factors, such as availability of bear foods along riparian zones, artificial food sources (livestock carcass dumps, beehives, etc.), climatic changes, loss of previously utilized habitat, or an actual increase in the size of the overall bear population and consequent dispersal.

51 Fed. Reg. 33,755. No basis has been supplied for attributing the movement of bears in this instance to a population increase -- let alone to an excess of bears in the ecosystem -- as opposed to any of the numerous other factors listed by the FWS.

(*Fund for Animals v. Turner*, 1991 U.S. Dist. Court, Dist. of Columbia. W.L. 206232, 1991; L.E.X.I.S. 13426, 1991).

Now, FWS wants to reinstate a sport hunt of grizzly bears in the NCDE without firstly demonstrating population pressures that cannot otherwise be relieved. The CS does no better job of explaining the above factors noted by the D.C. Court. It would instead do an end run by simply removing ESA protection in order to hunt NCDE bears for sport!

FWS has mapped NCDE grizzly bear mortalities, roughly partitioning them before and after it stopped the sport hunting of bears in response to the D.C. Court injunction in 1991. These “before and after” maps clearly shows the hunt was killing

largely reclusive bears in the wilderness heart of the NCDE rather than killing “problem” bears around the periphery! (USFWS 2009).

The CS is flat wrong in finding “regulated hunting will help alleviate some of these illegal, malicious killings [that are] a significant source of mortality in the NCDE.” (CS at 16). As discussed above, hunting regulated under the ESA is a significant source of mortality (48% of total per Hammer 1991), and we can expect it to be an even more significant source of mortality absent ESA protections and left to the devices of MDFWP! Moreover, sport hunting of grizzly bears sends the message that there is a surplus of bears, making it more likely people will simply take matters into their own hands and more readily simply kill a bear that is perceived as a threat or a problem.

The CS at 1 notes that “grizzly bears will always be a ‘conservation-reliant’ species in the NCDE.” As such, we acknowledge with great gratitude the hard work and dedication of MDFWP’s grizzly bear specialists like Tim Manley, Mike Madel and Jamie Jonkel (and their counterparts with the Tribes). Their work in helping minimize human-bear conflicts and, when absolutely necessary, removing bears from the ecosystem to resolve conflicts will remain absolutely essential into the foreseeable future.

We disagree in the strongest of terms, however, with CS claims that the fate of the bear can be turned over to the upper level management of MDFWP and its inherent bias towards management by hook, bullet, and trap programs funded by the sale of licenses. Indeed, it is Montana’s stated policy that “sport hunting is considered the most desirable method of balancing grizzly bear numbers with their available habitat, minimizing depredations against private property within or adjacent to grizzly bear habitat, and minimizing grizzly bear attacks on humans.” (CS at 27, citing ARM 12.9.103).

Grizzly bear specialists have shown they can be reasonably certain they have the right “problem” bear before hazing it, removing it, or killing it. This is not the case with indiscriminate sport hunting and we reject the CS claim that managing grizzly bear without ESA protection and “as game animals is a valuable conservation tool.” (CS at 2).

And, finally, MDFWP’s 2006 Grizzly Bear Management Plan for Western Montana continues its earlier bias of using social attitudes towards bears to justify sport hunting. The goal of its Management Plan is to “provide for a continuing expansion of [the western Montana] population into areas that are biologically suitable and socially acceptable.” In 1986, MDFWP attempted to justify sport hunting of grizzly bear by expanding the notion of bear population pressures to include human social attitudes:

Excessive population pressure . . . appears to be basically a social consideration, not solely a biological one . . . Therefore, the problem is really a social one in that we must balance bear numbers with what society (especially those living with the bears) will accept . . .

(MDFWP 1986, emphasis in original). The D.C. District Court ruled “the Court does not believe that this interpretation of the statutory language is supportable” and went on to find Congress intended the hunting provision to apply in “extreme circumstances, as where a given species exceeds the carrying capacity of its particular ecosystem and where the pressure can be relieved in no other way . . .” (*Fund for Animals v. Turner*, 1991 U.S. Dist. Court, Dist. of Columbia. W.L. 206232, 1991; L.E.X.I.S. 13426, 1991.)

Again, neither FWS nor MDFWP have demonstrated that population pressures exist in the NCDE to warrant a sport hunt under the ESA. Instead, an end-run is being attempted by prematurely de-listing the NCDE from ESA protection. In short, the mechanisms the CS proposes for allowing, controlling and monitoring bear mortality are inadequate as regulatory mechanisms.

f. The CS abandons the precautionary principle for this “conservation-reliant species,” failing to provide adequate regulatory mechanisms to conserve it:

While acknowledging that “grizzly bears will always be ‘conservation-reliant’ in the NCDE,” the CS nonetheless abandons the precautionary principle in numerous ways. (CS at 1). As previously discussed, the CS does not prescribe either habitat management requirements or mortality limits that are conservative, despite its claims to the contrary.

On page 22, the CS argues that, while trails receiving high levels of human non-motorized use do displace grizzly bears from their habitat, this long-standing indicator of bear displacement should be dismissed. The CS leaves us with the ridiculous implication that bears are not displaced by high-use trails in Security Core or elsewhere simply because that displacement has not been detectable as “disproportionate grizzly bear mortality or population declines.”

The CS removes those trails from calculations of OMRD, TMRD and Security Core and we’re left with a ridiculous Appendix 6 to the CS that shows greater amounts of Security Core now that high-use trails are discounted. This even though the increase in area is in fact not Security Core because bears will continue to be displaced from those trails and Security Core according to the CS and earlier research!

The ESA and FWS define “harm” and “taking” of grizzly bear to include significant displacement of bears, not just their actual death at the end of a car bumper or gun. Again, the IGBC’s and numerous Forest Plan standards were based on Mace and Waller (1997) and other research showing that high levels of human use displace bears from otherwise preferred habitats, not just motorized uses. The CS is arbitrary, capricious and without scientific integrity in attempting to discount proven bear displacement from high-use trails.

Similarly, the CS discounts concerns of grizzly bears being displaced from den sites by snowmobiles, where females with young linger for some time after den emergence. This even though FWS has found the following potential impacts from late-season snowmobiling:

Snowmobile use may either cause a female grizzly bear with young to prematurely leave a den in the spring, or cause a recently emerged female with cubs to be prematurely displaced from her den site, causing decreased fitness of the adult female bear, and/or abandonment or decreased fitness of her cubs. If cubs attempt to follow their mother from a den site prior to their gaining mobility, they may suffer from decreased fitness or death.

(USFWS 2006). Just because it is not known whether late-season snowmobiling is affecting the overall NCDE population, this is no reason to intentionally allow snowmobiling to occur during the den-emergence period when female bears with young are most vulnerable. By the time a problem is finally identified in the field, it will likely be too late for the affected bears!

We discussed above the inadequacy of the CS proposal for allowing OMRD, TMRD and Security Core standards to be violated during the life of logging and other projects. Trying to justify these exceptions using six federal projects that took place while the NCDE population was thought to be increasing lacks scientific integrity. This argument, and the whole of the CS, is premised on the assumption of a healthy population against which greater risks can be taken with individual development projects - exactly the kind of thinking that gets species in dire straights to begin with!

By the way, how can the CS consider 68% of the PCA to be “protected lands” like wilderness and roadless lands while also finding 68% of the PCA is available for “commercial timber harvest,” given that logging requires roads nearby? (CS at 47 and 26, respectively). Will roadless lands really be protected under the CS?

g. The CS provide no adequate regulatory mechanism for dealing with climate change:

The CS fails to acknowledge that climate change impacts to bears may very well be the synergistic straw that breaks the camels back. The CS acknowledges that bears are already spending less time in winter dens as the climate warms and consequently this “increased time outside of the den could increase the potential for conflicts with humans.” (CS at 31). As more people and development continue to move into bear habitat, this will compound the problem, as will snowmobilers allowed by agencies to compete with bears for lingering snowpack areas in which to either play or den.

Researchers simply “don’t know what climate change will do to berry production,” which is key to bear survival in the NCDE. (Kendall 2013). The CS, however, simply touts the “habitat diversity and flexibility of grizzly bear diets in the NCDE.” (CS at 12). This hardly constitutes a plan for dealing with the impacts of climate change on bears, let alone adequate regulatory mechanisms to insure bears remain at the top of decisions being made when climate change push comes to shove as bears and humans compete all the more intensely for the same resources!

G. CONCLUSION

The CS is premature and must be preceded by a Recovery Plan that includes HBRC against which recovery can be measured and by which recovery can be sustained. Neither document rationally describes the relationships between population size estimates, population trend estimates, habitat security, habitat quality, carrying capacity, bear dispersal, source-sink population dynamics, and ecosystem connectivity. Nor does either require management adequate to sustain recovery in the NCDE or to reestablish a sizeable metapopulation of bears in the Lower 48 that is truly recovered and well connected both genetically and demographically.

The CS at 18 claims “Because carrying capacity in such an omnivorous and opportunistic species can vary annually and even day to day, there is no known way to calculate carrying capacity for grizzly bear populations.” Rather than compensate for this via more cautious estimates and management, however, the CS abandons the precautionary principle and bootstraps most everything to population size and trend estimates. Most importantly, the CS demonstrates FWS has failed to learn from numerous D.C. District Court and other opinions finding fault with its Recovery Plan and its implication that bears are ending up in areas of human habitation simply because there are so damn many of them.

FWS must back up and develop HBRC with assistance from the public and independent scientists. These HBRC must contend not only with habitat security, but habitat foods, shelter and other factors. Some of these factors have been raised by independent scientists before; during the June 17, 1997 public workshop on developing HBRC for the Greater Yellowstone ecosystem. (See for example the workshop contributions made by Dr. Barrie Gilbert, Dr. Lee Metzgar, Dr. Lance Craighead, Dr. Craig Pease, Dr. Charles Jonkel, David Mattson, and Troy Merrill).

