

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO**

Civil Action No. _____

SAVE THE COLORADO, a Colorado nonprofit corporation;
THE ENVIRONMENTAL GROUP, a Colorado nonprofit corporation;
WILDEARTH GUARDIANS, a nonprofit corporation;
LIVING RIVERS, a nonprofit corporation;
WATERKEEPER ALLIANCE, INC., a nonprofit corporation; and
SIERRA CLUB, a nonprofit corporation.

Petitioners,

v.

LIEUTENANT GENERAL TODD T. SEMONITE, in his official capacity as the Chief of the
U.S. Army Corps of Engineers;
RYAN ZINKE, in his official capacity as Secretary of the Interior; and
MARGARET EVERSON, in her official capacity as Acting Director of the U.S. Fish and
Wildlife Service.

Respondents.

PETITION FOR REVIEW OF AGENCY ACTION

INTRODUCTION

1. This case involves an inadequately examined and poorly executed permitting process through which the U.S. Army Corps of Engineers (“the Corps”) has authorized construction and operation of a project—called the Moffat Collection System Project (“the project” or “the Moffat Project”—which would constitute the tallest dam in the history of Colorado, serve as the largest construction project ever in Boulder County, and cause extensive environmental damage on both sides of the Continental Divide. The project would result in significant and irreversible environmental effects by diverting water from the already highly

depleted Colorado River on Colorado's Western Slope and transporting it underneath the Continental Divide to store it in the massively expanded Gross Reservoir on Colorado's Eastern Slope purportedly to "firm" the water supply used by the City and County of Denver. These project diversions will further strain the Colorado River's already compromised ability to provide water to downstream users in western Colorado and adjacent States, and will increase harmful zero flow days in many headwater streams (i.e., these streams will be dried up for longer periods of time as a result of project diversions, especially from May through July). Despite these major impacts that will cause permanent environmental damage, the Corps authorized this project without first independently determining whether additional firm water supply is necessary or whether other far less environmentally damaging alternatives could solve water supply needs for the Denver area (if such needs actually existed).

2. The location of the dam construction component of the project is the site of the existing Gross Dam and Reservoir located on South Boulder Creek in Boulder County—infrastructure completed in 1954 when dam construction was the preferred method of meeting water supply needs. The project would raise the existing dam height by 141 feet, double the surface area of the existing Gross Reservoir, and nearly triple the reservoir's water storage capacity. Hence, the project would expand the Gross Reservoir from 41,811 acre-feet ("AF") of water storage capacity to a projected 118,811 AF, providing an additional 77,000 AF of water storage capacity at initial fill. Construction of the new dam and expanded reservoir, in a rural

area far above the City of Boulder, would constitute the biggest and most expensive construction project in the history of Boulder County.¹

3. Through this project, water to fill the massively expanded Gross Reservoir would be diverted from numerous streams that are headwaters of the Colorado River, transported through the existing Moffat Tunnel underneath the Continental Divide, and then dumped into South Boulder Creek before being impounded behind the new dam rising above a forested area of Boulder County. Because this project would divert water from one river basin (Colorado River Basin) and release it into another river basin on the other side of the Continental Divide (South Boulder Creek), it is a “trans-basin” diversion project, and will cause major adverse effects in two separate river basin systems.

4. On the Eastern Slope, the massive impacts of this project would be unprecedented in Boulder County, and would cause permanent damage to myriad aspects of the natural environment. Impacts at the construction site and adjacent lands and waters would include inundation and destruction of jurisdictional wetlands; inundation and loss of a popular recreational destination known as Forsythe Falls on national forest lands; elevation of mercury levels in the waters of Gross Reservoir that could make fish inedible and impact the aquatic ecosystem; release of extremely cold water (i.e., “freezing flows”) into South Boulder Creek below the dam that would fully or partially compromise fisheries and the aquatic ecosystem in the creek; clear-cutting and removing approximately half a million trees including patches of old-growth forests; using explosives and mining to extract as much as 1.6 million tons (approximately 1 million cubic yards) of rock for construction of the new dam at an on-site

¹ An acre-foot is equivalent to 325,851 gallons of water, which is comparable to an entire football field that is inundated by one foot of water in all places.

quarry; building and operating an industrial facility (i.e., an on-site concrete plant); engaging in around-the-clock construction activities for at least four years; creating constant safety and health hazards from heavy truck traffic, associated dust, and air and noise pollution; and compromising the quality of life of thousands of landowners, residents, and visitors drawn to the South Boulder Creek area for the quiet, solitude, and scenic beauty that now exist.

5. On the Western Slope, the project's average annual diversion of 10,284 AF of additional water from the Colorado River through the Moffat Tunnel would deplete already reduced flows in the Colorado River, impairing downstream water users in Colorado and other States; exacerbating the impacts of climate change in the Colorado River basin; and killing many federally protected green lineage cutthroat trout that use streams in the Colorado River basin as habitat and which depend upon sufficient water levels and healthy flows for their essential biological functions. These impacts would exacerbate the damage from nearly a century of trans-basin diversions by Denver Water, which is the proponent of the Moffat Project. These diversions have already stressed the headwaters of the Fraser, Blue, and Williams Fork Rivers (tributaries of the Colorado River) targeted by this project, resulting in low flow levels during the ecologically-important spring and early summer runoff period and those impacts will only worsen as a result of this project and the consequent increase in zero flow days in headwater streams. This project would be a death blow to these streams.

6. Known as the lifeblood of the American Southwest, the Colorado River supplies water to 40 million people across seven States and Mexico and functions as an irreplaceable habitat for a host of fish, bird, and wildlife species. The Colorado River is an economic engine for Colorado's Western Slope, providing the water that fuels the operations of farmers, ranchers,

and the State's multi-billion dollar outdoor recreation industry. In recent years, regional precipitation levels lower than, and temperatures warmer than, historical averages have led to reduced stream flows in the basin as demonstrated by historically low water levels in Colorado River reservoirs such as Lake Mead (straddling the Arizona and Nevada border) and Lake Powell (straddling the Utah and Arizona border). Colorado River Basin water supply managers and experts are increasingly concerned over the future management of the Colorado River, and are confronting dire predictions of future water supply shortages, and projections that the Upper Colorado River Basin States (Colorado, New Mexico, Utah, and Wyoming) might find it increasingly difficult to meet delivery requirements to the Lower Basin States (Arizona, California, and Nevada) under the Law of the River and the Colorado River Compact of 1922.

7. The Corps' decision to authorize the Moffat Project violated the Clean Water Act ("CWA"), 33 U.S.C. § 1344, by failing to adopt the least environmentally damaging practicable alternative. The Corps' decision also violated the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321-4370h, by adopting a flawed statement of purpose and need; failing to adequately consider a reasonable range of viable alternatives; failing to take a hard look at the best data and information available at the time of the Corps' 2017 decision; failing to adequately consider the cumulative impacts of the Moffat Project and other reasonably foreseeable actions that will impact the Colorado River (as well as the Lower Basin States); and failing to prepare a supplemental environmental impact statement ("SEIS") to analyze highly pertinent new information and significant changes in project components subject to the Corps' jurisdiction coming to light after the Corps' 2014 Final Environmental Impact Statement ("FEIS"). In addition, the Corps and the U.S. Fish and Wildlife Service ("FWS" or "Service") have violated

the Endangered Species Act (“ESA”), 16 U.S.C. §§ 1531-1544, by relying on a June 17, 2016 biological opinion concerning the federally protected green lineage cutthroat trout and an arbitrary and unlawful incidental take statement (“ITS”) contained therein, and by failing to reinstate consultation under Section 7(a)(2) of the ESA, *id.* § 1536(a)(2); *see also* 50 C.F.R. § 402.16, to cure the legally deficient biological opinion.

