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IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ARIZONA

WILDERNESS WATCH, ET AL.)
) CIV-07-1185-PHX-MHM
Plaintiffs,)
) <i>Amicus Curiae</i> Brief of
v.) Public Employees for
) Environmental Responsibility
U.S. FISH AND WILDLIFE SERVICE,) In Support of Plaintiffs’
et al.) Motion for Summary Judgment
)
Defendants)
_____)

Public Employees for Environmental Responsibility (“PEER”) submits this *Amicus Curiae* Brief in support of Plaintiffs’ Motion for Summary Judgment and in opposition to Defendant’s Motion for Summary Judgment in the above-captioned action. Defendants did not simply violate the Wilderness Act and NEPA by secretly installing new water developments in Kofa NWR wilderness – as detailed in Plaintiffs’ briefs and summary judgment motion – they violated basic, vital principles of sound science and transparency in government.

PEER submits this *Amicus Curiae* Brief to provide the Court with information about Kofa NWR and its bighorn sheep population, and to rebut Defendant’s claims about the necessity of additional man-made water sources for Kofa bighorn sheep, especially in wilderness. For the information and opinions in this brief, PEER relies on PEER member and

longtime Kofa-area resident Ron Kearns.¹ Mr. Kearns is intimately familiar with Kofa's bighorn sheep and wildlife water developments. He was directly responsible for Kofa's biological program for 21 years, including almost 17 years as Kofa's Wildlife Biologist until retiring in 2006. He was involved in all aspects of wildlife water development at Kofa, from the blue-collar construction trades to the planning, site selection, and decision-making realm of improved water sources.

Suffice it to say, Mr. Kearns is an invaluable source of information on Kofa NWR wilderness-area water developments and bighorn sheep, and he is a qualified expert in these matters. What follows is a look into Kofa NWR as seen through the eyes of someone whose life has been closely intertwined with Kofa and its bighorns for over 30 years.

I. A Brief History of Bighorn Sheep and Artificial Water Developments in Kofa NWR

Fossil records demonstrate that bighorn sheep arrived in the Kofa area thousands of years before early humans. Throughout history, they relied on natural water sources, including freestanding water in natural tinajas and drought-tolerant plants such as jojoba and ice cream plants. Despite its arid climate and relatively frequent droughts, Kofa NWR has a large landmass with excellent natural vegetation resources. Bighorn have proven to be hardy survivors in what humans generally consider a quite inhospitable, Sonoran Desert environment. Notwithstanding the wide swings of climatologic and local weather patterns in the Kofa area, including varying extreme drought and extreme moisture periods along with everything in-between, bighorn survived quite successfully before humans ever began managing Kofa's water sources.

The Kofa NWR was established in 1939 and Kofa staff began installing water source improvements shortly thereafter. Over the ensuing years water sources have been added,

¹ PEER wholeheartedly adopts Mr. Kearns' opinions as its own.

relocated, improved and abandoned. Official establishment of a portion of the refuge as wilderness in 1990 necessarily changed the way that part of the refuge was managed.² Mr. Kearns has always been a strong proponent of maintaining and repairing *preexisting* man-made water sources in Kofa wilderness because bighorn and other wildlife have likely become habituated to those sources over time.³ He also strongly supports establishing *new* water systems *outside* wilderness when based on a scientifically-supported critical need. But he does not support new water developments – like the new McPherson and Yaqui Tanks – in wilderness areas that not only violate the Wilderness Act, but that also have no support in science or even common sense.

In keeping with Mr. Kearns’ approach, from the official designation of Kofa wilderness area in 1990 up until the secret installation of the new McPherson and Yaqui Tanks in early summer 2007, Kofa NWR wilderness management had focused on maintaining existing wildlife waters in wilderness using the minimum tool and carefully considering all management options in dealing with bighorn water sources. An October 1996 Interagency Management Plan (“IMP”) jointly developed by Arizona Game and Fish Department (AGFD), Bureau of Land Management (BLM) and U.S. Fish and Wildlife Service (FWS) clearly identified three pre-existing Kofa wilderness-area water sources for modification or relocation.⁴ The agency staffs worked together to identify these three sources for which improvements/relocation would be most beneficial to bighorn. Because all of the project information, including the impacted water sources and the specific reasons for choosing those sources, was included in the IMP, there was no opposition to the projects from interested parties in the community. The IMP was not

² Plaintiffs’ briefs detail the “hands-off” approach required in managing wilderness areas.

