

ARIZONA ZOOLOGICAL SOCIETY, ET AL.

IBLA 2002-412

Decided January 25, 2006

Appeal from a decision of the Phoenix, Arizona, Field Office, Bureau of Land Management, permitting the Arizona Game and Fish Department to maintain and upgrade sixteen wildlife water catchments within the Sonoran Desert National Monument.

Affirmed.

1. Environmental Quality: Environmental Policy Act of 1969: Environmental Statements--National Environmental Policy Act of 1969: Finding of No Significant Impact

A difference of opinion regarding the efficacy of an action proposed by BLM is not a sufficient showing to overturn a decision. Even when there is doubt whether the BLM action is necessary to achieve the cited objective, the Board will not substitute its judgment for that of the technical experts employed by BLM acting within their field of expertise in the absence of a showing of clear error.

2. Environmental Quality: Environmental Policy Act of 1969: Environmental Statements--National Environmental Policy Act of 1969: Finding of No Significant Impact

In determining whether preparation of an environmental impact statement is required with respect to a project, one consideration is whether the effects of the project on the quality of the human environment are highly controversial in that there is a substantial dispute as to the size, nature, or effect of an action. Disagreement regarding the efficacy of a project is properly distinguished from controversy over the impacts of the project and does not require an environmental impact statement.

3. Environmental Quality: Environmental Policy Act of 1969:
Environmental Statements--National Environmental
Policy Act of 1969: Finding of No Significant Impact

A party challenging a finding of no significant impact based on an environmental assessment has the burden of showing with objective proof that a decision is based on an error of law, demonstrable error of fact, or that the analysis failed to consider an environmental question of material significance to the proposed action. It is not sufficient to simply speculate, request more information, and express disagreement.

APPEARANCES: Michael Chiropolos, Esq. and Edward B. Zukoski, Esq., Boulder, Colorado, for appellants; Richard R. Greenfield, Esq., Office of the Field Solicitor, U.S. Department of the Interior, for the Bureau of Land Management, and Jay R. Adkins, Esq., Assistant Attorney General, Office of the Attorney General, State of Arizona, for the Arizona Game and Fish Department.

OPINION BY ADMINISTRATIVE JUDGE GRANT

The Arizona Zoological Society, the Center for Biological Diversity, Friends of Cabeza Prieta, Sierra Club, Grand Canyon Chapter, and the Wilderness Society (appellants) have appealed a June 5, 2002, decision and finding of no significant impact (FONSI) issued by the Phoenix, Arizona, Field Office, Bureau of Land Management (BLM), permitting the Arizona Game and Fish Department (AGFD) to maintain 16 wildlife water catchments within the Sonoran Desert National Monument (SDNM). The BLM FONSI is predicated on environmental assessment AZ-020-2001-0035 (EA or 2002 EA). The notice of appeal was accompanied by a petition for a stay of the BLM decision pending administrative review. The AGFD filed a motion to intervene on August 12, 2002. This motion was accompanied by an opposition to appellants' stay motion. On August 14, BLM filed a Reply to the petition for stay, stating at page two that "for strictly procedural reasons, Respondent takes no position on Appellants' [petition for stay] and does not object to a stay being entered while this appeal is adjudicated on the merits."^{1/} By Order dated August 15, 2002, the Board granted the motion to intervene and appellants' stay petition.

^{1/} In the Reply, BLM noted its intention to "vigorously dispute Appellants' arguments on the merits as part of its answer." In the event of a stay, BLM related that maintenance (which BLM defined as including upgrading of the catchments) would not occur, however, AGFD would continue to haul water to the catchments, including those in wilderness areas, to provide water for wildlife.

The SDNM was created by Presidential Proclamation 7397 on January 17, 2001. 66 FR 7354, 7358 (Jan. 22, 2001). Included within its boundaries are three wilderness areas: The Table Top Wilderness, the North Maricopa Mountains Wilderness, and the South Maricopa County Wilderness. (EA at 1.)^{2/} The need for the proposed action was described in the EA as follows:

Six wildlife water catchments proposed for maintenance (see map for locations) are in the North Maricopa Mountains, one of which is within the North Maricopa Mountains Wilderness. [^{3/}] Four catchments are in the Table Top Mountains (two in the Table Top Mountains Wilderness) and six catchments are within the region referred to as Area A – formerly within the Barry M. Goldwater Air Force Range; all are within the Sonoran Desert National Monument. These are existing catchments upon which numerous wildlife species have come to depend. However, the small capacities and outdated designs require frequent monitoring and expensive water hauling trips (many into the wilderness areas) to ensure sufficient water remains available for the wildlife that depend upon them. [^{4/}] Forty mechanized water hauling incursions into wilderness to resupply these catchments have occurred since 1990.