It is high time, some 16 years later, that you hold the promised public workshop for developing HBRC for the NCDE in order to bring the larger recovery process up to date. This is necessary both in terms of sorting out differences between Greater Yellowstone and the NCDE and in terms of coming up to speed with the continuing evolution of research findings.

The Recovery Plan and CS simply do not provide realistic safeguards enabling female grizzly bears to move outward from the core ecosystems with their home ranges to successfully rear young - so that those young can extend their home ranges until the ecosystems are truly connected demographically. Nor do they provide adequate safeguards to ensure the core ecosystems remains on an upward trajectory in order to support continued dispersal of both male and female bears.

To return to our water bowl analogy for a moment, one doesn't need to know the precise carrying capacity of the bowl to understand related bear-habitat-human dynamics. Bears can mistakenly be thought to be dispersing because the bowl is full of bears when it is in fact also partially full of bear-displacing stones and human developments - or the bears are simply seeping through the terracotta boundary of the bowl. Bears displaced or otherwise dispersing from the core of the ecosystem

cannot be expected to successfully navigate ever-increasing levels of human impacts and mortality risks as they venture outwards from the core with no ESA protection. In this regard, the Recovery Plan and CS must also provide for secure “troughs” of habitat between ecosystem bowls - and this they simply do not do.

H. Epilogue

Imagine you’re a grizzly bear sow in the Swan Range with newly born cubs. It’s April, you’ve just emerged from your winter den, and you haven’t eaten since October or November.

You can’t look for early spring vegetation to eat on the east side of the Swan Crest because everything below 3,600’ is buried under Hungry Horse Reservoir. So you take your chances instead in the heavily populated foothills of the Flathead and Swan Valleys, where the likelihood of running into trouble with people is very high.

To make matters worse, the government is removing your Endangered Species Act protection, even though your Swan Mountains sub-population is declining at over 2% per year. This will make it easier for citizens or government agents to kill you if you show up in the wrong place at the wrong time - or to kill you simply for “sport.”

You and your brethren in the lower 48 States are still confined to some 1-2% of your former range and numbers, a distinction that in 1975 won you protection as a species threatened with extinction. But now you are being stripped of your protected status because the government spent \$5 million dollars to snag your hair, estimate your numbers using DNA, confirm your numbers are still 2% of what they once were (perhaps 100,000), yet proclaim your population now “recovered.”

Sincerely,

A handwritten signature in black ink that reads "Keith". The letters are cursive and slightly slanted to the right.

Keith J. Hammer
Chair

Encl: Court Orders and Settlement Agreement in *Fund for Animals v. Babbitt*

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903 F.Supp. 96 (1995)

The FUND FOR ANIMALS, et al., Plaintiffs,
v.
Bruce BABBITT, et al., Defendants.
The NATIONAL AUDUBON SOCIETY, et al., Plaintiffs,
v.
Bruce BABBITT, et al., Defendants.

Nos. 94-1021, 94-1106.

United States District Court, District of Columbia.

September 29, 1995.

102 *97 *98 *99 *100 *101 *102 Eric Robert Glitzenstein, Meyer & Glitzenstein, Washington, DC, for **Fund for Animals.**

Howard I. Fox, Sierra Club Legal Defense **Fund**, Washington, DC, for National Audubon Society.

Joseph R. Perella, Environmental & Natural Resources Division, U.S. Dept. of Justice, Washington, DC, for defendants.

OPINION

PAUL L. FRIEDMAN, District Judge.

I. BACKGROUND

Since the arrival of Europeans in North America, the grizzly bear has been eliminated from all but approximately two percent of its original range in the lower 48 states. Indeed, the bear's historic range, which once included most of the western half of the United States, has receded to small portions of Washington, Idaho, Montana and Wyoming. Grizzly Bear Recovery Plan ("Plan") at ix, 9-10, Administrative Record ("A.R.") Volume 7. Between 1800 and 1975, the grizzly bear population shrank from an estimated 50,000 bears to fewer than 1000. *Id.* at 9. It is estimated that today there are fewer than 1000 grizzlies in the lower 48 states. *Id.* at 10-11. In July of 1975, the Secretary of the Interior found that the grizzly bear is likely to become in danger of extinction within the foreseeable future. Under the authority of the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531-1544, he therefore listed the *103 grizzly bear in the lower 48 states as "threatened" with extinction. 40 Fed.Reg. 31,734 (1975).

In these companion cases, numerous environmental and conservation organizations and several interested individuals challenge alleged deficiencies in the Secretary's efforts to fulfill his obligation under the Act to protect the grizzly bear's survival.^[1] Plaintiffs, **Fund For Animals** ("FFA"), National Audubon Society ("NAS") and others dispute the adequacy of the recovery plan developed by the Fish and Wildlife Service ("FWS"), to whom the Secretary has delegated his day-to-day responsibilities under the ESA. 50 C.F.R. § 402.01(b). FFA and others also dispute the legality of defendants' denial of a petition requesting that defendants designate "critical habitat" for the grizzly bear.

The ESA requires that the FWS develop and implement a recovery plan "for the conservation and survival of" any threatened or endangered species. 16 U.S.C. § 1533(f)(1). Any such plan is supposed to be a basic road map to recovery, *i.e.*, the process that stops or reverses the decline of a species and neutralizes threats to its existence. Policy and Guidelines for Planning and Coordinating Recovery of Endangered and Threatened Species (May 1990) ("FWS Recovery Guidelines"), A.R. Tab 78 at 1; 50

C.F.R. § 402.02. It is supposed to provide a means for achieving the species' long-term survival in nature. FWS Recovery Guidelines, A.R. Tab 78. The Act requires that the recovery plan shall, "to the maximum extent practicable," incorporate (1) site-specific management actions necessary for the conservation and survival of the species, and (2) objective, measurable criteria by which to monitor the species' recovery. 16 U.S.C. § 1533(f)(1)(B). Plaintiffs charge that the final Grizzly Bear Recovery Plan ("GBRP"), issued in September 1993, fails adequately to set forth "site-specific management actions" or "objective, measurable criteria." They insist that the Plan will not stem or abate threats to grizzly bear survival and predict that, contrary to the intent of Congress, the GBRP will provide the "road map for the bears' forced march to extinction." NAS Mem. in Support of Summ. J. at 3. By contrast, defendants contend that the GBRP fully complies with the ESA.

In 1976, the FWS had proposed to designate "critical habitat" for the grizzlies. Proposed Determination of Critical Habitat, 41 Fed.Reg. 48,758 (1976), A.R. Tab 17. A "critical habitat" designation protects specific areas inside and outside the geographical region occupied by the threatened species if it is necessary for the conservation of the species. 16 U.S.C. § 1532(5). In 1979 the FWS withdrew its proposal because the 1978 amendments to the ESA had imposed additional obligations on the FWS before it designated critical habitat. Withdrawal of Proposals, 44 Fed.Reg. 12,382 (1979), A.R. Tab 23. In 1991 plaintiff Jasper Carlton, the director of the Biodiversity Legal Foundation, filed a petition requesting that defendants designate "critical habitat" for the grizzly bear. Letter from Carlton to Servheen of January 16, 1991, attachment at 33 ("Petition to Designate Critical Habitat"), Habitat Record ("H.R.") Tab 4. That petition was denied without the opportunity for public comment. Plaintiffs contend that the denial of Mr. Carlton's petition to designate critical habitat for the grizzly bear was not in accordance with the ESA and the Administrative Procedure Act ("APA"), 5 U.S.C. § 551 *et seq.*

Both plaintiffs and defendants have moved for summary judgment. For the reasons stated in this Opinion, the Court concludes that defendants have met their burden with respect to incorporating site-specific management actions into the 1993 GBRP, but not with respect to incorporating objective, measurable recovery criteria. The Court also concludes that defendants acted in accordance with the APA in denying Mr. Carlton's petition for the designation of critical habitat for the grizzly bear.

II. STATUTORY FRAMEWORK

104 The Supreme Court has described the Endangered Species Act as "the most comprehensive *104 legislation for the preservation of endangered species ever enacted by any nation." Tennessee Valley Authority v. Hill, 437 U.S. 153, 180, 98 S.Ct. 2279, 2294, 57 L.Ed.2d 117 (1978). The Act was designed to "save from extinction species that the Secretary of the Interior designates as endangered or threatened." Babbitt v. Sweet Home Chapter of Communities for a Great Oregon, ___ U.S. ___, 115 S.Ct. 2407, 2409, 132 L.Ed.2d 597 (1995). An "endangered" species is "any species which is in danger of extinction throughout all or a significant portion of its range...." 16 U.S.C. § 1532(6). A "threatened" species is "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." 16 U.S.C. § 1532(20).

In considering whether to list a species as "threatened" or "endangered", the FWS conducts a formal review in which it must consider the species' status according to five statutory factors. Those factors are:

- (A) the present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) over-utilization for commercial, recreational, scientific, or educational purposes;
- (C) disease or predation;
- (D) the inadequacy of existing regulatory mechanisms; or
- (E) other natural or manmade factors affecting its continued existence.

16 U.S.C. § 1533(a)(1). In listing the grizzly bear in the lower 48 states as "threatened" with extinction, the FWS relied on each

statutory factor except the "disease or predation" factor. 40 Fed.Reg. 31,734.

Once a species is listed as threatened or endangered, the FWS "must do far more than merely avoid the elimination of [the] protected species. It must bring these species back from the brink so that they may be removed from the protected class...." Defenders of Wildlife v. Andrus, 428 F.Supp. 167, 170 (D.D.C.1977). The Act contains a number of provisions designed to stem the threat of extinction, promote recovery of those species found to be threatened or endangered, and establish systems to conserve the species even after the threat of extinction has passed.

