



September 21, 2018

Stephen Best, Forest Supervisor
Apache-Sitgreaves National Forests
P.O. Box 640, Springerville, AZ 85938

Delivered electronically to: objections-southwestern-apache-sitgreaves@fs.fed.us

RE: Objection to the Wildbunch Allotment Management Plan, Environmental Assessment, Draft Decision Notice, and Finding of No Significant Impact

The Center for Biological Diversity (Center) objects to the Wildbunch Allotment Management Plan, Environmental Assessment, Draft Decision Notice, and Draft Finding of No Significant Impact. We submitted scoping comments on July 30, 2006, during a previous formal scoping period, giving us standing to object. In that letter, the Center presented many concerns, including concerns for riparian conditions, degradation of threatened and endangered species habitats, overgrazing, the need for a reasonable range of alternatives, the requirement for the Forest Service to take a hard look at grazing effects, the failure of the Forest Service to adequately analyze or disclose the cumulative impacts of the preferred alternative, and the effects of livestock grazing on protection of Outstandingly Remarkable Values of suitable Wild and Scenic Rivers. These concerns are the subject of this objection.

The aquatic and riparian ecosystems in the San Francisco River watershed provide some of the most important habitat in the southwest for federally listed species and species of concern, including Chiricahua leopard frog, narrow headed garter snake, southwestern willow flycatcher, yellow-billed cuckoo, loach minnow, spokedace, roundtail chub, and other species. The Blue River, running along the length of the western edge of the Wildbunch Allotment, and the San Francisco River which runs along the southern edge of this allotment, provides habitat for these species, and includes some of the last and best remaining occupied habitat for loach minnow. Recognizing the value of the Blue River for fish recovery, and to comply with obligations under a 2008 Biological Opinion, the Bureau of Reclamation recently constructed a fish barrier and stocked roundtail chub and spokedace within the Wildbunch Allotment. In addition, the Wildbunch Allotment is within the primary recovery area for the Mexican gray wolf.

Despite this concentration of threatened and endangered species, the Forest Service continues to allow grazing on all riparian areas except for the Blue and San Francisco Rivers. However, recent surveys completed by the Center found heavy grazing on these purportedly excluded areas. We present data in this objection that shows there is widespread livestock occupancy in all inspected riparian areas on these rivers, appearing to be year-round. The subject of this objection is the Wildbunch Allotment, but as we show, the boundaries between adjoining allotments are not fenced. The Pigeon, Sandrock, Hickey, and Pleasant Valley Allotments are all equally contributing to a chronic and severe concentration of cattle in what are purported to be protected riparian exclosures. Because of this, the Forest Service has a tremendous mess of interacting cumulative effects that render an "allotment-by-allotment" management approach useless.

Because of the impacts of livestock grazing to these crucial habitats, The Center has long fought for exclusion of livestock from these areas. On October 23, 1997, the Center filed suit¹ claiming that the Forest Service was in violation of Section 7 of the Endangered Species Act, 16 U.S.C. sec. 1531, by failing to enter into consultation with the U.S. Fish and Wildlife Service on the effects of livestock grazing within certain allotments on species listed as threatened and endangered under the ESA (at that point that included southwestern willow flycatcher, loach minnow, and spikedace).

Consultation initiated on February 9, 1998, and included 158 allotments in the southwest. As part of the consultation process, the Forest Service developed its first iteration of the “Grazing Guidance Criteria” on February 13, 1998. U.S. Fish and Wildlife Service concurred in the use of these criteria on March 5, 1998.

By April 16, 1998, the Center agreed to a settlement with the Forest Service that required that livestock be excluded from riparian areas in 57 allotments in Arizona and New Mexico. Wildbunch was a “Table A” allotment under the settlement, defined as allotments for which “*livestock have been excluded from at least 99% of occupied, suitable but unoccupied, and potential habitat*” for the three species. Under the settlement, USFS also agreed to meet the 99% exclusion level for “Table B” allotments within four months, and to trap cowbirds on “Table C” allotments.

The Forest Service made a commitment to monitor fence maintenance every two weeks, and if livestock were present in closed riparian areas, they would “*immediately and aggressively initiate the process for removal*” and to “*make every reasonable effort to remedy situations of livestock encroachment into excluded areas at the time of discovery.*” These commitments were enforceable “*for the duration of the ongoing grazing consultation.*”

Later that year, on June 17, 1998, The Center and Forest Service settled on the remaining allotments, with most subject to same 99% exclusion standard established under the initial settlement, and also included Apache trout, razorback sucker, Sonora chub, and Gila topminnow.

The 1998 Grazing Guidance Criteria were used to make effect determinations on 962 allotments. Consultations included the grazing permit, the AMP, and the AOI for each allotment. Of the 962 allotments, 619 no effect determinations and 321 not likely to affect determinations were made. U.S. Fish and Wildlife Service concurred in the 321 NLAA determinations. The Forest Service made likely to adversely affect determinations (all with respect to loach minnow) and initiated formal consultation on only 22 allotments. Wildbunch was one of the 22 allotments.

The first Biological Opinion issued by U.S. Fish and Wildlife Service for the Wildbunch Allotment gave a not likely to adversely affect finding for loach minnow and no effect finding for spikedace. The Biological Opinion stated that the allotment was stocked at 50 percent of permitted numbers, but was considered to be overstocked by as much as 50 percent and utilization exceeded 60 percent in many areas of the allotment. It found the Blue River in a degraded condition and expressed concern regarding cumulative effects.

¹Southwest Center for Biological Diversity v. U.S. Forest Service (D. Ariz. Civ-97-666-TUC-JMR (Roll)) (consolidated with Forest Guardians v. U.S. Forest Service (Civ-97-2562 PHX-SMM) (intervenors: AZ Cattle Growers Ass’n and NM Cattle Growers Assn’)

In March, 2001 The Center moved to amend the complaint and challenge the February, 1999 Biological Opinion, focusing only on loach minnow and spikedace in the Apache-Sitgreaves and Gila National Forests, including the Wildbunch allotment. The Court upheld the no-jeopardy determinations for loach minnow, but of critical importance was that the court's decision was based on the Forest Service's representation that livestock were excluded from all 7.5 miles of the Blue River in the Wildbunch Allotment, that both Blue and San Francisco Rivers had been rested since 1994, and that numerous improvements to water systems, stock waters, springs, and fences have been made on the allotment.

Subsequent Biological Opinions in 2008 and 2017 have also been issued based on the Forest Service's representation that livestock were excluded from all 7.5 miles of the Blue River in the Wildbunch Allotment. Now, the Forest Service is issuing a Draft Decision and Finding of No Significant Impact for the Wildbunch Allotment Management Plan that continues the narrative that livestock are excluded from the Blue River. The Center believes that the entire record of consultation is beleaguered by this original sin that the Forest Service has claimed these riparian areas have been devoid of cows since 1994.

The Wildbunch Allotment Environmental Assessment and Finding of No Significant Impact states that the Blue River is excluded from livestock grazing at least 33 times, listed here:

Page 1: *"The allotment is currently divided into eight pastures with authorized livestock use and one pasture from which livestock are excluded, along the Blue River corridor and associated riparian areas."*

Page 4: *"...the Blue River pasture has been excluded from use since 1994."*

Page 17: *"See...Figure 5 for an overview of the means by which livestock are excluded from grazing on the Blue River."*

Page 19: Map showing *"Natural and Created Barriers to Livestock Use"* in the Blue River Pasture.

Page 20: In discussion of the allotments rotation strategy it is claimed that the Blue River Pasture has been *"Excluded from livestock use entirely by topography and strategically placed fences that prevent livestock entry into this 945 acre area surrounding the Blue River on both sides."*

Page 23: In providing a list of Additional Management Practices and Mitigation Measures for Range resources the Forest Service states that they would *"Continue exclusion of Blue and San Francisco Rivers and associated riparian areas."*

Page 24: The Forest Service states that *"The ASNFs shall ensure that allotment and pasture fences are maintained to ensure that livestock are not using the Blue River for forage or watering. If fences are found to be damaged they shall be immediately repaired. If livestock are found in the Blue River they will be immediately removed per the terms and conditions of the 2017 USFWS Biological Opinion."*

Page 30: In discussing effects of the proposed action on vegetation in the Blue River Pasture, the Forest Service states that *"No direct or indirect effects are expected under the Proposed Action as livestock would continue to be excluded from this pasture."*

Page 36: *“Riparian areas such as the Blue River and San Francisco River within and adjacent to the allotment are excluded from livestock grazing.”*

Page 47: *“...there is no grazing on the Blue or San Francisco rivers or associated riparian areas...”*

Page 47: *“...livestock are already excluded from the Blue River and San Francisco River, these rivers being the primary riparian areas that contain sufficient habitat for...”* yellow-billed cuckoo.

Page 47: *“...livestock are excluded from the primary riparian habitat [for the Narrow headed gartersnake, Chiricahua leopard frog, Loach minnow, and Spikedace], which occurs along the Blue and San Francisco River.”*

Page 51: *“There would be no direct effect to the [southwestern willow flycatcher] or to its nesting and migratory habitat along the Blue and San Francisco Rivers, because livestock are excluded from these areas.... Livestock are excluded from the riparian areas along the Blue and San Francisco Rivers, which is designated critical habitat.”*

Page 52: *“The Proposed Action would have no effect to developing riparian vegetation, because livestock are excluded from both the Blue and San Francisco Rivers.”*

Page 52: *“There would be no direct effect to the Western yellow-billed cuckoo or to nesting or migratory habitat along the Blue and San Francisco Rivers, because livestock are excluded from these areas.”*

Page 52: *“Direct effects to gartersnakes are not expected to occur within the Blue or San Francisco Rivers due to continued livestock exclusion.”*

Page 53: *“Both the Blue and San Francisco Rivers are perennial streams are excluded from livestock grazing by either fencing or topography. No effects to the drainages by decreasing protective cover and affecting stream banks or habitat is expected to occur due to the exclusion.”*

Page 53: *“Due to the exclusion of proposed critical habitat, no reductions in structural complexity for the [narrow-headed gartersnake’s] life history needs are expected to occur. The Proposed Action continues the exclusion of the Blue and San Francisco rivers, which would negate any loss of vegetation and maintain structural components within the Critical Habitat.”*

Page 54: *“The Proposed Action may affect individual [narrow-headed gartersnake’s], but would have minimal effect due the exclusion of livestock from both the Blue and San Francisco River.”*

Page 54: *“Chiricahua leopard frog could reasonably occur in suitable streams, stock tanks and springs in every pasture on the Wildbunch Allotment. Only the Blue and San Francisco Rivers are excluded from livestock grazing, all other suitable habitats are not. Although the Blue and San Francisco Rivers are excluded from grazing, all unprotected riparian areas, springs, and stock tanks in the Wildbunch Allotment under the Proposed Action could be grazed during the breeding season (March through August) at some time during the rotation.”*

Page 56: *“Direct effects to streambanks and spawning habitat [for the Loach minnow, the Spikedace, and their critical habitat] are not expected to occur, because livestock are excluded from both the Blue and San Francisco Rivers.”*

Page 57: *“There would be no direct effects [on the Bald eagle and Peregrine falcon’s] foraging, roosting, or nesting habitat along the Blue and San Francisco Rivers, because livestock are excluded from these areas.”*

Page 58: *“There would be no direct effects to the [the gray catbird or its] habitat along the Blue River and San Francisco River because livestock are excluded from these areas...With the primary nesting and migratory habitat along the Blue and San Francisco Rivers being excluded from livestock use, we conclude that the Proposed Action is not likely to result in a loss of viability in the planning area, nor cause a trend to federal listing.”*

Page 58: *“Under the Proposed Action, acceptable water quality condition [for the lowland leopard frog] would not be degraded in the Blue or San Francisco Rivers and primary riparian areas would be excluded from livestock, so the Proposed Action may adversely impact individuals, but is not likely to result in a loss of viability in the planning area, nor cause a trend to federal listing.”*

Page 59: *“Direct effects [to the desert and Sonora sucker] from the Proposed Action would be minimal, because livestock are excluded from the Blue River and San Francisco River.”*

Page 59: *“Direct effects [to the Roundtail chub] from trampling streambanks and spawning habitat would be minimal, due to exclusion of livestock grazing from occupied habitat in the both the Blue River and San Francisco River.”*

Page 60: *“Given that livestock grazing is excluded from primary habitat [of the roundtail chub] and proposed developments would not substantially alter water availability, the Proposed Action may adversely impact individuals, but is not likely to result in a loss of viability in the planning area, nor cause a trend to federal listing.”*

Page 60: *“If these species [the caddisflies *Lepidostoma apache*, *Lepidostoma knulli*, and *Lepidostoma granti*; the stone-fly *Capnia caryi*, and Ferris’ copper butterfly] are present in the action area direct effects from grazing would be minimal, because a majority of riparian areas, particularly all of the Blue River and all of the San Francisco River are excluded from grazing.”*

Page 61: *“The Blue River and San Francisco River are excluded from grazing, reducing effects to riparian habitats and riparian vegetation.”*

Page 61: *“The Blue River is a recognized important bird area under Arizona’s IBA program. Given that it would continue to be excluded from livestock grazing under all alternatives, the Proposed Action would not adversely alter the character or habitat that makes the Blue River an important bird area.”*

Page 68: *“It is worth noting here that as part of Chapter 3, water quality was considered as part of the hydrology, riparian, and watershed analysis, and discussed *E. coli* impairment to the Blue River including reaches that border the allotment. However,*

given the closure of the Blue River pasture to livestock and strict adherence to management practices and mitigation measures in the proposed action, such as salting/supplement locations up out of the drainages, the proposed action is not expected to contribute to the extant E. coli impairment, nor cause any additional impairments. The proposed action will not impact this impairment based on current assessment data, which was inconclusive as to the source of the impairment.”