Id. The catchments involved in this proposed action are identified in the description of the proposed action (EA at 2), and are included in a broader list of catchments within the SDNM (EA at 16, Table 1).^{5/} In the EA, BLM explained that the “purpose

^{2/} Page 1, omitted from the EA filed with the BLM Answer in this case as Ex. A, is found in the copy of the EA filed with appellants’ notice of appeal (NOA) and stay petition at Ex. 1.

^{3/} Table 1 at page 16 of the EA indicates that none of the catchments in the North Maricopa Mountains are actually within a wilderness, although two are on cherry-stemmed exclusions.

^{4/} In the EA, BLM states that “[w]ater hauling records from the * * * AGFD[] indicate these catchments must be filled as many as 3 times throughout the summer, and more often during drought conditions * * *.” (EA at 1.)

^{5/} The catchments proposed for modification in this decision are identified by number and area:

446	North Maricopa Mountains
449	North Maricopa Mountains

(continued...)

of and need for maintenance of wildlife water catchments” within the wilderness areas was previously analyzed in the Maricopa Complex Wilderness Management Plan (WMP) Environmental Assessment and Decision Record (1995 EA or WMP EA). The introduction to the 2002 EA is unclear as to which of the appealed projects were addressed in the 1995 EA, but it appears elsewhere in the record that two of the catchments at issue in this appeal within the Table Top Mountains (#554 and #705) are in a WSA and were addressed in the 1995 EA, but have not yet been improved. (EA at 16, Table 1; 1995 EA at 34, Table 2.) The wildlife water catchments in question have been used for over 40 years by wildlife species, including but not limited to, desert bighorn sheep, desert mule deer, javelina, gray foxes, badgers, bat species, coyotes, Gambel’s quail and doves. (EA at 1.)

The EA notes that the existing catchments have different configurations, but “generally hold approximately 3,000 gallons of water” and will be “modified to hold approximately 10,000 gallons of water.” *Id.* at 2. The catchments will be constructed so as to blend in with the surrounding locale, including burying components whenever possible. *Id.* The EA describes the proposed use of power

^{5/} (...continued)

450	North Maricopa Mountains
451	North Maricopa Mountains
452	North Maricopa Mountains
453	North Maricopa Mountains
554	Table Top Mountains
705	Table Top Mountains
555	Table Top Mountains
691	Table Top Mountains
396	Sand Tank Mountains
397	Sand Tank Mountains
433	Sand Tank Mountains
501	Sand Tank Mountains
502	Sand Tank Mountains
792	Sand Tank Mountains

equipment such as generators, compressors, power saws, arc welders, and cement mixers in implementing the improvements. Id. Vehicles contemplated for use in construction include pick-up trucks, front end loaders, back hoes, dump trucks, water trucks, and flat bed trucks. Id. The EA notes that travel to the sites will be by “existing routes.” Id. The proposed action may include “installation of larger storage tanks [and] walk-in troughs,” as well as new or expanded aprons, “pipelines of various lengths, and small check dams.” Id. The EA acknowledges that “some road improvement work may be needed to facilitate movement of equipment into the catchment sites.” Id. Improvement of roads “will consist mainly of improving wash crossings, or improving eroded areas sufficiently to drive equipment into the sites.” Id. Disturbance of the surface and vegetation will be minimized, involving one acre or less per site. Id. Disturbed areas will be contoured and returned to natural condition to the extent possible. Id.

Appellants contend that BLM’s EA and FONSI are inadequate under the National Environmental Policy Act of 1969 (NEPA), as amended, 42 U.S.C. § 4332(2)(C) (2000), because the EA fails to take a “hard look” at and analyze the impacts of the project, including impacts on the values recognized in the designation of the SDNM (Statement of Reasons (SOR) at 10-14; NOA at 34-38).^{6/} Appellants also take issue with the premise or “science” underlying the EA, that artificial water catchments benefit wildlife, generally, and desert bighorn sheep specifically. They argue that BLM violated NEPA when it failed to acknowledge and discuss in the EA the scientific controversy pertaining to whether installation of water catchments or artificial water sources actually benefit wildlife. (NOA at 13-21, 23-25.)