Concurrent with making a determination to list a species as threatened or endangered, the Secretary is required "to the maximum extent prudent and determinable" to issue regulations "designat[ing] any habitat of such species which is then considered to be critical habitat." 16 U.S.C. § 1533(a)(3)(A). The duty to make a critical habitat designation *at the same time* as the determination is made to list a species was added to the ESA in 1978. Congress excused from this requirement those species that were already listed at the time the Act was amended, specifying that "[c]ritical habitat *may* be established for [species listed prior to the amendment] ... for which no critical habitat has heretofore been established." 16 U.S.C. § 1532(5)(B). Grizzly bears are a previously listed species.

The Secretary is required in most cases, including the grizzly bear's, to "develop and implement" a "recovery plan" for each threatened or endangered species. 16 U.S.C. § 1533(f). According to the FWS, a recovery plan "delineates, justifies, and schedules the research and management actions necessary to support recovery of a species, including those that, if successfully undertaken, are likely to permit reclassification or delisting of the species." FWS Guidelines, A.R. Tab 78 at 1. The ESA directs that the plan shall, "to the maximum extent practicable," include:

- (i) a description of such site-specific management actions as may be necessary to achieve the plan's goal for the conservation and survival of the species;
- (ii) objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of this section, that the species be removed from the list....

16 U.S.C. § 1533(f)(1)(B).

The FWS is empowered to remove listed species from the threatened or endangered lists only when the species has recovered sufficiently so that the protections of the ESA no longer are needed. 16 U.S.C. § 1533(c)(2)(B)(i). To initiate a delisting process, 105 *105 the FWS must publish notice of a proposed regulation that concludes that delisting is appropriate in light of the same five factors considered for listing a species. 16 U.S.C. § 1533(a), (b), (c). After assessing all the technical or scientific data in the administrative record as they relate to the five factors, the agency must exercise its expertise in determining whether to list or delist the species. Northern Spotted Owl v. Hodel, 716 F.Supp. 479, 480 (W.D.Wash.1988).

III. STANDARD OF REVIEW

These actions are brought under the ESA's citizen suit provision, 16 U.S.C. § 1540(g), and the Administrative Procedure Act, 5 U.S.C. § 706. Actions taken by the FWS pursuant to the ESA are reviewed as agency actions subject to the standards of review under the APA. See Las Vegas v. Lujan, 891 F.2d 927, 932 (D.C.Cir.1989). Under the APA, the Court must assess whether the actions of the FWS were "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" or "without observance of procedure required by law." 5 U.S.C. § 706(2)(A), (D).

In reviewing the action of the FWS, the Court must be thorough and probing, but if the Court finds support for the agency action, it must step back and refrain from assessing the wisdom of the decision unless there has been "a clear error of judgment." Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 378, 109 S.Ct. 1851, 1861, 104 L.Ed.2d 377 (1989). In thoroughly reviewing the agency's actions, the Court considers whether the agency acted within the scope of its legal authority, whether

the agency has explained its decision, whether the facts on which the agency purports to have relied have some basis in the record, and whether the agency considered the relevant factors. Marsh v. Oregon Natural Resources Council, 490 U.S. at 378, 109 S.Ct. at 1861; Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 415-16, 91 S.Ct. 814, 823-24, 28 L.Ed.2d 136 (1971); Professional Drivers Council v. Bureau of Motor Carrier Safety, 706 F.2d 1216, 1220 (D.C.Cir. 1983). The Court is expected to recognize the agency's expertise and experience with respect to questions involving scientific or technical matters or policy decisions based on uncertain technical information. Marsh v. Oregon Natural Resources Council, 490 U.S. at 375-78, 109 S.Ct. at 1859-61; State of New York v. Reilly, 969 F.2d 1147, 1150-51 (D.C.Cir.1992).

Because this case involves a challenge to a final administrative action, the Court's review is limited to the administrative record. Camp v. Pitts, 411 U.S. 138, 142, 93 S.Ct. 1241, 1244, 36 L.Ed.2d 106 (1973).^[2] Summary judgment is an appropriate procedure for resolving a challenge to a federal agency's administrative decision when review is based upon the administrative record, Richards v. I.N.S., 554 F.2d 1173, 1177 n. 228 (D.C.Cir.1977), even though the Court does not employ the standard of review set forth in Rule 56, Fed.R.Civ.P.

IV. SITE-SPECIFIC MANAGEMENT ACTIONS

A. The Meaning of the Site-Specific Management Action Provision

The ESA provides that "in developing and implementing recovery plans," the Secretary and the FWS shall "to the maximum extent practicable" incorporate into each recovery plan "a description of such site-specific management actions as may be necessary to achieve the plan's goals for the conservation and survival of the species." 16 U.S.C. § 1533(f)(1)(B)(i).

106 *106 Defendants interpret the "site-specific" provision to require the FWS to identify specific "sites" inhabited by grizzly bears and to describe management actions for each of these "sites." The GBRP designates several distinct geographic ecosystems or recovery zones inhabited by grizzly bears and lists management measures to be taken within each of the ecosystems. Plan at 33-37. Defendants therefore contend that the GBRP incorporates a description of "site-specific management actions." Plaintiffs, on the other hand, maintain that the ESA requires a description of "specific" management actions, techniques or standards. The Court's reading of the provision is consistent with defendants' interpretation.

The hyphen in "site-specific" indicates that the word "specific" modifies the word "site," not the term "management actions." The FWS has reasonably interpreted the ESA to require that the agency, in designing management actions, consider the distinct needs of separate ecosystems or recovery zones occupied by a threatened or endangered species. The Court may not reject the FWS' reasonable interpretation of the "site-specific management action" provision of the statute. Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837, 842-44, 104 S.Ct. 2778, 2781-82, 81 L.Ed.2d 694 (1984).

Resolution of that grammatical question, however, does not resolve the issue of what the "management actions" for each site must consist of. The ESA states that they must be those actions found by the agency to be "necessary to achieve the plan's goals for the conservation and survival of the species." 16 U.S.C. § 1533(f)(1)(B)(i). The ESA defines "conservation" to mean "the use of all methods and procedures which are necessary to bring any ... species to the point at which the measures provided pursuant to this chapter are no longer necessary." 16 U.S.C. § 1532(3). While Congress has repeatedly amended the recovery plan provision in order to add express direction regarding the contents of what must be included in a recovery plan, the statute does not detail specific methods or procedures that are necessary to achieve conservation and survival. See Sierra Club v. Lujan, 36 E.R.C. 1533, 1993 WL 151353 (W.D.Tex.1993); S.Rep. No. 240, 100th Cong., 2d Sess. 9 (1988), reprinted in, 1988 U.S.C.C.A.N. 2700, 2708; FWS Guidelines, A.R. Tab 78 at 2-3. In fact, the legislative history shows that Congress recognized that a wide range of actions could be needed to conserve diverse species and the need for flexibility in choosing those actions. See S.Rep. No. 240, 100th Cong., 2d Sess. 9 (1988), reprinted in, 1988 U.S.C.C.A.N. 2700, 2709.

To be sure, the ESA suggests that methods and procedures, including scientific resources management activities — such as

research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation — may be necessary to conserve species. 16 U.S.C. § 1532(3). But none of these methods or procedures is mandated by the Act. Moreover, while the legislative history suggests that incorporation of "site-specific management objectives" is supposed to assure that recovery plans "are as explicit as possible in describing steps to be taken in the recovery of a species," S.Rep. No. 240, 100th Cong., 2d Sess. 9 (1988), *reprinted in*, 1988 U.S.C.C.A.N. 2709, it does not delineate the content of those steps. By its silence Congress has delegated to the FWS the power to make policy choices that "represent[] a reasonable accommodation of conflicting policies that were committed to the agency's care by the statute." *State of Ohio v. United States Dep't of the Interior*, 880 F.2d 432, 441 (D.C.Cir.1989) (quoting *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. at 844-45, 104 S.Ct. at 2782-83 (quotation omitted)). The Court concludes that the FWS has the flexibility under the ESA to recommend a wide range of "management actions" on a site-specific basis.

B. Application of the "Site-Specific Management Action" Requirement to the 1993 Grizzly Bear Recovery Plan

107 Plaintiffs dispute whether the Plan even meets the FWS' interpretation of the "site-specific management action" provision because, they contend, it does not contain management actions that, even accepting defendants' reading of the statute, are specific *107 to particular sites. Plaintiffs point out that the management actions recommended for the various ecosystems are largely the same and are described in boilerplate statements. See, e.g., Plan at 56, 77, 96 (concerning management guidelines for private and state lands); Plan at 50, 71, 90 (concerning livestock grazing); Plan at 49, 70, 89, 107 (concerning law enforcement efforts); Plan at 49, 70, 89, 107 (concerning bear baiting); Plan at 50, 71-72, 90, 109 (concerning application of Interagency Grizzly Bear Guidelines to protect from threat of resource development).

The fact that many of the management actions are the same for the different geographic ecosystems does not render the Plan unlawful. Plaintiffs have not disagreed with defendants' assertion that certain of the same biological principles apply to grizzly bear management in the various ecosystems. More importantly, where the ecosystems differ, the Plan does recommend different management actions. For example, the Plan recommends that one bear be introduced into the Yellowstone ecosystem every ten years because of the biological need for genetic diversity. Plan at 56. This recommendation is not repeated for the other ecosystems. In addition, the Plan promises to develop separate minimum habitat values for each ecosystem. Plan at 55, 76, 96, 113. The site-specificity of the effort demonstrates that the FWS considered the specific needs of each grizzly ecosystem.