Page 68: “There are no eligible or designated Wild and Scenic River reaches within the grazed area. The reach of the Blue River that runs through the excluded area of the allotment is listed as a suitable stretch of river eligible for “wild” designation, but it is not grazed and has not been since approximately 1994.”

Page 70: “Loach minnow and spokedace are present within the allotment, although not within a grazed area due to the Blue River pasture being excluded from livestock grazing through topography and strategically placed fencing.”

There may be additional examples of where the Forest Service has claimed that cattle have been and currently are excluded from the Blue River, but this list should suffice to make our point clear about the Forest Service’s dishonest assertions.

Livestock are currently grazing within supposedly closed exclosures on the Blue and San Francisco Rivers in the Wildbunch and surrounding allotments, and abundant evidence exists to suggest that this has been ongoing for a number of years. Later in this objection we provide maps, data, tables, and photographic evidence of this.²

We are certain, because we inventoried in both winter and summer, that this is a year-round, chronic occurrence.

We are certain, because we inspected numerous exclosure fences in many allotments, that there is a pervasive and ongoing failure of fencing and natural barriers to keep cattle out of the rivers in numerous allotments.

We are certain, because we inventoried in December of 2017, that this problem predates the February, 2017 Biological Opinion which was predicated on the Forest Service’s claim that the Blue River is closed to cattle.

We hereby object to the Forest Service on these issues:

- 1) The project purpose and need is overly narrow.
- 2) The Forest Service failed to accurately describe the baseline conditions in the project area.
- 3) The Forest Service failed to provide a reasonable range of alternatives for comparison.
- 4) The Forest Service failed to consider all direct, indirect, and cumulative environmental impacts of the proposed action.
- 5) The Forest Service has failed to prove that the significance criteria required for an EIS were not met.

² The information presented in this objection is just a sample of the volume of data collected. Additional documentation may be available upon request.

Objection Issue #1: The project purpose and need is overly narrow.

The purpose and need stated for the Wildbunch Allotment Management Plan is overly narrow. It is, in effect, a predetermined conclusion that grazing is beneficial despite a long history that grazing generally, and on this allotment in particular, is adversely affecting soils, riparian areas, watershed condition, threatened and endangered species, recreation, scenery, cultural resources, and other values. The Forest Service has long history on the Wildbunch Allotment of acknowledging unsatisfactory range condition and pledging improvements that have repeatedly remained unrealized. The Forest Service's lackadaisical and deferential oversight of the Wildbunch Allotment does not match the important (and imperiled) resources at stake. Our photographs speak volumes about the Forest Service's failure in this regard.

Here, the land within the boundaries of the Wildbunch Allotment contain one of the last strongholds for loach minnow, and the lower Blue River is truly one of the most spectacular gems in all of Region 3. Recently, the Bureau of Reclamation led an effort to install a fish barrier and restoration of spikedace within the Wildbunch allotment, at public expense and in order to fulfill its own ESA obligations. The Forest Service acknowledges that by allowing riparian use throughout the allotment (with the sole exception of Blue River), it is permitting grazing activities that directly harm loach minnow and the newly introduced spikedace, yet does not take hard look at alternatives to avoid this harm, such as excluding all riparian areas from grazing, and/or reducing AUMs, season of use, etc. The Environmental Assessment has connected livestock grazing in riparian areas to degraded wildlife habitat. Consider these examples:

Page 53: *"Indirect effects to the species include increased sedimentation and alteration of the native fish prey base. Riparian areas that livestock can access may demonstrate bank sloughing and sedimentation, which may affect fish prey base for the species downstream in the Blue or San Francisco Rivers."*

Page 53: *"Native fish populations can be negatively impacted by livestock grazing. Unmanaged, livestock can compact soils and remove vegetation resulting in increased sedimentation into streams. This can increase water temperatures and decrease habitat quality for the fish."*

Page 59: *"Indirect effects to roundtail chub from livestock grazing throughout the Wildbunch Allotment include the creation of elevated sediment levels in non-excluded stream corridors and adjacent uplands... Sedimentation could alter pool habitat, but is more likely to affect spawning habitat during years without high flows to mobilize and move fine sediment."*

Despite these acknowledgments, the Forest Service has ignored the occupancy and abuse of so-called protected riparian areas and chosen to not expand the project purpose and scope to include robust study, restoration, monitoring, and enforcement of riparian exclosures. The proposed action falls short of protecting 100% of the riparian areas on this allotment that are essential habitat for a wide range of species discussed throughout this objection. This analysis should be one which includes a serious approach to wildlife habitat restoration. Instead, the Forest Service is turning a blind eye to a permittee who has repeatedly been reprimanded by the agency for blatantly allowing cattle to use closed riparian areas throughout the allotment, and who was suspended at least three times, despite having collected more than \$170,000 in federal subsidies in recent years.³

³ <https://farm.ewg.org/persondetail.php?custnumber=A08538722>

Objection Issue #2: The Forest Service failed to accurately describe the baseline conditions in the project area.

The Forest Service must accurately describe the baseline conditions in the project area. *“In analyzing the affected environment, NEPA requires the agency to set forth the baseline conditions.”*⁴ *“The concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process...Once a project begins, the pre-project environment becomes a thing of the past and evaluation of the project’s effect becomes simply impossible.”*⁵ *“[W]ithout [baseline] data, an agency cannot carefully consider information about significant environment impacts. Thus, the agency fails to consider an important aspect of the problem, resulting in an arbitrary and capricious decision.”*⁶

Because the Forest Service ignored the ubiquitous use of the Blue and San Francisco Rivers by livestock they have not accurately described the baseline conditions for riparian ecosystem health, threatened and endangered species and their habitats, impacts to Wild and Scenic Rivers, cultural resources impacts, and the efficacy of range management actions. This is a violation the National Environmental Policy Act.

The current analysis of baseline conditions is also faulty because it suggests that forage utilization is lower than it actually is. Livestock are using lush riparian areas instead of dry uplands, which makes the utilization appear artificially low. All upland range conditions are inaccurate because of this.

Objection Issue #3: The Forest Service failed to provide a reasonable range of alternatives for comparison.

The NEPA implementing regulations refer to the selection and review of alternatives as *“the heart”* of the environmental impact statement.⁷ NEPA requires that a range of meaningful alternatives be explored in the environmental review process.⁸ While a no-action alternative is not required for an EA⁹ it is vitally important for a project like this, considering that *“The no-action alternative provides a baseline for estimating the effects of other alternatives.”*¹⁰ The comparison of the alternatives helps to *“sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decision maker and the public.”*¹¹

Because the Forest Service ignored the ubiquitous use of the Blue and San Francisco Rivers by livestock the no-action alternative fails to analyze the effects of continued grazing in the riparian enclosure on the Blue and San Francisco River. This is a violation the National Environmental Policy Act. The effect of livestock grazing on the riparian systems of the Blue and San Francisco Rivers was not analyzed because it was ignored. Livestock grazing degrades water quality by increasing water temperatures in several ways that affect native fish, amphibians, and entire ecosystems. It widens channels due to bank damage

⁴ Western Watersheds Project v. BLM, 552 F.Supp.2d 1113, 1126 (D. Nev. 2008)

⁵ Northern Plains v. Surf. Transp. Brd., 668 F.3d 1067, 1083 (9th Cir. 2011)

⁶ *Ibid* at 10850

⁷ FSH 1905.15 – Ch. 20, and also 40 C.F.R. § 1502.14

⁸ 42 U.S.C. §§ 4332(C)(iii))

⁹ FSH 1909.15 – Ch. 10 § 14.2

¹⁰ *Ibid*

¹¹ FSH 1905.15 – Ch. 20 § 23.3 (5)

from trampling and sedimentation, leading to elevated water temperature via the loss and suppression of riparian vegetation that provides stream shade¹². This is a serious impact because elevated water temperature and sedimentation adversely affects numerous aquatic species which occur in the Blue River.

To fulfill the National Environmental Policy Act the Forest Service must “*study, develop, and describe appropriate alternatives to recommend courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.*”¹³ The development of alternatives should primarily be driven by the key environmental issues raised by the proposed action. The Forest Service could have incorporated the issues developed in our 2006 comment letter to formulate a reasonable alternative that avoids significant cumulative effects and provides a range of alternatives for the public to consider. Such an alternative could have included a complete closure of all riparian areas to grazing, with monitoring and enforcement of the closure order. The analysis of such an additional alternative would have been critical as it could have ensured that the Forest Service did not “*prematurely foreclose options that might protect, restore, and enhance the environment.*”¹⁴ Despite a long history of conflict between the Center and the Forest Service on the Wildbunch Allotment, no such alternative was considered. And, much to our offense, the agencies response to our comments characterized much of them as mere opinion.

Objection Issue #4: The Forest Service failed to consider all direct, indirect, and cumulative environmental impacts of the proposed action.

The Forest Service must consider all direct, indirect, and cumulative environmental impacts of the proposed action.¹⁵ Direct effects are caused by the action and occur at the same time and place as the proposed project.¹⁶ Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.¹⁷ Both types of impacts include “*effects on natural resources and on the components, structures, and functioning of affected ecosystems,*” as well as “*aesthetic, historic, cultural, economic, social or health [effects].*”¹⁸

Identification of cumulative impacts must be robust. The NEPA obligation to consider cumulative impacts extends to all “*past,*” “*present,*” and “*reasonably foreseeable*” future projects.¹⁹ Past cumulative effects analyses violated NEPA because they failed to provide “*adequate data of the time, place, and scale*” and did not explain in detail “*how different project plans and harvest methods affected the environment.*”²⁰

¹² Kondolf, G. Mathias, Richard Kattelman, Michael Embury, and Don C. Erman. 1996. Status of riparian habitat. Sierra Nevada Ecosystem Project: Final report to Congress, Volume 2.

Beschta, R.L., D.L. Donahue, D.A. DellaSala, J.J. Rhodes, J.R. Karr, M.H. O'Brien, T.L. Fleischner and C.D.

Williams. 2013. Adapting to climate change on western public lands: addressing the ecological effects of domestic, wild, and feral ungulates. Environmental Management 51: 474-91.

¹³ 42 U.S.C. § 4332(2)(E)

¹⁴ FSH 1905.15 Ch. 20 § 14

¹⁵ 40 CFR §§ 1502.16, 1508.8, 1508.25(c)

¹⁶ 40 CFR § 1508.8(a)

¹⁷ 40 CFR § 1508.8(b)

¹⁸ *Ibid*

¹⁹ Oregon Natural Resources Council Fund v. Brong, 492 F.3d 1120, 1133 (9th Cir. 2007); Lands Council v. Powell, 395 F.3d 1019, 1028 (9th Cir.2005)

²⁰ *Ibid*

Significant cumulative effects to numerous environmental resources may result from the proposed action in combination with past, ongoing and foreseeable management activities within and in close proximity to the project area. The Forest Service is required to take a hard look at such impacts rather than merely list potential causes or mention that some risk may result from a catalogue of activities. The Environmental Assessment does not analyze the cumulative effect of cattle trespass into riparian exclosures on Wildbunch and adjoining allotments.

Because the Forest Service ignored the ubiquitous livestock occupancy and use of the Blue and San Francisco Rivers in the Wildbunch and adjoining allotments, they have not accurately analyzed the cumulative effect of failed grazing exclosures in an entire river system in a number of allotments on riparian ecosystem health, threatened and endangered species and their habitats, and the efficacy of range management actions. This is a violation the National Environmental Policy Act.

Objection Issue #5: The Forest Service has failed to prove that the significance criteria required for an EIS were not met.

A finding of no significant impact is based on the context of the project and intensity of its effects using the ten factors identified in 40 CFR 1508.27(b). The Forest Service has concluded that the proposed action would have no significant impacts that warrant the preparation of an EIS. The Center contends that the Forest Service's analysis has failed to adequately identify the context and intensity for all ten measures of significance:

1 Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on the balance the effects will be beneficial.

The Centers own recently collected field data shows that livestock use is persistent, pervasive, and chronic in the Blue River and San Francisco River, despite the agencies claims in the Environmental Assessment to the contrary, and as such the agencies analysis is incomplete, inaccurate, and insufficient to make such a conclusion as to the significance of individual or cumulative effects.

2 The degree to which the Proposed Action affects public health or safety.

The Forest Service has concluded that assessments of water quality, including for the presence of *E. coli*, are based on the agencies claim that the Blue River has been closed to livestock grazing. Our data shows that livestock use is persistent, pervasive, and chronic in the Blue River, and as such the agencies analysis is incomplete, inaccurate, and insufficient to make such a conclusion.

3 Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

The Forest Service has concluded that *"There will be no significant effects on unique characteristics of the area."* This claim is based on the agencies claim that *"There are no eligible or designated Wild and Scenic River reaches within the grazed area. The reach of the Blue River that runs through the excluded area of the allotment is listed as a suitable stretch of river eligible for "wild" designation, but it is not*

grazed and has not been since approximately 1994.” Our data shows that livestock use is persistent, pervasive, and chronic in the Blue River, and as such the agencies analysis is inaccurate.

4 The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The Forest Service has concluded that *“The effects on the quality of the human environment are not likely to be highly controversial.”* In justifying this conclusion, the agency stated that *“The analysis in this final EA represents the judgement and expertise of resource management professionals who have applied their knowledge to similar projects and resources in the past.”* The Center questions the expertise and integrity of said professionals, who have ignored the fact that livestock use is persistent, pervasive, and chronic in the Blue and San Francisco Rivers, despite the agencies claims in the Environmental Assessment to the contrary. The Center has long sought to reform management of the Wildbunch Allotment, including taking legal action that resulted in the Forest Service committing to management practices that the agency has utterly failed in accomplishing. The Center, and our 1.6 million supporters, assert that the proposed action is indeed controversial, in that the agency has thus far failed to meet a basic level of custodial stewardship that has been ordered by a federal judge, therefore, there is no expectation that the agency will have the capacity or willingness to accomplish the adaptive management objectives outlined in the current proposed action.