JURISDICTION AND VENUE

8. The Court has jurisdiction over this action pursuant to 28 U.S.C. § 1331 (federal question jurisdiction), 28 U.S.C. § 1346 (civil action against the United States), 28 U.S.C. § 1361 (action to compel an officer of the United States to perform his duty), the Administrative Procedure Act (“APA”), 5 U.S.C. § 702, and the citizen suit provision of the ESA, 16 U.S.C. § 1540(c), (g).

9. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391(e) because the events or omissions giving rise to the claims occurred within this judicial district; the Corps and the Service have offices in this district; the public lands and waters in question are located in this district; the majority of the environmental impacts resulting from this project will occur in and impact this district; and Petitioners Save The Colorado, The Environmental Group, and WildEarth Guardians reside in this district.

10. This case is filed pursuant to D.C.Colo.LAPR 10.2(c). It challenges the Corps’ July 2017 Record of Decision (“ROD”), the Corps’ 2014 FEIS for the Moffat Project; the Corps’ CWA Section 404 permit issued to Denver Water on September 8, 2017; the Service’s June 17, 2016 biological opinion; the Corps’ ongoing reliance on the Service’s June 17, 2016 biological opinion; the Corps’ October 26, 2018 decision not to conduct any supplemental NEPA review

for this project; and the Service's and the Corps' October 26, 2018 decision not to reinstate ESA consultation for this project.

11. This Court may grant the relief requested pursuant to 28 U.S.C. § 2201 (authorizing declaratory relief); 28 U.S.C. § 2202 (authorizing injunctive relief); 5 U.S.C. §§ 701-706 (providing for judicial review of agency action under the APA); and 16 U.S.C. § 1540(g) (authorizing injunctive and other relief for ESA violations).

PARTIES

12. Petitioner SAVE THE COLORADO is a grassroots 501(c)(3) nonprofit organization that strives to protect and restore the Colorado River and its tributaries. Its mission is to promote conservation of the Colorado River and its tributaries through science, public education, advocacy, and litigation by supporting alternatives to new dams and diversions that enhance the river's adaption to climate change, support river restoration and aquatic species conservation, and remove outdated and unneeded dams from the Colorado River.

13. Save the Colorado has approximately 20,000 members and supporters, including many who live in Colorado. The organization's members will be harmed by the Moffat Project and will suffer aesthetic, recreational, scientific, and other injuries if the project is built as authorized by the Corps' ROD. The organization and its members are also harmed by the Corps' and the Service's failure to follow the lawfully required procedures contained in NEPA, the CWA, the ESA, and the APA.

14. Save the Colorado—the nation's premier organization dedicated specifically to protecting the Colorado River from further and unnecessary diversions of water—is also harmed by the actions of the Corps and the Service because this decision frustrates the organization's

ability to carry out one of its core missions to conserve this river and avoid additional diversions of water. These federal actions also undermine Save the Colorado's overall mission, which has required the organization—and will continue to require the organization—to spend significant organizational resources opposing this ill-advised project. Save the Colorado has already been forced to spend considerable resources on this advocacy, including conducting various public alerts and education about this matter, pursuing media opportunities to further educate the public and lawmakers about the dangers inherent in this project, initiating an organizing campaign around this issue for approximately a decade, writing letters and emails to appropriate government officials, retaining subject matter experts to review aspects of this project, and preparing lengthy comments during each public comment opportunity. Accordingly, the actions taken by the Corps and the Service have not only greatly impeded and frustrated Save the Colorado's mission to protect the Colorado River from new diversions that will result in significant downstream environmental damage, but it has caused an immediate and continuing drain on Save the Colorado's very limited resources that could otherwise be used for the organization's other advocacy efforts to protect the Colorado River throughout the southwestern United States.

15. The injuries of Save the Colorado and its members can be redressed by a ruling from this Court declaring this project arbitrary and capricious; vacating the ROD, FEIS, Section 404 permit, and biological opinion; and remanding these matters to the Corps and the Service for further consideration consistent with federal law.

16. Petitioner THE ENVIRONMENTAL GROUP is a 501(c)(3) nonprofit organization located in the foothills of Colorado, spanning Jefferson, Gilpin, and Boulder

Counties. The Environmental Group works to protect the natural lands and resources of the region from environmental degradation, and is a longtime proponent of environmental preservation and conservation of the public lands and waters that would be affected by the Moffat Project.

17. Hundreds of residents living in close proximity to Gross Dam participate in The Environmental Group and would be directly affected by the proposed construction activities, noise, truck traffic, dust, and emissions, as well as the permanent impacts to the local environment that would adversely affect their aesthetic, recreational, scientific, and other interests in using the public lands and natural resources in the vicinity of the reservoir. The organization and its members are also harmed by the Corps' and the Service's failure to follow the lawfully required procedures contained in NEPA, the CWA, the ESA, and the APA.

18. The injuries of The Environmental Group and its members can be redressed by a ruling from this Court declaring this project arbitrary and capricious; vacating the ROD, FEIS, Section 404 permit, and biological opinion; and remanding these matters to the Corps and the Service for further consideration consistent with federal law.

19. Petitioner WILDEARTH GUARDIANS is a 503(c)(3) nonprofit founded in 1989 with offices throughout the West, including in Denver, Colorado. The organization's mission is to protect and restore the wildlife, wild places, wild rivers, and the health of the American West. WildEarth Guardians seeks to restore dynamic flows to western rivers, advocates for western water policy reform, works to protect and ensure the persistence of imperiled fish and wildlife, and fights to restore healthy and sustainable aquatic and riparian ecosystems for future generations.

20. WildEarth Guardians has 220,000 members and supporters, including many who live in Colorado. The organization's members will be harmed by the Moffat Project and will suffer aesthetic, recreational, scientific, and other injuries if the project is built as authorized by the Corps' ROD. The organization and its members are also harmed by the Corps' and the Service's failure to follow the lawfully required procedures contained in NEPA, the CWA, the ESA, and the APA.

21. The injuries of WildEarth Guardians and its members can be redressed by a ruling from this Court declaring this project arbitrary and capricious; vacating the ROD, FEIS, Section 404 permit, and biological opinion; and remanding these matters to the Corps and the Service for further consideration consistent with federal law.

22. Petitioner LIVING RIVERS is a 503(c)(3) nonprofit founded in 2000. It works to restore inundated river canyons, wetlands, and the delta of the Colorado River, repeal antiquated laws which harm the river's flows, reduce water and energy use and their impacts on the river, and recruit constituents to aid in reviving the Colorado River.

23. Living Rivers has many members and supporters, including some who live in Colorado. The organization's members will be harmed by the Moffat Project and will suffer aesthetic, recreational, scientific, and other injuries if the project is built as authorized by the Corps' ROD. The organization and its members are also harmed by the Corps' and the Service's failure to follow the lawfully required procedures contained in NEPA, the CWA, the ESA, and the APA.

24. The injuries of Living Rivers and its members can be redressed by a ruling from this Court declaring this project arbitrary and capricious; vacating the ROD, FEIS, Section 404

permit, and biological opinion; and remanding these matters to the Corps and the Service for further consideration consistent with federal law.

25. Petitioner WATERKEEPER ALLIANCE, INC ("Waterkeeper") is a not-for-profit corporation organized under the laws of the State of New York, and is a charitable organization under section 501(c)(3) of the Internal Revenue Code, with headquarters at 180 Maiden Lane, Suite 603, New York, New York 10038. Waterkeeper's mission is to strengthen and grow a global network of grassroots leaders protecting everyone's right to clean water. Waterkeeper holds polluters accountable to achieve its goal of drinkable, fishable, swimmable water everywhere.

26. Waterkeeper is a global membership organization comprised of approximately 275 Waterkeeper member organizations and approximately 55 Waterkeeper affiliate organizations in 44 countries on six continents. This includes approximately 175 Waterkeepers Organizations and Affiliates licensed by Waterkeeper Alliance in the United States, including Living Rivers ("U.S. Member Organizations"). Waterkeeper also has over 10,000 individual supporting members, including many who live in Colorado.