Plaintiffs' greater concern is the lack of detail in the recommended management actions. Defendants' responsibility is "to the maximum extent practicable" to identify management actions "necessary to achieve the [P]lan's goals for the conservation and survival of the species." Obviously, the phrase "to the maximum extent practicable" does not permit an agency unbridled discretion. It imposes a clear duty on the agency to fulfill the statutory command to the extent that it is feasible or possible. *Doe v. Board of Educ. of Tullahoma City Schools*, 9 F.3d 455, 460 (6th Cir.1993); *SMS Data Products Group, Inc. v. United States*, 853 F.2d 1547, 1553 (Fed.Cir.1988); *Cape May Greene, Inc. v. Warren*, 698 F.2d 179, 191 (3d Cir.1983). Plaintiffs add that the ESA requires that a recovery plan be both developed and *implemented*. 16 U.S.C. § 1533(f). They argue that the word "implement" would be rendered meaningless in the absence of detailed and specific management measures and that "[i]mplementation eviscerates the recovery planning provisions ... and amounts to an abdication of the Federal Defendants' responsibility to plan for the survival and recovery ... of endangered and threatened species." *Sierra Club v. Lujan*, 36 E.R.C. 1533, 1993 WL 151353 at *25.

The reality faced by the FWS, and alluded to in its papers, however, is that myriad factors potentially affect the grizzly bears. It is not feasible for the FWS to attempt to address each possibility. By the time an exhaustively detailed recovery plan is completed and ready for publication, science or circumstances could have changed and the plan might no longer be suitable. Thus, the FWS recognized in the Plan that it would be reviewed every five years and revised as necessary. Plan at 31. In these

circumstances, the Court concludes that the FWS has provided sufficient detail to satisfy the statute.

It is not necessary for a recovery plan to be an exhaustively detailed document. Several other ESA provisions, some of which do not afford the FWS much discretion, already place limits on activities that may affect the grizzlies or empower the FWS to restrict threatening activities as needed. See, e.g., 16 U.S.C. §§ 1532(a)(3)(A), 1536(a)(2), 1536(b)(4)(B)(iii), 1539(a)(2)(A). It is true that the recovery plan provision places a separate obligation on the FWS aside from those imposed by other provisions of the ESA. See *Idaho Dep't of Fish and Game v. National Marine Fisheries Service*, 850 F.Supp. 886, 895 (D.Or.1994). But the Plan's recommendations are implemented through FWS programs, cooperation and consultation with states, and the obligation of federal agencies to consult with the FWS or to implement conservation programs. See 16 U.S.C. §§ 1535, 1536(a)(1), (2). These programs may in many cases require the development of detailed and possibly site or situation specific restrictions to protect the grizzly bear. Because science and circumstances *108 change, however, the FWS needs, and the statute provides, some flexibility as it implements the recovery plan.

What the ESA requires is the identification of management actions necessary to achieve the Plan's goals for the conservation and survival of the species. A recovery plan that recognizes specific threats to the conservation and survival of a threatened or endangered species, but fails to recommend corrective action or explain why it is impracticable or unnecessary to recommend such action, would not meet the ESA's standard. Nor would a Plan that completely ignores threats to conservation and survival of a species. Here, the Court finds that the Plan does either recommend actions or recommend steps that could ultimately lead to actions to stave off the threats to the grizzly bears that have been identified.

Plaintiffs point, however, to several perceived deficiencies with the recommendations. The Court deals with these seriatim.

1. Hunting

Plaintiffs fault the Plan for identifying the danger to the grizzly bears posed by hunting, but merely recommending that information be circulated to hunters regarding storage of game that would be appetizing to the grizzly bears and the likely location and proper identification of grizzly bears. Plan at 49. The Plan also recommends coordination of state, federal and tribal law enforcement, that black bear hunting regulations be modified to reduce conflict with grizzly safety, and that attention be concentrated on eliminating black bear baiting in the recovery zones because it may attract grizzly bears. Plan at 48-49.

These measures do address one of the hunting concerns that was identified by the FWS when it listed the grizzly bears: humans kill grizzly bears out of fear and a perception that the bears pose a threat to human safety. See 40 Fed.Reg. 31,734. They also address other threats related to hunting that are recognized in the GBRP, such as food conditioning and habituation. See Plan at 5-7. Plaintiffs have not pointed to any place in the ESA that requires more than the recommendation of actions to counter identified threats to the grizzly bear. The choice of one particular action over another is not arbitrary, capricious or an abuse of discretion "simply because one may happen to think it ill-considered, or to represent the less appealing alternative solution available." *Hondros v. United States Civil Service Comm'n*, 720 F.2d 278, 295 (3d Cir.1983) (quoting *Calcutta E. Coast of India & E. Pakistan v. Federal Maritime Comm'n*, 399 F.2d 994, 997 (D.C.Cir.1968)). The Court will not impose plaintiffs' or its own view of a better way to stem the threat posed by hunting than the methods chosen by the FWS.

2. Roads

The GBRP recognizes that roads have various deleterious impacts on grizzlies. Plan at 22, 145. It recommends the standardization of road density measurement techniques through an Interagency Grizzly Bear Committee Task Force, Plan at 149; the development of actual standards for each ecosystem and their adoption into land management planning, Plan at 149; and research regarding the effects of various road densities on grizzly bear habitat use and mortality, Plan at 53. It also provides interim open road density standards. Plan at 50, 71-72, 90, 109.

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According to plaintiffs, there already is sufficient scientific data to set road density standards without further delay. They argue that a promise to design site-specific management actions in the future cannot meet the ESA's requirements and that the Plan's recommendation of interim standards to protect road management options is insufficient. While plaintiffs have several objections to the content of the interim standards, the Plan recommends that the interim standards be implemented in such a manner as to maintain management options after the establishment of standards that are tailored to each ecosystem. These definite management actions address the threat posed to the grizzlies by the infiltration of roads into their habitat. The Court therefore concludes that the FWS has met its statutory responsibility. For the Court to insist that the FWS impose different road density standards would be to interfere with the agency's discretion in designing *109 management actions. See Hondros v. United States Civil Service Comm'n, 720 F.2d at 295.

3. Human Activities/Resource Development

In order to control the impact of resource development on the grizzly bear, the Plan recommends that land managers document the effect of resource development activities and apply the Interagency Grizzly Bear Guidelines to harmonize resource development with the grizzlies' needs. Plan at 21-22, 31, 47, 50-51, 71-72, 90-91, 109; see Interagency Grizzly Bear Guidelines ("IGB Guidelines"), A.R. Tab 236. The IGB Guidelines classify grizzly habitat into five separate Management Situations that are defined by their population and habitat conditions and the management direction for that particular habitat rather than geographically (which is how the recovery zones are classified). The management direction recommends various actions to be taken with respect to the different threats to the grizzly bears within each particular Management Situation. The most aggressive protection measures are described for Management Situation 1 and the least aggressive for Management 5.

The Interagency Grizzly Bear Guidelines were established by agreement between federal, state and Canadian agencies. IGB Guidelines, A.R. Tab 236 at Preface.^[3] Plaintiffs strenuously criticize both the Plan, for incorporating an external document — the IGB Guidelines — into the Plan without public comment, and the FWS for abdicating its responsibility to develop its own management actions and to make them available for public comment. 16 U.S.C. §§ 1533(f)(1), (f)(4). While it is true that the Guidelines were not separately subject to notice and comment procedures, all the released drafts of the GBRP incorporated the IGB Guidelines, and there was a sufficient opportunity to comment on each draft of the GBRP. The Court therefore finds that there has been a sufficient opportunity to comment on the incorporation of the IGB Guidelines into the Plan and the proposed management actions of the FWS. The procedures employed conformed with the ESA. See 16 U.S.C. § 1533(f)(4).

While plaintiffs have pointed to several perceived flaws in the IGB Guidelines, they have not shown that defendants have traveled beyond the discretionary range permitted by the ESA. The GBRP identifies the threat to grizzly habitat posed by logging, mining, oil and gas development, livestock grazing, interference with grizzly dens and recreation. Plan at 7-8, 33-37, 90-91. The IGB Guidelines respond to each of these threats. Plan at 90-91; see, e.g., IGB Guidelines, A.R. Tab. 236 at 7-20, 21-34, 35-39, 40-49. In addition, the Plan recommends that land managers consider the needs of the grizzlies in making management decisions and provides for ongoing monitoring of the effect of threatening activities on the grizzly bear. Plan at 91. By directly and specifically addressing the threats posed by human activities and resource development, the FWS has met its obligation under the ESA. The Court will not substitute plaintiffs' or its own view of the best way to combat such threats to grizzly survival. See Hondros v. United States Civil Service Comm'n, 720 F.2d at 295.

4. Linkage Zones

Isolation of grizzly bear populations was identified in 1975 as one of the reasons for listing the grizzly bear as threatened. 40 Fed.Reg. 31,734. Linkage zones, which provide contiguous habitat of sufficient quality between the recovery zones to allow the movement of grizzly bears between the zones, are one possible means of combatting genetic isolation. Plan at 24-27. The Plan explains, however, that "[l]inkage zones are desirable for recovery, but are not essential for delisting at this time." Plan at 25; see, also, Plan at 24, 26, 27-28, 56. The Plan's solution is to initiate a five year study to evaluate the potential linkage between

the various ecosystems. The results of the study "will be the basis for future actions regarding the linkage zone question." Plan at 25. The Plan also recommends that, in the interim, *110 land management agencies take precautions not to degrade the potential linkage areas. Plan at 24-26; FWS Response to Issues Raised Concerning the GBRP (January 1994) ("1994 FWS Response"), A.R. Tab 172 at 12.

Plaintiffs argue that the Plan is flawed because it does not currently protect linkage zones. It is true that the FWS recognizes linkage zones as one possible means of countering genetic isolation. Plan at 24-26. Nevertheless, the Plan explains that linkage zones are not necessary at this time and cautions that "[a]t this time, very little is known about the potential for linkage zones." Plan at 25. Defendants point out that, of 460 grizzly bears who have been radio-tracked in four different ecosystems for the past 20 years, not one of the bears has been observed moving between the ecosystems. 1994 FWS Response, A.R. Tab 172 at 12.