Appellants contend that BLM improperly tiered its EA to the analysis in the 1995 EA in view of new information consisting of the subsequent designation of the area as a national monument. (SOR at 14-18.) Asserting that only two of the sixteen water catchments in the proposed action were addressed in the 1995 EA, appellants assert that this also precludes tiering to the 1995 EA. Id. at 18-23. Appellants also contend that BLM failed to analyze a reasonable range of alternatives, in violation of NEPA. (NOA at 38-41.) Further, appellants argue that BLM is required to analyze the efficacy of mitigation measures and that merely listing them is insufficient. Id. at 41-44.

In its Answer, BLM acknowledges that the EA reflects the existence of differing views on the desirability of developing artificial water sources to permit wildlife to continue to exist in areas where natural water sources have been exhausted by man, but notes that the EA also reflects the existence of reason to believe that the

^{6/} Appellants’ arguments on appeal are set forth in both the SOR and the NOA, which is incorporated by reference in the SOR.

availability of water is a key support for the wildlife population.^{7/} (Answer at 17-28.) With respect to the consideration of a range of alternatives in the EA, BLM asserts that the range of alternatives is guided by consideration of those feasible alternatives which would fulfill the objectives of the project and need not include alternatives which would not meet the purposes of the proposed action. Id. at 28-32. In response to appellants' challenge to BLM's tiering to the 1995 EA, BLM contends the environmental analysis contained in the 2002 EA is sufficient to stand on its own. Id. at 32; 71-72. It is argued by BLM, however, that the analysis of the environmental impacts of water catchments in the WMP EA may be referenced in the EA as it is relevant to the issue before us on appeal. Id. at 37-38.

Further, BLM denies that the proposed action involves the construction of roads and notes that the EA states that increasing the storage capacity of these facilities will serve to reduce vehicle incursions for the purpose of hauling water to the existing catchments. Id. at 39. BLM also asserts that impacts to the objectives of the SDNM were considered in the EA. Id. at 40.

In challenging the BLM analysis of the controversy pertaining to the benefit of providing artificial water to wildlife, appellants cite articles to support their contention that there is no scientifically verified benefit to wildlife from artificial water sources. (NOA at 15, citing William Broyles and Tricia Cutler, Effect of Surface Water on Desert Bighorn Sheep in the Cabeza Prieta National Wildlife Refuge [(CPNWR)], 27 Wildlife Society Bulletin 1082-88 (1999) (hereinafter cited as Broyles and Cutler, Effect of Surface Water on Desert Bighorn Sheep) (Ex. 5); Steven Rosenstock, et al. Viewpoints: Benefits and Impacts of Wildlife Water Development, 52 J. Range Management 302-307 (July 1997) (Ex. 6.)) Appellants challenge as conclusory the finding in the EA that there is evidence that water development benefits wildlife populations. (NOA at 21.) Appellants further argue that an environmental impact statement (EIS) is required when there is a dispute as to whether a project would have a significant environmental impact and assert that this is the present case because of disagreement regarding the effectiveness of providing water catchments to support wildlife, citing 40 CFR 1508.27(b)(4). (NOA at 23-24.)

^{7/} Appellants' suggestion that artificial water developments may actually harm desert bighorn sheep and other species is adamantly denied by BLM. (Answer at 24-25.) BLM cites the declaration of John Hervert, Wildlife Program Manager, AGFD, concluding on the basis of his "23 years of experience investigating the influence of water developments on desert wildlife," that bighorn sheep have increased in numbers in Arizona due, in part, to "construction and maintenance of water developments in arid habitats" and that "sheep die when waters, both natural and man-made, go dry for extended periods of time." (Answer, Ex. I at 1.)