27. Waterkeeper, through its Free Flowing Rivers initiative, supports clean and free-flowing rivers and waterways, and opposes new dams and diversions, mitigating dams where there is no other option and removing dams wherever possible. Over the past several years, Waterkeeper has increasingly engaged in public advocacy, administrative proceedings, and litigation aimed at reducing the water quantity, water quality, and climate change impacts of dam and diversion projects, particularly in the Western United States and in Colorado. Waterkeeper Alliance and its U.S. Member Organizations have members, supporters, and staff who regularly

visit lands and waters in Colorado that would be affected by the actions proposed by this project, for recreational, scientific, educational, and other pursuits, and intend to continue to do so in the future. The organization's members and the waterways they protect will be harmed by the Moffat Project and will suffer aesthetic, recreational, scientific, and other injuries if the project is built as authorized by the Corps' ROD. The organization and its members are also harmed by the Corps' and the Service's failure to follow the lawfully required procedures contained in NEPA, the CWA, the ESA, and the APA.

28. The injuries of Waterkeeper Alliance and its members can be redressed by a ruling from this Court declaring this project arbitrary and capricious; vacating the ROD, FEIS, Section 404 permit, and biological opinion; and remanding these matters to the Corps and the Service for further consideration consistent with federal law.

29. Petitioner SIERRA CLUB and its Colorado Chapter are dedicated to exploring, enjoying, and protecting the planet's wild places; practicing and promoting the responsible use of the ecosystem; educating and enlisting humanity to protect and restore the quality of the natural and human environment, including river ecosystems; and using all lawful means to carry out these objectives.

30. Sierra Club has more than 3.5 million members and supporters, including more than 22,000 in Colorado. The organization's members will be harmed by the Moffat Project and will suffer aesthetic, recreational, scientific, and other injuries if the project is built as authorized by the Corps' ROD. The organization and its members are also harmed by the Corps' and the Service's failure to follow the lawfully required procedures contained in NEPA, the CWA, the ESA, and the APA.

31. The injuries of Sierra Club and its members can be redressed by a ruling from this Court declaring this project arbitrary and capricious; vacating the ROD, FEIS, Section 404 permit, and biological opinion; and remanding these matters to the Corps and the Service for further consideration consistent with federal law.

32. Respondent LIEUTENANT GENERAL TODD T. SEMONITE is the Chief of the U.S. Army Corps of Engineers, which is an agency of the United States within the Department of the Army. Lieutenant General Semonite is sued in his official capacity. The Corps prepared the ROD and CWA Section 404 permit authorizing the Moffat Project, as well as the FEIS challenged in this action. The Corps is also unlawfully relying upon an arbitrary and illegal biological opinion, and arbitrarily and capriciously refused to reinitiate consultation as required by the ESA and its implementing regulations. Accordingly, Lieutenant General Semonite—as the head of the Corps—is ultimately responsible for the actions challenged herein.

33. Respondent RYAN ZINKE is the Secretary of the Interior, and is sued in his official capacity. Because the Service is an agency within the Department of Interior, Respondent Zinke has ultimate responsibility for the actions of the Service, including its June 17, 2016 biological opinion and its refusal to reinitiate consultation as required by the ESA and its implementing regulations.

34. Respondent MARGARET EVERSON is the Acting Director of the U.S. Fish and Wildlife Service, and is sued in her official capacity. Respondent Everson has ultimate responsibility for the actions of the Service, including its issuance of the June 17, 2016 biological opinion and its refusal to reinitiate consultation as required by the ESA and its implementing regulations.

STATUTORY AND REGULATORY FRAMEWORK

A. The National Environmental Policy Act

35. Enacted in 1969, NEPA is the “basic national charter for protection of the environment.” 40 C.F.R. § 1500.1(a). Its purposes are to “help public officials make decisions that are based on understanding of environmental consequences, and to take actions that protect, restore, and enhance the environment,” and to “insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.” *Id.* § 1500.1(b), (c).

36. Congress enacted NEPA to, among other things, “encourage productive and enjoyable harmony between man and his environment” and to promote government efforts “that will prevent or eliminate damage to the environment.” 42 U.S.C. § 4321. NEPA imposes a duty on federal agencies to “use all practicable means . . . to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment.” 40 C.F.R. § 1500.2(f).

37. The Council on Environmental Quality (“CEQ”)—an agency within the Executive Office of the President—has promulgated regulations implementing NEPA, *see* 40 C.F.R. §§ 1500-1508, which are “binding on all federal agencies.” *Id.* § 1500.3.

38. To accomplish its underlying goals, NEPA requires federal agencies to prepare a “detailed statement”—i.e., an EIS—for all “major federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(c). An EIS must describe (1) “the environmental impact of the proposed action,” (2) “the adverse environmental effects which cannot be avoided,” and (3) “alternatives to the proposed action.” 42 U.S.C. § 4332(C)(i)-(iii).

By definition, the environmental impacts that require analysis under NEPA are far broader than just those affecting the ecosystem itself; such effects include “ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health” impacts. 40 C.F.R. § 1508.8(b).

39. Each EIS must consider the underlying federal “purpose and need” for the proposed action, and “rigorously explore and objectively evaluate” the environmental impacts of “*all* reasonable alternatives” to the proposed action. 40 C.F.R. §§ 1502.13, 1502.14 (emphasis added). NEPA further provides that agencies “shall . . . study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.” 42 U.S.C. § 4332(E). CEQ has deemed the alternatives analysis “the heart” of the NEPA process because it “present[s] the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public.” 40 C.F.R. § 1502.14.

40. In evaluating the alternatives of a proposed action, NEPA requires that agencies take a “hard look” at the effects of the proposed action as compared to all reasonable alternatives. *See* 40 C.F.R. §§ 1502.1, 1502.16. The EIS must assess the direct, indirect, and cumulative impacts of the proposed action on the environment, including adverse environmental effects that cannot be avoided, *id.* § 1508.25. Direct effects are those “caused by the action and occur at the same time and place,” while indirect effects are those “caused by the action” that occur “later in time or farther removed in distance, but are still reasonably foreseeable.” *Id.* § 1508.8. Cumulative impacts are those that result from the “incremental impact[s]” of the

proposed action when added to the impacts of other past, present, and reasonably foreseeable future actions, whether undertaken by other federal agencies or private third parties. *Id.* § 1508.7. “Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” *Id.*

41. An EIS “serve[s] as an action-forcing device” and must “provide full and fair discussion of significant environmental impacts and shall inform decision-makers and the public of the reasonable alternatives” to a proposed project. 40 C.F.R. § 1502.1.

42. According to the Corps’ own NEPA regulations, “[t]he Corps, will in all cases, exercise independent judgment in defining the purpose and need for the project from both the applicant’s and the public’s perspective.” 33 C.F.R. Part 325 App. B § 9(b)(4). “[W]henver the NEPA document’s scope of analysis renders it appropriate, the Corps also should consider and express that activity’s underlying purpose and need from a public interest perspective.” *Id.*

43. With regard to alternatives analysis, “[t]he Corps is neither an opponent nor a proponent of the applicant’s proposal.” 33 C.F.R. Part 325 App. B § 9(b)(5). “Decision options available to the district engineer, which embrace all of the applicant’s alternatives, are issue the permit, issue with modifications or conditions or deny the permit.” *Id.* at 9(b)(5)(A).

44. The Corps “should document in the record the Corps’ independent evaluation of the information [submitted by the applicant for the EIS] and its accuracy, as required by 40 C.F.R. 1506.5(a).” 33 C.F.R. Part 325 App. B(8)(f)(2)).

45. Where an agency has previously prepared and issued an EIS, NEPA’s regulations require an agency to supplement its prior NEPA review when “[t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns,” or “[t]here are

significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” 40 C.F.R. § 1502.9(c).

B. The Clean Water Act

46. The CWA is designed to “restore and maintain the chemical, physical and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). The CWA generally prohibits the discharge of pollutants, including dredged or fill material, into the waters of the United States unless authorized by a permit. *See id.* § 1311(a). The term “discharge of fill material” is defined as “the addition of fill material into the waters of the United States” or the placement of fill necessary for the construction of any structure in the waters of the United States. 33 C.F.R. §§ 323.2(f), 323.3(c); 40 C.F.R. § 232.2.