While the record may be interpreted differently by plaintiffs than by defendants, disagreement between scientists about the necessity of establishing linkage zones is not sufficient to demonstrate arbitrariness by the government. Marsh v. Oregon Natural Resources Council, 490 U.S. at 378, 109 S.Ct. at 1861; State of New York v. Reilly, 969 F.2d at 1150; Mt. Graham Red Squirrel v. Espy, 986 F.2d 1568, 1576 (9th Cir.1993). The record supports the finding that grizzly bears are not currently moving between ecosystems and, therefore, that linkage zones may not be "necessary" at this time or may not be capable of being properly established. In addition, the Plan's recommendation that the Yellowstone grizzly population be augmented at regular intervals suggests that the FWS is not simply waiting for the results of the linkage zone study before it takes any action to combat genetic isolation. Plan at 27-28, 56.^[4]

For all these reasons, the Court finds that defendants have met their obligation under the ESA to incorporate site-specific management actions into the 1993 GBRP.^[5]

V. OBJECTIVE, MEASURABLE CRITERIA FOR DELISTING

A. The Relationship Between The "Objective, Measurable Criteria" Requirement And The Delisting Factors

Plaintiffs' second challenge to the GBRP is based on the requirement that a recovery plan include "objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of this section, that the species be removed from the list...." 16 U.S.C. § 1533(f)(1)(B)(ii). The GBRP delineates six distinct geographic grizzly bear ecosystems in the lower 48 states. Plan at 10-11. It describes three monitoring or recovery criteria by which to measure grizzly bear population status in each ecosystem:

- 111 *111 (1) the number of females with cubs seen annually over a six-year period;
- (2) the distribution of females with cubs throughout the ecosystem over a six-year period; and
- (3) the annual number of human-caused mortalities.

Plan at 19. The Plan specifies numerical or percentage population goals for each of these criteria within each identified grizzly ecosystem. See Plan at 33-34. In addition, the Plan requires the development and completion of a Grizzly Bear Conservation Strategy before the commencement of any delisting process by the FWS to ensure that adequate regulatory mechanisms will survive delisting.

Plaintiffs insist that the "objective, measurable criteria" must specifically assess whether the threats that originally led to a decision to list a species have been remedied in ways that would permit biological recovery of the listed species. Defendants

dispute whether they are forced to design criteria that specifically address the five statutory listing and delisting factors, see *supra* at page 104, because, even if the recovery plan objectives are met, a species cannot be delisted without the publication of a notice of proposed rulemaking addressing the statutory factors and a public comment period. They assert that all that is required is that the GBRP's objective, measurable criteria should *likely lead* to a finding that the five statutory delisting factors are met. Defs.' Mem. in Support of Summ. J. at 29.

"Likely to lead," however, is not the language of the ESA. While the Court must defer to a reasonable agency interpretation of the dictates of the ESA, where Congress has specifically addressed an issue its intention must be given effect. *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. at 843 n. 9, 104 S.Ct. at 2782 n. 9. The Court relies on the "traditional tools of statutory construction" in ascertaining Congress' intent. *Id.*; *State of Ohio v. United States Dep't of the Interior*, 880 F.2d 432, 441 (D.C.Cir.1989). And where Congress "has unambiguously expressed its intent ... [t]here is no room for [a different] interpretation proffered by the Department." *Legal Assistance for Vietnamese Asylum Seekers v. Department of State*, 45 F.3d 469, 473 (D.C.Cir.1995).

The ESA states that the FWS "shall, to the *maximum extent practicable*," incorporate into the recovery plan "objective, measurable criteria which, when met, *would* result in a determination ... that the species be removed from the list." 16 U.S.C. § 1533(f)(1)(B)(ii). The word "shall" is an imperative denoting a definite obligation. *SMS Data Products Group, Inc. v. United States*, 853 F.2d at 1553. Use of the phrase "to the maximum extent practicable" indicates a strong congressional preference that the agency fulfill its obligation to the extent that it is possible or feasible. *Id.* at 1553; *Doe v. Board of Educ. of Tullahoma City Schools*, 9 F.3d at 460. As to the word "would," it is used in the conclusion of a conditional sentence to express a contingency or possibility. See Webster's Third New International Dictionary 2638 (3d ed. 1993). Therefore, "would result in a determination ... that the species be removed from the list" sets a target to be aimed at by meeting the recovery goals set forth in the Plan.

Congress has spoken in clarion terms: the objective, measurable criteria must be directed towards the goal of removing the endangered or threatened species from the list. Since the same five statutory factors must be considered in delisting as in listing, 16 U.S.C. § 1533(a), (b), (c), the Court necessarily concludes that the FWS, in designing objective, measurable criteria, must address each of the five statutory delisting factors and measure whether threats to the grizzly bear have been ameliorated. See *Defenders of Wildlife v. Andrus*, 428 F.Supp. at 170; see H.Rep. No. 567, 97th Cong., 2d Sess. 12, *reprinted in* 1982 U.S.C.C.A.N. 2807, 2812 ("delisting should be based on the same criteria ... as listing").

B. Application of "Objective, Measurable Criteria" Requirement To The Grizzly Bear Recovery Plan Criteria

112 Defendants contend that the recovery criteria, population parameters and Conservation Strategy detailed in the GBRP actually do address all five statutory delisting factors (threat to habitat, overutilization, disease or *112 predation, inadequacy of existing regulatory mechanisms, other natural or manmade factors affecting existence).^[6]

Defendants assert that the "females with cubs" and "occupancy" criteria together serve as an indicator of adequate habitat management (Delisting Factor 1). Habitat degradation and loss is acknowledged by all parties to be a significant threat to grizzly recovery. See Plan at 21. In listing the grizzly bear, the FWS specifically cited the diminution of the bear's range from much of the Western United States to isolated regions in a few states and the threats posed by resource development, trail construction and accessibility to livestock. 40 Fed.Reg. 31,734. In order adequately to address the first delisting factor, the "females with cubs" and "occupancy" criteria must measure the present or threatened danger to the quality and quantity of grizzly habitat, including the effect of those threats recognized in 1975.

There may be some rationale for concluding that minimum bear population and grizzly distribution throughout a habitat over time have a positive correlation to the quality of habitat. *But see* *The Fund for Animals, Inc. v. Turner*, 1991 WL 206232 at *4

(D.D.C.1991); Knight and Blanchard, "Can the status of the Yellowstone Grizzly Bear Population be determined by counting females with cubs-of-the-year," (1993), ("Knight and Blanchard Report"), A.R. Tab 258 at 8 (poor habitat quality may result in greater chances of observing bears). The "females with cubs" and "occupancy" criteria, however, fail to assess the number and distribution of bears beyond the borders of the recovery ecosystems. Plan at 17-18. Because grizzly bears inhabit more land than is included in the recovery zones, *id.*, those criteria do not measure present danger or destruction to grizzly bear habitat. Moreover, the two criteria do not seem capable of assessing the habitat of a larger, recovered grizzly bear population, let alone *threatened* habitat destruction. See Letter from Barbee to Servheen of February 4, 1991, A.R. Tab 337 at 4; Letter from Willcox to Servheen of February 2, 1991, A.R. Tab 386 at 4. The FWS has not explained how minimum bear population and grizzly distribution goals consider how much habitat and of what quality is necessary for recovery or how the answers to these questions can be derived from the "females with cubs" and "occupancy" criteria.^[7]

113 Nor does the Plan's requirement that a Conservation Strategy (that will include minimum habitat values and additional monitoring methods) be *implemented* before any delisting process is commenced address this deficiency. The promise of habitat based recovery criteria some time in the future simply is not good enough. The purpose of the habitat recovery criteria is to measure the effect of habitat quality and quantity on grizzly recovery. See FWS Recovery Guidelines, *113 A.R. Tab 78 at I-5. Such monitoring is not possible if there is no scale against which to gauge the status of the habitat. Defendants have not met their burden to develop objective, measurable criteria by which to assess present or threatened destruction, modification or curtailment of the grizzly bear's habitat or range.

Defendants initially claimed that the "females with cubs" and "occupancy" criteria address the threat of disease to the grizzly bears (Delisting Factor 3, along with predation). After plaintiffs conceded that there is no current threat of disease to the grizzlies and no such threat was recognized at the time the grizzly bear was listed, however, defendants acknowledged that the criteria do not address disease. Defs.' Mem. in Support of Summ. J. at 23. As discussed above, the recovery criteria must be aimed at achieving the goal of delisting the grizzly bears and, thus, the FWS is not excused from addressing any of the five delisting factors. By wholly failing to consider whether there is a need or an appropriate means of monitoring whether disease is a threat to the grizzly bear, the FWS has failed to meet its obligation under the ESA.

Defendants next assert that the "human-caused mortality" criterion and the Conservation Strategy relate to the overutilization of the species and predation delisting factors (Delisting Factors 2 and 3). When the bears were listed, the FWS specifically noted that humans killed grizzly bears out of fear and a perception that the bears posed a threat to human safety and that other losses were caused by livestock predation. 40 Fed. Reg. 31,734. As to the human-caused mortality criterion, it seems to directly monitor overutilization by humans for commercial, recreational, scientific, or educational purposes. Defendants have not explained, however, how the human-caused mortality criterion addresses the threat caused by grizzly predation of livestock. As with habitat assessment, the yet-to-be-developed Conservation Strategy is not an adequate substitute for recovery criteria that measure the threat posed by livestock predation by the grizzly bear.