³ Note that “repairing” existing structures in wilderness is far different than constructing an entirely new system in an entirely different area of wilderness but giving it the same name as the original system – as was done in this case.

⁴ The 1996 plan is titled “Kofa National Wildlife Refuge & Wilderness and New Water Mountains Wilderness Interagency Management Plan.” Mr. Kearns was a principal member of the Core Interdisciplinary Planning Team that developed the IMP.

developed in secret or with input from hand-picked special interest groups, and it was made public before any action was taken.

In the IMP, the agencies agreed to relocate the Scotty Dog and Palm Canyon water developments out of the wilderness area.⁵ They also agreed to redevelop the Charlie Died Tank inside the wilderness area in the same footprint as the existing tank. These decisions took into account all of the Kofa wildlife water resources, with then-Refuge Manager Milton Haderlie making the final decisions on water developments. Notably, during discussions of the IMP, agency staffs – including Mr. Kearns – also identified wildlife water sources that had failed and were considered nonviable water sources not warranting further development, improvement, or maintenance. Old McPherson Tank was among the nonviable sources identified.

Old McPherson Tank was considered a nonviable water source because it was never a reliable water source and it was close – 1.6 miles – to Saguaro Tank, a reliable, confirmed bighorn water source. Old McPherson was abandoned in the late 1970s/early 1980s because of its inefficient, high maintenance silt retention dam, and no water had been hauled there in over 25 years.

II. FWS Relied on Faulty or Inconclusive Data and Ignored Contradictory Data About Bighorn and Water Sources

The agencies relied on both faulty and, at best, wholly inconclusive data to justify the need for additional water sources for bighorn sheep and the locations of the new McPherson and Yaqui tank developments. They also completely ignored data indicating that a lack of freestanding water is *not* the reason for the decline in the bighorn population. The Agency relies

⁵ After then-Refuge Manager Milton Haderlie left, the new manager, along with AGFD's John Hervert and Kofa NWR assistant manager Susanna Henry (two of the people intimately involved in the new McPherson and Yaqui Tanks developments), arbitrarily changed the plan to allow construction in wilderness at the existing Scotty Dog site.

on conjecture seemingly premised on the idea that if there isn't enough freestanding water for a human to survive, then there must not be enough for bighorn either.

A. Bighorn Populations Have Continued to Decline Despite Additional Artificial Water Sources

The Agency cannot point to any tenable evidence to support its claim that the bighorn decline is due to a lack of freestanding water. Given the long-term existing improved and natural tinajas, windmill waters, and newer installed underground water systems, the limiting factor for bighorn sheep at Kofa NWR is not freestanding water. During helicopter surveys done since 1980, the highest number of bighorn were observed in 1984 and 1986 (503 and 494, respectively). Compare this with the lowest number, 247 bighorn, observed in 2006. This marked decline occurred despite the fact that Kofa water sources were improved, maintained, and redeveloped throughout the years *following* the high counts in the mid-1980s. In sum, Kofa NWR had greater density and higher quality bighorn populations in the 1970s and 1980s than it does today, even without all of today's artificial water sources.

Clearly something is decimating the bighorn population at Kofa NWR, but it simply is not a lack of freestanding water sources. Major water sources did not go completely dry in recent years and there were no water deprivations over large swaths of refuge lands as would be required for a large-scale, drought-related bighorn die-off. Indeed, there have never been any observations of large groups of dead or dying bighorn, including during the driest times of the year. Such a drastic event would be plainly evident on Kofa NWR because every 2 weeks in the summer months, 11 of the 12 reliable windmill waters are checked and some of the improved or natural water holes such as Little White Tanks, Horse Tanks, and Black Tanks are checked with almost the same frequency to determine if water hauling is required.

During 2007, although AGFD and Kofa staffs hauled water to tanks not previously requiring hauling, they flew the refuge for water surveys and made no observations of large numbers of dead bighorn. There were also no observations of numerous dead bighorn by staff performing abundant on the ground mountain lion searches from fall 2005 through 2007. Further, ever since the first installation of Trail Master cameras at certain water sources in January 2004, those water sources have been hiked to and the film changed once a month.

