CENTER *for* BIOLOGICAL DIVERSITY *Because life is good.*

February 4, 2021

Sandy Watts, Acting Regional Forester
Southwestern Region
333 Broadway SE
Albuquerque, NM 87102
505-842-3292
Email: objections-southwestern-regionaloffice@usda.gov

Re: OBJECTIONS Pursuant to 36 C.F.R. § 218.8 to The Northern New Mexico Riparian, Aquatic, and Wetland Restoration Project, Carson National Forest, Cibola National Forest, Santa Fe National Forest, and Kiowa National Grassland

Dear Reviewing Officer:

The Center for Biological Diversity ("the Center") hereby submits these objections to the Forest Service's draft Decision Notice (DN), Finding of No Significant Impact (FONSI) and final environmental assessment (Final EA) for the Northern New Mexico Riparian, Aquatic, and Wetland Restoration Project ("Restoration Project").

Project Objected To

Pursuant to 36 C.F.R. § 218.8(d)(4), the Center objects to the following project:

> *Project*: The Northern New Mexico Riparian, Aquatic, and Wetland Restoration Project, Carson National Forest, Cibola National Forest, Santa Fe National Forest, and Kiowa National Grassland in Rio Arriba, Mora, Sandoval, Los Alamos, Santa Fe, San Miguel, McKinley, Cibola, Catron, Socorro, Torrance, Bernalillo, Taos, Colfax, Harding, and Union Counties, New Mexico
>
> *Responsible Official and Forest/Ranger District*: James Duran, Forest Supervisor, Carson National Forest; Steve Hattenbach, Forest Supervisor, Cibola National Forest; Debbie Cress, Acting Forest Supervisor, Santa Fe National Forest; Mike Atkinson, District Ranger, Kiowa National Grassland.

Timeliness

These objections are timely filed. Notice of the draft DN and FONSI published in the Albuquerque Journal on Monday December 21, 2020. The deadline to submit objections is Thursday, February 4th, 2021.

Lead Objector

As required by 36 C.F.R. § 218.8(d)(3), the Objectors designate the "Lead Objector" as follows:

Chris Bugbee, Southwest Conservation Advocate
Center for Biological Diversity
378 N. Main St.
Tucson, AZ 85701
(305) 498-9112
cbugbee@biologicaldiversity.org

Interests and Participation of the Objectors

The Center for Biological Diversity is a non-profit environmental organization with more than 74,000 members, and 1.7 million members and online activists nationwide who value wilderness, biodiversity, old growth forests, and the threatened and endangered species which occur on America's spectacular public lands and waters. Center members and supporters use and enjoy the Carson, Cibola and Santa Fe National Forests and Kiowa National Grassland for, among other things, recreation, photography, wildlife viewing, nature study, and spiritual renewal.

The Center for Biological Diversity believes that the welfare of human beings is deeply linked to nature — to the existence in our world of a vast diversity of wild animals and plants. Because diversity has intrinsic value, and because its loss impoverishes society, we work to secure a future for all species, great and small, hovering on the brink of extinction. We do so through science, law and creative media, with a focus on protecting the lands, forests, waters and climate that species need to survive. The Center has and continues to actively advocate for increased protections for species and their habitats in the forests of the American Southwest. The Center submitted scoping comments for this restoration project on November 4, 2019 and submitted a comment letter on the draft environmental assessment on June 1 2020.[1]

The Restoration Project

The Final EA states that the project's purpose is to "maintain or enhance watershed and range health by restoring riparian, wetland, and associated upland and aquatic habitats; promoting species recovery and diversity; and allowing for grazing and sustainable human uses, such as hunting, fishing, and recreation, as required by the Land and Resource Management Plans for the Carson, Cibola and Santa Fe National Forests and the Kiowa National Grassland (USFS 1985, 1986, 1987, 2012a)."[2]

[1] *See* letter of J. Trudeau, Center for Biological Diversity (Nov. 04 2019) ("Center 2019 Scoping Comments"), attached as Ex. 1; letter of J. Trudeau, Center for Biological Diversity (June 01 2020) ("Center 2020 Draft EA Comments"), attached as Ex. 2.

[2] Forest Service, Northern New Mexico Riparian, Aquatic, and Wetland Restoration Project FONSI (December 2020) at 1 (hereafter "FONSI").

Firstly, we strongly support riparian restoration. It's vital for the health of these ecosystems and the wildlife which depend on them, especially when facing a hotter, more arid future resulting from climate change. But effective restoration will only occur if the Forest Service: (1) manages riparian area restoration projects in tandem with limits on livestock grazing, the number one threat to riparian health; (2) reviews site-specific information about the nature of at-risk streams and the identifies specific projects meant to improve those streams; (3) provides for robust monitoring; and (4) utilizes the best available science. The Forest Service has failed to do any of these things.

As is set out in more detail below, CBD specifically objects to:

1. Agency failure, in violation of the National Environmental Policy Act ("NEPA"), to fully analyze all connected and cumulative impacts of the proposed action, including failing to consider the connection between riparian restoration efforts and authorized grazing activities.

2. Agency failure, in violation of NEPA, to consider and fully analyze all reasonable alternatives.

3. Agency failure, in violation of NEPA, to take a "hard look" at the impact of the proposed action, including failing to specifically disclose and analyze the location and extent of actions within the project area.

4. Agency reliance on a vaguely detailed 'adaptive management' strategy violates NEPA.

5. Because the Project is likely to have significant impacts, the Forest Service should prepare an EIS.

6. The EA violates NEPA because the Forest Service has not considered the best science**.**

This action is governed by the Council on Environmental Quality's 1978 regulations, as amended, and so all references to the CEQ regulations are to those in force as of July 1, 2020. Although CEQ issued a final rulemaking in July 2020 fundamentally rewriting those regulations, the new rules apply only "to any NEPA process begun after September 14, 2020," or where the agency has chosen to "apply the regulations in this subchapter to ongoing activities." 40 C.F.R. § 1506.13 (2020). The Restoration Project NEPA process began before September 2020, and the Forest Service has not chosen to apply the new rules to this project.

OBJECTIONS

I. NEPA Requires the Forest Service to analyze connected actions and the EA failed to consider 'connected actions' as required.

As an initial matter, the Service erred in failing to consider permitted grazing as a "connected action" in violation of NEPA. The Service must fully analyze all connected and cumulative impacts of the proposed action, including the connection between riparian restoration efforts and authorized grazing activities. NEPA "require[s that] an agency consider 'connected actions' and 'cumulative

actions' within a single EA or EIS." *Wetlands Action Network v. United States Army Corps of Eng'rs*, 222 F.3d 1105, 1118 (9th Cir. 2000) abrogated on other grounds by *Wilderness Soc. v. United States Forest Serv*., 630 F.3d 1173 (9th Cir. 2011) (citing 40 C.F.R. § 1508.25). This has not occurred.

The connection between rangeland and riparian is made clear directly in the stated purpose and need of the Restoration Project, to "maintain or enhance watershed *and range health* by restoring riparian, wetland, and associated upland and aquatic habitats; promoting species recovery and diversity; *and allowing for grazing* and sustainable human uses…."[3] The ecological baseline for this restoration effort is defined by riparian ecosystems in a chronic state of impairment due to centuries of abuse by the livestock industry. Even though this passes the litmus test as a 'connected action', the Service has insisted on keeping grazing issues separate from riparian restoration. For example, "Riparian restoration projects would be conducted in coordination with other Forest Service programs for a complete approach to addressing causes of riparian degradation. Any changes to rangeland management or permitted grazing would occur through a separate process, as described in Chapter 1 of the Final EA."[4]

Rather than acknowledge and analyze all connected and cumulative actions of the proposed action, the Service dismisses grazing activities as outside the scope of the project. However, due in part by the Center's previous comments (Exhibits 1 & 2), the Service included livestock grazing as 'Issue 1' in the final EA.[5]

Here, the Service finally admits that "the effectiveness of the proposed action may be reduced by continuation of livestock grazing"[6], a statement congruent with the Center's previous comments and with the best available science on the subject matter. The Service also states that "The proposed action includes projects which may lead to improved range conditions, including but not limited to livestock fencing, livestock stream crossings, pasture improvements, and off-channel wildlife/livestock watering (such as upland wells)"[7] and that "Implementing the proposed action could result in changes in forage availability to livestock, require changes in pasture rotation, alter livestock water sources, and increase maintenance costs."[8]

While discussing changes in pasture rotation, altering livestock water sources, increasing maintenance costs, and providing 5 pages of grazing management discussion in the EA, USFS doubles down and states in the EA "Changes to permitted grazing are outside the scope of this effort. The objective of the project is to improve riparian and aquatic conditions, and all project-related activities proposed in this EA are intended to meet that objective which may lead to reduced impacts of livestock grazing on riparian, aquatic, and wetland ecosystems", adding

[3] FONSI at 1.

[4] FONSI at 12.

[5] EA at 9.

[6] EA at 9.

[7] EA at 9.

[8] EA at 79.

"Changes to permitted grazing could occur independently from the restoration tools in this EA."[9] While it is true that they *could* occur independently, they shouldn't be occurring independently according to the legal requirements of NEPA.

Connected actions require consideration within a single NEPA document. 40 C.F.R. § 1508.25(a)(1) (2017). Actions are connected where they "[a]re interdependent parts of a larger action and depend on the larger action for their justification." *Id*. § (a)(1)(iii). The proposed action's effects to grazing management make clear that grazing permits must be the justification for the pasture rotation and altered livestock water sources discussed in the EA.

The Ninth Circuit employs an "independent utility" test to determine when "an agency is required to consider multiple actions in a single NEPA review pursuant to the CEQ regulations." *Wetlands Action Network v. United States Army Corps of Eng'rs*, 222 F.3d 1105, 1118 (9th Cir. 2000), abrogated on other grounds by *Wilderness Soc. v. United States Forest Serv*., 630 F.3d 1173 (9th Cir. 2011). Under this test, impacts from related projects are not considered only where "each of two projects would have taken place with or without the other and thus had independent utility."