Defendants also claim that the Conservation Strategy addresses the inadequacy of the existing regulatory mechanisms factor (Delisting Factor 4). At the time the bears were listed, the FWS noted that management measures and regulation were hindered by the agencies' lack of sufficient data regarding habitat, population size, reproduction, mortality and "most importantly" annual turnover and population trends. 40 Fed. Reg. 31,734. The promise that the eventual Conservation Strategy will ensure adequate regulatory mechanisms suggests that the FWS still has not gathered sufficient data. Nonetheless, as the Conservation Strategy is not yet developed, it is paradoxical to say that it measures the inadequacy of "existing" regulatory mechanisms. Defendants have not met their obligation to develop objective, measurable criteria by which to assess the inadequacy of existing regulatory mechanisms.

Defendants claim that all three monitoring or recovery criteria help assess the other natural or manmade threats factor (Delisting Factor 5). In determining that the bears should be listed, the FWS specifically recognized that isolation of grizzly bear subpopulations prevented biological reinforcement of the species and that increasing human use of the national parks inhabited by the bears was detrimental to the bears. 40 Fed.Reg. 31,734. The Court finds that defendants have not explained how any of

the recovery criteria considers isolation. Because isolation was one of the reasons that the grizzlies were listed in the first place, the Court agrees with plaintiffs that the FWS therefore has failed to meet its obligation under the ESA to incorporate into the GBRP objective, measurable criteria addressing genetic isolation.

C. Scientific Validity of Monitoring Methods and Population Targets

As noted above, the Plan specifies numerical or percentage population goals for each of the three recovery criteria within each identified grizzly ecosystem, see Plan at 33-34, and, with the three recovery criteria, a methodology for monitoring whether those goals have been met. Plaintiffs object that (1) the ¹¹⁴ method of monitoring the bears' population status is unreliable and (2) the population goals are not based upon the best scientific evidence available.

The Plan explains that the "females with cubs" measurement "demonstrate[s] that a known minimum number of adult females are alive to reproduce and offset existing mortality in the ecosystem." Plan at 20. The FWS concedes, however, that the methodology will not gauge population "trends or precise population size...." Plan at 20. Numerous grizzly bear biologists have criticized this monitoring methodology because, despite its own acknowledged limitations, it is being relied on in the Plan as the principal determinant of whether population goals have been met. See, e.g., Comments from Metzgar to Servheen of January 7, 1990, ("Metzgar Comments"), A.R. Tab 439 at 2. Plaintiffs' foremost objection is that the "females with cubs" methodology is vulnerable to variable observer effort and for that reason has been criticized as unreliable and subjective. See Knight and Blanchard Report, A.R. Tab 258 at 7; Metzgar Comments, Tab 439 at 3. Even a report appended to the Plan acknowledges that "the application of sighting efficiency estimates [which are a base assumption of the monitoring criteria] cannot be substantiated since there is no way to assess their accuracy and they are therefore little better than guesses." Plan at 159 (Appendix C), Report of the Yellowstone Grizzly Bear Population Task Force (1988). Defendants argue (without reasonable explanation) that both under and over-intensive observer effort are accounted for by the Plan's monitoring methodology, so the grizzly bear is guaranteed appropriate protection. Defs.' Mem. in Support of Summ. J. at 15.

Judicial "deference to the agency is greatest when reviewing technical matters within its area of expertise, particularly its choice of scientific data and statistical methodology." State of Louisiana ex rel. Guste v. Verity, 853 F.2d 322, 329 (5th Cir.1988). Here, however, the Plan's own acknowledgement of the limitations of the monitoring methodology and the fact that the methodology is unreliable undermines the decision of the FWS to adopt the methodology incorporated into the Plan. The Court is unable to find in the record a rational reason for the agency's decision. The Court therefore finds that the agency failed to "explain the evidence which is available, and [failed to] offer a rational connection between the facts found and the choice made." Motor Vehicle Manufacturer's Ass'n v. State Farm Mutual Ins. Co., 463 U.S. at 52, 103 S.Ct. at 2871; see Northern Spotted Owl v. Hodel, 716 F.Supp. at 482. In addition, the Court notes that it has found the three recovery criteria incorporated into the Plan (females with cubs, occupancy, human-caused mortality) to be largely inadequate to meet the FWS' burden to address the ESA's delisting factors. Accordingly, the FWS must reconsider the available evidence and its decision to adopt the population monitoring methodology that it has incorporated into the GBRP.

Plaintiffs' second objection is that the population goals are defective. They contend that the FWS, while purporting to rely on conservation biology principles, did not properly conduct a population viability analysis in setting the goals. In other words, plaintiffs contend that defendants' results are defective and that the population targets are too low. Plaintiffs claim that the population targets in the Plan are not based on the best scientific data available and that they therefore are arbitrary and capricious.

Plaintiffs have painstakingly detailed the reasons why they maintain the goals are too low and have pointed to numerous studies finding that larger populations of grizzly bears than those recommended in the Plan are necessary to make the grizzly populations viable. Nonetheless, the Court must accord a high level of deference to agency judgments involving scientific matters within the FWS' area of expertise. Mount Graham Squirrel v. Espy, 986 F.2d at 1571; State of Louisiana ex rel. Guste v. Verity, 853 F.2d at 329. While deference does not require the Court to accept the population targets if there is no scientific

115 support for them or if they are blatantly wrong, the fact that a judgment may be disputable does not render it arbitrary and capricious. See Mount Graham Squirrel v. Espy, 986 F.2d at 1571. *115 The government is entitled to rely on analyses and opinions that are non-dispositive without its decision being rendered arbitrary and capricious. Greenpeace Action v. Franklin, 14 F.3d 1324, 1332 (9th Cir.1992).

In this case, defendants have demonstrated that there is disagreement among experts regarding the correct population size that is necessary for viability. See Mark S. Boyce, "Population Viability Analysis," 23 Annu. Rev.Ecol.Syst. 481 (1992), A.R. Tabs 189; Mark S. Boyce, "Population Viability Analysis: Adaptive Management for Threatened and Endangered Species" (1993), A.R. Tab 189A; see also 1994 FWS Response, A.R. Tab 172 at Attachment. The fact that there is such disagreement does not render the agency's action arbitrary and capricious, however. Greenpeace Action v. Franklin, 982 F.2d 1342, at 1350 (9th Cir.1992). Based on the record, the Court does not find that defendants' designation of population targets is arbitrary and capricious.

Plaintiffs also criticize defendants' reliance on the existence of Canadian grizzly populations to justify low population goals, Plan at 27, because there is no evidence of the contiguity of the population and because the ESA does not apply to Canada. Moreover, the FWS itself has recognized that Canadian grizzly bears suffer the same development pressures as do United States bears. Plan at 23; 58 Fed.Reg. 43,856 (1992). The Court agrees that it appears contradictory for the FWS to concede that "bear populations in Canada immediately north of the [Cabinet/Yaak grizzly bear ecosystem] and in the Canadian portions of the Selkirk and Northern Continental Divide grizzly bear ecosystems are small," and that "[c]ontinuing human development in areas in Canada north of these ecosystems is threatening to isolate these grizzly populations from other bear populations in British Columbia," Plan at 23, and yet still to rely on the protection posed by the contiguity of the Cabinet/Yaak and Selkirk ecosystems with Canadian grizzly bear populations. Plan at 27. The FWS has not explained how the uncontrollable threats to Canadian grizzly bears were offset in the calculation of population targets. Therefore, the FWS must explain whether reliance on the existence of Canadian bears influenced its population targets and why such reliance is reasonable.

VI. CRITICAL HABITAT DESIGNATION

Regulations issued by the Secretary of the Interior permit any "interested person" to petition the Secretary requesting designation of critical habitat. 50 C.F.R. § 424.14(a); 43 C.F.R. § 14.2. Neither the ESA nor the regulations prescribe a procedure for such petitions. Rather, they are considered under the provisions of the APA. 50 C.F.R. § 424.14(a); 43 C.F.R. § 14.2; 5 U.S.C. § 553(e).^[8]

116 The APA requires agencies to allow interested persons to "petition for the issuance, amendment, or repeal of a rule," 5 U.S.C. § 553(e), and, when such petitions are denied, to give "a brief statement of the grounds for the denial," 5 U.S.C. § 555(e). Agencies denying rulemaking petitions must explain their actions. American Horse Protection Ass'n, Inc. v. Lyng, 812 F.2d 1, 4 (D.C.Cir.1987). Thus, the right to petition *116 for rulemaking entitles the petitioning party to a response on the merits of the petition.

In assessing the actions of the FWS, the Court considers whether they were "arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A); American Horse Protection Ass'n, Inc. v. Lyng, 812 F.2d at 4-5. Courts ordinarily afford agencies a particularly high degree of deference regarding their decision not to initiate a rulemaking proceeding. *Id.* Such a refusal will be overturned only in the rarest and most compelling of circumstances. WWHT, Inc. v. FCC, 656 F.2d 807, 817 (D.C.Cir.1981). Nonetheless, the Court must assure itself that the agency "has adequately explained the facts and policy concerns it relied on, and that the facts have some basis in the record." National Ass'n of Regulatory Utility Comm'rs v. U.S. Dep't of Energy, 851 F.2d 1424, 1430 (D.C.Cir.1988) (citation omitted); Professional Drivers Council v. Bureau of Motor Carrier Safety, 706 F.2d 1216, 1220-21 (D.C.Cir. 1983). Plaintiffs contend that the FWS reversed its course because it withdrew its 1976 proposal to designate critical habitat after the ESA was amended in 1978 and new obligations were imposed on the FWS before the designation of critical habitat. Where an agency has reversed its course, it must supply a reasoned

analysis justifying the reversal. *Motor Vehicle Manufacturers Ass'n. Inc. v. State Farm Mutual Auto. Insurance Co.*, 463 U.S. 29, 57, 103 S.Ct. 2856, 2874, 77 L.Ed.2d 443 (1983).