47. Section 404 of the CWA authorizes the Corps to issue permits for the discharge of dredge or fill material into waters of the United States. 33 U.S.C. § 1344. The Corps adopted regulations, known as the “public interest” factors, to implement its permitting authority. 33 C.F.R. § 320. “Evaluation of the probable impact which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of this general balancing process.” *Id.* § 320.4(a)(1). The Corps must consider a broad range of potential relevant impacts as part of its public interest review, including “conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use,

navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.” *Id.*

48. In addition, the Environmental Protection Agency (“EPA”) has promulgated regulations, known as the “404(b)(1) Guidelines,” for Section 404 permits. 33 U.S.C. § 1344(b)(1); 40 C.F.R. § 230. The Corps reviews all proposed Section 404 permits under both the Corps’ public interest factors and EPA’s 404(b)(1) Guidelines. 33 U.S.C. § 1344(b)(1); 33 C.F.R. § 320.2(f). A permit must be denied if it is contrary to the public interest or does not comport with the Section 404(b)(1) Guidelines. 33 C.F.R. §§ 320.4, 323.6; 40 C.F.R. §§ 230.10, 230.12.

49. To ensure these mandatory CWA requirements are satisfied, the Corps must fully evaluate the direct, secondary, and cumulative impacts of the activity, including impacts to aesthetics, recreation, and fish and wildlife. *See, e.g.*, 33 C.F.R. §§ 320.4(a)(1), 336.1(c)(5) (endangered species), 336.1(c)(8) (fish and wildlife); 40 C.F.R. §§ 230.11(a)-(h), 230.20-23 (aquatic ecosystem), 230.30 (threatened and endangered species), 230.31 (fish and wildlife), 230.51 (recreational and commercial fisheries), 230.52 (water-related recreation), 230.53 (aesthetics). In particular, the Corps must set forth its findings in writing on the short-term and long-term effects of the discharge of dredge or fill activities, as well as compliance or noncompliance with the restrictions on discharge. 40 C.F.R. §§ 230.11, 230.12(b).

50. The “loss of values” that the Corps must consider in evaluating the impact of a discharge on the aesthetic characteristics of an aquatic ecosystem includes “mar[ring] the beauty of natural aquatic ecosystems by degrading water quality, creating distracting disposal sites,

inducing inappropriate development, encouraging unplanned and incompatible human access, and destroying vital elements that contribute to the compositional harmony or unity, visual distinctiveness, or diversity of an area.” 40 C.F.R. § 230.53(b).

51. EPA’s 404(b)(1) Guidelines prohibit the Corps from authorizing an application for dredge and fill activities if there is a practicable alternative which would have less adverse impact. *See* 40 C.F.R. §§ 230.10(a), 230.12(a)(3)(i). The Corps must document its findings of compliance or noncompliance with these restrictions. *Id.* § 230.12(b). Practicable alternatives are those alternatives that are “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.” *Id.* § 230.10(a)(2). “Fundamental to [404(b)(1)] Guidelines is the precept that dredged or fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern.” *Id.* § 230.1(c).

52. In order to eliminate an alternative from further consideration as impracticable, the project proponent and the Corps must provide detailed, clear, and convincing evidence and information proving why each eliminated alternative is genuinely impracticable in light of overall project purposes, rather than merely undesirable to the project proponent. The preamble to the CWA regulations explain that “[t]he mere fact that an alternative may cost somewhat more does not necessarily mean it is not practicable.” 45 Fed. Reg. 85,336, 85,339 (Dec. 24, 1980).

53. In evaluating the practicability of alternatives to the proposed project under the CWA and its implementing regulations, the Corps must identify and uniformly apply a coherent and non-arbitrary metric for assessing costs, timing, and other factors relevant to the

practicability inquiry. In evaluating practicability, the Corps must avoid skewing the project's baseline costs by ensuring that all relevant project costs (e.g., construction, mitigation, permitting, and engineering costs) are included when comparing the project to less environmentally damaging alternatives that often require far less mitigation, permitting, and other compensatory expenditures.

C. The Endangered Species Act

54. Recognizing that certain species of plants and animals “have been so depleted in numbers that they are in danger of or threatened with extinction,” Congress enacted the ESA to provide both “a means whereby the ecosystems upon which endangered and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species.” 16 U.S.C. § 1531. The ESA reflects “an explicit congressional decision to afford first priority to the declared national policy of saving endangered species.” *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 185 (1978). The ESA “represent[s] the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.” *Id.* at 180.

55. Under the ESA, a species may be listed as endangered or threatened. An endangered species is one that is “in danger of extinction throughout all or a significant portion of its range.” 16 U.S.C. § 1532(6). A threatened species is “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” *Id.* § 1532(20).

56. Section 9 of the ESA makes it unlawful for any person to “take” an endangered species without express authorization from the Service. 16 U.S.C. § 1538(a)(1). “Take” means

“to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” *Id.* § 1532(19). The term “harm” is further defined by FWS regulations to encompass habitat modification or degradation that injures an endangered or threatened species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering, *see* 50 C.F.R. § 17.3, and “harass” is defined as “an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding or sheltering.” *Id.*

57. Section 7(a)(2) of the ESA requires all federal agencies to “insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species.” 16 U.S.C. § 1536(a)(2). To carry out this obligation, before undertaking any action that may have direct or indirect effects on listed species, an action agency must engage in consultation with the Service in order to evaluate the impact of the proposed action on any species or habitat that will be affected by the proposed action. *See id.* § 1536(a). The Service has defined the term “action” for the purposes of Section 7 broadly to mean “all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies,” 50 C.F.R. § 402.02, “in which there is discretionary federal involvement or control.” *Id.* § 402.03.

58. The purpose of consultation under Section 7(a)(2) of the ESA is to ensure that the action at issue “is not likely to jeopardize the continued existence of any endangered species or threatened species.” 16 U.S.C. § 1536(a)(2). As defined by the ESA’s implementing regulations, an action will cause jeopardy to a listed species if it “reasonably would be expected, directly or

indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.” 50 C.F.R. § 402.02. The evaluation of the effects of the proposed action on listed species during consultation must use “the best scientific . . . data available.” 16 U.S.C. § 1536(a)(2).

59. If the action agency finds that the proposed action “may affect” listed species by having any potentially adverse effect that is not insignificant or discountable, then formal consultation is required. *See* 50 C.F.R. § 402.11. Following completion of its biological assessment, the action agency must initiate formal consultation through a written request to the Service. *See* 50 C.F.R. § 402.14(c). The result of a formal consultation is the preparation of a biological opinion by the Service, which is a compilation and analysis of the best available scientific data on the status of the species and how it would be affected by the proposed action. When preparing a biological opinion, the Service must: (1) “review all relevant information;” (2) “evaluate the current status of the listed species;” and (3) “evaluate the effects of the action and cumulative effects on the listed species.” 50 C.F.R. § 402.14(g)–(h). Additionally, a biological opinion must include a description of the proposed action, a review of the status of the species, a discussion of the environmental baseline, and an analysis of the direct and indirect effects of the proposed action and the cumulative effects of reasonably certain future state, tribal, local, and private actions. *Id.*

60. At the end of the formal consultation process, the Service issues either a no-jeopardy or a jeopardy biological opinion. With a no-jeopardy biological opinion, the Service determines that the proposed action is not likely to jeopardize the continued existence of listed species. If the FWS determines that the proposed action is not likely to jeopardize the continued

existence of listed species, but that the proposed action will nevertheless result in the incidental taking of listed species, then the FWS must provide the action agency with a written Incidental Take Statement (“ITS”) specifying the “impact of such incidental taking on the species” and “any reasonable and prudent measures [(“RPMs”)] that the [Service] considers necessary or appropriate to minimize such impact,” and setting forth “the terms and conditions . . . that must be complied with by the [action] agency or applicant (if any), or both, to implement [those] measures.” 16 U.S.C. § 1536(b)(4)((ii), (iv). With a jeopardy biological opinion, the Service may offer the action agency reasonable and prudent alternatives (“RPAs”) to the proposed action that will not result in jeopardy to a listed species, if they exist. *Id.* § 1536(b)(3)(A).