5 The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The Forest Service has concluded that the *“staff of the Apache-Sitgreaves National Forests and the interdisciplinary team that conducted the analysis have considerable experience with actions that are highly similar to the Proposed Action. Further, our analysis shows the effects of implementing the Proposed Action are not un-certain, and do not involve any unique or unknown risk.”* Again, the Center questions the expertise and integrity of the interdisciplinary team, who have ignored the fact that livestock use is persistent, pervasive, and chronic in the Blue and San Francisco Rivers, despite the agencies claims in the Environmental Assessment to the contrary. If in fact *“this action is similar to many past actions”* then it is only similar in that the agency has failed to provide the most basic levels of administrative oversight and enforcement, as our data has clearly documented that persistent, pervasive, and chronic livestock use of excluded riparian pastures is widespread across dozens of allotments on the Apache-Sitgreaves and adjacent Gila National Forests. The Center asserts that the significance of the proposed action has not been adequately analyzed to the point where the agency can accurately and confidently state that the risks can be known.

6 The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The Forest Service has concluded that *“The action is not likely to establish a precedent for future actions with significant effects because it is a stand-alone decision and each grazing allotment is evaluated independently on its own merits.”* The Center contends that issuance of a Decision and Finding of No Significant Impact on an allotment where the agency has ignored the fact that livestock use is persistent, pervasive, and chronic in the Blue and San Francisco Rivers, despite the agencies claims in the

Environmental Assessment to the contrary, constitutes a precedent for the agency to continue to ignore legal settlements, conditions on the ground, and substantive comments provided by the public.

7 Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

The Forest Service has concluded that there are no significant cumulative impacts. The Center contends that this claim cannot be made with confidence and truthfulness because the agency has ignored the fact that livestock use is persistent, pervasive, and chronic in the Blue and San Francisco Rivers, despite the agencies claims in the Environmental Assessment to the contrary. Cumulative effects analyses were contingent based on the agencies claim that there is no livestock grazing in the Blue or San Francisco Rivers, when in fact there is. The cumulative effects analysis, therefore, has been arbitrarily developed and does not justify the conclusion on insignificance.

8 The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in the National Register of Historic Places or may cause loss or destruction of significant cultural or historical resources.

The Forest Service has concluded that *“The action will have no significant adverse effect on districts, sites, high-ways, structures, or objects listed in or eligible for listing in the National Register of Historic Places.”* This is in spite of the fact that because the agency has ignored the fact that livestock use is persistent, pervasive, and chronic in the Blue and San Francisco Rivers, despite the agencies claims in the Environmental Assessment to the contrary. The Environmental Assessment states in numerous places that abundant Native American cultural sites occur along the Blue and San Francisco Rivers, and that impact to the resources resulting from the presence of livestock can potentially include:

- Livestock trampling sites and artifacts by congregating heavily within site boundaries
- The construction of range improvements that necessitate ground-disturbing activities
- Removal of vegetation and erosion caused by livestock grazing which impacts the movement of surface deposits and alters the setting and geography of sites.

The Forest Service has identified Desired Conditions for Cultural Resources that include:

- Important historic and cultural sites are protected and preserved from adverse impacts.
- Projects should be managed in such a manner that ensures a determination of either "No Historic Properties Affected" or "No Adverse Effect" to heritage resources.

The Center contends that the agency cannot conclude that there are no significant impacts to cultural resources if it has ignored the omnipresence of livestock in the riparian and canyon systems where cultural resources are most concentrated. The lack of baseline inventory and assessment has permitted the agency to draft a decision that arbitrarily concludes no significant impact. The project, due to its deficiencies in basic accumulation of baseline data, cannot ensures a determination of either "No Historic Properties Affected" or "No Adverse Effect" to heritage resources.

9 The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act.

The Forest Service concluded that there would be no significant adverse effects to any endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act. The agency further asserted that *“the USFWS further concluded that the Proposed Action is not likely to jeopardize the continued existence of these three species or destroy or adversely modify their critical habitat(s).”* The record of Sec. 7 consultation is based on the underpinning that *“The Blue River remains fenced and excluded from grazing except for transport of cattle on an as-needed basis”*²¹ and that *“livestock are excluded from the Blue and San Francisco Rivers and associated riparian areas except for trailing to shipping pens.”*²² As we have shown, livestock use is persistent, pervasive, and chronic in the Blue and San Francisco Rivers, despite the agencies claims in the Environmental Assessment to the contrary, and despite the assumptions made by U.S. Fish and Wildlife Service in their issuance of Biological Opinions. The Center asserts that the entire analysis of the proposed actions impacts on endangered or threatened species or their habitats is fundamentally flawed, and by extension the Biological Opinions are equally flawed. The Forest Service, in its failure to comply with past court settlements as well as its failure to compile accurate and up to date baseline inventory data, cannot truthfully conclude that no significant adverse effects would be had.

10 Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

The Forest Service concluded that the proposed action *“will not violate Federal, State, and local laws or requirements for the protection of the environment...[and would be] consistent with the Apache-Sitgreaves National Forests Land Management Plan.”* The Center asserts that the Forest Service’s failure to accurately describe baseline conditions, which include the documented fact that livestock use is persistent, pervasive, and chronic in the Blue and San Francisco Rivers, and subsequently the agencies failure to complete an accurate effects analysis is a violation of law and policy.

10.1 Proposed Action violates the Wild and Scenic Rivers Act and Apache-Sitgreaves National Forests Management Plan

The 2016 Apache-Sitgreaves National Forests revised Forest Plan (page 82) states that *“Suitable [Wild and Scenic] rivers on the Apache-Sitgreaves NFs include portions of the Blue River and KP Creek. These rivers were found to be suitable for inclusion in the National Wild and Scenic Rivers System through a separate environmental analysis. Suitable rivers are managed to maintain their conditions and values until congressional action is taken. One-half mile wide corridors, one-quarter mile on each side of eligible and suitable rivers, are managed to protect the identified river values.”*

²¹ U.S. Fish and Wildlife Service, Biological Opinion on the Wildbunch Allotment Management Plan, letter to Acting Forest Supervisor Deryl Jevons, August 26, 2008.

²² U.S. Fish and Wildlife Service, Biological Opinion on the Wildbunch Allotment Management Plan, letter to Forest Supervisor Steve Best, February 2, 2017.

The Final Environmental Assessment for Blue River and KP Creek Wild and Scenic River Suitability Study²³ identified the following Outstandingly Remarkable Values (ORVs) for the segment of the Blue River which is contained by the Wildbunch Allotment:

Fisheries are identified as an ORV on page 25: *“Fish species and habitat are ORVs because the Blue River contains one of the highest number of native fish species. This habitat is crucial to the survival of many native fish species.”*

Wildlife species and habitats are identified as an ORV on page 27: *“Wildlife species and habitat are ORVs because of the diversity of species and habitats that are found along the river corridor...The Blue River corridor contains important populations of federally listed threatened and endangered wildlife species, as well as Forest Service sensitive wildlife species. A wide diversity of habitats occurs in the study corridors that support these species. In addition, there are two management indicator species (MIS) that also depend on the corridor, as well as a diversity of migratory and resident songbirds.”*

Recreation is identified as an ORV on page 31: *“Recreation is an ORV because the recreation opportunities are diverse and attract visitors from throughout and beyond the area of comparison. Many visitors are attracted because of the remote and primitive setting.”*

Scenery is identified as an ORV on page 34: *“Scenery is an outstandingly remarkable value because of the diversity of landforms, colors, and vegetation found along the river corridor.”*

Prehistoric resources are identified as an ORV on page 39: *“Prehistoric resources are an outstandingly remarkable value because the river corridor contains extensive evidence of occupation and use by the Mogollon culture. Potentially thousands of prehistoric sites occur along the Blue River, which figured significantly in the prehistoric Mogollon culture... Of the 133 sites located in the corridor, only 4 have been evaluated on National Register of Historic Places (NRHP) criteria. The remaining 129 sites are unevaluated and considered “potentially eligible” for the NRHP. These sites must be protected until further testing and evaluation is completed. This “potentially eligible” status and affiliation with the Mogollon culture and other nearby native groups are the contributing ORVs of the Blue River corridor.”*

Vegetation is identified as an ORV on page 40: *“Vegetation is an ORV because of the great diversity of vegetation communities associated with the changes in elevation, including the deciduous shrub and tree canopies along the river segments.”*

The 2016 Apache-Sitgreaves National Forests revised Forest Plan (page 84) provides this Standard for management of Eligible and Suitable Wild and Scenic Rivers: *“Each eligible river’s free-flowing condition, outstandingly remarkable values, and classification shall be sustained until further study is conducted.”* The management approach followed to achieve this standard is *“Where eligible or suitable wild and scenic rivers segments occur (all management areas), the most restrictive management direction applies.”*

The Forest Service has failed to protect the segment of the Blue River within the Wildbunch Allotment from livestock-driven degradation of all of the aforementioned ORVs, and the proposed action disregards

²³ United States Department of Agriculture, Forest Service, Southwestern Region, MB-R3-01-3, September 2010

the fact that and as such the livestock use is persistent, pervasive, and chronic in the Blue River. As such, the Center asserts that the proposed action is not in accord with the Wild and Scenic Rivers Act and Apache-Sitgreaves National Forests Management Plan.

The Center argues that because no baseline inventory or assessment was made of the Blue River, and the Finding of No Significant Impact was predicated on the Forest Service's claim that the Blue River has been excluded from livestock use since 1994, and that the Forest Service provided inaccurate information to the U.S. Fish and Wildlife Service that was the foundation of the Biological Opinion, that all ten significance criteria have been incorrectly concluded as not significant. As such, an Environmental Impact Statement is required.

10.2 Proposed Action violates components of the Apache-Sitgreaves National Forests Management Plan

- The Apache-Sitgreaves National Forest Plan states at page 63 (Guidelines for Wildlife and Rare Plants): *“Constructed features should be maintained to support the purpose(s) for which they were built. Constructed features should be removed when no longer needed.”*

Exclosure fencing within the 1998 Settlement Allotments and all other Allotments which are supposedly closed to grazing in riparian areas should qualify as a “constructed feature”, and as such the current non-functional condition of the fencing and other exclosures would suggest that this Guideline is not being met. The Environmental Assessment states that there is no grazing in the Blue or San Francisco Rivers, but does not address the condition of the Blue River exclosure, and does not provide direction for inspection, repair, and maintenance of the exclosure.

- The Apache-Sitgreaves National Forest Plan states at page 96 (Background for Livestock Grazing): *“Over the last decade, the forests have worked with partners and permittees to reduce grazing pressure on sensitive areas (e.g., critical areas, riparian areas).”*

This may be true at a forest-wide level, however our recently collected data proves that while grazing pressure may have been reduced, it has certainly not been eliminated from sensitive areas, some of which the Forest Service is required to provide for 99% elimination of livestock use of riparian areas through the stipulations of the 1998 Settlement – including the Blue and San Francisco Rivers in the Wildbunch and adjacent allotments. The Environmental Assessment states that there is no grazing in the Blue or San Francisco Rivers, but does not describe the types and frequencies of supposed work that has been done with partners and permittees to prevent cattle from accessing these rivers.

- The Apache-Sitgreaves National Forest Plan states at page 98 (Management Approaches for Livestock Grazing): *“Forest managers also work with non-permittee livestock owners to prevent unauthorized livestock use, including reconstructing fencing where needed.”*

This management approach may not be working to meet desired conditions, as livestock are routinely entering a number of excluded riparian areas. We cannot verify the owner of any livestock or evidence of livestock observed during field surveys, nor can we determine if said livestock are permitted in adjoining upland areas. The onus falls onto the Forest Service for determining the status of unauthorized livestock. The Environmental Assessment states that there is no grazing in the Blue or San Francisco Rivers, and

ignores the fact that livestock use is pervasive and chronic, nor does it address the defunct fencing and natural barriers that do not work.

- The Apache-Sitgreaves National Forest Plan states at page 97 (Guidelines for Livestock Grazing): *“Critical areas²⁴ should be managed to address the inherent or unique site factors, condition, values, or potential conflicts associated with them.”*

Riparian areas and adjacent floodplains, duly regarded as Critical Areas, through widespread and systemic livestock trespass into excluded riparian areas, are not currently being managed to address unique factors and conditions, nor are they currently being managed to address the very real conflict that is the violation of the stipulations of the 1998 Settlement. The Environmental Assessment ignores the damage done by livestock in the closed riparian enclosures on the Blue and San Francisco Rivers, and it would authorize grazing in all other riparian areas on the Wildbunch Allotment, including the purportedly enclosed Cienega Creek. This is hardly an example of the land being managed to address unique factors and conditions.

- The Apache-Sitgreaves National Forest Plan states at page 36 (Management Approaches for Riparian Areas): *“Riparian conditions may be improved by such techniques as removing non-riparian species, planting or restoring native species, stabilizing or eliminating roads, encouraging beaver colonization, or constructing fencing.”*

The Environmental Assessment (page 24) states that *“Fencing is used to keep livestock from entering riparian areas.”* The Forest Service and the permittee have failed to address the maintenance of previously constructed fencing that was to keep livestock out of the Blue and San Francisco Rivers. The fact that the failure of existing fencing to protect enclosures was not addressed in the Environmental Assessment is a clear failure of the Forest Service to adequately document baseline conditions.

10.3 Proposed Action does not move towards desired conditions stated in the Apache-Sitgreaves National Forests Management Plan

The Apache-Sitgreaves National Forests Management Plan clearly states that the existing conditions of streams, riparian areas, and watersheds of the Apache-Sitgreaves National Forest are degraded by factors including livestock grazing:

“Most streams have been altered from reference conditions, resulting in reduced quality of fish habitat. Inventoried streams have exhibited reduced habitat capabilities. Native fish populations and distributions are decreasing range-wide, and the resiliency of all fish species has been impacted” (A-S Forest Plan, page 25).