In January 1991, as part of his comments on the first revised GBRP, Jasper Carlton, the director of the Biodiversity Legal Foundation, petitioned the FWS for a "critical habitat" designation for the four main grizzly bear ecosystems. Petition to Designate Critical Habitat, H.R. Tab 4, 5.^[9] In his petition Mr. Carlton maintained that "[d]isruption of grizzly habitat by human activities is the principal cause of the precarious status of the remaining grizzly populations." Petition to Designate Critical Habitat, H.R. Tab 4, Attachment at 33; see Letter from Carlton to Turner of September 12, 1991, H.R. Tab 8. He argued that the IGB Guidelines are inadequate because (1) since they are not statutes or regulations, citizens may not use the IGB Guidelines to compel action or sue for violations of the Guidelines; (2) individual agencies can avoid safeguarding the grizzly bears because the IGB Guidelines permit agencies discretion in designating the different management areas, and the level of protection afforded the different management situations varies widely; (3) the Guidelines do not provide sufficiently strong protection to those bears in the two lowest priority management situations; and (4) the national forests have been slow to incorporate the guidelines into their forest plans or have avoided the guidelines. A critical habitat designation, contended Mr. Carlton, would not only impose an obligation on all federal agencies to insure that their actions are not likely to jeopardize the continued existence of the grizzly bear, but would also mandate that federal agencies refrain from any action likely to result in the destruction or adverse modification of critical habitat. Petition to Designate Critical Habitat, H.R. 5, Attachment at 35.

117 In September 1992, the FWS denied Mr. Carlton's petition without either publishing the petition in the Federal Register for public comment or soliciting scientific review addressing Mr. Carlton's concerns. Letter from Morgenweck to Carlton of September 14, 1992, H.R. Tab 13.^[10] In denying the *117 petition, the FWS acknowledged that critical habitat for a listed species should be designated to the maximum extent prudent and determinable. 50 C.F.R. § 424.12(a). FWS regulations explain that such a designation would not be prudent if identification of critical habitat can be expected to increase the degree of taking or other human activities, if it would not be beneficial to the species, or if it would be redundant. 50 C.F.R. § 424.12(a)(1). In this case, the FWS explained that recovery zones and management situations within the recovery zones were developed for the conservation of grizzly bear habitat. These zones are covered by the IGB Guidelines, with which member agencies have agreed to comply, and all federal agencies are required to consult with the FWS before carrying out permitting, leasing and selling actions in the recovery zones. For these areas, the FWS must ensure biological nonjeopardy. The FWS asserted that the current habitat protection is comparable to that of critical habitat and that designation of critical habitat would be redundant, *i.e.*, not prudent.

The FWS further explained that the current recovery zones encompass more land than a critical habitat designation likely would include. If critical habitat were designated for Management Situation 1 areas, the highest priority areas, then the current regime of regulation would likely be eliminated and protection for Management Situation 2 and 3 areas, which has been beneficial, might be deemphasized, diluted or eliminated entirely. Therefore, the FWS asserted that a critical habitat designation would not benefit the species. Finally, the FWS explained that the current management regime has achieved social acceptance and that designating critical habitat could lead to a backlash that would jeopardize recovery.

The FFA plaintiffs allege that the FWS violated the ESA by providing an inadequate explanation of its reasoning and by failing to provide a reasoned justification for the reversal of its 1976 proposal to designate critical habitat. Having considered the record in this case, the Court is satisfied, however, that the denial of Mr. Carlton's petition must be left undisturbed. The FWS adequately explained the facts and policy concerns it relied on and plaintiffs have not demonstrated that these assertions and opinions are unlawful, arbitrary, capricious or wholly irrational.

VII. CONCLUSION

For all of these reasons, plaintiffs' motions for summary judgment are granted in part and denied in part and defendants' motion for summary judgment is granted in part and denied in part. An Order consistent with this Opinion is entered this same day.

SO ORDERED.

ORDER

Upon consideration of plaintiffs' motions for summary judgment, defendants' motion for summary judgment, the responses and replies, and the administrative record, and for the reasons stated in the Opinion issued this same day, it is hereby

ORDERED that plaintiffs' motions for summary judgment are GRANTED in part and DENIED in part. Partial judgment is entered for plaintiffs on Count One of their complaint in Civil Action 94-1021. Judgment is entered for plaintiffs on Counts One and Two of their complaint in Civil Action 94-1106; it is

FURTHER ORDERED that defendants' motion for summary judgment is GRANTED in part and DENIED in part. Partial judgment is entered for defendants on Count One of the complaint in Civil Action 94-1021. Judgment is entered for defendants on Count Two of the complaint in Civil Action 94-1021. Judgment is entered for defendants on Count Three of the complaint in Civil Action 94-1106; it is

118 *118 DECLARED that defendants have acted in a manner that is arbitrary and capricious and contrary to law by issuing a Recovery Plan that fails to establish objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of the Endangered Species Act, that the grizzly bear be removed from the threatened species list; and it is

FURTHER ORDERED that this matter is remanded to the Fish and Wildlife Service, which has 90 days from the date of this Order to reconsider those portions of the 1993 Grizzly Bear Recovery Plan that have been found to be contrary to the dictates of the Endangered Species Act.

SO ORDERED.

[1] Plaintiffs have standing to bring these suits. They have alleged sufficiently concrete and particularized injuries in fact that are fairly traceable to defendants' actions and redressable by the relief requested. See Animal Legal Defense Fund, Inc. v. Espy, 23 F.3d 496, 498 (D.C.Cir.1994).

[2] Defendants have objected to plaintiff NAS's filing of a December 1993 study and a newspaper article discussing the study, both of which post-date the agency decision at issue here. Generally, review of an agency's decision "is to be based on the full administrative record that was before the [agency] at the time [it] made [its] decision." Citizens to Preserve Overton Park v. Volpe, 401 U.S. at 420, 91 S.Ct. at 825. Plaintiffs claim that their submission may properly be considered as demonstrating that the FWS failed to consider all of the relevant factors when adopting the GBRP. See Environmental Defense Fund, Inc. v. Costle, 657 F.2d 275, 285 (D.C.Cir.1981). Plaintiffs' filing does not add any new information that compels the Court to make an exception to the rule that review is limited to the record before the agency. Accordingly, the Court has not considered this submission.

[3] The FWS is permitted under the ESA to procure the services of "appropriate public and private agencies and institutions and other qualified persons." 16 U.S.C. § 1533(f)(2).

[4] Plaintiffs accuse defendants of bowing to political and other non-scientific pressures in formulating the GBRP. As evidence, they point to the statement in the Plan that its management approach is "sensitive to the social concerns of people living in [grizzly ecosystems]," Plan at 19, and the fact that the author of the Plan, Dr. Christopher Servheen, is quoted in a newspaper article as responding to a question about the Plan's lack of linkage zone protection by saying "[t]hat's politically naive. La-la land is where you can go and make decisions like that." "US Fish & Wildlife Presents: The Grizzly Bear Mating Game," *Missoula Independent*, October 2, 1992, at 9, A.R.Tab 510 at attachment 1.

The Court rejects plaintiffs' claim that these quotations are evidence that the FWS violated the ESA's requirement that recovery plans be "based solely on the best available scientific data." 134 Cong.Rec. 19273 (1988) (Statement of Senator Mitchell). The ESA's listing and delisting factors include consideration of manmade factors affecting the species' continued existence and overutilization of grizzly bears. 16 U.S.C. § 1533(a). These provisions demonstrate that human factors that have biological consequences for the bear are relevant considerations. In this limited manner, therefore, social consequences that might increase human-caused mortality are relevant, and

consideration of such factors is not impermissible. As to Dr. Servheen's comments, their meaning is not entirely clear and the Court is not persuaded that they have the probative value that plaintiffs ascribe to them.

[5] Because the Court has found that the ESA permits substantial license to the FWS in recommending site-specific management actions and that the FWS has met its burden by recommending protective actions or explaining why it is impracticable to do so for identified threats to the conservation and survival of the grizzly bears, the Court need not address plaintiffs' argument respecting the applicability of NEPA to recovery plans. The Court rejects plaintiffs' suggestion that the FWS was improperly motivated by its desire to avoid NEPA.

[6] The GBRP explains that the purpose of the "females with cubs" criterion is to "demonstrate that a known minimum number of adult females are alive to reproduce and offset existing mortality ... [but] is not adequate to characterize population trend or precise population size." Plan at 20. The "distribution of females with cubs" or "occupancy" criterion is designed to "demonstrate adequate distribution of the reproductive cohort in the recovery zone.... provide evidence of adequate habitat management ... [and] indicate future occupancy by grizzly bear offspring." Plan at 20. The "human-caused mortality" criterion is part of a mortality management method that permits annual recalculation of the sustainable mortality limits for each ecosystem. Plan at 20.

[7] Plaintiffs criticize the "females with cubs" and "occupancy" criteria for failing to consider historic habitat destruction, thereby redefining the grizzly bear habitat in its threatened state, rather than according to the bear's historic range. By turning a blind eye to habitat restoration, plaintiffs argue, the Plan ignores what is acknowledged to be the greatest threat to the survival of the grizzly bear — habitat destruction. While destruction in the past may be relevant to assessing some of the threats to the species, the ESA only requires the recovery criteria to consider "present and threatened" danger and destruction. There does not appear in the statute any requirement that habitat loss be measured against the grizzly range during its most expansive period. Nonetheless, because past habitat loss was one of the factors specifically relied on by the FWS in listing the grizzly bear, and, because under the statute that factor alone may have been sufficient to justify listing the bear, 50 C.F.R. § 424.11(c), the FWS must consider the historic habitat loss in its assessment of the quantity and quality of grizzly bear habitat. See *Defenders of Wildlife v. Andrus*, 428 F.Supp. at 170; see H.Rep. No. 567, 97th Cong., 2d Sess. 12, reprinted in 1982 U.S.C.C.A.N. 2812.