61. An ITS must set a clear threshold for triggering reinitiation of consultation in the event that an action’s impacts exceed those anticipated in a biological opinion. Unless it is genuinely impractical to do so, the Service must set a numerical take threshold in the ITS that would trigger reinitiation of consultation if exceeded. *See* 50 C.F.R. § 402.14(i)(1)(i). Only if setting such a threshold is impractical may the Service use a surrogate and in that event the Service must clearly explain how the surrogate reasonably substitutes for measuring direct take of the listed species, and how the surrogate serves the same functions of a numerical take threshold such as providing a clear and measurable trigger for reinitiation of consultation. *Id.*

62. Pursuant to 50 C.F.R. § 402.16, there are four distinct events that require reinitiation of consultation between the Service and the action agency: (a) “[i]f the amount or extent of taking specified in the [ITS] is exceeded”; (b) [i]f new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered”; (c) “[i]f the identified action is subsequently modified in a manner that

causes an effect to the listed species or critical habitat that was not considered in the biological opinion”; or (d) “[i]f a new species is listed or critical habitat designated that may be affected by the identified action.”

63. Without a legally adequate biological opinion and ITS in place, any activities likely to result in incidental take of members of listed species are unlawful. 16 U.S.C. §§ 1538(a)(1)(B), 1536(o)(2). Accordingly, anyone who undertakes such activities, or who authorizes such activities, *id.* § 1538(g), may be subject to criminal and civil federal enforcement actions, as well as civil actions by citizens for declaratory and injunctive relief, *see id.* § 1540. In addition, Section 7(d) of the ESA requires that any action agency, or any project proponent utilizing the action agency’s incidental take coverage, is prohibited from making “any irreversible or irretrievable commitment[s] of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures,” when such action is either in active Section 7(a)(2) consultation or where reinitiation of consultation is required. *Id.* § 1536(d).

D. The Administrative Procedure Act

64. Under Section 706(2) of the APA, a reviewing court “shall” set aside agency actions, findings, or conclusions when they are “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law,” or when they are adopted “without observance of procedure required by law.” 5 U.S.C. § 706(2)(A), (D). An agency action is arbitrary and capricious if the agency “relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency,” or if the agency’s decision “is so

implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Motor Vehicle Mfr. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

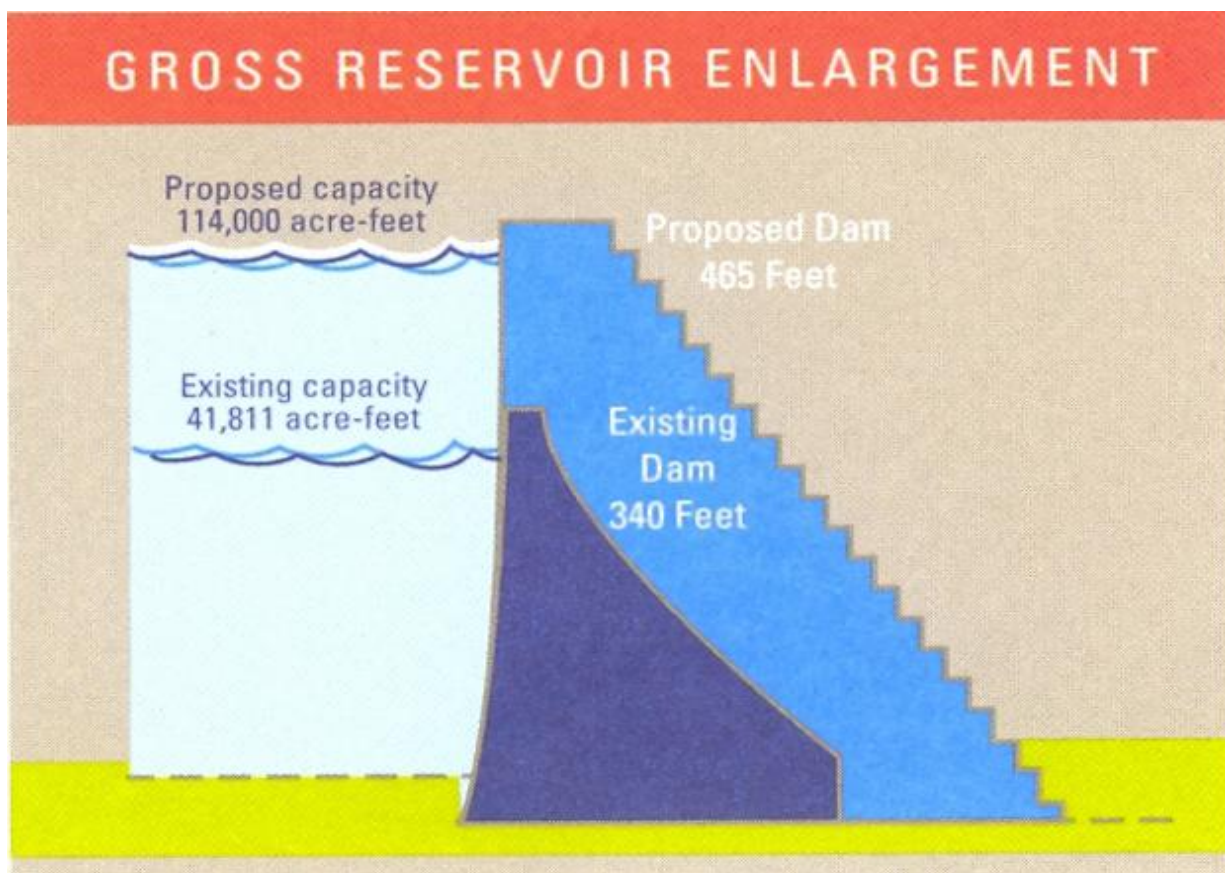
65. Under Section 706(1) of the APA, a reviewing court “shall . . . compel agency action unlawfully withheld or unreasonably delayed.” 5 U.S.C. § 706(1). Unlike claims brought pursuant to Section 706(2) of the APA which are limited to the administrative record before the agency at the time it issued its final decision, claims brought pursuant to Section 706(1) of the APA are not limited to the administrative record because ordinarily no record exists for agency inaction (rather than agency action).

FACTUAL BACKGROUND

A. Moffat Project Summary

66. The Moffat Collection System Project is a water supply project that Denver Water formally proposed to the Corps in 2003. *See* 68 Fed. Reg. 54432 (Sept. 17, 2003). The existing water collection system for Denver Water is divided into two geographically-distinct systems: the North System (i.e., the Moffat Collection System) and the South System. Under Denver Water’s current operations scheme, the Moffat Collection System supplies only a portion of Denver Water’s overall reservoir storage and available water supply, purportedly leaving the overall system highly dependent upon the operation of the South System. Denver Water hypothesized in 2002 that it would be facing water supply shortages in 2016. Those demand projections have proven to be vastly overstated during the course of the Corps’ decisionmaking process, as conservation measures and fundamental changes in water consumption patterns have significantly reduced the water demand in Denver Water’s service area.

67. The Moffat Project would enlarge Denver Water’s existing 41,811-AF Gross Reservoir by up to 77,000 AF of water for a total storage capacity of 118,811 AF of water. Gross Dam is located in Boulder County, approximately 35 miles northwest of Denver and 6 miles southwest of the City of Boulder. The enlargement would be accomplished by raising the existing concrete gravity arch dam by 131 feet, from 340 to 471 feet high—i.e., essentially building a new massive dam in front of, and on top of, the current dam, resulting in the tallest dam in Colorado. The surface area of the reservoir would double from 418 acres to 842 acres. Denver Water’s own graphic demonstrates the immense size of the new dam and reservoir:²



² This graphic is outdated insofar as the height and capacity of the dam are concerned—i.e., the final totals proposed by Denver Water are a new dam height of 471 feet (instead of 465 feet) and a new capacity of 118,811 AF (instead of 114,000 AF).