Reference to the EA provides the historical background of the provision of artificial water to wildlife within the SDNM:

Water has always been a natural component of the ecosystem, whether from the natural filling of tinajas by precipitation events, or the presence of springs, and perennial rivers such as the Gila River and the Rio Sonoyta. However, with the advent of human occupation, and development and other system-altering activities, such as water diversions, groundwater pumping, road and interstate highway construction, and livestock grazing, wildlife had to alter the way they moved to find water. Because wildlife access to perennial water had changed, the [AGFD] initiated a wildlife watering program, first in the form of game bird guzzlers, then modified to provide water for wildlife, in general (Ballard et al., 1998). Providing artificial waters is considered one method of mitigating impacts while sustaining wildlife populations. (Wright 1959).

The premise surrounding the need to supply artificial water is that the water is thought to be a limiting factor affecting reproduction, survival and distribution of many wildlife species (Ballard et al., 1998). Theoretically, once this limiting factor is satisfied, wildlife population should respond with expanded distributions, increased productivity, reduced mortality, increased fitness or reduced movement (Ballard et al. 1998)

(EA at 6, emphasis added.)

The EA acknowledges that there is controversy concerning the benefit of providing artificial waters. BLM provides a substantial discussion in the EA describing the state of the science on this issue:

The need to provide artificial water for wildlife is controversial, at best. There is a paucity of information in the literature, regarding the direct influence of artificial waters on wildlife populations. Burkett and Thompson (1994), in a study in New Mexico, found no difference in vegetative communities, detection of small mammal taxa, wildlife species richness, nor increases in wildlife populations between areas with artificial waters and those without. Brown (1998) provides anecdotal information to indicate that water developments do not increase wildlife populations, and are therefore, unnecessary. Broyles (1995) contends that providing water to wildlife artificially inflates wildlife populations, increases the spread of diseases within and between wildlife populations, and enhances predator populations by

concentrating predators at waters. He believes that more research should be conducted prior to supplying artificial water to wildlife. An additional concern expressed is the proliferation of feral European honey bees at artificial watering sites.

There is documented evidence that individual animals and small populations of desert bighorn sheep have survived without access to free-standing water (Krausman et al. 1985, Krausman and Czech 1998). However, there is evidence to the contrary, that productivity is enhanced when water is added to dry habitat (Smith and Krausman 1988). In Nevada, for example, the River Mountain herd increased significantly when free-standing water was added to the habitat (Leslie and Douglas 1979). In the event that bighorn herds survive without free-standing, or artificial water, it has long been suggested that sufficient moisture is obtained by foraging on succulent plants. (McCarty and Bailey 1994).

Bristow, et al. (1996) found that bighorn sheep in the Silverbell Mountain, consistently selected for steep rugged terrain, with high quality vegetation[,] in close proximity to permanent water. However, these waters were located near steep terrain, therefore the authors were uncertain whether the sheep selected these sites due to the presence of water, or because of the terrain. Bristow (1998) observed that proximity to perennial water was important to bighorn ewes in the Silverbell Mountain, during the summer months, but was less important than vegetation or topography at other times of the year. He also found that those waters played an important social function within the population, as mature rams and ewes were reunited following the separation due to the previous years' lambing season.

Maghini and Smith (1990) in a study of diurnal ranges of Coues white-tailed deer, recommend ensuring that free water is available during the summer months. Rautenstrauch and Krausman (1989) in a study of desert mule deer in southwestern Arizona, reported that during the summer dry season, deer either moved to areas with permanent water or restricted their movements to portions of home ranges containing permanent water.

Habitat utilization and population distribution can be influenced with water developments allowing a greater diversity of forage use. During periods of extended drought, the resultant decline in desert wildlife populations due to nutritional deficiencies may be lessened by the availability of free-standing water. Desert bighorn sheep and other

ungulates may be able to consume a greater variety of forage and drier plants if free-standing water is available. Artificial water, such as developments, allow for a greater selection of forage items, thus reducing, but not eliminating the influence of nutrition as a limiting factor in desert bighorn sheep populations. In many cases, the presence of desert ungulates is closely tied to water availability (Ballard et al. 1998).