In this case, riparian restoration would not be occurring at all if not for damage caused by permitted grazing activities. Secondly, one of the primary purposes of the restoration project (according to the stated purpose and need) is "to maintain or enhance watershed and range health… allowing for grazing…"[10]. As we asked in scoping (Exhibit 1), is the purpose of this Restoration Project to increase cattle forage? The two activities are undeniably intertwined, scientifically and through stated intention. Alterations to permitted grazing are a) discussed in the EA terms of potential actions of the Restoration Project, and b) reasonably and clearly within the project scope as a connected, cumulative, and similar action according to definitions provided in NEPA regulations (40 C.F.R. § 1508.25).

We are concerned that the recovery of wetland, riparian and wetland conditions intended to follow restoration activities would allow the increase of livestock use in sensitive riparian habitats. For example, in the current Santa Fe Forest Plan Revision process there seems to be a bias towards increased livestock grazing which is reiterated throughout the Draft EIS and Draft Forest Plan. A section on "Management Approaches for Sustainable Rangelands and Livestock Grazing" (Draft Forest Plan, at 123) displays an unbelievable degree of submission to the powerful livestock industry, for example. And the Draft EIS (Vol. 1 at 197) states:

> "Where forage is increased (as expected by alternative 2) stocking rates would likely be increased, and similarly, where forage is decreased (over the long term; as expected by alternatives 3 and 4), stocking rates should decrease."

[9] EA at 9.

[10] FONSI at 1.

This statement clearly displays a bias towards expanding grazing, as it says "would likely" when referring to increasing stocking, and "should" when decreasing stocking. Furthermore, that section continues by stating:

> "As long as stocking is in pace with forage availability, and riparian areas are adequately protected, adverse impacts to surface water resources (see Wa24 through Wa34) are expected to be neutral when compared with the current condition (alternative 1)." [11]

This sentence admits that the preferred alternative will not improve water resources, but rather maintain adverse impacts at the current level. It also makes two significant assumptions, that stocking will be in pace with forage and that riparian areas are adequately protected. Again, the Santa Fe Draft EIS (Vol. 2, p. 39) also admits that

> "Objectives for vegetation treatments (mechanical and fire) in alternative 2 of the draft proposed plan would increase herbaceous understory growth, resulting in increased forage cover. These plan components would increase opportunities to graze livestock, benefitting area ranchers, ranching related industries."

In scoping we provided detailed discussion of how livestock grazing is a fundamental threat to riparian at-risk species that occur in the Project Area. We profiled an amphibian (northern leopard frog), a plant (Arizona willow), a fish (Rio Grande cutthroat trout), and a mammal (New Mexico meadow jumping mouse), but the impacts are often broadly relevant to all aquatic and riparian species that would be affected by project activities. One purpose of providing these examples is to highlight how this Restoration Project will not be addressing the key threats to wildlife and habitats if it fails to exclude livestock from riparian and aquatic systems.

We expect the Service to acknowledge the inherent connection between permitted grazing and riparian restoration, to meaningfully address the root cause of riparian impairment and degradation, and not ignore the chronic problem that is posed by ongoing livestock abuse subsidized and encouraged by complicit federal land managers. Meaningful restoration cannot occur in isolation from changes in permitted grazing.

> *Suggested Remedy*: The Forest Service should prepare a single NEPA document that discloses the connected relationships and combined and cumulative impacts of the Restoration Project together with permitted grazing authorizations, paying particular attention to disclosing the impacts of grazing to the anticipated results of riparian restoration, as well as what changes must occur to the permitted grazing activities in order to support this Restoration Project.

2. NEPA requires the Forest Service to explore a range of reasonable alternatives.

CEQ regulations which apply to all NEPA documents, and not just EISs, require that agencies "to the fullest extent possible . . . [i]mplement procedures . . . to emphasize real environmental

[11] Santa Fe Forest Plan Revision Draft EIS Vol. 1 at 197.

issues and alternatives" and to "use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment."[12]

For decades, the Ninth Circuit and district courts therein have explicitly held that the alternatives requirement applies equally to EAs and EISs. "Any proposed federal action involving . . . the proper use of resources triggers NEPA's consideration of alternatives requirement, whether or not an EIS is also required."[13] Other courts agree.[14]

NEPA requires that federal agencies consider alternatives to recommended actions whenever those actions "involve[] unresolved conflicts concerning alternative uses of available resources."[15] "NEPA's requirement that alternatives be studied, developed, and described both guides the substance of the environmental decisionmaking and provides evidence that the mandated decisionmaking process has actually taken place."[16]

In taking the "hard look" at impacts that NEPA requires, an EA must "study, develop, and describe" reasonable alternatives to the proposed action.[17] CEQ regulations explicitly mandate that an EA "[s]hall include brief discussions . . . of alternatives."[18]

---

[12] 40 C.F.R. § 1500.2(b), (e).

[13] *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1229 (9th Cir. 1988), cert denied, 489 U.S. 1066 (1988). *See also W. Watersheds Project v. Abbey*, 719 F.3d 1035, 1050 (9th Cir. 2013) (in preparing EA, "an agency must still give full and meaningful consideration to *all* reasonable alternatives" (emphasis added) (internal quotation and citation omitted)); *Te-Moak Tribe v. Interior*, 608 F.3d 592, 601-602 (9th Cir. 2010) ("Agencies are required to consider alternatives in both EISs and EAs and must give full and meaningful consideration to all reasonable alternatives."); *Native Ecosystems Council v. U.S. Forest Service,* 428 F.3d 1233, 1245 (9th Cir. 2005) ("alternatives provision" of 42 U.S.C. § 4332(2)(E) applies whether an agency is preparing an EIS or an EA and requires the agency to give full and meaningful consideration to all reasonable alternatives); *Gifford Pinchot Task Force v. Perez,* 2014 U.S. Dist. Lexis 90631, No. 03:13-cv-00810-HZ (D. Or. July 3, 2014) (finding agency failed to consider range of reasonable alternatives in an EA); *Envtl. Prot. Info. Ctr. v. Blackwell*, 389 F. Supp. 2d 1174, 1199 (N.D. Cal. 2004) (stating that "an EA must consider a reasonable range of alternatives"); *Or. Natural Desert Ass'n v. Singleton*, 47 F. Supp. 2d 1182, (D. Or. 1998) ("The requirement of considering a reasonable range of alternatives applies to an EA as well as an EIS" (citing 40 C.F.R. § 1508.9(b)).

[14] *See Davis v. Mineta,* 302 F.3d 1104, 1120 (10th Cir. 2002) (granting injunction where EA failed to consider reasonable alternatives); *Diné Citizens Against Ruining Our Env't v. Klein*, 747 F. Supp. 2d 1234, 1254 (D. Colo. 2010) (alternatives analysis "is at the heart of the NEPA process, and is 'operative even if the agency finds no significant environmental impact.'" (quoting *Greater Yellowstone Coal. v. Flowers,* 359 F.3d 1257, 1277 (10th Cir. 2004)).

[15] 42 U.S.C. § 4332(2)(E). *See also* 40 C.F.R. § 1501.2(c) (agencies must "study, develop, and describe appropriate alternatives to the recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources as provided by section 102(2)(E) of the Act.").

[16] *Bob Marshall Alliance*, 852 F.2d at 1228 (citation omitted).

[17] 42 U.S.C. § 4332(2)(C) & (E).

[18] 40 C.F.R. § 1508.9(b).

The purpose of the multiple alternative analysis requirement is to insist that no major federal project be undertaken without intense consideration of other more ecologically sound courses of action, including shelving the entire project, or of accomplishing the same result by entirely different means.[19]

Reasonable alternatives must be analyzed for an EA even where a FONSI is issued because "nonsignificant impact does not equal no impact. Thus, if an even less harmful alternative is feasible, it ought to be considered."[20] When an agency considers reasonable alternatives, it "ensures that it has considered all possible approaches to, and potential environmental impacts of, a particular project; as a result, NEPA ensures that the most intelligent, optimally beneficial decision will ultimately be made."[21]

The agency's obligation to consider reasonable alternatives applies to citizen-proposed alternatives.[22] "In respect to alternatives, an agency must on its own initiative study all alternatives that appear reasonable and appropriate for study at the time, and must also look into other significant alternatives that are called to its attention by other agencies, or by the public during the comment period afforded for that purpose."[23]

In New Mexico, livestock grazing is associated with negative effects on riparian vegetation composition and structure, increased siltation, effects to stream hydrology and water quality, reduced soil permeability, increased soil compaction, and diminished wildlife habitat quality.[24] Indeed, the Forest Service admits that livestock grazing "can adversely affect hydrologic processes and water quality (e.g., compaction, erosion, sedimentation, stream shade, nutrient enrichment, and waterborne pathogens), especially where animals are concentrated within riparian areas."[25] These impacts are widely documented in several decades of scientific

[19] *Environmental Defense Fund v. Corps of Engineers*, 492 F.2d 1123, 1135 (5th Cir. 1974); *Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810 (9th Cir. 1987), *rev'd on other grounds*, 490 U.S. 332 (1989) (agency must consider alternative sites for a project).

[20] *Ayers v. Espy*, 873 F. Supp. 455, 473 (D. Colo. 1994) (internal citation omitted).

[21] *Wilderness Soc'y v. Wisely*, 524 F. Supp. 2d 1285, 1309 (D. Colo. 2007) (quotations & citation omitted).

[22] *See Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin*., 538 F.3d 1172, 1217-19 (9th Cir. 2008) (finding EA deficient, in part, for failing to evaluate a specific proposal submitted by petitioner); *Colo. Envtl. Coal. v. Dombeck*, 185 F.3d 1162, 1171 (10th Cir. 1999) (agency's "[h]ard look" analysis should utilize "*public comment* and the best available scientific information") (emphasis added).

[23] *Dubois v. U.S. Dept. of Agric*., 102 F.3d 1273, 1291 (1st Cir. 1996) (quoting *Seacoast Anti-Pollution League v. Nuclear Regulatory Comm'n,* 598 F.2d 1221, 1230 (1st Cir. 1979).

[24] New Mexico Department of Game and Fish. 2006. Comprehensive Wildlife Conservation Strategy for New Mexico. New Mexico Department of Game and Fish. Santa Fe, New Mexico. 526 pp + appendices.

[25] Santa Fe National Forest, Forest Plan Revision, Draft EIS Vol. 1 at 181.

literature, and summarized well in Fleischner (1994[26]), Gifford and Hawkins (1978[27]), Krueper (1995[28]), and Kauffman and Krueger (1984[29]).