“All of the riparian PNVTs’ overstory vegetation, except for the cottonwood-willow riparian forest PNVT, are considered departed from reference conditions. Most of this departure has occurred in response to

²⁴ The 2016 Apache-Sitgreaves Forest Plan (at page 152) defines Critical Areas as: *“A critical area for grazing management is an area which should be treated with special consideration because of inherent site factors, size, location, condition, values, or significant potential conflicts among uses. Critical areas are evaluated separately from the remainder of a management unit because they contain special or unique values such as riparian.”*

past grazing and water diversions for agriculture. Many riparian areas are not in proper functioning condition (PFC). Changes in watershed conditions have resulted in altered canopy cover, including a loss of mature trees and saplings; a change in vegetation species composition, including a shift toward increasing conifer dominance; and a reduction in the amount and composition of herbaceous vegetation. In addition, riparian tree species are not successfully reproducing in many areas. During drought conditions, riparian areas are more susceptible to damage from wildfire than under normal conditions” (A-S Forest Plan, page 33).

“Based on range conditions and ecological status, the majority (approximately 59 percent) of herbaceous understory vegetation within the riparian forested PNVTs is highly to severely departed from desired conditions. The ecological status of herbaceous understory vegetation within the wetland/cienega riparian areas is split, nearly equally, between low to moderately departed and high to severely departed from desired conditions” (A-S Forest Plan, page 33).

Existing range conditions for riparian and upland ecosystems occurring in the Stateline Allotments are exceptionally degraded. The chart below compiles data published in the Apache-Sitgreaves Forest Plan (revised 2016).

ERU Understory Herbaceous Vegetation Condition
(data compiled from charts in A-S Forest Plan, pages 216-235)

Ecological Response Unit	Excellent	Good	Fair	Poor	Very Poor	No data
Wetland/Cienega	1	4.8	44.1	42.8	4.9	3.1
Montane Willow Riparian Forest	0	2.9	12.4	54.3	25.3	5
Cottonwood-Willow Riparian Forest	0	1	10	57.2	29.1	3
Mixed Broadleaf Deciduous Riparian	0	14.8	19.8	51	4.3	10.2
Madrean Pine-Oak Woodland	0	10.8	37.4	44.2	1.9	5.7
Pinyon-Juniper Woodland	0	1	8.1	76.5	13.4	1.4
Semi-Desert Grassland	0	3.8	29.8	50.2	2.2	14.1
Mean	0	5.6	23	53.7	11.6	6

These agency published data clearly show that the ecosystems that occur within the Stateline Allotments are predominantly in Poor condition. Those values are in fact not even fully representative of the condition of riparian ecosystems as depicted in the December 2008 Ecological Sustainability Report compiled by the Apache-Sitgreaves Plan Revision Team, which reported that:

- Mixed Broadleaf Deciduous PNVT was 100% Impaired for Soil Condition (page 35)
- Cottonwood-Willow PNVT was 50% Impaired and 50% Unsatisfactory for Soil Condition (page 35)
- Mixed Broadleaf Deciduous and Cottonwood-Willow PNVT’s have LOW Current and Future Forage Production and LOW Current Surface Organic Matter (page 41)
- Mixed Broadleaf Deciduous and Cottonwood-Willow PNVT’s have HIGH Risk to Sustainability caused by invasive weeds (page 71)
- Madrean Pine-Oak Woodland, Semi-desert Grassland are Highly Departed and Cottonwood-Willow Riparian Forest is Moderately Departed from their historic range of variability, partially due to “improper livestock grazing²⁵” (page 83)

²⁵ “The introduction of livestock and non-native wild ungulate species has resulted in the presence of a disturbance process that is outside of the ASNFs’ woodland, grassland, and riparian PNVTs’ respective HRV; altering plant

The 2016 Apache-Sitgreaves Forest Plan (at page 98) states that the management approach to livestock grazing *“is to improve or maintain the health of rangelands by completing site-specific NEPA environmental analyses, assessments, and decisions and updating allotment management plans for individual grazing allotments to emphasize the achievement of desired conditions.”*

The Environmental Assessment fails to address the soil, vegetation, and watershed conditions in the invaded riparian exclosures on the Blue and San Francisco Rivers at a site-specific level and explain how continued livestock grazing will move towards desired conditions. Current livestock management is degrading riparian, aquatic and upland ecosystems to the detriment of recreation, water quality, T&E species and their habitats, wildlife needs, and scenic values. Because the Environmental Assessment has ignored the persistent, pervasive, and destructive effects of livestock in closed riparian pastures, it has failed to disclose cumulative effects of the proposed action and all reasonably foreseeable future actions on achieving desired conditions in all ecological, social, and cultural aspects of allotment management.

For these reasons and more, we strongly disagree with the claim that the proposed action *“will not violate Federal, State, and local laws or requirements for the protection of the environment...[and would be] consistent with the Apache-Sitgreaves National Forests Land Management Plan.”*



“...there is no grazing on the Blue or San Francisco Rivers or associated riparian areas...”

-Wildbunch Allotment Environmental Assessment, Page 47

composition and structure (setting the stage for woody species invasion and establishment), function and processes, and providing increased opportunities for introduction and spread of non-native invasive weed species, increased bareground and soil erosion, loss of soil and soil productivity, alteration of the natural fire regime, the removal of whole suites of species, and the disruption of many plant species' competitive abilities” (Apache-Sitgreaves NF Ecological Sustainability Report, December 2008, page 88).

The selection below shows Desired Conditions for Aquatic Habitat and Species, from page 25 of the Apache-Sitgreaves NF Forest Plan (Revised, 2016). The highlighted desired conditions are not being met by current livestock management on the Wildbunch Allotment. Because the Environmental Assessment has ignored the persistent, pervasive, and destructive effects of livestock in closed riparian pastures on both the Blue and San Francisco Rivers, it has failed to document baseline environmental conditions or disclose cumulative effects of the proposed action on achieving these desired conditions.

Desired Conditions for Aquatic Habitat and Species

4th Level (Subbasin) to 5th Level (Watershed) HUC Watershed Scale Desired Conditions

- Streams and aquatic habitats support native fish and/or other aquatic species providing the quantity and quality of aquatic habitat within reference conditions¹¹.
- Habitat conditions contribute to the recovery of federally listed species.
- Streamflows, habitat, and water quality support native aquatic and riparian-dependent species and habitat.

6th Level (Subwatershed) HUC Watershed Scale Desired Conditions

- Habitat and ecological conditions are capable of providing for self-sustaining populations of native, riparian-dependent plant and animal species.
- Native fish, reptile, amphibian, and invertebrate populations are free from or minimally impacted by nonnative plants and animals.
- Aquatic species habitat conditions provide the resiliency and [redundancy](#) necessary to maintain species diversity and metapopulations.

¹¹ Reference conditions are described in species-specific literature and research.

The selection below shows Desired Conditions for Water Resources, from page 23 of the Apache-Sitgreaves NF Forest Plan (Revised, 2016). The highlighted desired conditions are not being met by current livestock management on the Wildbunch Allotment. Because the Environmental Assessment has ignored the persistent, pervasive, and destructive effects of livestock in closed riparian pastures on both the Blue and San Francisco Rivers, it has failed to document baseline environmental conditions or disclose cumulative effects of the proposed action on achieving these desired conditions.

Desired Conditions for Water Resources

4th Level (Subbasin) to 5th Level (Watershed) HUC Watershed Scale Desired Conditions

- Water quality, stream channel stability, and aquatic habitats retain their inherent resilience to natural and other disturbances.
- Water resources maintain the capability to respond and adjust to disturbances without long term adverse changes.
- Vegetation and soil conditions above the floodplain protect downstream water quality, quantity, and aquatic habitat.

6th Level (Subwatershed) HUC Watershed Scale Desired Conditions

- Instream flows provide for channel and floodplain maintenance, recharge of riparian aquifers, water quality, and minimal temperature fluctuations.
- Streamflows provide connectivity among fish populations and provide unobstructed routes critical for fulfilling needs of aquatic, riparian-dependent, and many upland species of plants and animals.
- Water quantity meets the needs for forest administration and authorized activities (e.g., [livestock grazing](#), recreation, firefighting, domestic use, road maintenance).
- Stream channels and floodplains are dynamic and resilient to disturbances. The water and sediment balance between streams and their watersheds allow a natural frequency of low and high flows.
- Stream condition is sufficient to withstand floods without disrupting normal stream characteristics (e.g., water transport, sediment, woody material) or uncharacteristically altering stream dimensions (e.g., bankfull width, depth, slope, sinuosity).
- Floodplains are functioning and lessen the impacts of floods on human safety, health, and welfare.
- Water quality meets or exceeds Arizona State standards or Environmental Protection Agency water quality standards for designated uses.
- Water quality meets the needs of desirable aquatic species such as the California floater, northern and Chiricahua leopard frog, and invertebrates that support fish populations.

The selection below shows Mid-scale Desired Conditions for Riparian Areas, from page 34 of the Apache-Sitgreaves NF Forest Plan (Revised, 2016). The highlighted desired conditions are not being met by current livestock management on the Wildbunch Allotment. Because the Environmental Assessment has ignored the persistent, pervasive, and destructive effects of livestock in closed riparian pastures on both the Blue and San Francisco Rivers, it has failed to document baseline environmental conditions or disclose cumulative effects of the proposed action on achieving these desired conditions.

Mid-Scale Desired Conditions (100 to 1,000 acres)

- Stream (lotic) riparian-wetland areas have vegetation, landform, and/or large coarse woody debris to dissipate stream energy associated with high water flow.
- Streams and their adjacent floodplains are capable of filtering, processing, and storing sediment; aiding floodplain development; improving floodwater retention; and increasing groundwater recharge.
- Vegetation and root masses stabilize stream banks, islands, and shoreline features against the cutting action of water.
- Ponding and channel characteristics provide habitat, water depth, water duration, and the temperatures necessary for maintaining populations of riparian-dependent species and for their dispersal.
- Beavers occupy capable stream reaches and help promote the function and stability of riparian areas.
- Lentic riparian areas (e.g., wet meadows, fens, bogs) have vegetation and landform present to dissipate wind action, wave action, and overland flow from uplands.
- Wetland riparian areas are capable of filtering sediment and aiding floodplain development that contribute to water retention and groundwater recharge.
- Willows (e.g., Bebb, Geyer, Arizona, Goodding's) are reproducing with all age classes present, where the potential exists.
- The spatial extent of wetlands is maintained¹⁹.
- Sedimentation and soil compaction from forest activities (e.g., vehicle use, recreation, livestock grazing) do not negatively impact riparian areas.
- Riparian vegetation consists mostly of native species that support a wide range of vertebrate and invertebrate species and are free of invasive plant and animal species.
- Riparian-obligate species within wet meadows, around springs and seeps, along stream banks, and active floodplains provide sufficient¹⁴ vegetative ground cover (herbaceous vegetation, litter, and woody riparian species) to protect and enrich soils, trap sediment, mitigate flood energy, stabilize stream banks, and provide for wildlife and plant needs.
- Diversity and density of riparian forest vegetation provides for breeding, escape, hiding, and resting cover for wildlife and provides travel ways between other habitat areas and seasonal ranges.

The selection below shows Fine scale Desired Conditions for Riparian Areas, from page 35 of the Apache-Sitgreaves NF Forest Plan (Revised, 2016). The highlighted desired conditions are not being met by current livestock management on the Wildbunch Allotment. Because the Environmental Assessment has ignored the persistent, pervasive, and destructive effects of livestock in closed riparian pastures on both the Blue and San Francisco Rivers, it has failed to document baseline environmental conditions or disclose cumulative effects of the proposed action on achieving these desired conditions.

Fine Scale Desired Conditions (less than 10 acres)

- The ecological function of riparian areas is resilient to animal and human use.
- Riparian soil productivity is optimized as described by the specific TES map unit¹⁴ under consideration as indicated by the vigor of the vegetation community. Based on species composition, ungrazed plant heights²⁰ range from 10 inches to 36 inches.
- Floodplains and adjacent upland areas provide diverse habitat components (e.g., vegetation, debris, logs) as necessary for migration, hibernation, and brumation (extended inactivity) specific to the needs of riparian-obligate species (e.g., New Mexico meadow jumping mouse, Arizona montane vole, narrow-headed gartersnake).
- Large coarse woody debris provides stability to riparian areas and stream bottoms lacking geologic control (e.g., bedrock) or geomorphic features (e.g., functioning floodplains, stream sinuosity, width/depth ratio).
- Vegetation is structurally diverse, often dense, providing for high bird species diversity and abundance, especially neotropical migratory birds. It includes large trees and snags in the cottonwood-willow and mixed broadleaf deciduous riparian forests to support species such as beaver, yellow-billed cuckoo, bald eagles, Arizona gray squirrel, and various bat species.

The selection below shows Desired Conditions for Livestock Grazing, from pages 96-97 of the Apache-Sitgreaves NF Forest Plan (Revised, 2016). The highlighted desired conditions are not being met by current livestock management on the Wildbunch Allotment. Because the Environmental Assessment has ignored the persistent, pervasive, and destructive effects of livestock in closed riparian pastures on both the Blue and San Francisco Rivers, it has failed to document baseline environmental conditions or disclose cumulative effects of the proposed action on achieving these desired conditions.

Desired Conditions for Livestock Grazing

- Livestock grazing contributes to the social, economic, and cultural diversity and stability of rural communities.
- Livestock grazing and associated activities occur such that healthy, diverse plant communities, satisfactory condition soils, and wildlife habitat are maintained or improved.
- Range developments for livestock minimize impacts to wildlife and blend with the natural environment.