Development of these water sources only influences wildlife populations to the extent that these populations are limited by the availability of free-standing water. The idea that water developments can cause populations to increase to levels that cause excessive use of limited food resources is not supported by the literature. These catchments have been in place for at least 40 years. Generations of wildlife have come to depend on these established systems because access to, and the ability of[] wildlife to water at[,] natural perennial water sources has been removed by man's activities. If localized ecological conditions were altered as a result of catchment installation, then removal of these systems would also be expected to negatively affect these ecological conditions. Improvements to these catchments will not further enhance or adversely impact wildlife populations since no new water sources will be provided. The existing sources are permanent, since the AGFD keeps catchments supplied in dry periods. To date, the apparent benefits to wildlife from artificial waters in the ecosystem seem to outweigh any potential or perceived negative impacts. The [AGFD] is conducting additional studies designed to answer questions directly related to wildlife populations and the presence of artificial waters. (deVos et al. 1998, Ballard et al. 1998).

(EA at 6-7, emphasis added.)

We note that the Broyles and Cutler article cited by appellants acknowledges that several papers cited in the author's bibliography have taken the position that the presence of surface water for drinking may be necessary to increase and sustain desert bighorn sheep populations. (Broyles and Cutler, Effect of Surface Water on Desert Bighorn Sheep at 1082.) In addition, their article acknowledged cited studies demonstrating that "artificial water strongly influenced bighorn distribution." Id. at 1083. Noting appellants' reliance on the Broyles and Cutler paper, BLM explains through the Declaration of Timothy Hughes, Lead Wildlife Biologist, Phoenix Field Office (Hughes Declaration), that BLM reviewed that article and considered differing views on the issue during preparation of the EA, including the findings of a paper which reviewed the Broyles and Cutler article and found their work failed to support their conclusion regarding the influence of water on bighorn sheep. (Hughes

Declaration at 5 (Answer, Ex. C), citing Steven Rosenstock, et al., Head to Head: Muddying the Waters with Poor Science: a Reply to Broyles and Cutler, 29 Wildlife Society Bulletin 2001, 734 (Answer, Ex. F).) Further, BLM disputes appellants' claim that there are no "peer-reviewed" studies showing that artificial water developments actually benefit bighorn sheep, citing to David M. Leslie, Jr. & Charles L. Douglas, Desert Bighorn Sheep of the River Mountains, Nevada, 51 (Wildlife Society Monograph No. 66, 1979). (Exhibit G, part 1.) This study concluded that: "In the arid Southwest, water developments, such as guzzlers and frilling of seeps should be high priorities. The benefits of additional, reliable water sources to sheep and other wildlife are readily apparent." Id. This treatise was cited by BLM in the EA. (EA at 6.)

[1] It is clear from the record that BLM considered the impact of modifying the water catchments on wildlife. Although the discussion in the EA at 6-7 is somewhat general, there is citation to authority which supports BLM's conclusion that modification of the water catchments is warranted in order to protect wildlife and minimize vehicle intrusions in natural areas, as noted above. This Board has long held that even when an appellant's assertions are neither erroneous nor unreasonable, merely representing a different point of view in the controversy over what course of action is in the public interest, a BLM decision in the exercise of its discretion will ordinarily be affirmed when such judgment has been exercised by an official duly delegated with the authority to do so. Rosita Trujillo, 21 IBLA 289, 291 (1975). Similarly, even when there is doubt whether the BLM action appealed (rejection of a geothermal lease application) is necessary to achieve the cited objective (protection of wildlife population), the Board will not substitute its judgment for that of the technical experts employed by the Department acting within their field of expertise in the absence of clear error. Eason Oil Company, 24 IBLA 221, 224-25 (1976). In this case, we find appellants have not shown error in the BLM decision, but have merely presented evidence that there is a difference of opinion regarding the potential efficacy of providing water catchments for wildlife. This is not a sufficient showing to overturn the BLM decision, particularly in the context of this case in which it appears that modification of the water catchments is designed to preserve and improve a perennial water supply that wildlife has become dependent upon over a period of many years.