With all of this extensive fieldwork, large numbers of dead or dying bighorn would have been observed either by land or air. The fall helicopter surveys in 2006 and 2007 extensively covered all of the important bighorn habitat at low levels, and numerous bighorn skeletons were not observed. The discovery of three bighorn skeletons in a dry Red Tank, less than a half mile upstream from a nearly full Chain Tank that has never gone dry naturally,⁶ does not support a drought-related theory for bighorn losses. Moreover, the annual rainfall in 2007 was 6.15 inches, only 0.84 inches less than the 55-year average,⁷ hardly the type of year warranting secret emergency installation of new water sources in wilderness. Refuge personnel simply would have seen a large, widespread bighorn and/or mule deer water-related die-off.

Certainly, inevitable future climate changes and human population increases will stress wildlife populations, including bighorn in Kofa wilderness. However, establishing additional and unnecessary artificial water sources will not help bighorn because the definitive limiting factor will continue to be vegetative resources, not freestanding water availability.

⁶ Mr. Kearns himself checked Chain Tank numerous times from the early 1980s until his retirement in 2006.

⁷ These numbers come from the Kofa Mine weather station.

B. Project-Supportive Reports and Worksheets Include Faulty Information

The agencies' April 17, 2007 Investigative Report omitted numerous potential and known bighorn water sources, at least 19 total,⁸ that are within 3 miles of known bighorn habitat.⁹ Five of these – Craven Well, King Well, Mid Well, Wilbanks Well, and Hoodoo Well – are permanent, well-maintained groundwater wells. Figure 3 in the Report, found at page 29, gives the false impression that the designated area is sorely lacking adequate water supplies.

Further, AGFD's John Hervert incorrectly filled out an AGFD water development worksheet by indicating that there was NOT a perennial water source available to big game within four miles of the new McPherson Tank project area. However, there are three established water tanks well within four miles of the project area: Little White Tanks, Figueroa Tank, and Saguaro Tank.¹⁰ These tanks are easily located on a topographical map and are even identified on the Kofa NWR leaflet. Mr. Kearns can only speculate as to why Mr. Hervert left these water sources off the development worksheet. Even if more water was necessary, a management strategy favoring a return to hauling water in May and June to Figueroa Tank, which has a road leading to it,¹¹ or installing the new underground system in a non-wilderness portion of the same footprint as Figueroa Tank,¹² would work far better than a strategy promoting construction of new tanks in already well-watered wilderness areas.

Further still, the area of the new McPherson Tank development is more mule deer habitat than bighorn habitat. The development is in a valley adjacent to a ridge, it is not in good escape

⁸ The 19 holes consist of Charco 4, Craven Well, High Tank 3, New Water Well, Jasper Spring, Alamo Spring, King Well, Mid Well, Wilbanks Well, Hoodoo Well, Old Yaqui Tank, De La Osa Well, 12-Mile Well, Covered Well, Indian Seep, Scott Well, Hidden Valley Hills Tank, Scotty Dog Tank, and Saguaro Tank.

⁹ This is in stark contrast to the 1996 IMP, where all three agencies carefully considered all Kofa wildlife water sources.

¹⁰ Little White Tanks gets more mule deer use than bighorn use, Figueroa gets both commonly, and Saguaro is mostly bighorn. Saguaro Tank is in prime bighorn habitat, including escape terrain bighorn frequent.

¹¹ Mr. Kearns helped install the Figueroa Tank in the late 1970s.

¹² Non-wilderness area in the same "footprint" as Figueroa Tank means the 100-foot non-wilderness corridor on either side of the road leading to Figueroa Tank.

terrain favored by bighorns. Despite this ecological fact, the Project Information Sheet for the development – again filled out by John Hervert – states that bighorn sheep will receive 90% of the benefits of the development compared to 10% for mule deer. This is most likely an exaggeration that should be borne out in TrailMaster camera information from the site (see Section III below).¹³ The photo documentation from the site will confirm or disconfirm Mr. Hervert’s assertions that were used as justification for the new McPherson Tank development.