This Restoration Project has an inherent inability to fulfill the purpose and need for riparian restoration if cattle are continually permitted to degrade riparian areas. In order to remove ecological stressors in the form of non-native livestock, we support the installment of additional and extensive livestock exclosures in riparian corridors. This is a vital component of riparian restoration that the best available science supports. Any alternative that is unreasonably excluded will invalidate the NEPA analysis. "The existence of a viable but unexamined alternative renders an EA inadequate."[30]

Because of the impacts of domestic livestock grazing on riparian, aquatic, wetland, and watershed ecosystems, and because the continuance of domestic livestock grazing exacerbates ongoing stressors such as drought, climate change, recreation pressure, and invasive species, we previously proposed in scoping (Exhibit 1) a reasonable alternative for comparison. Our alternative was simple and would meet the project purpose and need:

> "We request that a stand-alone alternative is analyzed that includes the currently proposed restoration interventions, plus 1) the closure of all riparian, aquatic, and wetland ecosystems to all domestic livestock grazing, and 2) a reduction in upland livestock stocking levels to reduce erosion and pollution of riparian systems where that is identified as a problem."

While ignoring such an alternative, the EA provides no solution to stressors and instead focuses on a band-aid mitigation strategy, to patch damages without changing land use strategies that created the current state of riparian ecosystems in the Project Area. The band-aid mitigation approach as described in the EA is inadequate and destined to fail in the long term without addressing livestock impacts to riparian areas. Indeed, peer-reviewed strategies to restore instream habitat through emplacement of structures have generally found little evidence that these techniques are effective or sustainable over a period of decades, especially when the

---

[26] Fleischner, T.L. 1994. Ecological costs of livestock grazing in western North America. *Conservation Biology* 8(3): 629-644.

[27] Gifford G.F., R.H. Hawkins. 1978. Hydrologic Impact of Grazing on Infiltration: A Critical Review. *Water Resources Research* 14(2): 305-313.

[28] Krueper, D.J. 1995. Effects of livestock management on Southwestern riparian ecosystems. In Shaw, D.W. and D.M. Finch, tech coords. 1996. Desired future conditions for Southwestern riparian ecosystems: Bringing interests and concerns together. 1995 Sept. 18-22, 1995; Albuquerque, NM. General Technical Report RM-GTR-272. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 359 p.

[29] Kauffman, J.B., and W.C. Krueger. 1984. Livestock impacts on riparian ecosystems and streamside management implications…a review. *Journal of Range Management* 37(5): 430-438.

[30] *Western Watersheds v. Abbey*, 719 F.3d. at 1050; *see also Diné Citizens Against Ruining Our Env't*, 747 F. Supp. 2d at 1256 ("The existence of a viable but unexamined alternative renders an alternatives analysis, and the EA which relies upon it, inadequate.").

original stressors are not removed.[31] Negative impacts of unremitting grazing by cattle and horses on the landscape cannot be mitigated by installing hundreds of structures into the stream, in fact the scientific literature suggests that such an approach could make ecological conditions even worse.[32] The Restoration Project, or at a minimum, a reasonable alternative thereto, should focus on removing stressors first, then revegetating, which is shown to be a more effective long-term solution to riparian restoration. Achieving desired conditions more rapidly and in the long term will require aggressive removal of original ecosystem stressors from riparian corridors.

> "Recent reviews of salmonid habitat restoration programs have recommended that managers emphasize strategies that restore natural habitat-forming processes, such as restoring riparian vegetation, over placement of instream structures. In addition to the direct benefits of shading and providing a source for large woody debris (LWD), riparian restoration is often implemented to improve channel morphology for purposes of restoring fish habitat. However, multiple studies provide equivocal evidence that restored vegetation can lead to improved channel form within a period of years to decades. Through a comparative analysis of the cost and performance of exclusionary fencing versus those of instream structures, we propose that riparian restoration can produce instream salmonid habitat benefits that are more comprehensive, sustainable, and cost-effective than the benefits generated by instream structures." [33]

Before investing in construction of hundreds of instream structures, any comprehensive restoration effort should first seek a passive and holistic solution, such as a change in land use management in conjunction with riparian exclosures. This Restoration Project would do better to fulfill its stated purpose and need by focusing on extensive exclosures rather than extensive instream structures, because the latter still must contend with the original stressors in non-native livestock.

USFS claims that "No additional alternatives in the scope of this analysis were suggested by … the public."[34] In determining whether an alternative is "reasonable," and thus requires detailed analysis, courts look to two guideposts: "First, when considering agency actions taken pursuant to a statute, an alternative is reasonable only if it falls within the agency's statutory mandate. Second, reasonableness is judged with reference to an agency's objectives for a particular project."[35] Of course, changes in permitted grazing are within the Forest Service's legal

---

[31] Opperman, J.J. and Merenlender, A.M., 2004. The effectiveness of riparian restoration for improving instream fish habitat in four hardwood-dominated California streams. North American Journal of Fisheries Management, 24(3), pp.822-834. (Opperman and Merenlender 2004)

[32] Stewart et al. 2009. Effectiveness of engineered in-stream structure mitigation measures to increase salmonid abundance: a systematic review Ecological Applications, 19(4), 2009, pp. 931–941.

[33] Opperman and Merenlender 2004.

[34] DEA at 22.

[35] *Diné Citizens Against Ruining Our Env't*, 747 F. Supp. 2d at 1255 (quoting *New Mexico ex rel. Richardson*, 565 F.3d at 709). *See also Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1520 (9th

mandate. And grazing impacts are deeply intertwined with the Restoration Project's objective of restoring riparian ecosystems; this connection cannot be rationally dismissed.

Additionally, the Court recognizes two exceptions under which an agency may decline to consider an alternative: where it has in "good faith" found the alternative to be "too remote, speculative, or impractical or ineffective,"[36] or where the alternative is not "significantly distinguishable from the alternatives already considered."[37] When an alternative meets the guideposts, and is not subject to the exceptions, an agency must consider it in detail.[38] Leaning heavily on livestock exclusion as a strategy for riparian restoration is not remote, speculative, impractical or ineffective and is significantly distinguishable from the alternatives considered.

To reiterate that changes in permitted grazing are within the project scope, fencing to exclude grazing is one of the described project activities despite its near negligible consideration in the EA. In addition, the EA states that implementing the proposed action could result in changes in forage availability to livestock, or could require changes in pasture rotation, or alter livestock water sources and increase maintenance costs[39]. In another example, the EA cites project activities including "repairing pits in playa basins by replacing soil which remains from the original pitting back in the borrow pit, contouring the surface of the pit repair to be level with the playa basin, *fencing around playas to exclude from grazing*, and seeding and planting native plants in areas of disturbance."[40]

The extent of changes in permitted grazing, and its overlap and connectedness with riparian restoration cannot be arbitrability decided upon by the Service. Grazing exclosures cannot be part of the existing project plan with no adequate discussion of their highly expanded use as a distinguishable and reasonable alternative. We support any example of proposed exclosures in the Project Area and advocate for their expansion in order to restore riparian corridors. This is the first and simplest step to recover riparian vegetation and structure. The FS must analyze a range of alternatives with great emphasis and reliance on livestock exclusion to achieve project goals than does the EA in its current form. This strategy is supported by science yet actively avoided by the Service, despite the fact that it couldn't be negated entirely due to connectedness. This is a violation of NEPA.

Cir. 1992) ("nature and scope of proposed action" determines the range of reasonable alternatives agency must consider).

[36] *Richardson*, 565 F.3d at 708 (quoting *Colo. Envtl. Coal. v. Dombeck*, 185 F.3d 1162, 1174 (10th Cir. 1999)).

[37] *Id*. at 708-09 (citing *Westlands Water Dist. v. U.S. Dep't of the Interior*, 376 F.3d 853, 868 (9th Cir. 2004)).

[38] *Id*. at 711.

[39] EA 79.

[40] FONSI at 5.

Courts hold that an alternative may not be disregarded merely because it does not offer a complete solution to the problem.[41] Even if additional alternatives would not fully achieve the project's purpose and need, NEPA "does not permit the agency to eliminate from discussion or consideration a whole range of alternatives, merely because they would achieve only some of the purposes of a multipurpose project."[42] If a different action alternative "would only partly meet the goals of the project, this may allow the decision maker to conclude that meeting part of the goal with less environmental impact may be worth the tradeoff with a preferred alternative that has greater environmental impact."[43]

Further, courts reviewing EAs have consistently found them lacking where there existed feasible mid-range or reduced-impact alternatives failing between the extremes of granting in full or denying in full the proposed action, but the agency opted not to analyze them in detail.[44]

The courts also require that an agency adequately and explicitly explain in the EA any decision to eliminate an alternative from further study.[45]

The EA should have analyzed an alternative that prohibits grazing in riparian corridors, especially those in the scope of restoration activities (which are still unspecified). Such an alternative would simplify management by reducing the potential for ecosystem damage, wildlife conflicts, it would simplify monitoring, and would allow more movement towards stated desired conditions. If management is unwilling to sufficiently change the grazing system that has resulted in current conditions, instream structures are destined to fail in the long term.[46]

---

[41] *Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827, 836 (D.C. Cir. 1972).

[42] *Town of Matthews v. U.S. Dep't. of Transp*., 527 F. Supp. 1055 (W.D. N.C. 1981). *See also Citizens Against Toxic Sprays v. Bergland*, 428 F. Supp. 908, 933 (D. Or. 1977) ("An alternative may not be disregarded merely because it does not offer a complete solution to the problem.").

[43] *North Buckhead Civic Ass'n v. Skinner*, 903 F.2d 1533, 1542 (11th Cir. 1990).

[44] *See, e.g., W. Watersheds Project v. Abbey*, 719 F.3d at 1050 (finding EA arbitrary and capricious where it failed to consider "reduced-grazing" alternatives); *Pac. Coast Fed'n of Fishermen's Ass'ns v. Dep't of Interior*, 655 F. App'x 595, 599 (9th Cir. 2016) (holding that agency's "decision [in EA] not to give full and meaningful consideration to the alternative of a reduction in maximum interim contract water quantities was an abuse of discretion, and the agency did not adequately explain why it eliminated this alternative from detailed study"); *Wild Fish Conservancy v. Nat'l Park Serv.*, 8 F. Supp. 3d 1289, 1300 (W.D. Wash. 2014) (finding agency's EA deficient because the "conclusion that there is not a meaningful difference, or viable alternative, between 0% and 90% [of fish survival] [was] suspect"), aff'd, 687 F. App'x 554 (9th Cir. 2017); *Native Fish Soc'y v. Nat'l Marine Fisheries Serv.*, 992 F. Supp. 2d 1095, 1110, (D. Or. 2014) (holding that agency "erred in failing to consider a reasonable range of alternatives" in EA, and finding that "[g]iven the obvious difference between the release of approximately 1,000,000 smolts and zero smolts, it is not clear why it would not be meaningful to analyze a number somewhere in the middle").