- Livestock grazing is in balance with available forage (i.e., grazing and browsing by authorized livestock, wild horses, and wildlife do not exceed available forage production within established use levels).
- Livestock grazing and associated activities do not negatively impact cultural resources.

Recommended Remedies to this Objection

Objection Issue #1: The project purpose and need is overly narrow

The Center recommends that the Forest Service revise the project purpose to include protecting and restoring riparian wildlife habitat, and include an acknowledged need to effectively maintain exclosures which have been allowed to become pervasively useless.

Objection Issue #2: The Forest Service failed to accurately describe the baseline conditions in the project area

The Center recommends that the Forest Service acknowledge that the Blue and San Francisco Rivers are in fact occupied by cattle in a persistent, pervasive, and chronic manner, and that the long-term failure to maintain exclosures has had deleterious effects on wildlife and habitats, especially regarding the effects of sedimentation on loach minnow and spikedace, and the effects of riparian tree and shrub browsing on southwestern willow flycatcher and yellow-billed cuckoo, and that this long-term occupancy has resulted in the findings of past Biological Opinions to be faulty due to misrepresentations by the Forest Service, and has rendered all effects analyses inaccurate, incomplete, and insufficient. Surveys and monitoring of general fish habitat and loach minnow in particular, as well as other unfulfilled recommendations in the 2008 Biological Opinion, may be required as a first step in order to adequately describe baseline conditions. Then, a new and honest Biological Assessment should be developed that accounts for the actual condition of the resource, replacing the nearly twenty year old BA that is out of date and not representative of the chronic grazing trespass.

Objection Issue #3: The Forest Service failed to provide a reasonable range of alternatives for comparison.

The Center recommends that the Forest Service provide an action alternative that provides full exclosure protection for all riparian system on the Wildbunch Allotment, to allow vegetative recovery, reduction of sedimentation to fish spawning habitat, enhancement of water quality, and improvement of scenic and recreational values. A dramatic reduction in overall stocking of this allotment would be required to accommodate for reduction in acres available to livestock, especially since the most desirable forage would be restricted.

Objection Issue #4: The Forest Service failed to consider all direct, indirect, and cumulative environmental impacts of the proposed action.

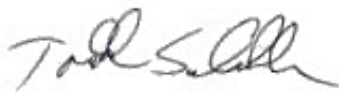
The Center recommends that the Forest Service complete a thorough examination of the status and condition of the Wildbunch Allotment and all other allotments associated with the San Francisco River ecosystem, and provide a cumulative effects analysis that is based on the fact that grazing is ubiquitous in 85% or more of supposedly restricted exclosures, which in turn will require re-initiating consultation on all associated allotments, as past Biological Opinions, concurrences, and other assessments have been predicated on misrepresentations made by the Forest Service as to the occupancy and/or use of riparian pastures/exclosures in the San Francisco and Blue River drainage system.

Objection Issue #5: The Forest Service has failed to prove that the significance criteria required for an EIS were not met.

The Center asserts that in the absence of fulfilling the obligations under NEPA described in Objection Issues 1 through 4, the Forest Service cannot have made an honest assessment of any of the ten significance criteria identified in 40 CFR 1508.27(b). The Draft FONSI must be retracted until the time that the basic requirements of NEPA are satisfied. This involves the Forest Service accepting that there is a systematic degree of livestock trespass into riparian exclosures in the San Francisco watershed, including within critical wildlife habitats, occupied habitat of threatened and endangered species, areas of high concentration of historic and cultural resources, within suitable Wild and Scenic Rivers, and areas with high degrees of unexplained *E. coli* bacteria. A comprehensive analysis of grazing's effects at the watershed scale may be necessary to gain an accurate appraisal of the true condition of these resources under the current paradigm of pervasive livestock use of supposedly closed riparian areas. As long as the problem is ignored, the authorization of livestock grazing on the Wildbunch Allotment will be out of compliance with the Forest Plan, and not provide any movement towards desired conditions. Re-analysis of this action must document baseline conditions, effects of grazing on resources, and courses of remediation for attaining the desired conditions provided in the body of Issue #5.

Thank you for considering our objection and comments on the Wildbunch Allotment. We look forward to your response, and developing a plan for restoring the livestock induced damage that has occurred to areas of such extraordinarily high ecological value. Please review and incorporate into the project record the maps, tables, photographs and other information included in the remainder of this correspondence.

Sincerely,

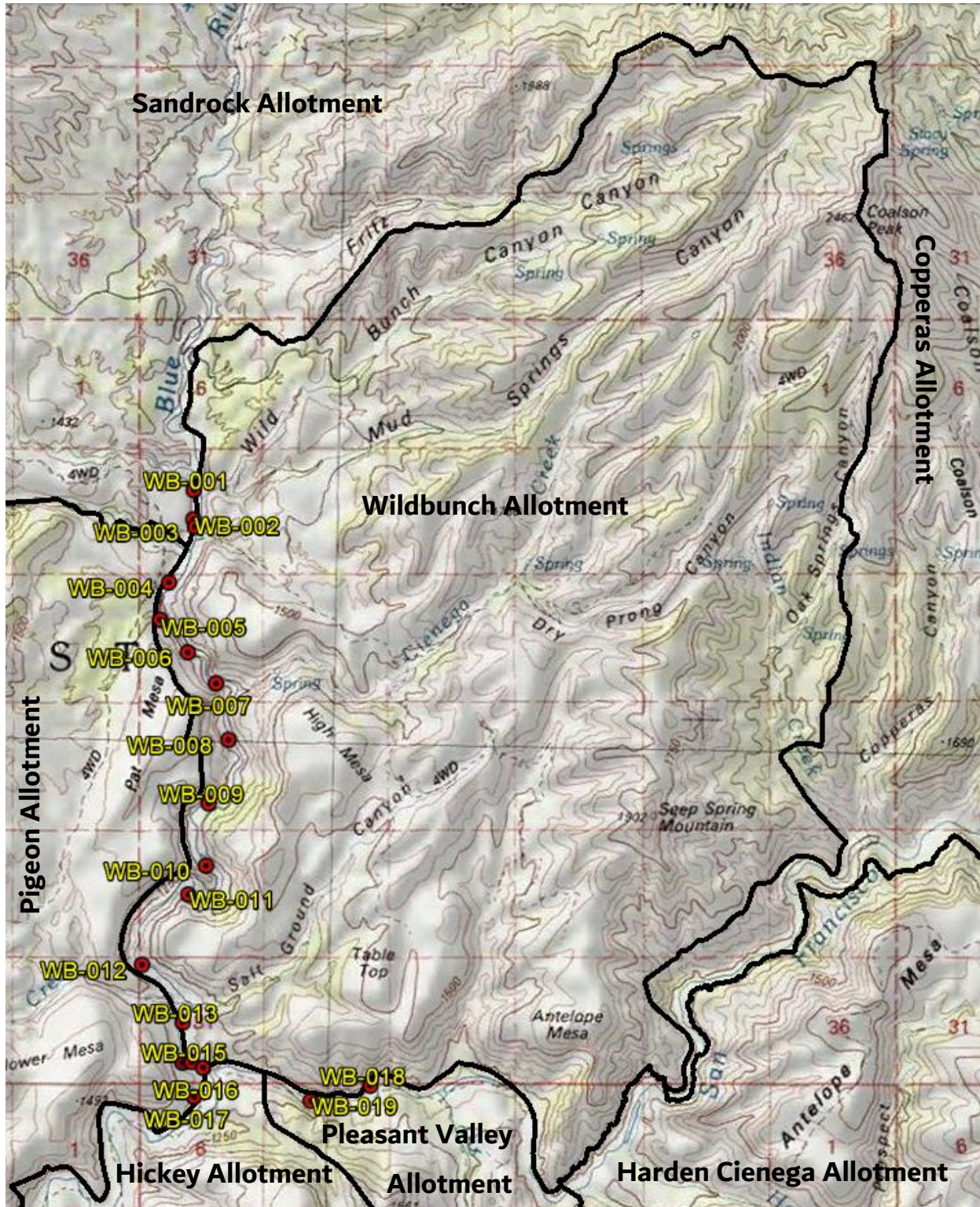


Todd Schulke, Senior Staff and Cofounder
Center for Biological Diversity
575.574.5962
tschulke@biologicaldiversity.org

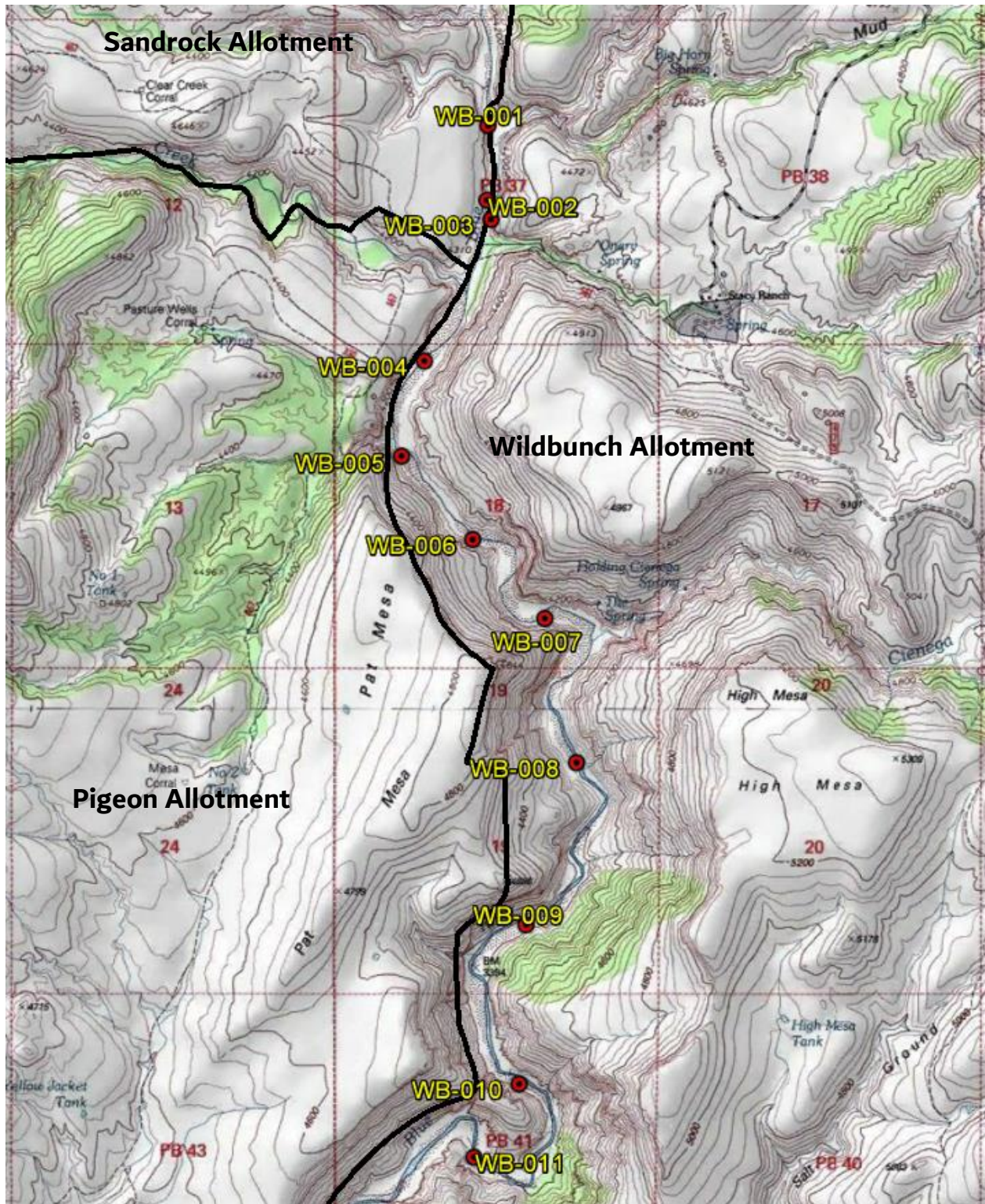


Joe Trudeau, Southwest Advocate
Center for Biological Diversity
603-562-6226
jtrudeau@biologicaldiversity.org