C. The New Water Developments Could have been Located Outside Wilderness

Even if new water developments were required to sustain the bighorn population, there is no logical reason why they could not have been located outside the wilderness area. Mr. Hervert has claimed that the new McPherson Tank could not be located outside wilderness because it would be too close to the road. Oddly, the new Yaqui Tank, which was completed around the same time as new McPherson Tank and utilizes the exact same style of underground system, is located almost entirely outside wilderness (according to AGFD/Kofa staffs) within 100 feet of a designated road. There are several other tanks situated close to Kofa NWR designated roads which have been there for many years, including Wilbanks Well, Hoodoo Well, Scott Well, De La Osa Well, Craven Well and New Water Well. These are all windmill waters and the public can drive their vehicles right up to the burro exclusion fences that surround these sources and are located within 50 feet (or much less) of the water drinking trough. Mr. Hervert’s rationale simply is not valid.

D. Translocations of Bighorn and Hunting Have Impacted the Population

There is good reason to believe that translocations of Kofa bighorn to other public lands, combined with annual bighorn hunts, have had a significant impact on the Kofa bighorn population, likely far greater than the impact of any water shortages. Arizona’s Black Mountains

¹³ The public simply does not yet know since the FWS will not release the photo data after 6 months of requests.

are experiencing bighorn declines similar to those at Kofa. The common biotic threads of the bighorn population declines in each area involve removing prime-aged reproductive ewes and young sheep for translocations over a long duration, along with continuous hunting of large, healthy rams during demonstrable population declines.

These cumulative consumptive uses have removed the most ecologically and genetically fit animals, resulting in a large segment of the Kofa population consisting of environmentally less-fit bighorn that are more susceptible to additive anthropogenic and natural disturbances. Fitness is lost over time as the most productive ewes and the strongest rams are removed from the Kofa population. Natural events would not have removed those fit, prime-aged reproductive ewes which have annual survival rates up to 90%, nor would they remove the trophy-type, prime-aged rams harvested by sport hunters.

To date, over 550 bighorn, mostly prime-aged reproductive adult ewes, the most important segment of the population, have been translocated from Kofa. The excessive unnatural removals of ewes through translocations have benefited the destination areas while damaging the source Kofa population. Ironically, throughout all the nail-biting and discussions about bighorn declines, the AGFD and FWS never include hunting and translocation in the list of potential causes, while cougar predation and drought are always at the top of the list despite the evidence to the contrary.¹⁴

E. Livingston Hills is Bighorns' Preferred Lambing Habitat, Yet it has No Permanent Water Sources

¹⁴ Without going into detail, it is worth noting the vastly different treatment the agencies accord natural predators like cougars compared to unnatural predators like hunters. Active measures are taken to kill cougars that have been found to have killed more than one bighorn over a six-month stretch, while hunters are typically allowed to take at least 10 bighorn annually. Cougars pay for their predation privileges with their lives, while hunters pay for theirs with money. Indeed, on April 13, 2007, the Arizona Desert Bighorn Sheep Society (ADBSS) donated \$138,000 to the AGFD with the memo "SAVE KOFA SHEEP." The sum supports many worthwhile Kofa projects, but the ADBSS actively promotes cougar extermination on Kofa and it is not a stretch to see how donated monies of this magnitude might bias and influence wildlife management decisions.

Further evidence that a lack of freestanding water sources is not the problem at Kofa NWR can be found in the Livingston Hills (“Hills”) area, an isolated range on Kofa NWR which has never had large freestanding water sources, natural or man-made. The only available freestanding water in the Hills is found in small temporary pools that form in natural depressions following rains. Yet large bighorn groups of all ages and sexes use the Hills, and the Hills are a preferred lambing ground for bighorn ewes, which nurse and rear their lambs in the area for months before weaning occurs at six months. This is because bighorn ewes do not require abundant freestanding water sources, let alone water supplied by man-made structures, as long as they have sufficient, nutritious, and naturally succulent vegetation at their disposal.¹⁵ Without the necessary vegetation, no amount of supplemental water will ensure their ultimate survival.

Even though it is well documented that bighorn have successfully used the Hills for years as a lambing grounds despite its lack of freestanding water sources, the AGFD and Kofa staffs planned in the April 2007 Investigative Report to establish one emergency temporary source in the Hills. They based this decision on their feeling that bighorn sheep needed freestanding water to survive in the Hills during drought conditions. Although ultimately they did not install the water source, this again points up the fact that AGFD and Kofa staffs decided bighorn needed new water sources to survive based on their beliefs, and perhaps influence from outside groups/benefactors, without any scientific support.