[45] *See Wilderness Soc'y*, 524 F. Supp. 2d at 1309 (holding EA for agency decision to offer oil and gas leases violated NEPA because it failed to discuss the reasons for eliminating a "no surface occupancy" alternative); *Ayers*, 873 F. Supp. at 468, 473.

[46] Opperman and Merenlender 2004.

If livestock grazing is not excluded from riparian areas, wetlands, and aquatic ecosystems in the Project Area during restoration, the proposed action is unlikely to achieve any level of restoration success, denying our public lands of the ecological integrity and resilience they need to endure increasingly stressful conditions driven by climate change.

> *Suggested Remedy*: Expand the use of riparian exclosures as a restoration tool and analyze an Alternative that focuses primarily on cattle exclusion to achieve riparian restoration. Describe how authorized grazing activities and schedules will be adjusted to be compatible with the instream improvements in order to fulfill the purpose and need of this Restoration Project and to ensure that instream construction will not eventually result in further environmental degradation. Describe the exclusion of cattle that should logically accompany every instream treatment location.

3. The EA violates NEPA because it fails to disclose any site-specific actions and impacts, thus there is no 'hard look'.

It is well understood and documented that past forest management priorities and actions are what resulted in the current state of the Project Area and beyond, and the rationale to execute a broad landscape-level restoration initiative is clear and necessary. We support and agree with the need of this restorative effort and are committed to seeing this ecosystem repaired and to improving restoration practices in general. Forests need improvement and where applicable, to maintain the hydrologic and ecological function of the watershed conditions, streams, riparian and wetland areas and the habitats they support. However, the current proposal is vague and lacks specificity concerning the design and distribution of what the EA refers to as "instream structures" and "riparian treatments," making it impossible for the public or the decisionmaker to understand the impacts of such actions. NEPA requires the Forest Service to take a hard look at the project's impacts. The Center raised this issue in scoping (Exhibit 1).

This EA covers over 50 undisclosed projects annually, over an area of over 600,000 acres. An estimated 2,000 acres of riparian ecosystem will be directly impacted annually across three national forests and a national grassland. This represents approximately 5 to 20 percent of any given hydrologic unit code (HUC)-6 subwatershed that overlaps the project area (USFS GIS 2019). With no more detail than a laundry list of potential instream structures that may or may not be used at undisclosed locations, this Restoration Project is extensive and highly scientifically controversial especially considering its lack of focus on cattle exclusion.

Each of these individual projects is required to go through its own regulatory review before implementation. This review process should not be exempt from public input or the NEPA process, where the details of what will actually happen on the ground, and where, will finally be disclosed. Public input at this stage should not be left to the discretion of the Forest Supervisor. Although NEPA requires that analysis disclose specific information about the when, where, and how of any agency action, so that the impacts and alternatives can be described and weighed, the EA fails to contain much of this data or analysis. Instead, the Forest Service will apparently postpone important components of site-specific project design and impacts analysis until *after*

the NEPA process is complete. This upends NEPA's central purpose that agencies look before they leap, as the Court concluded in *Southeast Alaska Conservation Council*, as discussed further below.

Restoring watershed and stream function could only be accomplished if executed correctly, if the original ecosystem stressors are removed, if appropriate and site-specific structures are used, and only if the restoration action is accompanied by pre- and post-analysis and monitoring. The EA fails to contain any of this specific information and analysis, thus further environmental degradation can be reasonably expected based on a review of scientific publications that are discussed below. Because the Forest Service failed to undertake the appropriate level of detailed analysis in the EA, and because the EA fails to specify site-specific restoration actions, the impacts of these actions cannot reasonably be assessed, and the EA in its current form must be considered inadequate.

We request that all instream structures be mapped and included as shapefiles on the project website and made available to the public. Without knowing exactly what these planned structures will be, or what specific ecological purpose they serve, the sheer quantity of such structures being proposed (~50 annually) is concerning. This is especially true given the lack of scientific resolution on whether instream structures actually serve their intended purpose in practice, and that mechanical equipment will be needed in hundreds of riparian locations for their construction. What percentage of these hundreds of locations will require dewatering of the stream, or temporary stream diversion around construction sites, as described in the EA? Without standards and guidelines, stream restoration work performed 'on the fly' can result in unintended negative consequences

The Service must, perhaps as part of an EIS, develop as supplementary materials any documents or publications available that illustrate the variety of instream structures used, how an instream structure is designed and installed, and the intended ecological benefits that are expected to result. How will the agency ensure that this massive and expensive effort is moving conditions towards ecological restoration without a detailed plan of what kind of instream structures will be used, where and why they will be used, and with no written plans to monitor their results, which would be required for the adaptive management approach? We request a before-and-after study for each and every location of instream structure that will justify what kind of structure will be used and why. There is an absence of a connection between the grazing stressors on the ground and the strategy put forth to remedy currently degraded conditions. The Project EA entirely lacks specificity for this riparian restoration strategy; thus we object to the proposed action until these issues are resolved.

Furthermore, we request that the Service provide a case study of an instream structure that has achieved its restoration goal in the Project Area, before installing hundreds more across the landscape. Also, please provide reference data, assessments of current conditions and conditions up and down stream at site-specific locations for instream treatments, and an examination of the streams' historic reach using aerial photographs. Explain clearly what the specific strategy is and what are the target conditions for each instream structure. Are historic conditions the target of restoration, or development of a new stream state? The specifics of restoration targets are currently not addressed in the EA.

In a discussion of beaver dam analogs, Luatz et al. (2019)[47] provides some helpful insight to consider before initiating a landscape-wide restoration effort, complete with a multitude of citations to consider that are currently not referenced in the EA. For example, "BDAs do not create static geomorphic conditions and are designed to last only a few years. It remains to be seen whether humans can replicate the impact of beaver dams on the landscape using BDAs. Without proper research at the outset, we risk making the same mistake as was made with natural channel design (NCD) approaches to stream restoration. Although the current popularity of NCD suggests broad endorsement by practitioners, the scientific community has raised a number of criticisms of this approach (Bernhardt et al., 2005; Lave 2009). In many ways, the broad adoption and implementation of NCD preceded scientific review, primarily because of the popularity of the Rosgen Stream Classification and its recipe-like approach to stream restoration (Lave, 2009). Today, many studies have documented the impact of cross-vanes and other NCD stream restoration practices on stream water quality and hyporheic flow (e.g. Zimmer and Lautz, 2015). In many cases, studies show that impacted streams transition to a new state post-restoration, but that these streams do not necessarily move toward a reference status (e.g. Daniluk et al., 2013). In addition, the mere concept of a reference stream may not be a realistic conceptualization in regions that have been heavily impacted by agriculture and urbanization (McMillan and Vidon, 2014). Unfortunately, many of these findings were published after NCD became synonymous with stream restoration. Although there are cases where NCD approaches to stream restoration have been successful, the popularity and systematic use of NCD in many regions continues despite lack of evidence of their effectiveness. Today, we have an opportunity to ensure we do not make the same mistake twice by allowing widespread BDA implementation in the mountain West of the United States to occur without solid evidence to evaluate the changes and impacts induced by this new, dynamic approach to restoration."

This discussion is directly applicable to our concerns with the current EA. Without baseline data and a clear plan of action and monitoring, neither the public nor the agency can understand the effects of the proposed action or craft and analyze alternatives and mitigation measures to protect these values. As such, the Forest Service must identify the environmental baseline and affected environment, as well as the scope of impacts and where those impacts are most likely to be felt. We are concerned with the broad brush stroke of the proposed action, allowing a wide range of potential projects across a huge area, without the benefit of identification of the problems in a spatial record. Where are the culverts that need replacing? How many are there? Which wetlands are degraded, and which are functioning? Which allotments are mismanaged, and which are not a threat to riparian systems?

The National Environmental Policy Act (NEPA) requires that agencies "succinctly describe the environment of the area(s) to be affected or created by the alternative under consideration."[48] NEPA also requires the action agency to set an appropriate baseline detailing the nature and extent of the resources in the area: "The concept of a baseline against which to compare

[47] Lautz, L., Kelleher, C., Vidon, P., Coffman, J., Riginos, C., & Copeland, H. (2019). Restoring stream ecosystem function with beaver dam analogues: Let's not make the same mistake twice. Hydrological Processes, 33, 174–177. https://doi.org/10.1002/hyp.13333

[48] 40 C.F.R. § 1502.15.

predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process."[49] "Without establishing ... baseline conditions ... there is simply no way to determine what effect [an action] will have on the environment and, consequently, no way to comply with NEPA."[50]

Many questions arise when considering a project of such immense scope but lacking in site-specific detail. Certainly, we support the protection and recovery of the ecosystems that are subject of the proposal, and we understand the need to increase the pace of restoration activities in the subject ecosystems, however that doesn't mean we throw the requirements of NEPA out the door. It seems clear that this EA proposal utilizes the conditions-based management paradigm which the Forest Service is increasingly adopting, possibly prematurely.

Last fall, the U.S. District Court for the District of Alaska issued a preliminary injunction halting implementation of the Prince of Wales Landscape Level Analysis Project. The court did so because the Forest Service's failure to disclose the site-specific impacts of that logging proposal raised "serious questions" about whether that approach violated NEPA.

Because the EA seems to take a similarly vague approach to NEPA compliance, the project risks violating NEPA and could be enjoined. We object to this strategy and insist that the Forest Service modify its approach for this Restoration Project and ensure that it discloses site-specific details about current (baseline) conditions, problematic road crossings, locations of proposed thinning activities, and locations of other proposed riparian, wetland, aquatic, watershed, and landscape restoration activities. To do otherwise risks violating the law and squandering significant agency resources.