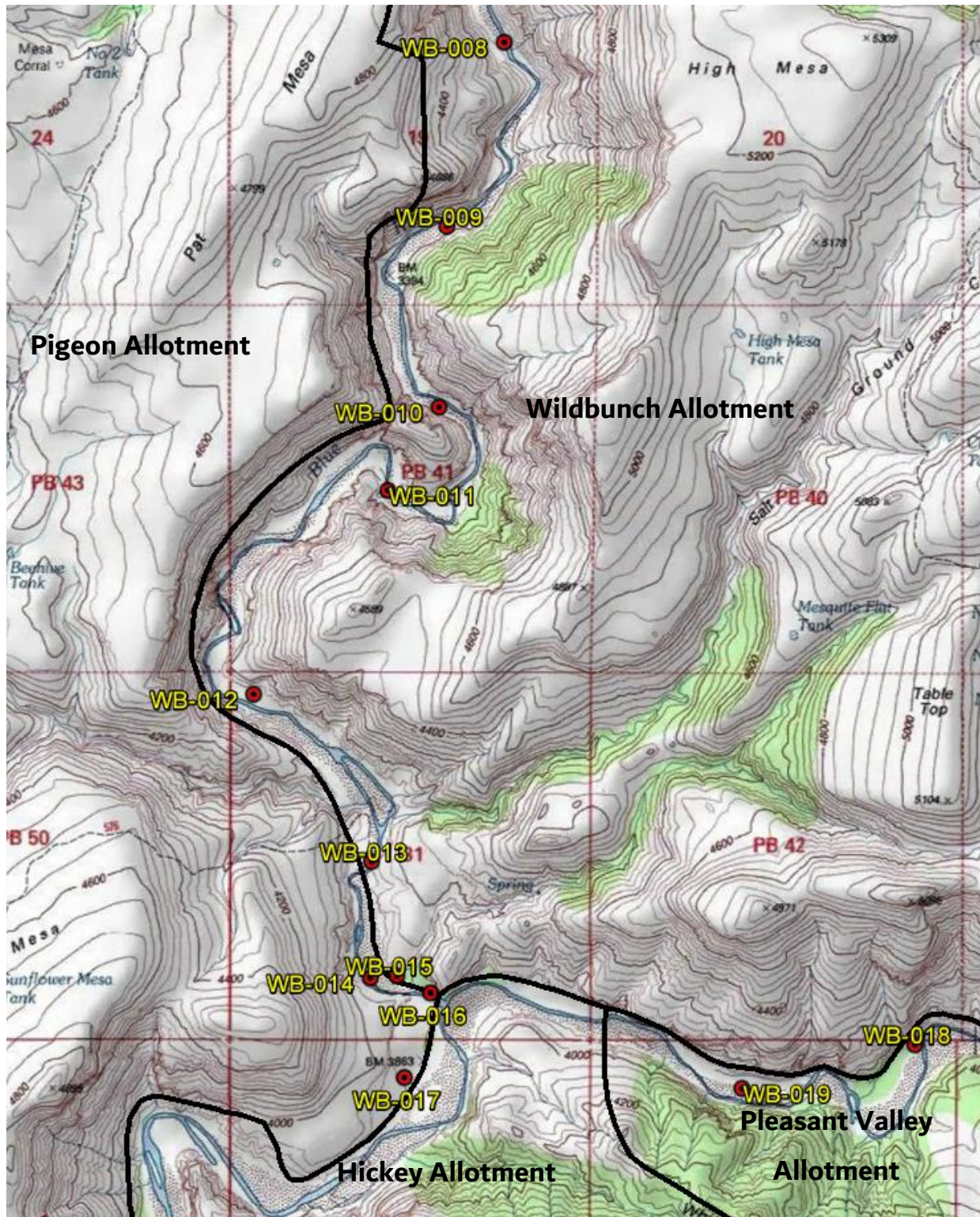
Map 1: Wildbunch Allotment and Cattle Impact Survey Photo Points
Blue and San Francisco Rivers surveyed in 2017 and 2018



Map 2: Wildbunch Allotment and Cattle Impact Survey Photo Points
Northern Half of Blue River Reach



Map 3: Wildbunch Allotment and Cattle Impact Survey Photo Points
Southern Half of Blue River Reach and San Francisco River



CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-001
General Location	Blue River between Clear Creek and Mud Springs Canyon
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Trampling and degradation of banks and vegetation
Date & Time of Photo	5/20/2018 2:56pm
Latitude	N 33 16' 34.2"
Longitude	W 109 11' 39.3"



- | | |
|--|-----|
| 1. Evidence of Cattle Use | Yes |
| 2. Evidence of grazing on grasses and herbaceous vegetation | |
| 3. Evidence of Browsing on multiyear woody vegetation | |
| 4. Evidence of browsing on woody regeneration at greenline or flood channels | |
| 5. Evidence of Cattle Trails | |
| 6. Evidence of Trampling and Ground Cover Disturbance | |
| 7. Evidence of Shearing and Bank Degradation | Yes |
| 8. Presence of invasive trees | |

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-002
General Location	Blue River, ¼ mile upstream of Pigeon Creek
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Trampled banks, feces, plant disturbance, and bank degradation
Date & Time of Photo	5/20/2018 3:10pm
Latitude	N 33 16' 22.2"
Longitude	W 109 11' 39.5"



- | | |
|--|-----|
| 1. Evidence of Cattle Use | Yes |
| 2. Evidence of grazing on grasses and herbaceous vegetation | |
| 3. Evidence of Browsing on multiyear woody vegetation | |
| 4. Evidence of browsing on woody regeneration at greenline or flood channels | |
| 5. Evidence of Cattle Trails | |
| 6. Evidence of Trampling and Ground Cover Disturbance | Yes |
| 7. Evidence of Shearing and Bank Degradation | Yes |
| 8. Presence of invasive trees | |

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-003
General Location	Terrace above Blue River, 2/10 mile upstream of Pigeon Creek
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Cattle trail and heavy grazing on herbaceous vegetation
Date & Time of Photo	5/20/2018 3:14pm
Latitude	N 33 16' 19.1"
Longitude	W 109 11' 38.7



- | | |
|--|-----|
| 1. Evidence of Cattle Use | Yes |
| 2. Evidence of grazing on grasses and herbaceous vegetation | Yes |
| 3. Evidence of Browsing on multiyear woody vegetation | |
| 4. Evidence of browsing on woody regeneration at greenline or flood channels | |
| 5. Evidence of Cattle Trails | Yes |
| 6. Evidence of Trampling and Ground Cover Disturbance | |
| 7. Evidence of Shearing and Bank Degradation | |
| 8. Presence of invasive trees | |

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-004
General Location	Blue River floodplain, ¼ mile below Pigeon Creek
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Heavy grazing and numerous piles of feces
Date & Time of Photo	5/20/2018 3:51pm
Latitude	N 33 15' 56.3"
Longitude	W 109 11' 51.5"



- | | |
|--|-----|
| 1. Evidence of Cattle Use | Yes |
| 2. Evidence of grazing on grasses and herbaceous vegetation | Yes |
| 3. Evidence of Browsing on multiyear woody vegetation | |
| 4. Evidence of browsing on woody regeneration at greenline or flood channels | |
| 5. Evidence of Cattle Trails | |
| 6. Evidence of Trampling and Ground Cover Disturbance | |
| 7. Evidence of Shearing and Bank Degradation | |
| 8. Presence of invasive trees | |

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-005
General Location	Blue River, midway between Pigeon and Cienega Creeks
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Cattle trail, numerous feces
Date & Time of Photo	5/20/2018 4:09pm
Latitude	N 33 15' 41"
Longitude	W 109 11' 55.9"



- | | |
|--|-----|
| 1. Evidence of Cattle Use | Yes |
| 2. Evidence of grazing on grasses and herbaceous vegetation | |
| 3. Evidence of Browsing on multiyear woody vegetation | |
| 4. Evidence of browsing on woody regeneration at greenline or flood channels | |
| 5. Evidence of Cattle Trails | Yes |
| 6. Evidence of Trampling and Ground Cover Disturbance | |
| 7. Evidence of Shearing and Bank Degradation | |
| 8. Presence of invasive trees | |

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-006
General Location	Blue River, ½ mile upstream of Cienega Creek
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Bank degradation, cattle sign in water, tracks and feces
Date & Time of Photo	5/20/2018 4:35pm
Latitude	N 33 15' 27.6"
Longitude	W 109 11' 42.2"



1. Evidence of Cattle Use	Yes
2. Evidence of grazing on grasses and herbaceous vegetation	
3. Evidence of Browsing on multiyear woody vegetation	
4. Evidence of browsing on woody regeneration at greenline or flood channels	
5. Evidence of Cattle Trails	
6. Evidence of Trampling and Ground Cover Disturbance	
7. Evidence of Shearing and Bank Degradation	Yes
8. Presence of invasive trees	

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-007
General Location	Blue River, 1/10 mile upstream of Cienega Creek
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Live cow observed grazing in floodplain
Date & Time of Photo	5/20/2018 5:06pm
Latitude	N 33 15' 14.9"
Longitude	W 109 11' 28.3"



- | | |
|--|-----|
| 1. Evidence of Cattle Use | Yes |
| 2. Evidence of grazing on grasses and herbaceous vegetation | |
| 3. Evidence of Browsing on multiyear woody vegetation | |
| 4. Evidence of browsing on woody regeneration at greenline or flood channels | |
| 5. Evidence of Cattle Trails | |
| 6. Evidence of Trampling and Ground Cover Disturbance | |
| 7. Evidence of Shearing and Bank Degradation | |
| 8. Presence of invasive trees | |

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-008
General Location	Blue River narrows between Pat Mesa and High Mesa
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Bank trampling, tracks, and feces
Date & Time of Photo	5/21/2018 6:41am
Latitude	N 33 14' 51.7"
Longitude	W 109 11' 22.2"



1. Evidence of Cattle Use	Yes
2. Evidence of grazing on grasses and herbaceous vegetation	
3. Evidence of Browsing on multiyear woody vegetation	
4. Evidence of browsing on woody regeneration at greenline or flood channels	
5. Evidence of Cattle Trails	
6. Evidence of Trampling and Ground Cover Disturbance	Yes
7. Evidence of Shearing and Bank Degradation	Yes
8. Presence of invasive trees	

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-009
General Location	Blue River narrows between Pat Mesa and High Mesa
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Wallowing, trampling, and feeding at waters edge
Date & Time of Photo	5/21/2018 7:17am
Latitude	N 33 14' 25.6"
Longitude	W 109 11' 31.9"



- | | |
|--|-----|
| 1. Evidence of Cattle Use | Yes |
| 2. Evidence of grazing on grasses and herbaceous vegetation | |
| 3. Evidence of Browsing on multiyear woody vegetation | |
| 4. Evidence of browsing on woody regeneration at greenline or flood channels | |
| 5. Evidence of Cattle Trails | |
| 6. Evidence of Trampling and Ground Cover Disturbance | |
| 7. Evidence of Shearing and Bank Degradation | Yes |
| 8. Presence of invasive trees | |

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-010
General Location	Blue River, north side of peninsula in center of Section PB41
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Feeding at waters edge, bank shearing, cattle trail
Date & Time of Photo	5/21/2018 7:48am
Latitude	N 33 13' 59.9"
Longitude	W 109 11' 33.2"



- | | |
|--|-----|
| 1. Evidence of Cattle Use | Yes |
| 2. Evidence of grazing on grasses and herbaceous vegetation | |
| 3. Evidence of Browsing on multiyear woody vegetation | |
| 4. Evidence of browsing on woody regeneration at greenline or flood channels | |
| 5. Evidence of Cattle Trails | |
| 6. Evidence of Trampling and Ground Cover Disturbance | |
| 7. Evidence of Shearing and Bank Degradation | Yes |
| 8. Presence of invasive trees | |

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-011
General Location	Blue River, south side of peninsula in center of Section PB41
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Cattle trail, trampled grasses, and moist, dark cow pie
Date & Time of Photo	5/21/2018 8:16am
Latitude	N 33 13' 48.2"
Longitude	W 109 11' 41.9"



1. Evidence of Cattle Use	Yes
2. Evidence of grazing on grasses and herbaceous vegetation	Yes
3. Evidence of Browsing on multiyear woody vegetation	
4. Evidence of browsing on woody regeneration at greenline or flood channels	
5. Evidence of Cattle Trails	Yes
6. Evidence of Trampling and Ground Cover Disturbance	
7. Evidence of Shearing and Bank Degradation	
8. Presence of invasive trees	

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-012
General Location	Blue River, 4/10 mile upstream of Pat Creek
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Trampled meadow, numerous cow pies of various ages, and tracks
Date & Time of Photo	5/21/2018 9:11am
Latitude	N 33 13' 19.3"
Longitude	W 109 12' 4.6"



1. Evidence of Cattle Use	Yes
2. Evidence of grazing on grasses and herbaceous vegetation	Yes
3. Evidence of Browsing on multiyear woody vegetation	
4. Evidence of browsing on woody regeneration at greenline or flood channels	
5. Evidence of Cattle Trails	
6. Evidence of Trampling and Ground Cover Disturbance	
7. Evidence of Shearing and Bank Degradation	
8. Presence of invasive trees	

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-013
General Location	Blue River, at base of stock trail that drops off of Sunflower Mesa
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Trampling, shearing, bank destabilization, feces, willow browse
Date & Time of Photo	12/29/2019 3:42pm
Latitude	N 33 12' 55.6"
Longitude	W 109 11' 44.6"



1. Evidence of Cattle Use	Yes
2. Evidence of grazing on grasses and herbaceous vegetation	Yes
3. Evidence of Browsing on multiyear woody vegetation	Yes
4. Evidence of browsing on woody regeneration at greenline or flood channels	Yes
5. Evidence of Cattle Trails	Yes
6. Evidence of Trampling and Ground Cover Disturbance	Yes
7. Evidence of Shearing and Bank Degradation	Yes
8. Presence of invasive trees	No

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-014
General Location	Blue River, ¼ mile upstream from San Francisco River
Allotment/Pasture	Wildbunch Allotment/Blue River Pasture
Observed Cattle Impacts	Fresh cow pies at edge of Blue River along cattle trail
Date & Time of Photo	12/29/2017 3:25pm
Latitude	N 33 12' 39.1"
Longitude	W 109 11' 44.8"



1. Evidence of Cattle Use	Yes
2. Evidence of grazing on grasses and herbaceous vegetation	Yes
3. Evidence of Browsing on multiyear woody vegetation	Yes
4. Evidence of browsing on woody regeneration at greenline or flood channels	No
5. Evidence of Cattle Trails	Yes
6. Evidence of Trampling and Ground Cover Disturbance	Yes
7. Evidence of Shearing and Bank Degradation	Yes
8. Presence of invasive trees	No

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-015
General Location	Gate passing between Blue River Riparian and South Pastures
Allotment/Pasture	Wildbunch Allotment/Blue River and South Pastures
Observed Cattle Impacts	Riparian pasture gate left open for years, cattle trail, and feces
Date & Time of Photo	12/29/2017 4:04pm
Latitude	N 33 12' 39.4"
Longitude	W 109 11' 40.3"



1. Evidence of Cattle Use	Yes
2. Evidence of grazing on grasses and herbaceous vegetation	Yes
3. Evidence of Browsing on multiyear woody vegetation	Yes
4. Evidence of browsing on woody regeneration at greenline or flood channels	No
5. Evidence of Cattle Trails	Yes
6. Evidence of Trampling and Ground Cover Disturbance	Yes
7. Evidence of Shearing and Bank Degradation	No
8. Presence of invasive trees	No