[2] Appellants also argue that the difference of opinion with respect to the efficacy of providing water catchments for wildlife constitutes a controversy regarding the effects of the action on the human environment that requires the preparation of an EIS, citing the Council on Environmental Quality (CEQ) regulation at 40 CFR 1508.27(b)(4). In considering this issue, we find it necessary to distinguish between a controversy with respect to the efficacy of water catchments, which is acknowledged by BLM, and a controversy over the potential effects of the project upon the human environment. When determining whether a proposed action

is highly controversial, the issue is “[t]he degree to which the effects on the quality of the human environment are likely to be highly controversial.” 40 CFR 1508.27(b)(4) (Emphasis added); see Mary Lee Dereske, 162 IBLA 303, 322 (2004). Thus, the term “controversial” refers to cases “where a substantial dispute exists as to the size, nature, or effect of a major Federal action rather than to the existence of opposition to a use.” Rucker v. Willis, 484 F.2d 158, 162 (4th Cir. 1973); Mary Lee Dereske, 162 IBLA at 322; The Sierra Club, Inc., 107 IBLA 96, 107 (1989). The uncertainty over whether and to what extent desert water catchments benefit wildlife does not amount to uncertainty regarding the effects of the action on the human environment.

Appellants also argue that the EA fails to analyze the impacts of the project on the values recognized in designating the SDNM. A careful reading of the EA, however, discloses a substantial discussion, under the heading “Sonoran Desert National Monument,” of the effects on key elements of the environment recognized in creating the SDNM. Among the impacts addressed are those to vegetation, soil, wilderness values, visual resources, recreation, cultural resources, threatened and endangered species, and wildlife. (EA at 4-8.) While appellants decry the lack of site-specific impact analysis for the catchments, this criticism falls wide of the mark in that the EA clarifies that the footprint of the project will remain within the area of the existing exclosures at the site of the existing water catchments. (EA at 4, 5.) Thus, we find that appellants’ challenge to the EA on this basis fails.

[3] A BLM decision to approve an action based on an EA and FONSI will generally be affirmed if BLM has taken a “hard look” at the proposed action, identified relevant areas of environmental concern, and made a convincing case that the environmental impacts are insignificant or that any such impact will be reduced to insignificance by the adoption of appropriate mitigation measures. Armando Fernandez, 165 IBLA 41, 49 (2005); Great Basin Mine Watch, 159 IBLA 324, 352 (2003); Southern Utah Wilderness Alliance, 158 IBLA 212, 219 (2003); Owen Severance, 118 IBLA 381, 392 (1991). Appellants raise numerous questions about the project, arguing that BLM must answer these questions before it makes a FONSI with respect to the project. (NOA at 27-33.) They have not, however, made a showing that BLM has ignored any potentially significant impacts. A party challenging BLM’s decision has the burden of demonstrating with objective proof that the decision is premised on a clear error of law or demonstrable error of fact, or that the analysis failed to consider an environmental question of material significance to the proposed action. Armando Fernandez, 165 IBLA at 49; Great Basin Mine Watch, 159 IBLA at 353; Southern Utah Wilderness Alliance, 158 IBLA at 219-20; The Ecology Center, 140 IBLA 269, 271 (1997). Mere differences of opinion provide no basis for reversal. Rocky Mountain Trials Association, 156 IBLA 64, 71 (2001). It is not sufficient for an appellant to simply speculate and request more information or “pick apart a record with alleged errors and disagreements without connecting those allegations to an affirmative showing that BLM failed to consider a substantial

environmental question of material significance.” Bark, 167 IBLA 48, 76 (2005); In re Stratton Hog Timber Sale, 160 IBLA 329, 332 (2004)

Appellants also contend that BLM improperly tiered its EA in this case to the WMP EA prepared in 1995. (SOR at 14-18.) The CEQ regulations define “tiering” as “coverage of general matters in broader [EISs] * * * with subsequent narrower statements or environmental analyses * * * incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.” 40 CFR 1508.28. An EA tiered to an EIS or other environmental document^{8/} need not repeat the cumulative impacts analysis or a no action alternative considered in the document to which the EA is tiered. In re Stratton Hog Timber Sale, 160 IBLA at 331; Blue Mountains Biodiversity Project, 139 IBLA 258, 267 (1997); Oregon Natural Resources Council, 115 IBLA 179, 186 (1990); In re Long Missouri Timber Sale, 106 IBLA 83, 87 (1988), reconsideration denied (1989); In re Upper Floras Timber Sale, 86 IBLA 296, 311 (1985). We find that BLM did not tier the analysis in its EA to the WMP EA as that term is defined in the regulations. Nonetheless, there is nothing in the regulations which precludes BLM from referencing relevant parts of the analysis of a related project in its EA. In this case, however, even without the reference to the WMP EA, the analysis in the EA is sufficient to sustain the FONSI. As argued by BLM (Answer at 32, 71-72), the EA in this case stands on its own merits.