The district court explained the approach the Forest Service took in the Prince of Wales EIS and why it violated NEPA:

> each alternative considered in the EIS "describe[d] the conditions being targeted for treatments and what conditions cannot be exceeded in an area, or place[d] limits on the intensity of specific activities such as timber harvest." But the EIS provides that "site-specific locations and methods will be determined during implementation based on defined conditions in the alternative selected in the . . . ROD . . . in conjunction with the Activity Cards . . . and Implementation Plan . . . ." The Forest Service has termed this approach "condition-based analysis."[51]

The Prince of Wales EIS made assumptions "in order to consider the 'maximum effects' of the Project."[52] It also identified larger areas within which smaller areas of logging would later be

[49] *See* Council on Environmental Quality, *Considering Cumulative Effects under the National Environmental Policy Act* 41 (January 1997).

[50] *Half Moon Bay Fishermans' Mktg. Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988).

[51] *See Se. Alaska Conservation Council v. U.S. Forest Serv.*, 413 F. Supp. 3d 973, 976-77 (D. Ak. 2019) (citations omitted), attached as Exhibit 3.

[52] *Id*. at 977.

identified, and approved the construction of 164 miles of road, but "did not identify the specific sites where the harvest or road construction would occur."[53]

The Court found the Forest Service's approach contradicted Ninth Circuit precedent, *City of Tenakee Springs v. Block*, 778 F.2d 1402 (9th 1995). There, the appellate court set aside the Forest Service's decision to authorize pre-roading in the Kadashan Watershed, without specifically evaluating where and when on approximately 750,000 acres of land on Baranof and Chichagof Islands the agency intended to authorize logging. The district court evaluating the Prince of Wales project found the Forest Service's condition-based analysis there was equivalent to the deficient analysis found unlawful by the Ninth Circuit nearly a quarter-century ago in *City of Tenakee Springs.*

> Plaintiffs argue that the Project EIS is similarly deficient and that by engaging in condition-based analysis, the Forest Service impermissibly limited the specificity of its environmental review. The EIS identified which areas within the roughly 1.8-million-acre project area could potentially be harvested over the Project's 15-year period, but expressly left site-specific determinations for the future. For example, the selected alternative allows 23,269 acres of old-growth harvest, but does not specify where this will be located within the 48,140 acres of old growth identified as suitable for harvest in the project area. Similar to the EIS found inadequate in *City of Tenakee Springs*, the EIS here does not include a determination of when and where the 23,269 acres of old-growth harvest will occur. As a result, the EIS also does not provide specific information about the amount and location of actual road construction under each alternative, stating instead that "[t]he total road miles needed will be determined by the specific harvest units offered and the needed transportation network."[54]

The Court concluded that plaintiffs in *SEACC* case raised "serious questions" about whether the Prince of Wales EIS violates NEPA because "the Project EIS does not identify individual harvest units; by only identifying broad areas within which harvest may occur, it does not fully explain to the public how or where actual timber activities will affect localized habitats."[55] After finding the plaintiffs also met the other factors for preliminary injunction, the court enjoined all logging until a decision on the merits.[56]

In March 2020, the U.S. District Court ruled on the merits that the Forest Service's condition-based management approach to a large logging proposal on the Tongass National Forest violated NEPA.[57] The court explained that "NEPA requires that environmental analysis be specific enough to ensure informed decision-making and meaningful public participation. The Project

---

[53] *Id*.

[54] *Id*. at 982 (citations omitted).

[55] *Id*. at 983, .984

[56] *Id*. at 983-87.

[57] *Southeast Alaska Conservation Council v. United States Forest Serv*., 443 F. Supp. 3d 995 (D. Alaska 2020), attached as Exhibit 4.

EIS's omission of the actual location of proposed timber harvest and road construction within the Project Area falls short of that mandate."[58]

The district court also concluded that the Forest Service's "worst case analysis" was insufficient, explaining: "This approach, coupled with the lack of site-specific information in the Project EIS, detracts from a decisionmaker's or public participant's ability to conduct a meaningful comparison of the probable environmental impacts among the various alternatives."[59] Consequently, the court concluded that

> By authorizing an integrated resource management plan but deferring siting decisions to the future with no additional NEPA review, the Project EIS violates NEPA. The Forest Service has not yet taken the requisite hard look at the environmental impact of site-specific timber sales on Prince of Wales over the next 15 years. The Forest Service's plan for condition-based analysis may very well streamline management of the Tongass ... however, it does not comply with the procedural requirements of NEPA, which are binding on the agency. NEPA favors coherent and comprehensive up-front environmental analysis to ensure ... that the agency will not act on incomplete information, only to regret its decision after it is too late to correct.[60]

NEPA's review obligations are more stringent and detailed at the project level, or "implementation stage," given the nature of "individual site specific projects."[61] "[G]eneral statements about possible effects and some risk do not constitute a hard look, absent a justification regarding why more definitive information could not be provided."[62]

NEPA requires site-specificity to fulfill two basic purposes: 1) to ensure agencies are making informed decisions prior to acting and 2) to ensure the public is given a meaningful opportunity

---

[58] *Id*. at 1009 (citations omitted).

[59] *Id*. at 1014.

[60] *Id*. at 1014-15 (internal citations and quotations omitted). The Forest Service should not interpret the Alaska District's decision to somehow endorse the use of condition-based analyses for environmental assessments. Where the exercise of site-specific discretion is material to a project's environmental consequences, NEPA requires consideration of site-specific proposals and alternatives, regardless of whether the effects are "significant." 42 U.S.C. § 4332(2)(C), (E).

[61] *Ecology Ctr., Inc. v. United States Forest Serv*., 192 F.3d 922, 923 n.2 (9th Cir. 1999); *see also Friends of Yosemite Valley v. Norton*, 348 F.3d 789, 800-01 (9th Cir. 2003); *New Mexico ex rel. Richardson v. Bureau of Land Management*, 565 F.3d 683, 718-19 (10th Cir. 2009) (requiring site-specific NEPA analysis when no future NEPA process would occur); *Colo. Envtl. Coal. v. Ofc. of Legacy Mgmt*., 819 F. Supp. 2d 1193, 1209-10 (D. Colo. 2011) (requiring site-specific NEPA analysis even when future NEPA would occur because "environmental impacts were reasonably foreseeable").

[62] *Or. Natural Res. Council Fund v. Brong*, 492 F.3d 1120, 1134 (9th Cir. 2007) (citation omitted); *see also Or. Natural Res. Council Fund v. Goodman*, 505 F.3d 884, 892 (9th Cir. 2007) (holding the Forest Service's failure to discuss the importance of maintaining a biological corridor violated NEPA, explaining that "[m]erely disclosing the existence of a biological corridor is inadequate" and that the agency must "meaningfully substantiate [its] finding").

to participate in those decision-making processes.[63] Federal courts apply these touchstone criteria when evaluating whether an EIS is adequately site-specific.[64]

Location data is critical to the site-specific analysis NEPA requires. Merely disclosing the existence of particular geographic or biological features is inadequate— agencies must discuss their importance and substantiate their findings as to the impacts.[65]

The Restoration Project is a project-level decision.[66] As a result, any NEPA analysis must include the detailed information and analysis that NEPA and the CEQ regulations require because the Forest Service admits there will be no further NEPA analysis beyond the Final EA. This decision demonstrates that the Forest Service's approach here conflicts with NEPA's "hard look" mandate, and that where the Forest Service employs such an approach, the agency risks projects being set aside and subject to further, compliant NEPA review. It appears that the Forest Service is in just that precarious position with respect to this restoration project. While the EA does not use the term "condition-based" or "adaptive management," it employs a similar approach to avoid disclosing site-specific impacts, an approach the *Southeast Alaska Conservation Council* court found violated NEPA.

Our concern is that USFS is just going to start 'doing things' with no real plan in place, and nothing in the Project EA convinces us otherwise. We urge the Forest Service in any subsequently prepared NEPA document to include baseline, site-specific information about the project area so that the scientific community and the public can better understand how the proposed action and alternatives may impact riparian, aquatic and wetland conditions that are degraded by domestic livestock grazing. Altering hydrology with band-aid fixes without ever addressing the root cause of these problems is a recipe for disaster.

> *Suggested Remedy*: The Forest Service should prepare a site-specific NEPA analysis which provides a detailed plan of individual restoration structures and activities including a before-and-after study for every location of instream structure that will justify what kind of structure will be used and why. Post-implementation concerns are addresses in the next section.

[63] *Stein v. Barton*, 740 F. Supp. 743, 749 (D. Alaska 1990).

[64] *See WildEarth Guardians*, 790 F.3d at 921-25 (holding EIS inadequate for failure to disclose location of moose range); *Or. Nat. Desert Ass'n v. Rose*, 921 F.3d 1185, 1190 (9th Cir. 2019) (holding environmental analysis violated NEPA by failing to establish "the physical condition of [roads and trails] and authorizing activity without assessing the actual baseline conditions").

[65] *Or. Natural Res. Council Fund v. Goodman*, 505 F.3d 884, 892 (9th Cir. 2007).

[66] While the EA envisions further site-specific data collection, monitoring, and project design, it does not anticipate or describe any future NEPA analysis or public involvement consistent with that law.

4. The EA's reliance on a vaguely described 'adaptive management' strategy violates NEPA.

The EA relies heavily on an "adaptive management" strategy to address potential actions and subsequent actions and allows the agency complete freedom to modify proposed plans and actions. According to the EA, "This flexibility allows for the ability to adjust to site-specific conditions and adapt to changes in environmental conditions."[67]

The EA does not explicitly use the terms "condition-based" or "adaptive management". Instead, the "flexible toolbox" approach, touted by the Service in the EA, includes implementing any one of a variety of actions, monitoring their effects, making necessary adjustments, and using post-implementation monitoring to inform selection of the next action. The flexible toolbox approach is, at its core, a conditions-based and adaptive management process.