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-016
General Location	100 yards up Blue River from confluence with San Francisco River
Allotment/Pasture	On Boundary of Pigeon and Wildbunch Allotments: no fence found
Observed Cattle Impacts	Cattle tracks leading into and out of Blue River, bank shearing at left
Date & Time of Photo	12/29/2017 3:09pm
Latitude	N 33 12' 37"
Longitude	W 109 11' 34.6"



1. Evidence of Cattle Use	Yes
2. Evidence of grazing on grasses and herbaceous vegetation	No
3. Evidence of Browsing on multiyear woody vegetation	No
4. Evidence of browsing on woody regeneration at greenline or flood channels	No
5. Evidence of Cattle Trails	Yes
6. Evidence of Trampling and Ground Cover Disturbance	Yes
7. Evidence of Shearing and Bank Degradation	Yes
8. Presence of invasive trees	No

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-017
General Location	¼ mile southeast of confluence of Blue and San Francisco Rivers
Allotment/Pasture	Fence between Pigeon and Hickey Allotments
Observed Cattle Impacts	Much of fence is down between Wildbunch, Pigeon and Hickey Allotments. Every section inspected was badly in need to repair.
Date & Time of Photo	12/30/2017 9:59am
Latitude	N 33 12' 25"
Longitude	W 109 11' 39"



- | | |
|--|-----|
| 1. Evidence of Cattle Use | Yes |
| 2. Evidence of grazing on grasses and herbaceous vegetation | Yes |
| 3. Evidence of Browsing on multiyear woody vegetation | |
| 4. Evidence of browsing on woody regeneration at greenline or flood channels | |
| 5. Evidence of Cattle Trails | Yes |
| 6. Evidence of Trampling and Ground Cover Disturbance | |
| 7. Evidence of Shearing and Bank Degradation | |
| 8. Presence of invasive trees | |

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-018
General Location	San Francisco River, ½ mile west of Hog Canyon & Martinez Ranch
Allotment/Pasture	Edge of Wildbunch (left) and Pleasant Valley (right) Allotments
Observed Cattle Impacts	Feces, wallowing, bank trampling along cattle trail up river, no fence
Date & Time of Photo	12/29/2017 11:55am
Latitude	N 33 12' 29.7"
Longitude	W 109 10' 12.5"



1. Evidence of Cattle Use	Yes
2. Evidence of grazing on grasses and herbaceous vegetation	Yes
3. Evidence of Browsing on multiyear woody vegetation	Yes
4. Evidence of browsing on woody regeneration at greenline or flood channels	Yes
5. Evidence of Cattle Trails	Yes
6. Evidence of Trampling and Ground Cover Disturbance	Yes
7. Evidence of Shearing and Bank Degradation	Yes
8. Presence of invasive trees	

CENTER FOR BIOLOGICAL DIVERSITY

Photopoint #	WB-019
General Location	San Francisco River, midway between Dix Creek and Blue River
Allotment/Pasture	Pleasant Valley Allotment
Observed Cattle Impacts	Cow pies with ATV tracks running them over
Date & Time of Photo	12/29/2017 1:22pm
Latitude	N 33 12' 23.5"
Longitude	W 109 10' 41.8"



1. Evidence of Cattle Use	Yes
2. Evidence of grazing on grasses and herbaceous vegetation	Yes
3. Evidence of Browsing on multiyear woody vegetation	
4. Evidence of browsing on woody regeneration at greenline or flood channels	
5. Evidence of Cattle Trails	Yes
6. Evidence of Trampling and Ground Cover Disturbance	Yes
7. Evidence of Shearing and Bank Degradation	
8. Presence of invasive trees	

2017 and 2018 Cattle Impact Surveys along the Blue and San Francisco Rivers

Cattle Impact Survey Purpose

The purpose of this survey project was to determine if cattle are present in excluded riparian areas on allotments on the Apache-Sitgreaves National Forests and to document the extent and intensity of impacts from cattle across these riparian ecosystems. Based on prior agreements, and in many cases codified in AOI's, the allotments identified for survey should all have intact and functional exclosures to keep cattle out of riparian and aquatic river systems. Further objectives of this assessment were to quantitatively evaluate these impacts in six specific categories and document this data with georeferenced photographs and maps reflecting the overall impacts of cattle throughout allotment drainages.

Cattle Impact Survey Locations

Surveyors walked every foot of more than 100 miles of sixteen named creeks and rivers on the Apache-Sitgreaves National Forest. Aquatic, riparian, xeri-riparian, floodplain, terrace, and upland conditions were carefully investigated and evaluated in accordance with a well-defined protocol. Surveyed areas cover twenty grazing allotments, nineteen of which are included in the 1998 settlement. Four were surveyed for cattle impacts in December 2017 to January 2018, including the Blue and San Francisco Rivers in/adjacent to the Wildbunch and Pigeon Allotments. The San Francisco River within the Pleasant Valley and Hickey Allotments were also surveyed in December 2017 to January 2018. The Blue River through the Sandrock Allotment²⁶ was surveyed in May of 2018. The remaining fifteen allotments were surveyed in spring and summer of 2018. These data are the most comprehensive, quantifiable, and up to date inspections of riparian conditions and cattle occupancy known to exist.

Cattle Impact Survey Field Methods

Surveyors walked the excluded stream reaches of allotments and recorded the levels of impact in the following six categories²⁷:

- Grazing impacts on herbaceous vegetation and grasses
- Browsing impacts on multiyear stems and near channel woody regeneration
- Ground disturbances from trailing, trampling, and wallowing
- Extent and pervasiveness of ground disturbances in exclosure reaches
- Intensity of streambank degradation
- Extent and pervasiveness of streambank erosion levels in exclosure reaches from cattle.

Cattle Impact Survey Data Collection

Surveyors used the ARC-GIS compatible COLLECTOR tablet systems to collect field data. An interactive database of all photo points and segment impact data was created. In addition, multiple georeferenced photo points were taken along each segment.

²⁶ The Sandrock Allotment was not included in the 1998 Settlement

²⁷ See Appendix A for survey and data analysis methodology

For each of the six categories of cattle impact, detailed condition descriptors were determined based on pre-survey sample areas and field observations. Each level of condition was then assigned a severity level of 1-4 (Table 1 on next page). During the field survey a score for each impact category at each segment endpoint was determined based on the severity and intensity of the particular impact. A segment was rated 0 for a particular impact if no evidence of impact was seen.

Cattle Impact Survey Results

Surveyors confirmed and documented signs of cattle occupancy as well as a range of cattle impacts across all surveyed Apache-Sitgreaves National Forest ranger districts. Livestock impacts were confirmed in 85% of the allotments surveyed, and in 90% of rivers. There are widespread examples of fences down and in disrepair between private property and Forest Service land, as well as between allotments, creating virtually unlimited access for cattle to cross into excluded areas. In addition, many fences between upland legal grazing areas and excluded riparian areas are in disrepair or all together absent.

Across the Apache-Sitgreaves National Forest, survey results showed that 30.2 miles of riparian habitat were absent of any cattle impact (30%), 14.4 miles showed light impacts (14%), 15.6 miles had moderate levels of impact (15%), and 41 miles of were deemed to have significant negative impacts from cattle (41%).

Throughout the majority of these legally protected riparian habitats in the Apache-Sitgreaves National Forests there is intense grazing pressure on native grasses resulting in the replacement of natives with non-palatable invasive plants. Soil compaction and denuded soils are widespread across the landscape and there are sheared streambanks throughout the surveyed areas. In many places, browse pressure by cattle is causing the full suppression of woody regeneration along waterways and preventing the restoration of critical habitat in historically over-grazed landscapes.

Data on cattle impacts in riparian areas of exclosure were collected for a total of more than 159 segments on the Apache-Sitgreaves National Forest, each ¼ to 1 mile in length. Approximately 101.14 miles of riparian habitat were surveyed.

Table 1. Condition descriptors and severity scores for six cattle impact categories

Category	Condition: 1	Condition: 2	Condition: 3	Condition: 4
GRAZING EVIDENCE ON GRASSES AND HERBACEOUS GROWTH	LIMITED Less than 1% of the grasses impacted.	LIGHT Few to some patches of grazed area or selective grazing in patches.	MODERATE Multiple grass patches grazed, more than 20% of grass impacted in patches.	SEVERE/HEAVY Multiple patches grazed, low grass heights less than 1 inch. More than 30% grazed in patches
BROWSE PRESSURE/WOODY Stems	LIMITED Less than 1% of woody stems impacted	LIGHT Browsing limited to multiyear stems	MODERATE Browse pressure on near channel woody recruitment	HEAVY/SEVERE Multiple greenline or near channel recruitment browse
GROUND COVER DISTURBANCE/INTENSITY	LIMITED Limited to transient evidence of use.	LOW Isolated trailing and cow trails developing.	MODERATE Multiple trails and the presence of wallows and rutting areas. Some bare soils.	SEVERE Trails, plus wallows, rutting and compaction leading to denuded ground and larger areas of bare soils.
GROUND COVER DISTURBANCE/EXTENT	LIMITED Few examples of disturbance.	SCATTERED Trails or disturbances in more than one location in segment.	MODERATE Trails meander through entire segment and there are multiple moderate level disturbances (see above).	PERVASIVE Multiple locations of disturbance and multiple types of disturbances, including severe moderate and low (see above).
STREAMBANK DEGRADATION/INTENSITY	LIMITED No visible signs, but other cattle impact on both sides of river that evidence crossing.	LOW Trails leading to streambank and water's edge.	MODERATE Trailing and trails creating unstable banks, some chiseling, or in low relief banks-muddy compaction	SEVERE Trailing leading to shearing and removal of a portion of the streambank leaving vertical surfaces.
STREAMBANK DEGRADATION/EXTENT	LIMITED Isolated example of streambank entry.	SCATTERED Bank degradation of any intensity in more than one location.	MODERATE Multiple examples of low and moderate bank degradation (see above).	PERVASIVE Multiple examples of low, moderate, and severe degradation (see above).

Cattle Impact Survey Data Compilation

Following field survey, each segment was rated for its “overall impact level”. Overall cattle impacts are defined as absent, light, moderate, or significant. To determine overall impact score, the numerical condition or severity score for each segment endpoint were collated and weighted. Generally, if specific category impacts were light or limited in four categories, the overall impact was considered light. If impact severity in five or more categories were light, then the overall impact was evaluated as moderate. Overall impact scores of moderate also included combinations of limited, light and moderate scores in all six categories. If three or more categories conditions were moderate, then the overall impact level rose to significant. If at least one impact category was severe or pervasive, then the overall impact level was evaluated as significant (Table 2, below).

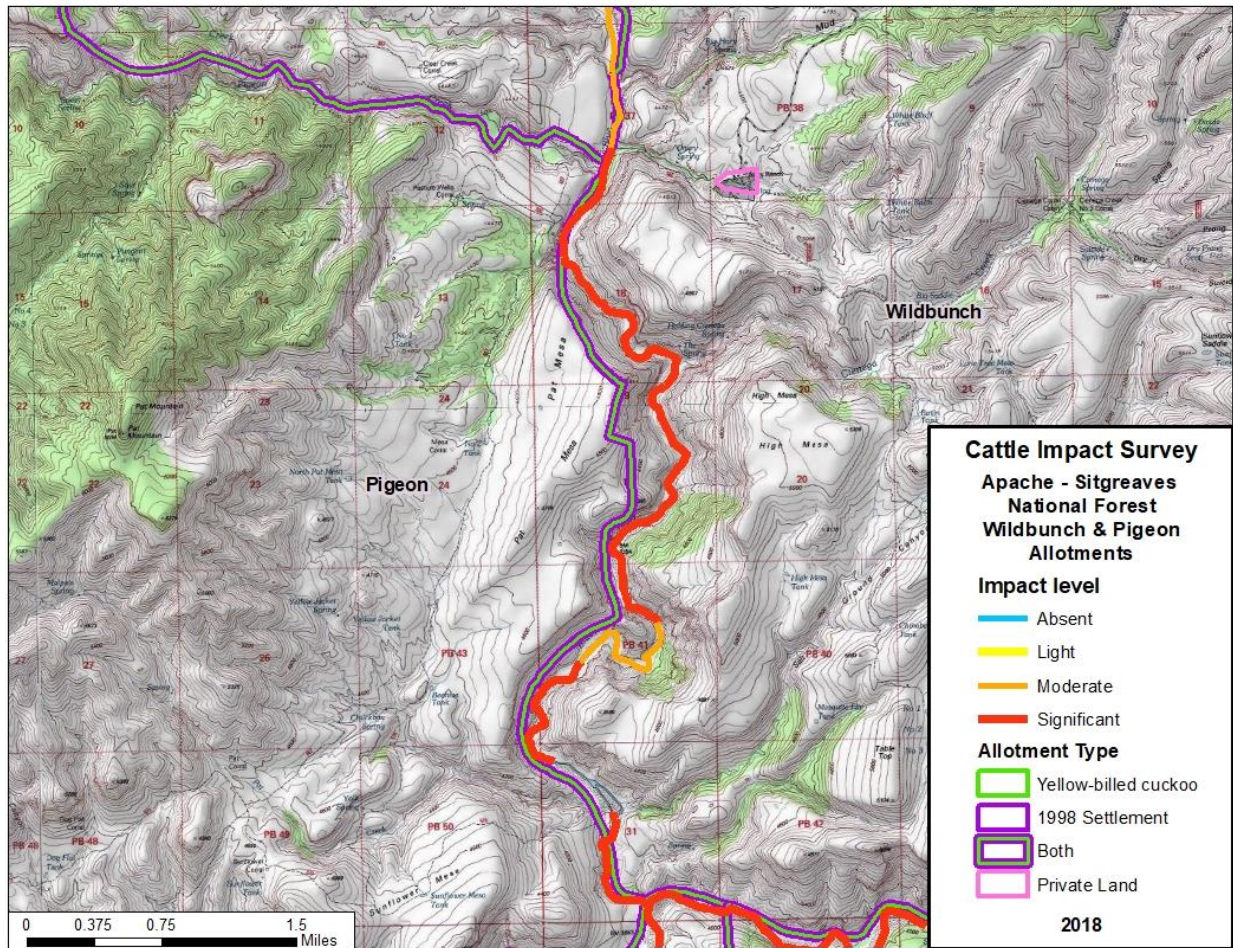
Table 2. Weighting table for overall impact levels of stream reach segments

ABSENT	LIGHT IMPACT	MODERATE IMPACT	SIGNIFICANT IMPACT
ALL ZEROS	ANY COMBINATION OF ONE'S & TWOS & ZEROS	AT LEAST (5) TWOS WITH ANY OTHER NUMBER	ANY TIME THERE ARE (3) THREES WITH ANY OTHER COMBINATION OF NUMBERS
		ANY COMBINATION OF TWOS, THREES, AND ONE'S	ANY COMBINATION OF NUMBERS WITH AT LEAST (1) FOUR
	<i>(UNLESS (5) TWOS-then moderate)</i>	<i>(UNLESS (3) THREES-then significant)</i>	

Based on these overall impact scores, a series of maps was made for each allotment surveyed. Each segment was color coded for its overall impact level and segments were linked together across the riparian miles surveyed. From this analysis the totals of absent, light, moderate and significant miles for each allotment were calculated are presented here on a series of maps and summarized in the table below.