68. Using existing collection infrastructure, water from the Fraser River and Williams Fork River basins would be diverted and delivered via the Moffat Tunnel and South Boulder Creek to Gross Reservoir. In order to meet its alleged purpose for this project, Denver Water asserts that an additional 72,000 AF of storage capacity is necessary.³

69. The Corps is the lead agency on the Moffat Project under NEPA. Two agencies—EPA and the Federal Energy Regulatory Commission (“FERC”)—are cooperating agencies.

B. Denver Water’s CWA Permit Application and the Corps’ Scoping Process

70. On September 15, 2003, the Corps initiated the public scoping process for the Moffat Project by posting a Public Notice on the Corps’ website notifying the public that it had received a permit application from Denver Water. On September 17, 2003, the Corps published a Federal Register notice inviting comments on the scoping process and notifying the public of three scoping meetings. *See* 68 Fed. Reg. 54432 (Sept. 17, 2003).

71. In the initial Federal Register notice concerning the scoping process for the project, the Corps asserted that the Moffat Project “will provide a solution to four needs identified by Denver Water in its municipal water supply system: (1) [a] reliability problem associated with the Moffat Collection System (the northern portion of Denver Water’s system); (2) a system-wide vulnerability problem; (3) a lack of operational flexibility in the entire system; and (4) an additional firm yield of 18,000 acre-feet to address near-term water supply demands.” *Id.* In particular, the Corps noted that “Denver Water’s near-term water resource strategy and water service obligations . . . has resulted in a need for 18,000 acre feet of new near-term water supplies.” *Id.* The notice also explained that “Denver Water has identified four preliminary

³ Of the 77,000 AF of expanded storage in the enlarged reservoir, 72,000 AF are dedicated to Denver Water’s water supply needs.

alternatives that would address these needs: (1) [e]nlarge Gross Reservoir; (2) [b]uild a new reservoir at Leyden Gulch; (3) [b]uild a potable water recycling project; or (4) [a] combination of these alternatives.” *Id.*

72. During the scoping period, the Corps received dozens of written comments and also many oral comments during public hearings, including from EPA, affected municipalities, and several of the Petitioners in this lawsuit. In its Scoping Summary, the Corps highlighted “concerns that generated the most comments” including “[a]dditional alternatives to be considered, in particular conservation, reuse, and other non-structural alternatives,” and “[e]ffects of additional diversions and water storage on stream flow, fish, wildlife, and vegetation on both sides of the Continental Divide.” Commenters also urged that “Denver Water must create an aggressive, long-term conservation plan to deal with future water demand.”

73. EPA—which shares CWA jurisdiction with the Corps—provided its expert comments at the scoping stage that “[t]he definition of project purpose is important for this project since, as proposed in the [purpose and need statement], it would appear to consist of four separate project purposes.” Thus, “[i]t would be more useful if a single, basic project purpose could be developed so that various alternatives would not have to be examined for each separate project purpose.” EPA further explained that “[w]hile the [purpose and need statement] infers the desire of the Denver Water Department to resolve all four problems with one Federal action, . . . [r]eview of the ‘needs’ also indicates that different alternatives may be available that could resolve the needs in an independent manner.”

C. The Corps' 2009 Draft EIS

74. In October 2009, the Corps published its Draft EIS (“DEIS”) and solicited public comment on the DEIS.

75. In the DEIS, the Corps’ defined the project’s purpose and need as follows: “[t]he purpose of the Moffat Collection System Project is to develop 18,000 acre-feet per year of new, annual firm yield to the Moffat Treatment Plant and raw water customers upstream of the Moffat Treatment Plant pursuant to [Denver Water’s] commitment to its customers.” DEIS at ES-4.

However, the Corps asserted that “Denver Water’s need for the proposed Moffat Project is based on two major issues”:

(1) “Beginning in 2016, and by 2030, Denver Water identifies an annual 34,000 AF/yr shortfall in water supplies available to meet the needs of its customers and near-term water commitments . . . [and] [o]f this near-term 34,000 AF/yr shortfall, Denver Water is relying on 16,000 AF/yr forthcoming from the implementation of additional conservation efforts [and [t]he development of new, firm yield is necessary to meet the remaining 18,000 AF/yr shortfall”; and

(2) Approximately 90% of the available reservoir storage and 80% of the available water supplies rely on the South System,” and “[t]his imbalance in reservoir storage and water supplies between the North and South systems has created water supply challenges that have resulted in: [u]nreliable water supply for the Moffat [Water Treatment Plant] and Moffat Collection System raw water customers, [s]ystem-wide vulnerability issues, [and] [l]imited operational flexibility of the treated water system.” *Id.*

Hence, although the Corps’ purpose and need statement focused solely on Denver Water’s purported need for 18,000 AF per year, the DEIS implied that alternatives would be rejected if they could not also satisfy the separate needs of reducing the Denver Water system imbalance, improving water supply reliability, and reducing system-wide vulnerability issues.

76. The Corps’ uncritical adoption, in its own purpose and need statement, of Denver Water’s assertions that 18,000 AF per year of new, annual firm yield is needed and that Denver

Water would face an annual water supply shortfall by 2016 relied heavily upon a January 2004 memorandum prepared by a consulting firm, Harvey Economics. In that memorandum, the firm analyzed the validity of Denver Water's February 2002 Integrated Resource Plan ("IRP") in which Denver Water determined that it needed 18,000 AF per year of new firm yield. However, the 2004 memorandum was not an independent analysis; Ed Harvey of Harvey Economics (who authored the 2004 memorandum) had previously served as the Managing Director of BBC Research & Consulting ("BBC"), which was the consultant hired by Denver Water that prepared the demand forecasting models that were then incorporated into Denver Water's 2002 IRP. Not surprisingly, therefore, Harvey Economics concluded that the methodologies and conclusions in the 2002 IRP were valid. In an August 2004 supplemental memorandum, Harvey Economics found that Denver Water's "water demand projections . . . are not excessive."

77. The DEIS explained that "Denver Water maintains a Strategic Water Reserve of 30,000 AF per year of firm yield to account for uncertainties in planning and forecasting and in operation of water supply infrastructure." DEIS at ES-1-14. This "safety factor," which "provides a level of insulation from demand exceeding supply," "is intended to be reserved for uncertainties and/or unforeseen events including . . . global warming . . . [a] drought . . . [c]atastrophic losses of system facilities . . . [f]aster or larger future demand increases than forecasted." *Id.*

78. As to the Corps' alternatives analysis, the DEIS explained that the agency applied two "screens" to filter out infeasible or impracticable alternatives. Screen 1 evaluated 303 potential water supplies and infrastructure components, and Screen 2 evaluated 34 specific project alternatives incorporating various components that satisfied Screen 1. *See* DEIS at ES-5.

As a result of this analysis, the Corps carried through six alternatives—five “action” alternatives which all included a significant expansion of Gross Reservoir, and a “no-action” alternative which would not involve a CWA permit from the Corps. *See* DEIS at ES-5-6.