The EA states, "The Forest Service would monitor the project as appropriate for a specific action, both during and after a project, to track effects and compliance with this analysis. During project implementation, the following procedures may include, but not be limited to, the following: Visually monitor to ensure effects are not greater in amount and extent than anticipated and to contact appropriate Forest Service personnel if problems arise, and fix any problems that arise during project implementation." [68]

Furthermore, according to the diagram of the 5-step process[69], post-project monitoring informs the next restoration project in a circular and non-linear process. This is adaptive management. Indeed, part of the project implementation checklist (EA, Appendix C), which the Service states 'should be adaptively used', includes the question "*Have implementation monitoring and adaptive management strategies been documented and used/planned for higher quality outcome?"*

The EA further describes its veiled adaptive management strategy as follows:

> Specific treatments would vary based on the conditions on the ground, the type of vegetation expected to be present and could be further modified if threatened or endangered species habitat were present, for example. Using site data, these conditions would be assessed to determine the effects of specific treatments in a project area. These estimates would include the spatial extent of a project, and any modifications needed based on specific factors as well as any monitoring requirements (see project implementation checklist in Appendix C). If during field reviews or during implementation, effects differ from what was predicted, changes to design criteria can be made. This is to be sure that the right treatment occurs on the right acre as discussed in this EA.[70]

[67] EA at 19.

[68] EA at 22-23.

[69] EA at 21.

[70] EA at 19.

Of vital importance, there is no description of follow-up monitoring protocols and standards for instream structures. Ramstead et al. (2012)[71] emphatically states that there is a need to allocate additional effort to project documentation, including better-designed, longer-lasting, site-specific structures and a concerted effort to monitor post-construction performance of structures. This is essentially the take-home conclusion of this publication. Another peer-reviewed analysis of riparian restoration projects indicates that post-restoration monitoring was documented at only 22% of projects (21 of 97) analyzed, but even among those projects the information provided was insufficient to conduct an analysis of the determinants of project success or failure.[72]

Although the EA relies on adaptive management, it does not contain key elements required to comply with Forest Service regulations, nor does it meet the goals for such a plan set out by academics. A lack of post-restoration monitoring is not congruent with an adaptive flexible toolbox approach management. It is presently unclear how monitoring of restoration outcomes will be achieved. Pre- and post-restoration assessments are vital, especially when relying on adaptive management. Adaptive management still requires a general plan and framework to inform decisions. None of these aspects are currently put forth in the EA.

To be effective and legal, adaptive management must: (1) clearly identify measurable thresholds that, if exceeded as determined by monitoring, will require a change in management; (2) clearly identify what that changed management will entail; and (3) disclose in the NEPA document the impacts caused by that change in management. Because the EA fails on all three counts, the Forest Service cannot rely on the adaptive management strategy as currently proposed.

A. The Law and Policy of Adaptive Management.

Academic recommendations concerning adaptive management. Academics conclude that effective adaptive management should involve treating management interventions as experiments, the outcomes of which are monitored and fed back into management planning. As outlined by land management experts, an adaptive management approach to forest management should include the following:

- Creation of management strategies (specific action alternatives in this case);
- Implementation of those strategies/actions;
- Monitoring of the effects (under the monitoring framework developed as part of the planning process); and

[71] Ramstead, K.M., Allen, J.A. and Springer, A.E., 2012. Have wet meadow restoration projects in the Southwestern US been effective in restoring geomorphology, hydrology, soils, and plant species composition?. *Environmental Evidence*, *1*(1), pp.1-16.

[72] Pilliod, D.S., Rohde, A.T., Charnley, S., Davee, R.R., Dunham, J.B., Gosnell, H., Grant, G.E., Hausner, M.B., Huntington, J.L. and Nash, C., 2018. Survey of beaver-related restoration practices in rangeland streams of the western USA. Environmental management, 61(1), pp.58-68.

> • Predetermined triggers for changes in management based on the results of monitoring.[73]

Forest Service experts have said that "[a]daptive management requires explicit designs that specify problem-framing and problem-solving processes, documentation and monitoring protocols, roles, relationships, and responsibilities, and assessment and evaluation processes."[74]

The fourth component, regarding triggers, is described by adaptive management experts in the following statement:

> The term trigger, as used here, is a type of pre-negotiated commitment made by an agency within an adaptive management or mitigation framework specifying what actions will be taken if monitoring information shows x or y. In other words, predetermined decisions, or more general courses of action, are built into an adaptive framework from the beginning of the process.[75]

The literature cited here calls for details and specifics, not ambiguity.

Regulations concerning adaptive management. This academic framing is reinforced by the Forest Service's NEPA regulations, adopted in 2008, which define adaptive management as "[a] system of management practices based on *clearly identified intended outcomes and monitoring* to determine if management actions *are meeting those outcomes*; and, if not, to facilitate management changes that will best ensure that those outcomes are met or re-evaluated. Adaptive management stems from the recognition that knowledge about natural resource systems is sometimes uncertain."[76] These regulations further state that:

> An adaptive management proposal or alternative must *clearly identify the adjustment(s) that may be made* when monitoring during project implementation *indicates that the action is not having its intended effect*, or is causing unintended and undesirable effects. The EIS must disclose not only the effect of the proposed action or alternative *but also the effect of the adjustment*. Such proposal or alternative must also *describe the monitoring that would take place* to inform the responsible official during implementation whether the action is having its intended effect.[77]

---

[73] Schultz, C. and M. Nie. 2012. Decision-making triggers, adaptive management, and natural resources law and planning. *Natural Resources Journal* 52:443-521.

[74] Stankey, G.H., R.N. Clark, and B.T. Bormann. 2005. Adaptive management of natural resources: theory, concepts, and management institutions. Gen. Tech. Rep. PNW-GTR-654. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 73 p., at page 58. Available at https://www.fs.fed.us/pnw/pubs/pnw_gtr654.pdf (last viewed August 10, 2020).

[75] Schultz and Nie, Decision-making triggers, adaptive management, and natural resources law and planning at 455.

[76] 36 C.F.R. § 220.3 (emphasis added).

[77] 36 C.F.R. § 220.5(e)(2) (emphasis added).

The preamble to the Forest Service's regulation that adopted the adaptive management definition states that the agency must identify the proposed changes, and their impacts, in the NEPA document. "When proposing an action the responsible official may identify possible adjustments that may be appropriate during project implementation. Those possible adjustments must be described and their effects analyzed in the EIS." 73 Fed. Reg. 43,084, 43,090 (July 24, 2008).

Federal caselaw concerning adaptive management. Federal courts have found agencies violated NEPA or the Endangered Species Act (ESA) where the agency relied on an "adaptive management" plan that was vague, set no specific triggers for future action, failed to describe that future action, or failed to ensure that resources will be protected as the adaptive management plan asserts.

In *Natural Resources Defense Council v. U.S. Army Corps of Engineers,* 457 F. Supp. 2d 198 (S.D.N.Y. 2006), the court found that the Army Corps' attempt to supplement an inadequately-explained finding of no significant impact concerning a dredging project was arbitrary and capricious where the agency relied on ill-defined "adaptive management" protocols to conclude that impacts would be mitigated below the level of significance.

> The EA makes several promises that it will alter its monitoring plan should it prove necessary. For example, the EA relies on a general promise that it will "as appropriate, reevaluate, the need for altering its dredging methods" … through the use of its coordination plan and monitoring program. The EA also explains that the Corps will follow "adaptive management practices as it moves through construction of its contracts," thus allowing it to change future contracts should the data indicate it is necessary. These promises, however, provide no assurance as to the efficacy of the mitigation measures. The Corps did not provide a proposal for monitoring how effective "adaptive management" would be.[78]

Mountaineers v. United States Forest Service, 445 F. Supp. 2d 1235 (W.D. Wash. 2006) set aside a Forest Service decision to open motor vehicle trails where the agency proposed to monitor impacts to wildlife and potentially change the trails later based on an adaptive management plan. The court stated that these adaptive management strategies "amount … to a 'build-first, study later' approach to resource management. This backward-looking decision making is not what NEPA contemplates."[79] Other cases similarly conclude that NEPA forbids the use of ill-defined adaptive management plans to assume away likely impacts of agency action.[80]

Courts also hold unlawful agency projects that may impact species protected by the Endangered Species Act where the biological opinion is based on the assumption that a vague and ill-defined

---

[78] *NRDC v. United States Army Corps of Eng'rs*, 457 F. Supp. 2d at 234 (citations omitted).

[79] *Mountaineers v. United States Forest Serv.*, 445 F. Supp. 2d at 1250.

[80] *See, e.g., High Sierra Hikers Association v. Weingardt,* 521 F. Supp. 2d 1065, 1090-91 (N.D. Ca. 2007) (overturning a Forest Service decision to liberalize the rules limiting campfires in high country parts of a wilderness area on the grounds that the agency could not rely on adaptive management to overcome an inadequate response to the problems raised in the record).

monitoring and adaptive management plan will mitigate impacts to the species at issue. These cases provide a useful analogy to adaptive management in the NEPA context. *Natural Resources Defense Council v. Kempthorne*, 506 F. Supp. 2d 322 (E.D. Ca. 2007) is key precedent. There, plaintiffs challenged a proposed plan to manage water diversions in a manner that could adversely impact the delta smelt, a species listed as threatened under the Endangered Species Act. The Fish and Wildlife Service prepared a biological opinion (BiOp) on the proposal which concluded that the project would neither jeopardize the smelt nor adversely modify the smelt's critical habitat. "Although the BiOp recognize[d] that *existing* protective measures may be inadequate, the FWS concluded that certain proposed protective measures, including … a proposed 'adaptive management' protocol would provide adequate protection."[81]

Plaintiffs alleged, among other things, that the BiOp "relie[d] upon uncertain (and allegedly inadequate) adaptive management processes to monitor and mitigate the [project's] potential impacts."[82] They asserted that the adaptive management plan, which required a working group meet and consider adaptive measures in light of monitoring, failed to meet the ESA's mandate that mitigation be

> "'reasonably specific, certain to occur, and capable of implementation'" because: (1) the [working group] has complete discretion over whether to meet and whether to recommend mitigation measures; (2) even if the [working group] meets and recommends mitigation measures, the [agency management team] group is free to reject any recommendations; (3) there are no standards to measure the effectiveness of actions taken; (4) reconsultation is not required should mitigation measures prove ineffective; and (5) ultimately, no action is ever required.[83]

The *Kempthorne* court cited prior caselaw holding that "a mitigation strategy [in the ESA context] must have some form of measurable goals, action measures, and a certain implementation schedule; i.e., that mitigation measures must incorporate some definite and certain requirements that ensure needed mitigation measures will be implemented."[84] The court found that adaptive management plan "does not provide the required reasonable certainty to assure appropriate and necessary mitigation measures will be implemented."[85] The court concluded that

---

[81] *NRDC v. Kempthorne*, 506 F. Supp. 2d at 333-34 (emphasis in original).