Such human attributed philosophical suppositions, strongly supported by the Yuma Valley Rod and Gun Club (“YVRGC”) and the Arizona Desert Bighorn Sheep Society (“ADBSS”), have no place in wildlife management decisions in general, and certainly not decisions affecting wilderness areas. Should this non-scientific management approach continue,

¹⁵ A 1984 Southern California Edison Report (done as mitigation for installing a power line through Kofa) stated that one bighorn ewe even remained in the Hills throughout 1983, including during the driest months of May, June and July, despite there being no known permanent water sources.

once wild animals in once wild lands will become game farm animals whose value is seen solely in their potential as trophies mounted on a wall or for translocation purposes to stock other areas. Respect for wilderness, as the ultimate natural reservoir and reserve bank for wildlife biodiversity and genetic variability, will help ensure resource sustainability and bighorn survival. Full, fair partnerships with all hunting and conservation NGOs and the public are necessary and essential, but certain groups must not have ultimate influence based on wildlife program funding abilities.

III. The Agency Has Shown a Marked Lack of Transparency Throughout this Process

There are multiple examples of Kofa management being less than forthcoming or honest with the majority of interested parties regarding the new tanks, both before and after installation. Refuge Manager J. Paul Cornes repeatedly represented to interested parties, including Mr. Kearns, that they would have an opportunity to be involved and provide input for the Investigative Report prior to its release, but this never happened. The only outside parties that knew about the tank plans ahead of time were local groups and individuals, including hunting groups, whom the Agency knew were receptive to the plans. This especially goes for the hunting groups, as the Kofa NWR allows largely unrestricted hunting around watering holes such that the new tank developments could only be seen as another opportunity for an easy trophy.¹⁶ Indeed, the YVRGC and other hunters even assisted with construction of the tanks.

Management's justification for keeping the new tank developments secret is truly vexing and borderline absurd. Last summer during a conference call with several environmental NGOs, government officials including then-Refuge Manager Paul Cornes stated that they could not involve the public – apparently except for the hunting groups that helped construct the tanks – or even reveal the locations of the new tanks because of some unnamed, dangerous person who

¹⁶ Temporary hunting blinds adjacent to watering holes are only allowed at certain times of the year.

might try to disrupt the projects. Cornes vaguely alluded to personnel safety issues at Kofa and said the projects needed to proceed quickly because of this dangerous individual. This “dangerous individual” has never been identified and the government’s rationale for secrecy is suspect at best, especially considering the involvement of the hunting groups every step of the way.

Further, despite stating in the AGFD planning document that it would install a “TrailMaster” camera to monitor the new McPherson and Yaqui tanks for the type and number of visitors,¹⁷ AGFD did not do so at the new McPherson Tank until after the 2007 summer rains arrived, making it impossible to know whether bighorn actually utilized the new source during an assumed freestanding water shortage.¹⁸ Both Mr. Kearns and the Sierra Club’s Sandy Bahr have requested the information captured by the camera,¹⁹ but the Kofa NWR and regional office staff and solicitor will not release the information without a FOIA request, thus delaying any response. Obviously, this evidence would be extremely helpful in answering questions about the effectiveness and necessity of the new tanks, and the Agency’s unwillingness to share this information only highlights the secretive, closed-door management style the Agency has adopted throughout the course of these projects.

V. Conclusion

The justification for the secretive new McPherson and Yaqui Tank developments was to benefit the declining Kofa NWR Bighorn population. However, there simply was no biologically justifiable evidence or any other compelling logical reason for these developments, especially new McPherson Tank – which was installed in an area AGFD staffers’ own map

¹⁷ This planning document was not released to the public until after the tanks were installed; Mr. Kearns learned of it through an Arizona public records request.

¹⁸ Oddly, AGFD did install a camera at the new Yaqui Tank shortly after construction, and immediately touted bighorns’ use of the tank. Again, according to AGFD/FWS, Yaqui Tank is located almost entirely outside wilderness.

¹⁹ Ms. Bahr requested the information over five months ago as of this writing.

indicates is adequately watered and which area is more mule deer habitat than bighorn habitat. Meanwhile, the AGFD and FWS simply turn a blind eye to the population impacts from relocation of prime-aged reproductive ewes and hunting of prime-aged healthy rams. The new water developments will have minimal benefit to bighorn at best, and at what cost to the concepts of conserving wildlife, preserving wilderness, open government and basing wildlife management decisions on sound science?

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Respectfully submitted,
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