79. Although the DEIS briefly mentioned climate change, it failed to take a hard look at this issue and, in particular, how climate change will likely affect the ability of the project (as compared to other alternatives) to satisfy Denver Water’s stated purpose and need. In particular, the DEIS noted that “[m]any scientific studies have predicted an increase in temperatures, resulting in changes in the composition of winter precipitation and the timing of spring snowmelt.” DEIS at 5-34. As a result, the Corps concluded “it is likely that the yield of the Moffat Collection System would decrease due to existing capacity constraints” because “[t]he Moffat Collection System canals and tunnels are only capable of transporting a certain amount of water before reaching hydraulic limitations” and “South Boulder Creek is only capable of transporting approximately 1,200 cfs at Pinecliffe before flooding concerns arise.” *Id.* Thus, the Corps determined “it is likely that hydrological limitations in the Moffat Collection System could decrease Denver Water’s yield” thereby “result[ing] in Denver Water building additional replacement sources to ensure an adequate supply of water for its customers.” DEIS at 5-34 – 5-35. However, the Corps did not actually analyze these likely effects of climate change or whether climate change renders the Moffat Project impracticable or infeasible for failing to satisfy Denver Water’s stated need for the project in the event that climate change renders it necessary to build additional infrastructure to satisfy at least a portion of the 18,000 AF of new firm yield that this project must purportedly supply to be practicable.

80. The DEIS also stated that “[c]limate change and global warming may be considered reasonably foreseeable; but currently, there is no accepted scientific method of transforming the general concept of increasing temperatures into incremental changes in stream flow or reservoir levels,” DEIS at 5-35. On that basis, the Corps did not address the cumulative impacts of climate change in the DEIS. The DEIS also failed to account for the impacts of the Moffat Project (as compared to alternatives) that would exacerbate climate change, such as the cutting of more than 500,000 trees to expand Gross Reservoir, major quarrying and construction activities for the new dam, and massive truck and related transportation during at least four years of new dam construction.

D. Comments on the Draft EIS

81. The Corps received several hundred comments on the DEIS, including from EPA, Boulder County, other affected municipalities, and several of the Petitioners.

82. Among other concerns, EPA stated that “[a]dequately defining the project purpose and need statement is critical for developing a broad range of alternatives in the Draft EIS, including subsequent identification of the least environmentally damaging practicable alternative,” and “recommend[ed] the Draft EIS purpose and need statement should be more broadly defined: ‘to provide a portion of additional water supply for Denver Water’s Combined Service Area future needs.’” EPA further explained that it had “significant issues” with the Corps incorporating four distinct needs in its purpose and need statement because “Denver Water’s desire to resolve all four problems with one federal action may have precluded identification of available, less damaging practicable alternatives.” Thus, “EPA’s

recommendation has been and continues to be that a single, basic project purpose with alternatives addressing that single purpose be defined.”

83. In addition, “EPA has concluded that it is an inappropriate interpretation of the Guidelines to integrate underlying project proponent needs into the project purpose and need statement or to use them as screening criteria, as this could result in elimination of alternatives that may otherwise be ‘practicable’ considering the basic/overall project purpose of water supply.” In turn, EPA concluded that the DEIS “incorrectly uses the applicant’s purpose and need as one of the screening criteria (i.e., PN2; must supply water to Moffat Collection System) when the Section 404(b)(1) Guidelines direct alternatives to be evaluated, along with practicability, based on its ability to fulfill the basic project purpose (i.e., additional water supply for the service area) not the applicant’s purpose and need for the project.” Thus, EPA urged the Corps to “reconsider the availability of potential practicable alternatives prior to a determination on the permit application.” EPA also raised concerns “that the preferred alternative may have significant impacts that should be avoided in order to protect the environment.”

84. As to climate change, EPA admonished the Corps’ “limited discussion” of the topic, and concluded “it is reasonable to consider this degree of uncertainty in operational design and analysis of this project, and a model should be developed that analyzes a scenario where flows are reduced substantially as a result of climate change,” and urged that “[e]stimates of potential incremental changes in hydrology due to climate change influences should be included in the cumulative impacts analysis and mitigation design.”

85. Commenters—including Petitioners—also pointed out that purpose and need statement in the DEIS was more than five years old at the time the 2009 DEIS was published and

is, for several reasons, no longer reflective of water demands in the Denver metropolitan area. In addition to having been developed after a severe drought, the 2009 DEIS does not take into consideration, as demonstrated by much more recent statistics, that Denver Water would be conserving water in larger quantities and more quickly than anticipated in Denver Water's 2002 IRP, resulting in a conservation savings of 29,000 AF of water by 2016 (13,000 AF more than the DEIS assumed would be conserved by 2030). In other words, due to the increased water savings, commenters pointed out that Denver Water may no longer need this project at all, or at minimum the water supply need was likely much smaller than the 18,000 AF originally identified.

86. Boulder County—the municipality where the Moffat Project would be constructed and thus where its impact will be most prominent—also submitted comments criticizing the DEIS. Boulder County urged that “the Corps must remove and replace the economic and demographic data used to project water demand, as well as reanalyze the effect greater conservation measures imposed by Denver Water on its customers would have on dampening demand for additional storage.” It then provided extensive criticisms of the DEIS's invalid purpose and need statement, erroneous population and economic growth projections, failure to consider recent developments affecting water demand, and understatement of future conservation potential. Boulder County also severely criticized the Corps' alternatives analysis and its screening process, for artificially screening our practicable alternatives from further consideration.

E. The Corps' 2014 Final EIS

87. In April 2014, nearly five years after publishing the DEIS, the Corps issued its FEIS—i.e., the final NEPA review document for this project—although little had changed from the DEIS to the FEIS from a substantive standpoint.

88. As to the project's purpose and need, the Corps' FEIS adopted the same purpose and need statement as in the DEIS, including the incorporation of four distinct needs that must be satisfied by this single project (to which EPA and other commenters had strenuously objected). The only change to the purpose and need statement from the DEIS was an acknowledgement that, due to water conservation and other intervening measures, Denver Water's projection of an annual water shortfall would now begin in 2022 (instead of 2016).

89. Despite comments and evidence submitted in response to the DEIS indicating that Denver Water's conservation efforts and related measures were saving far more water than originally projected—thus calling into question the need for this project (or at least raising the possibility of smaller, less damaging alternatives to fulfill a lesser water supply need)—the FEIS never grappled with this issue, and instead relied upon a 2012 update by Harvey Economics that the Corps erroneously characterized as an “independent” evaluation of water demand. In this update, Harvey Economics asserted that Denver Water's 2002 IRP demand assumptions and methodologies remained valid—despite being a decade outdated. Moreover, while acknowledging that Denver Water's customers were using far less water per day than prior to 2002 due to conservation and other efforts, neither Harvey Economics nor the Corps analyzed how these trends would, in the future, affect the need for this project and thus inform practicable alternatives to any genuine water supply shortages (should they occur in the future). Finally,

although Denver Water's 2002 IRP projections were based on demographic and related data from 1973-2000, Harvey Economics "determined that a re-estimation or new configuration of the water demand models was not needed," because "[t]he water demand models were originally estimated using 27 years of economic demographic data which is believed to be the sufficient historical period for estimating regression coefficients." Thus, rather than using current data at the time the FEIS was prepared to determine actual water demand, based on modern statistical trends, the Corps (via Harvey Economics) continued to base the FEIS's purpose and need on concededly outdated data that was not reflective of current conditions at the time the Corps issued the FEIS in 2014.

90. As to the alternatives analysis, the FEIS used the same general screening process as the DEIS, including incorporating the project proponent's purpose and need (and specifically a requirement that the selected action "[m]ust supply water to Moffat Collection System") as one of several screening filters, which artificially constrained the consideration of feasible, practicable alternatives that could have addressed any genuine water supply issues. The FEIS also carried through to its alternatives analysis the same five action alternatives as the DEIS (plus a no-action alternatives). All of the action alternatives included significantly enlarging Gross Reservoir.

91. The Corps' cursory statements about climate change in the FEIS mirrored those in the DEIS. The agency purported to justify its failure to discuss climate change on the ground that "[c]limate change and global warming may be considered reasonably foreseeable, but currently there is no accepted scientific method for taking the general concepts associated with climate change and transforming them into incremental changes in stream flow or reservoir levels." FEIS

at ES-12. Although the FEIS listed the amount of carbon dioxide emissions that would result from project construction, *see* FEIS at 5-408, it did not quantify—let alone evaluate—the impacts of releasing massive quantities of sequestered carbon dioxide by removing (and disposing of) more than 500,000 trees, nor did it actually analyze (rather than merely list) the climate change impacts related to project quarrying, construction, and transportation.