[82] *NRDC v. Kempthorne*, 506 F. Supp. 2d at 329.

[83] *NRDC v. Kempthorne*, 506 F. Supp. 2d at 352. *See also id.* at 350 (explaining the "certain to occur" standard and citing *Ctr. for Biological Diversity v. Rumsfeld*, 198 F. Supp. 2d 1139, 1152 (D. Ariz. 2002)).

[84] *NRDC v. Kempthorne*, 506 F. Supp. 2d at 355, citing *Rumsfeld*, 198 F. Supp. 2d at1153.

[85] *NRDC v. Kempthorne*, 506 F. Supp. 2d at 356.

> Adaptive management is within the agency's discretion to choose and employ, however, the absence of any definite, certain, or enforceable criteria or standards make its use arbitrary and capricious under the totality of the circumstances.[86]

B. The EA Does Not Comply with Law or Policy for Adaptive Management.

The EA fails to provide any details on how instream structures would be monitored to ensure their intended functionality and success. The EA fails to describe what changed management or actions the Service will take (beyond doing more of the same) if an instream structure fails to serve its intended purpose. The EA fails to describe potential impacts of selected instream projects, fails to disclose what ecological outcomes would determine project success and fails to describe what thresholds or triggers would initiate a changed course of action. The EA does not define how projects or structures would be adjusted post-monitoring or what thresholds influence a subsequent decision. It fails to identify measurable triggers that, if exceeded as determined by monitoring, will require a change in management. The EA fails to describe the nature or impacts of project adjustments. Instead, instream projects are simply drawn from an exhaustive list of options, each with an entirely different function and purpose, with no details of how options are selected. The impacts of an ill-fitting or inappropriate action can be significant and not easily corrected without excessive environmental damage.

Furthermore, all post-initial project actions are exempt from the NEPA process. In cases where remedial action is required, such actions would be allowed without additional consultation. This provides the Forest Service with apparently unfettered discretion to modify the project on the fly, which is the opposite of adaptive management. In sum, the adaptive nature of the plan upon which the EA relies fails to comply with the Forest Service's regulations or the recommendations of experts.

We do not argue that the Forest Service can never adopt an adaptive management approach for this project. An adaptive management approach may be feasible and helpful in terms of permitting the agency to fine tune its management in the face of changing conditions. However, the agency's proposed approach fails to meet the conditions required to establish a lawful and effective plan.

> *Suggested Remedy*: The Forest Service must prepare a supplemental NEPA document to include an adaptive management plan that meets Forest Service regulations by: (1) specifying which actions are selected based on environmental conditions and desired outcome; (2) setting clear, well-defined monitoring standards; (3) setting specific triggers identifying when adjustments may be necessary; (4) clearly identifying the adjustment(s) that may be made when monitoring shows those triggers have been reached; and (5) disclosing the impacts of implementing any and all of those adjustments. Alternatively, the Forest Service must prepare a supplemental NEPA document that eliminates any adaptive management plan, or the potential to conduct riparian restoration on the fly.

[86] *NRDC v. Kempthorne*, 506 F. Supp. 2d at 387.

5. Because the project is likely to have significant impacts, the Forest Service should prepare an EIS.

By failing to properly consider all connected and cumulative actions together in one single analysis, as NEPA requires, this Restoration Project involves the very type of substantial dispute that courts have found sufficient to require preparation of an EIS. Without addressing at all the root causes of environmental degradation, the effects of this Restoration Project are highly scientifically controversial.[87] In this context, the term "controversial" refers to "cases where a substantial dispute exists as to the size, nature, or effect of the major Federal action rather than to the existence of opposition to a use."[88] Courts explain:

> A substantial dispute exists when "evidence, raised prior to the preparation of an EIS or FONSI, casts serious doubt upon the reasonableness of the agency's conclusions." *Nat'l Parks* [*& Conservation Ass'n v. Babbitt*, 241 F.3d 722, 736 (9th Cir. 2001)] (internal citation omitted). Such evidence generally challenges the scope of the scientific analysis, the methodology used, or the data presented by the agency. *See Blue Mountain* [*Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212-13 (9th Cir. 1998)] (citing the Forest Service's failure to consider the recommendations and data of an independent scientific report that ran contrary to the proposed action as evidence of controversy).[89]

Without consideration of the land mismanagement and ecosystem stressors that resulted in the need for this Restoration Project, there is sufficient scientifically-based controversy as to whether the project will meet the stated purpose and need or will have the impacts predicted. This is precisely the type of "controversy" that courts find sufficient to require preparation of an EIS.[90] The dispute is heightened here because if the Forest Service "decides not to prepare an EIS, 'it must put forth a convincing statement of reasons' that explains why the project will impact the environment no more than insignificantly. This account proves crucial to evaluating whether the [agency] took the requisite 'hard look.'"[91]

This Restoration Project meets numerous standards for "significance." The project EA encompasses hundreds of undisclosed and unspecified instream structures and/or riparian projects, across an area of over 600,000 acres. An estimated 2,000 acres of riparian ecosystem will be directly impacted by projects across three national forests and a national grassland. The

---

[87] 40 C.F.R. § 1508.27(b)(4).

[88] *Sierra Club v. United States Forest Serv.*, 843 F.2d 1190, 1193 (9th Cir. 1988) (finding that where Sierra Club presented evidence from experts showing the EA's inadequacies and casting doubt on the agency's conclusions, "this is precisely the type of 'controversial' action for which an EIS must be prepared.").

[89] *Anglers of the Au Sable v. United States Forest Serv.*, 565 F. Supp. 2d 812, 827-828 (E.D. Mich. 2008).

[90] *See id.*

[91] *Ocean Advoc.*, 402 F.3d at 864.

scope, scale, and intended effects of this Restoration Project are all highly significant. In addition, to conform to NEPA 'hard look' and specificity requirements this project will ultimately require an EIS.

NEPA requires federal agencies to prepare a full environmental impact statement (EIS) before undertaking "major Federal actions significantly affecting the quality of the human environment."[92] The Ninth Circuit has stated:

> We have held that an EIS *must* be prepared if 'substantial questions are raised as to whether a project ... *may* cause significant degradation to some human environmental factor.' To trigger this requirement a 'plaintiff need not show that significant effects *will in fact occur*,' [but instead] raising 'substantial questions whether a project may have a significant effect' is sufficient.[93]

The Tenth Circuit agrees. "If the agency determines that its proposed action *may* 'significantly affect' the environment, the agency must prepare a detailed statement on the environmental impact of the proposed action in the form of an EIS."[94]

"Significance" under NEPA requires consideration of the action's context and intensity.[95] An agency must analyze the significance of the action in several contexts, including short- and long-term effects within the setting of the proposed action (including site-specific, local impacts).[96] Intensity refers to the severity of the impact and requires consideration of ten identified factors that may generally lead to a significance determination, including:

(1) whether the action may significantly impact public health or safety

(2) 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;

(3) whether the action is likely to be highly controversial;

(4) whether the action may have cumulative significant impacts;

---

[92] 42 U.S.C. § 4332(C).

[93] *Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1149-50 (9th Cir. 1998) (citations omitted) (emphasis original). *See also Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 864-65 (9th Cir. 2005) ("To trigger this [EIS] requirement a plaintiff need not show that significant effects will in fact occur, but raising substantial questions whether a project may have a significant effect is sufficient." (internal quotations, citations, and alterations omitted)).

[94] *Airport Neighbors Alliance v. U.S.*, 90 F.3d 426, 429 (10th Cir. 1996) (citation omitted) (emphasis added).

[95] 40 C.F.R. § 1508.27.

[96] *Id.* § 1508.27(a).

(5) the degree to which the action may establish a precedent for future actions with significant effects; and

(6) 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 of 1973.[97]

With respect to the degree to which the environmental effects are likely to be highly controversial, the word "controversial" refers to situations where "'substantial dispute exists as to the size, nature, or *effect* of the major federal action.'"[98] This Restoration Project focuses and specifically operates on unique and ecologically critical areas in the form of wetlands and streams in an arid geographic region. The intended restoration actions are extremely controversial because they do not address the ecological stressor (riparian grazing) that resulted in wetland and stream degradation in the first place. Because all restoration actions still must contend with livestock grazing, their chance of failure is highly elevated and this is supported by the best available science. Due to the expansive geographic scope of this Restoration Project, with up to 50 instream projects occurring annually, even a modest rate of failure could result in significant cumulative impacts to stream systems and could adversely affect protected riparian species and their habitat. Inherently, this Restoration Project will establish a precedent for future actions with significant effects because instream structures will be in perpetual need of repair, replacement, or logistical adjustments especially when grazing still occurs in riparian areas.

To avoid these issues, the most effective and straightforward way to begin restoring streams and wetlands, with the best chance of short- and long-term success, is to exclude cattle and allow streams to naturally revegetate. Only then should the use of instream structures be considered in places that are too deeply incised or eroded to naturally mend.

A. Where, as here, an agency prepares a long EA, it should prepare an EIS.

The CEQ has stated: "While the regulations do not contain page limits for EA's [sic], the Council has generally advised agencies to keep the length of EAs to not more than approximately 10-15 pages …. *In most cases ... a lengthy EA indicates that an EIS is needed*."[99]

Courts have concluded that even EAs of less than 100 pages in length provide evidence of the need to complete an EIS.[100] More than three decades ago, First Circuit Court Judge Stephen

---

[97] *Id.* § 1508.27(b)(2)-(4), (6)-(7), (9).

[98] *Town of Cave Creek v. FAA*, 325 F.3d 320, 331 (D.C. Cir. 2003) (quoting *North American Wild Sheep v. U.S. Department of Agriculture*, 681 F.2d 1172, 1182 (9th Cir. 1982)) (emphasis in original). *See also Middle Rio Grande Conservancy Dist. v. Norton*, 294 F.3d 1220, 1229 (10th Cir. 2002) (same); *Town of Superior v. U.S. Fish and Wildlife Serv.*, 913 F. Supp. 2d 1087, 1120 (D. Colo. 2012) (same).

[99] 46 Fed. Reg. 18,026, 18,037 (1981) (emphasis added).