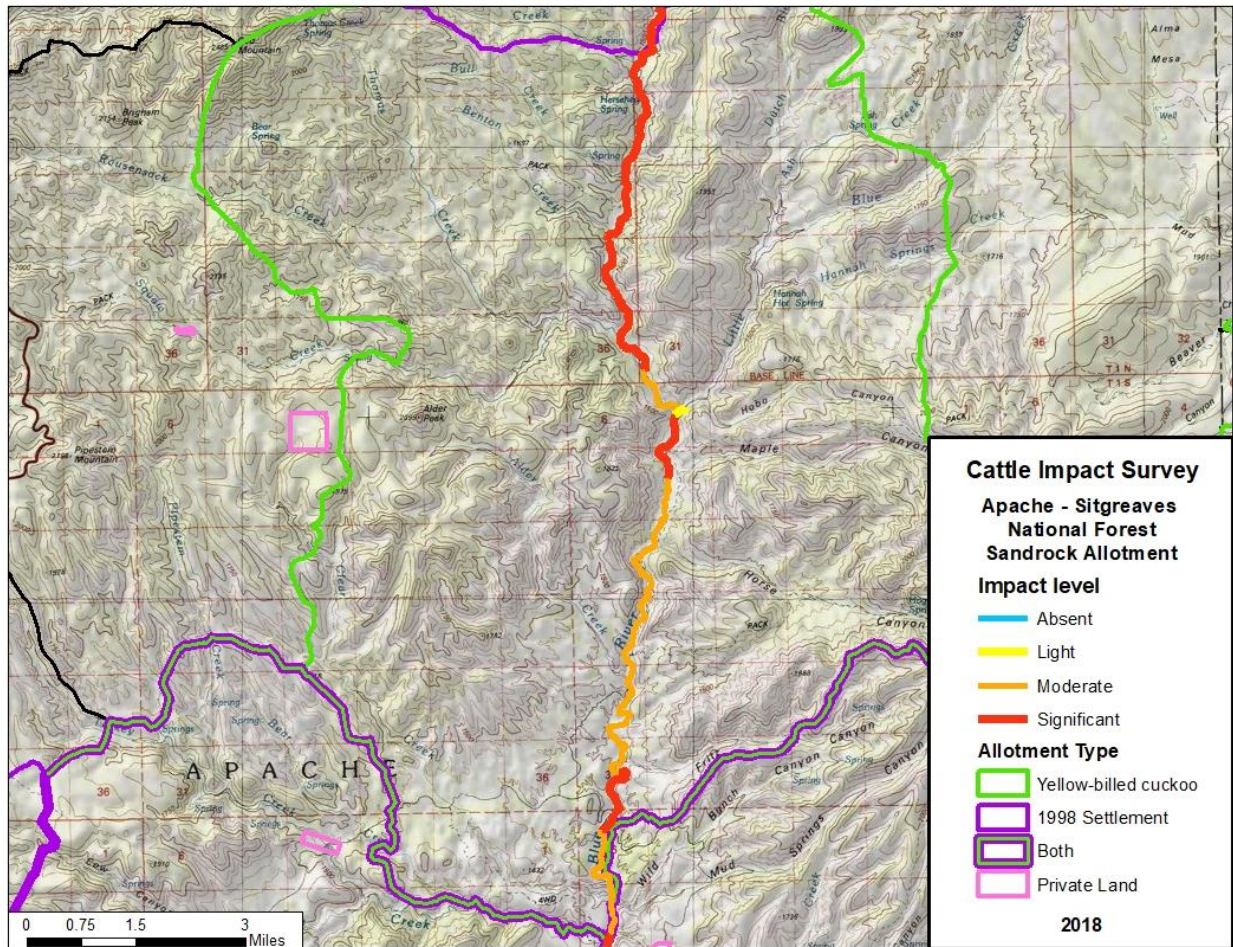
ASNF 20-Allotment Cattle Impact Survey Results:							
<u>Overall Impact Levels (2017-2018 Field Season)</u>							
Absent		Light		Moderate		Significant	
Total Miles	% of Total	Total Miles	% of Total	Total Miles	% of Total	Total Miles	% of Total
30.22	30%	14.4	14%	15.55	15%	40.96	41%

Map 4: Blue River within Wildbunch and Pigeon Allotments



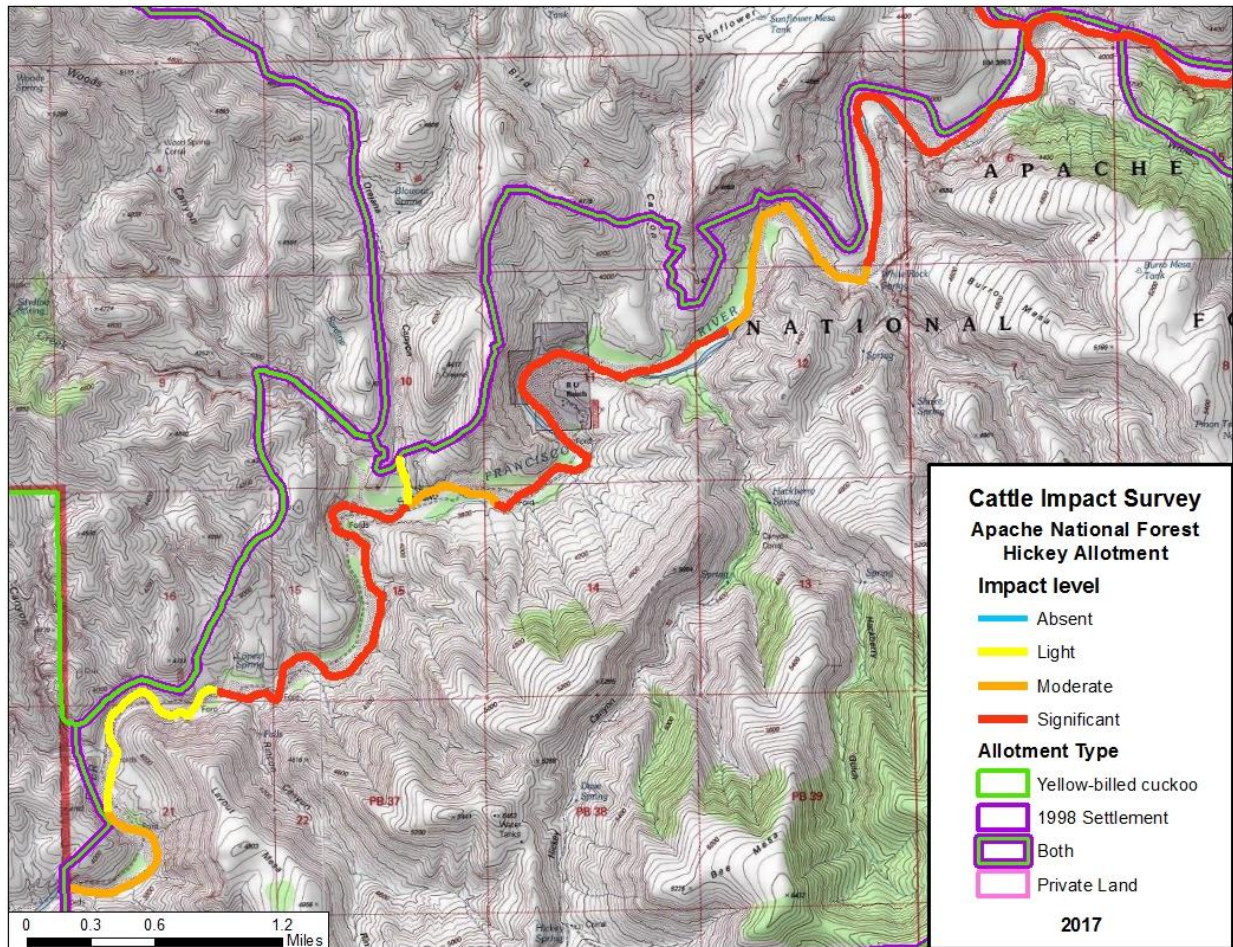
Absent	Light	Moderate	Significant	Total
none	none	0.9 miles	4.8 miles	5.7 miles

Map 5: Blue River within Sandrock Allotment



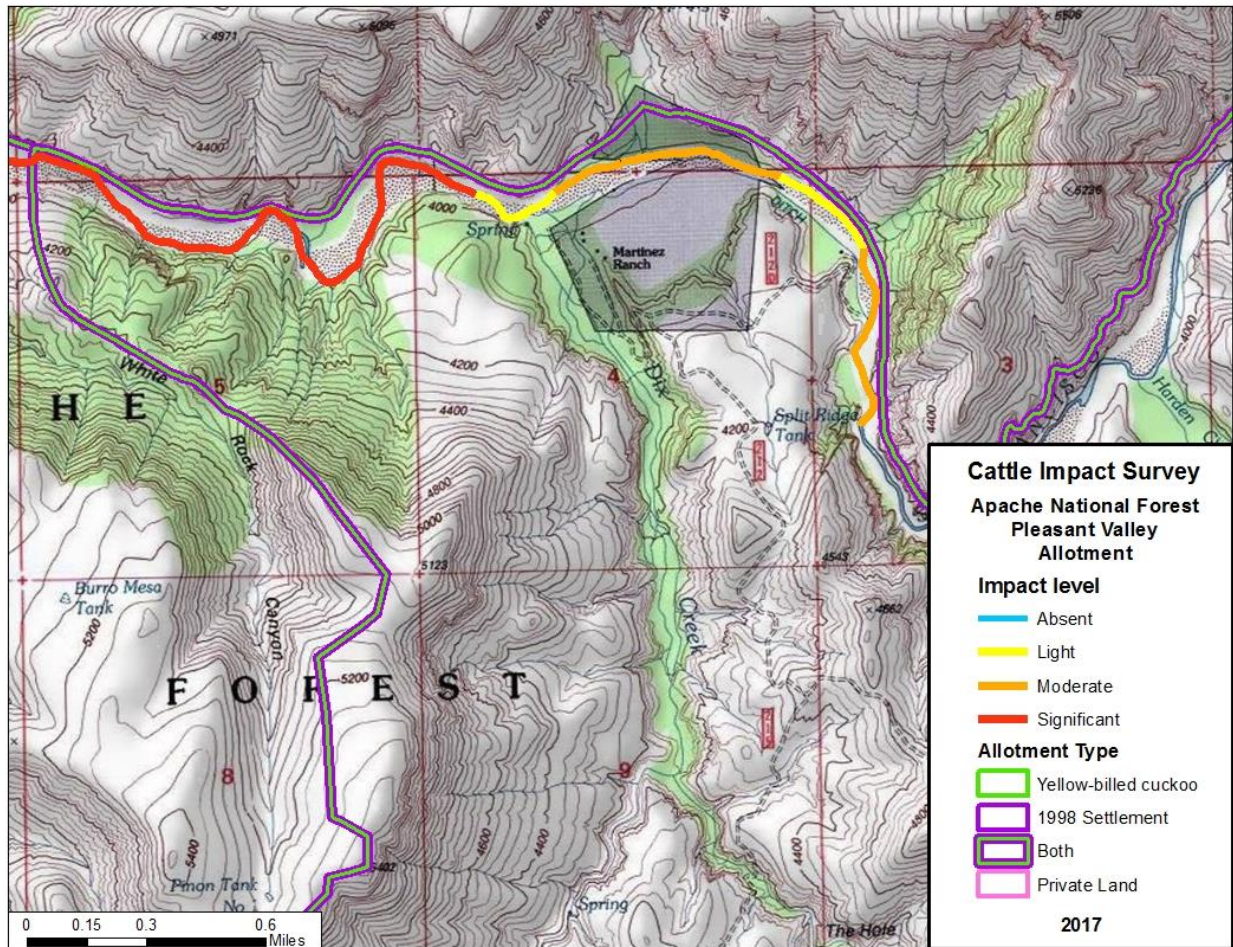
Absent	Light	Moderate	Significant	Total
none	none	8.2 miles	7.8 miles	16 miles

Map 6: San Francisco River within Hickey Allotment



Absent	Light	Moderate	Significant	Total
none	1.1 miles	2.6 miles	7.2 miles	10.9 miles

Map 7: San Francisco River within Pleasant Valley Allotment



Absent	Light	Moderate	Significant	Total
none	0.5 miles	1.1 miles	1.4 miles	3.0 miles