With respect to the range of alternatives considered in the EA, we recognize that section 102(2)(E) requires BLM to consider “appropriate alternatives” to the proposed action as well as their environmental consequences. See 40 CFR 1501.2(c) and 1508.9(b); City of Aurora v. Hunt, 749 F.2d 1457, 1466 (10th Cir. 1984); Friends of the Clearwater, 163 IBLA 1, 12 (2004); Southern Utah Wilderness Alliance, 158 IBLA at 217; Larry Thompson, 151 IBLA 208, 219 (1999). Such alternatives should include reasonable alternatives to a proposed action, which will accomplish the intended purpose, are technically and economically feasible, and yet have a lesser impact. 40 CFR 1500.2(e). Headwaters, Inc. v. BLM, 914 F.2d 1174, 1180-81 (9th Cir. 1990); City of Aurora v. BLM, 749 F.2d at 1466-67; Friends of the Clearwater, 163 IBLA at 12; see also 43 CFR 1501.2, 1502.14, 1508.9; Wyoming Outdoor Council, 147 IBLA 105, 114 (1998).

Appellants claim that BLM violated NEPA because its EA considered only the proposed action and the “no action alternative,” maintaining that BLM was required to consider a range of alternatives (43 CFR 1508.9(b)), which should include: (1) relocating water tanks; (2) abandoning some or all of the water tanks either now or in the future; (3) “expanding only half the number of artificial water developments”

^{8/} The term “environmental document” is defined as an EIS, an EA, a FONSI, and a notice of intent. 40 CFR 1508.10.

and “targeting them in particular areas, while studying ‘control areas’ where new structures would not be expanded.” (NOA at 38-39.) Although appellants suggest several additional alternatives, they have not shown that any of those alternatives will meet the project’s goals of ensuring availability of water for wildlife and reducing yearly vehicle intrusions to supply water for these catchments.^{2/} The Board has held that when the EA discusses in detail the environmental impacts of the project, BLM need not address a plethora of possible alternatives; setting forth the implications of both its proposed action and the no action alternative, which form the ends of the spectrum, will suffice. Bark, 167 IBLA at 79; In re Blackeye Again Timber Sale, 98 IBLA 108, 111 (1987).

Appellants also challenge the EA and FONSI on the basis that BLM failed to assess the effectiveness of the mitigation measures set forth in the EA. Specific mitigation measures are set forth at page 10 of the EA. The effectiveness of most of these mitigation measures in terms of avoiding adverse environmental impacts is reasonably apparent from reading the terms of the stipulation. Additional discussion of how the mitigation measures will avoid impacts is found in the discussion of the impacts of the proposed action. (EA at 5.) When the record on appeal from a decision predicated on a FONSI discloses potentially significant environmental impacts which may not be precluded by the proposed mitigation measures, the Board has remanded the decision for further analysis. See Southern Utah Wilderness Alliance, 166 IBLA 140, 176 (2005); Powder River Basin Resource Council, 120 IBLA 47, 60-62 (1991). The burden, however, is on appellants to show that the contemplated measures will be inadequate. Southern Utah Wilderness Alliance, 166 IBLA at 176; Klamath Siskiyou Wildlands Center, 157 IBLA 332, 338 (2002). Appellants have not sustained that burden.

Appellants have raised many arguments in their voluminous NOA and SOR. To the extent arguments raised have not been explicitly addressed in this opinion, they have been considered and rejected for lack of relevance to the issues before us in this case.

^{2/} In response to appellants’ assertion that these alternatives are reasonable, BLM notes that:

“Much is omitted in Appellants’ analysis. For example, relocation would involve construction of altogether new facilities inside the SDNM, an action which would cause unwarranted disturbance given that current distribution is generally adequate to provide water to existing wildlife populations. Abandonment of some facilities would not meet the purpose of the proposed action of continuing to provide water sources for numerous wildlife species in the area. The alternative of “expanding only half the number” of facilities in studying the “control areas” (NOA, at p. 39) would not meet the purpose of reducing the water hauling trips.” (Answer at 21.)

Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decision appealed from is affirmed.

C. Randall Grant, Jr.
Administrative Judge

I concur:

T. Britt Price
Administrative Judge