[100] *See National Audubon Society v. Hoffman*, 917 F. Supp. 280, 287 (D. Vt. 1995), *aff'd* 132 F.3d 7 (2nd Cir 1997) (65-page EA); *Curry v. U.S. Forest Service*, 988 F. Supp. 541, 552 (W.D. Pa. 1997) (49-page EA).

Breyer, now a Justice of the U.S. Supreme Court, set aside a lengthy EA and required preparation of an EIS, explaining:

> To announce that these documents – despite their length and complexity – demonstrate no need for an EIS is rather like the mathematics teacher who, after filling three blackboards with equations, announces to the class 'you see, it is obvious.'"[101]

Here the very length, scope and scale of the Northern New Mexico Riparian Restoration Plan requires the Service to prepare an EIS. The Final EA itself clocks in at 243 pages long – over ***two times as long*** as the maximum suggested by CEQ regulations. This EA is longer than many Forest Service EISs. CEQ regulations state that "[t]he text of final environmental impact statements … shall normally be less than 150 pages and for proposals of unusual scope or complexity shall normally be less than 300 pages".[102] The fact that it takes the Forest Service more than 200 pages to reach the conclusion that the proposal can't possibly have significant impacts indicates that the opposite conclusion is more likely. The Forest Service must prepare an EIS.

The Forest Service cannot argue that the EA it prepared is the functional equivalent of an EIS and therefore no violation has occurred. Among other things, agencies must allow 45 days for public comment on an EIS, 40 C.F.R. § 1506.10(d) (2019) (which the Forest Service did not provide here), and Clean Air Act Section 309 requires EPA to review each EIS for comment, a mandate that does not apply to EAs. Further, as now-Justice Breyer noted in *Sierra Club v. Marsh*:

> [U]nder NEPA and its implementing regulations, we cannot accept the EA[s] as a substitute for an EIS -- despite the time, effort, and analysis that went into their production -- because an EA and an EIS serve very different purposes. An EA aims simply to identify (and assess the 'significance' of) potential impacts on the environment; it does not balance different kinds of positive and negative environmental effects, one against the other; nor does it weigh negative environmental impacts against a project's other objectives, such as, for example, economic development…. The purpose of an EA is simply to help the agencies decide if an EIS is needed.
>
> To treat an EA as if it were an EIS would confuse these different roles, to the point where neither the agency nor those outside it could be certain that the

[101] *Sierra Club v. Marsh*, 769 F.2d 868, 874 (1st Cir. 1985). *See also Evans v. Anderson*, 314 F.3d 1006, 1023 (9th Cir. 2002) ("No matter how thorough, an EA can never substitute for preparation of an EIS, if the proposed action could significantly affect the environment.") (requiring agency prepare EIS rather than EA); *Puerto Rico Conservation Foundation v Larson*, 797 F. Supp. 1066, 1069 n.3 (D. Puerto Rico 1992) (enjoining road construction in national forest because agency relied on EA rather than preparing EIS).

[102] 40 C.F.R. § 1502.7 (2019).

government fully recognized and took proper account of environmental effects in making a decision with a likely significant impact on the environment.[103]

Despite its 243-page length, the Forest Service failed to respond to comments making this point, resulting in yet another NEPA violation.

Suggested Remedy: The Forest Service should prepare an environmental impact statement for this large-scale and significant restoration project. This will allow the appropriate depth of analysis for a project like this one, as required by NEPA.

6. The EA violates NEPA because the Forest Service has not considered the best science.

Essential Forest Service science documents grazing impacts applicable to this Restoration Project. A Forest Service review and assessment of grazing impacts on terrestrial wildlife in Region 3[104] found that grazing has multiple negative effects on native species. This incredibly useful and regionally specific document (GTR-142), assessed the ecological interactions among native wildlife species of the Southwest and grazing and range management practices, and was designed to provide an informational tool for the region's land managers and biologists.

A database developed to compliment the GTR-142 assessment (provided on a companion CD) contains accounts for 305 terrestrial species and subspecies (note, the assessment did not address fish) believed to be potentially vulnerable to both short-term and long-term effects of native and domestic ungulate grazing.

The assessment exhaustively details the effects of livestock grazing on wildlife, and includes statements like the two below:

In a section discussing birds of wetland/marsh habitats, GTR-142 states (page 29) that livestock use has "a consistently negative impact and therefore to be generally incompatible with habitat maintenance."

In a section discussing mammals of riparian and wet meadow habitats, including the masked and water shrews and the New Mexico meadow jumping mouse, GTR-142 states (page 34) that "… such wetlands are generally incompatible with livestock use."

In addition to GTR-142, we also request that the Restoration Project interdisciplinary team review Poff et al. (2012) - GTR-269 - "Threats to western United States riparian ecosystems.[105]"

---

[103] *Sierra Club v. Marsh*, 769 F.2d at 875.

[104] Zwartjes, P.W., J.E. Cartron, P.L.L. Stoleson, W.C. Haussamen, and T.E. Crane. 2005. Assessment of Native Species and Ungulate Grazing in the Southwest: Terrestrial Wildlife. Gen. Tech. Rep. RMRS-GTR-142. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 74 p. plus CD. https://www.fs.fed.us/rm/pubs/rmrs_gtr142.pdf.

[105] Poff, B., K.A. Koestner, D.G Neary, and D. Merritt. 2012. Threats to western United States riparian ecosystems: A bibliography. Gen. Tech. Rep. RMRS-GTR-269. Fort Collins, CO: U.S. Department of

In this comprehensive review and bibliography of threats to riparian areas, the Forest Service authors reviewed "453 journal articles, reports, books, and book chapters addressing threats to riparian ecosystems in western North America were analyzed to identify, quantify, and qualify the major threats to these ecosystems as represented in the existing literature.[106]" Poff and colleagues write (page 8) that "most of the publications in this bibliography that address a single threat discuss grazing" and on page 11 "the two topics with the most individual references are grazing and invasive species."

Without incorporating these relevant documents into the NNMRAWR the Forest Service will fail to incorporate the best available science into the analysis. We included GTR-142 and GTR-269 as attachments to comments and asked that they be reviewed and incorporated into any subsequent NEPA analysis. Furthermore, we asked that the bibliography provided in GTR-269 is reviewed and the research contained therein is also addressed and incorporated into any subsequent Forest Planning NEPA document.

The scientific literature is clear that construction of instream structures can be detrimental if not adequately researched beforehand and can result in further habitat degradation.[107] [108] The EA in its current draft is wholly inadequate on the grounds that it lacks specificity of its planned actions. Native riparian obligate species, including those with federal listing under the ESA, will continue to decline under this ambiguous restoration plan. The Project EA has not provided evidence that the necessary research has been conducted to perform these restoration actions, let alone by the hundreds. If these actions are undertaken without adequate research, the Center will be continually monitoring stream implementations to ensure they do not further degrade ecological conditions. This is especially true for stream reaches designated as critical habitat.

> *Suggested Remedy*: The Forest Service has failed to address a key threat (livestock grazing) and must produce a NEPA document that reviews and discusses published scientific literature regarding stream restoration and the vital importance of first removing ecosystem stressors. It must also analyze the potentially significant negative impacts from improperly designed or implemented instream structures. It must examine failed restoration projects and adequately explain how this project would avoid such outcomes given its intended strategy.

Agriculture, Forest Service, Rocky Mountain Research Station. 78 p. https://www.fs.fed.us/rm/pubs/rmrs_gtr269.pdf

[106] Poff, B., K.A. Koestner, D.G. Neary, and V. Henderson, 2011. Threats to Riparian Ecosystems in Western North America: An Analysis of Existing Literature. Journal of the American Water Resources Association (JAWRA) 1-14. DOI: 10.1111/j.1752-1688.2011.00571.x. https://www.fs.fed.us/rm/pubs_other/rmrs_2011_poff_b001.pdf

[107] Opperman, J.J. and Merenlender, A.M., 2004. The effectiveness of riparian restoration for improving instream fish habitat in four hardwood-dominated California streams. North American Journal of Fisheries Management, 24(3), pp.822-834.

[108] Stewart et al. 2009. Effectiveness of engineered in-stream structure mitigation measures to increase salmonid abundance: a systematic review Ecological Applications, 19(4), 2009, pp. 931–941

CONCLUSIONS

Cattle damage to riparian systems is extensively documented in the scientific literature and likewise acknowledged throughout the EA as a causative factor that has led to current conditions in the Project Area. This ecological stressor cannot be coupled with anthropogenic instream structures with an anticipated positive result. Livestock grazing is intricately tied to the purposes and need of this project and will also benefit directly from its intended success. Livestock grazing is a connected action that must be managed in relation to this restoration effort. Such management alterations must be addressed in a single document. With that, a new analysis of the best available science should commence that will inform specifically laid-out plans to go about restoring degraded riparian ecosystems.

If livestock are not excluded from riparian areas, wetlands, and aquatic ecosystems in the three subject New Mexico National Forests, the Northern New Mexico Riparian, Aquatic and Wetland Restoration Project is unlikely to achieve a level of restoration of habitat, hydrology, and ecological integrity that is needed of our public lands if they are to endure the coming increasingly stressful conditions driven by climate change. We cannot support this project as it stands.

The failure to respond to the best available science (which we presented in scoping), and the failure to respond to public comments are common causes for legal delays. We are still concerned with the condition-based management approach to this project, leaving decisions to future unknown individuals with varying degrees of understanding of ecological problems and free of the NEPA process. With this much leeway, future actions could be taken exclusively for the benefit of livestock and at the expense of recovering listed species and fostering ecosystem resilience. Going forward, we hope the Forest Service will be more receptive to our science-based, holistic and practical solutions that do not attempt to mask the causative relationship between cattle grazing and degraded riparian conditions.

The Center hereby request a meeting to discuss potential resolution of issues raised in this objection, pursuant to 36 C.F.R. § 218.11(a). We hope that the Forest Service will use the objection process and such a meeting as opportunities to engage with stakeholders, including the Center, to develop a project that is legally and ecologically sound and enjoys broad support from all stakeholders.

Please do not hesitate to contact me with any questions or comments.

Thank you.

Chris Bugbee, Southwest Conservation Advocate
Center for Biological Diversity
(520) 623-5252
cbugbee@biologicaldiversity.org

TABLE OF EXHIBITS