[8] A "critical habitat" designation protects specific areas inside and outside the geographical region occupied by the threatened species if it is necessary for the conservation of the species. 16 U.S.C. § 1532(5). For those species listed after the 1978 amendments to the ESA, the FWS is required to designate critical habitat unless it finds that the benefits of nondesignation outweigh the benefits of designation. 16 U.S.C. § 1533(b)(2). For previously listed **animals**, such as the grizzly bear, the ESA states that "[c]ritical habitat may be established for those species ... as set forth in subparagraph (A) of this paragraph." 16 U.S.C. § 1532(5)(B). Subparagraph A defines critical habitat.

Defendants argue that the decision to designate critical habitat for a species listed prior to the 1978 Amendments is discretionary. Plaintiffs argue that the ESA's recognition of the centrality of critical habitat to the protection of species indicates that the critical habitat designation must be made even for those species listed prior to the 1978 amendments unless the benefits of non-designation outweigh the benefits of designation. 16 U.S.C. § 1533(b)(2). The Court agrees with defendants that the plain language of the ESA renders the decision to designate critical habitat a discretionary decision.

[9] In a letter dated February 20, 1991, the FWS explained that the ESA does not provide for a petition to designate critical habitat, but that his petition would be considered under the provisions of the APA. Letter from Buterbaugh to Carlton of February 20, 1991, H.R.Tab 6. On April 20, 1992, the FWS published in the Federal Register notice of Mr. Carlton's petition and its determination that it was not a petitionable action under the ESA. Petitions to Change Status of Grizzly Bear Population, 57 Fed.Reg. 14,372, 14,374 (1992).

[10] Plaintiffs charge that because the FWS did not solicit comments and opinions, there is no record to support the agency's decision. *National Ass'n of Regulatory Utility Comm'n v. United States Dep't of Energy*, 851 F.2d at 1430. Under Department of the Interior regulations, if the official responsible for acting on a petition determines "that public comment may aid in consideration of the petition," he or she may initiate a comment proceeding. 43 C.F.R. § 14.4. And the APA requires an opportunity for public comment when an agency proposes rules. 5 U.S.C. § 553(b), (c). There is no requirement, however, in either the APA or Department of Interior regulations that the FWS must solicit comments on a decision not to propose a rule to designate critical habitat. See 43 C.F.R. § 14.4; 5 U.S.C. § 553(b), (c). The Court will not impose procedural requirements on the FWS that are not already required by statute or provided for by the agency's own rules. See *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 524, 98 S.Ct. 1197, 1202, 55 L.Ed.2d 460 (1978).

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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

THE FUND FOR ANIMALS,
et al.,

Plaintiffs,

v.

BRUCE BABBITT, SECRETARY OF
THE INTERIOR, et al.,

Defendants.

Civil Act. No. 94-1021 (PLF)

NATIONAL AUDUBON SOCIETY,
et al.,

Plaintiffs,

v.

BRUCE BABBITT, SECRETARY OF
THE INTERIOR, et al.,

Defendants.

Civil Act. No. 94-1106 (PLF)
(Consolidated)

SETTLEMENT AGREEMENT

WHEREAS, plaintiffs filed this suit against the United States Secretary of the Interior, and the Director of the United States Fish and Wildlife Service (Service) challenging the Service's recovery plan for the grizzly bear;

WHEREAS, the Service is developing objective, measurable habitat-based recovery criteria for grizzly bears in the Greater

Yellowstone Ecosystem and once the Service has developed draft habitat-based recovery criteria, the Service intends to make the draft criteria available to the public for review and comment;

WHEREAS, any action by the Service to delist any grizzly bear population must comply with the standards and public participation requirements of section 4 of the Endangered Species Act (ESA) and the Service's listing regulations at 50 C.F.R. Part 424, including, in particular, 50 C.F.R. §§ 424.11(d), 424.16, and 424.18;

WHEREAS, it is in the interest of the public, the parties, and judicial economy to resolve this action without protracted litigation;

THEREFORE, the parties agree as follows:

1. Prior to the Service's release of its draft habitat-based recovery criteria for the grizzly bear, plaintiffs may submit comments to the Service and such comments will be considered part of the administrative record. The Service will convene a workshop during the public comment period on the draft habitat-based recovery criteria where all interested persons can present their ideas on the habitat needs for grizzly bear recovery and discuss proposals for habitat-based recovery criteria. The workshop will be convened in cooperation with the

members of the Interagency Grizzly Bear Committee (IGBC). The workshop will primarily address habitat-based recovery criteria for the Greater Yellowstone Ecosystem, since that is the initial area for which the habitat-based recovery criteria are being developed. A principal purpose of the workshop will be to allow non-IGBC scientists to present their views and ideas on the grizzly bear's habitat-based recovery needs.

2. The information and views presented at the workshop, together with all other information submitted to the Service during the public comment period on the draft recovery criteria will be considered by the Service before the habitat-based recovery criteria are finalized. When the Service finalizes the habitat-based recovery criteria it shall address in writing significant public comments, including those significant public comments offered at the workshop discussed in paragraph 1.

3. Prior to publishing any proposed rule to delist any grizzly bear population, the Service will establish habitat-based recovery criteria for that population's ecosystem in accordance with the process set forth in paragraphs 1 and 2 and applicable laws and regulations. In any such rulemaking to delist a grizzly bear population, the Service will utilize the habitat-based recovery criteria, as well as all other pertinent recovery

criteria that have been established, when addressing the five factors set forth in section 4(a)(1) of ESA. In addition, prior to publishing any proposed rule to delist any grizzly bear population, the Service will assess whether a threat is posed to that population by any of the five factors set forth in Section 4(a)(1) of the ESA.

4. The parties agree that, notwithstanding the Court's findings regarding the grizzly bear recovery plan, the parties do not read the Court's September 29, 1995, opinion as holding that the Service is required to incorporate into a recovery plan objective, measurable delisting criteria for a factor set forth in section 4(a)(1) of the ESA if that factor was not cited as a basis for the listing of the species and if information available at the time of the plan's drafting or amendment indicates the factor does not present a threat to the species.

5. The parties agree that, notwithstanding the Court's findings regarding the grizzly bear recovery plan, the parties do not read the Court's September 29, 1995 opinion as holding that the Service is required to incorporate into a recovery plan objective, measurable delisting criteria for a factor or part of a factor set forth in section 4(a)(1) of the ESA when the best scientific information available to the Service when the recovery

plan is prepared is not sufficient to enable the Service to establish objective, measurable recovery criteria for the factor and the Service explicitly commits in the recovery plan to develop such sufficient information and criteria within a reasonable period of time and to incorporate those criteria into a supplement to the recovery plan prior to delisting the species.

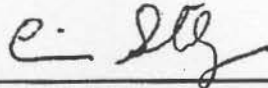
6. The parties will jointly move the district court to clarify that, notwithstanding the Court's specific findings regarding the grizzly bear recovery plan, its September 29, 1995, opinion does not hold that the Service is required in every recovery plan to analyze or evaluate all former habitat in establishing objective, measurable habitat-related recovery criteria.

7. The parties will dismiss their appeals of the District Court's September 29, 1995, decision in the D.C. Circuit and submit their settlement agreement to the district court along with a joint Rule 60(b) motion in order to modify the Court's September 29, 1995, ruling as detailed in the district court's January 29, 1997, opinion.

9. The parties will bear their own fees and costs with respect to activities undertaken following the filing of the notices of appeal. With regard to fees and costs incurred

litigating this case before the District Court, the parties shall attempt to negotiate a resolution of fees and costs for work performed in connection therewith. In the event the parties are unable to come to an agreement on these fees and costs, any party seeking fees and costs will file its application to the District Court for such fees within sixty days after the court's order amending the judgment and dismissing the action.

Dated: March 31, 1997.

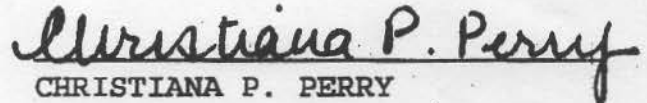


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967 F.Supp. 6 (1997)

The FUND FOR ANIMALS, et al., Plaintiffs,
v.
Bruce BABBITT, Secretary of the Interior, et al., Defendants.
and
NATIONAL AUDUBON SOCIETY, et al., Plaintiffs,
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Bruce BABBITT, Secretary of the Interior, et al., Defendants.

Civil Nos. 94-1021 (PLF), 94-1106 (PLF).

United States District Court, District of Columbia.

May 5, 1997.

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ORDER

PAUL L. FRIEDMAN, District Judge.

On consideration of the parties' joint motion for approval of their settlement agreement and limited relief under Rule 60(b), and in accordance with this Court's January 29, 1997, opinion, it is hereby ordered that the parties' settlement agreement is approved and it is further ordered that the Court's September 29, 1995, Opinion is hereby amended as follows:

(1) The clause in the last sentence of footnote 7, which reads, "and because under the statute that factor alone may have been sufficient to justify listing the bear, 50 C.F.R. § 424.11(c)" is hereby vacated; and

(2) The words "past" and "historic" in the last sentence of footnote 7 are hereby vacated.

The clerk is directed to submit a copy of the amended opinion with the vacated portions deleted to West's Reporting Service for publication.

This case is hereby dismissed, except with regard to any claim for attorneys fees' and costs, and except that any party may move to enforce any aspect of the Court's September 29, 1995, order as amended, or to enforce the settlement agreement filed with the Court along with the parties' joint Rule 60(b) motion;

Any claim for attorneys' fees and costs will be resolved in accordance with ¶ 8 of the parties' settlement agreement.

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