F. Comments on the Corps' Final EIS

92. The Corps received over 2,500 comments on the FEIS. Because little changed from the DEIS to the FEIS, many of the comments were very critical of the project, the Corps' decisionmaking process, the purpose and need statement, the demand projections, the alternatives analysis, and the failure to consider various impacts including those related to climate change.

93. Boulder County again submitted detailed comments, explaining that “the analysis in the FEIS remains inadequate on most issues raised in our 2010 comments and we urge you to review those comments anew.” In particular, Boulder County urged “a more robust discussion of the purpose and need for the project and alternatives to the Proposed Action, rather than simply accepting as an article of faith that the purpose and need are reasonable objectives that can't be met through conservation and a combination of smaller projects that are less environmentally detrimental.” The county explained that “the potential for water conservation and efficiency in Denver Water's existing system have been understated and the Denver Water's price structure is too low, sending a weak conservation price signal.” As to climate change, Boulder County explained that “the 50,000 tons of trees contain the equivalent of 66,000 tons of sequestered carbon dioxide, which is several times more than the carbon footprint of the remainder of the

Proposed Action (as shown in Table 5.13-1), but this impact is not thoroughly analyzed.” In addition, the County noted that “[n]o part of the construction of the Proposed Action is ordinary; there has never been a construction project of this size anywhere in Boulder County and Boulder County has deliberately zoned its rural mountain areas to preclude large-scale industrial development.”

94. After holding a public hearing for Boulder County residents, Boulder County submitted supplemental comments on the FEIS raising additional issues. For example, it explained that “Boulder County believes that the range of alternatives has been unreasonably restricted by its narrowly defined Purpose and Need, precluding the consideration of any alternative that would serve Denver Water’s customers with a secure and reliable water supply, such as enhanced conservation and efficiency or a combination of other small projects throughout its system, but which would not [involve bringing water each year] through the Moffat Treatment Plant.” As to the Corps’ refusal to consider climate change and its impact on this project (and the underlying need for the project), Boulder County stated that “the Corps’ conclusion that there is no way to include climate change in its modeling is wrong, as there is a consensus in the scientific community that there are accepted scientific methods to predict future stream flows and there is a consensus that climate change will cause a reduction in runoff from streams, on both the east and west slope of Colorado, in measurable amounts, in the near future.” In turn, the county explained that “[i]f stream flows diminish by 15-30% within the next 35 years, as predicted in the scientific literature . . . , Denver Water will not be able to fill an enlarged Gross Reservoir, an enlarged Gross Reservoir will not provide a firm yield of 18,000

acre feet per year and the Proposed Action will not meet the stated Purpose and Need for the project.”

95. Some of the Petitioners also submitted nearly a dozen separate comment letters raising major concerns with many critical aspects of the decisionmaking process. Among other issues addressed in detail in those comments were the arbitrary and artificially narrow purpose and need statement, the highly skewed alternatives analysis, the elimination of practicable alternatives from consideration, the erroneous demand projections underlying the need for the project, and the project’s failure to consequentially increase the “balance” in Denver Water’s system. Comments also highlighted the Corps’ failure to address climate change as it relates to the project’s ability to satisfy Denver Water’s purpose and need and also to the impacts of the project, the Corps’ failure to analyze this project’s impacts on downstream users in Colorado and adjacent States, including by increasing the likelihood of a Compact call, and information suggesting that the Moffat Project is much more expensive than stated in the FEIS thereby skewing the practicability and alternatives analyses undertaken by the Corps, which eliminated many alternatives on the basis of cost as compared to the project. In addition, Petitioners provided extensive information about the recent phenomenon of “decoupling,” in which population growth and economic activity are not correlated with increases in water demand—which is consistent with Denver Water’s own recent data showing population increases in the Denver metropolitan area at the same time that overall water demand has generally remained constant or, in some years, even decreased. Petitioners explained that this new data called into question the need for this project, since the outdated 2002 projections (and the pre-2000 data

upon which they were based) failed to account for robust new data concerning modern, on-the-ground decoupling and other crucial facts.

96. An independent expert—Lisa Buchanan of LRB Hydrology & Analytics—also reviewed aspects of the project, submitting an expert report in October 2015. Among various critiques, Ms. Buchanan concluded that the Corps adopted an artificially narrow purpose and need statement that unlawfully screened out practicable alternatives that could satisfy the project’s purpose and need.

97. Although the Corps responded to some of the public comments submitted in response to the FEIS, the Corps did not conduct any further NEPA analysis of this project, its impacts, or feasible alternatives to it after receiving extensive comments on the FEIS.

G. The Service’s June 17, 2016 Biological Opinion

98. In June 2016, the Service issued a biological opinion under Section 7 of the ESA for green lineage cutthroat trout (“cutthroat trout”), authorizing the Corps (and Denver Water) to proceed with the Moffat Project in compliance with the ESA.

99. The Service acknowledged that “[w]ater diversions can . . . result in entrainment of fish at diversion sites that are not screened, generally resulting in the loss of the fish from the population,” and also that “[w]ater depletions could become a greater threat in the future [to the cutthroat trout] under expanded drought cycles and climate change.” Elsewhere in the biological opinion, the Service explained in more detail the ongoing threats to cutthroat trout posed by climate change and drought cycles, noting that reductions in precipitation, increased wildfires, and other climate-related events will increase the vulnerability of these trout populations. Nevertheless, in estimating the current baseline population of cutthroat trout in an attempt to

quantify the impact of these water diversions on the cutthroat trout populations located in the four streams that will be impacted—Bobtail Creek and Steelman Creek in the Upper Williams Fork Drainage, and Hamilton Creek and Little Vazquez Creek in the Fraser River Drainage—the Service ignored or downplayed the ongoing climate change and drought risks, instead assuming that outdated, incomplete, and highly variable survey data represented current population numbers.

100. The Service (and the Corps) also relied upon a simplistic three-model averaging approach, developed by a third-party consultant (GEI), as the Service’s means of estimating “take” of cutthroat trout via entrainment. However, not only were the modeling inputs (i.e., population estimates in these creeks) likely significant overestimates, given that they are based on outdated surveys with large variability in their confidence intervals, but there is also no support in the scientific literature for the modeling output adopted by GEI and the Service (i.e., that no more than 10% of the cutthroat trout will be entrained by the combined water diversions analyzed in the biological opinion).

101. After applying GEI’s modeling to this project, the Service issued the following Incidental Take Statement (“ITS”):

Take is anticipated due to entrainment of approximately 341 fish per year resulting from the implementation of the proposed action under the Current, Full, and Moffat Project water diversion levels. Take is also anticipated due to disturbance, habitat degradation, and potential injuries that would harm up to 16 fish per year as a result of Denver Water’s operation and maintenance activities. Collectively, we anticipate that these impacts would result in an annual incidental take of 357 fish for the combined green lineage cutthroat trout streams within the action area.

Although the Service’s annual take authorization of 341 cutthroat trout from entrainment was based entirely on modeling (with suspect inputs and outputs), the Service did not require as a

term or condition of the 2016 biological opinion that the Corps or Denver Water install screens on the diversion structures to reduce the level of entrainment, despite acknowledging that “[d]iversion of water from streams within the action area, including the green lineage cutthroat trout streams, is believed to be resulting in entrainment of fish due to the lack of screens on the diversion structures.” Nor did the Service even require the Corps or Denver Water to actually count or survey the number of cutthroat trout entrained by the action to determine whether it is consistent with the modeling estimates, instead merely stating “it is difficult to evaluate the project’s potential entrainment impacts in the absence of an entrainment study.”

102. On that basis, the Service concluded that the action—including the entrainment of up to 341 cutthroat trout *every year*, which “generally result[s] in the loss of the fish from the population”—“is not likely to result in jeopardy to the species.” At the same time, the Service did not impose any binding RPMs, terms, or conditions in the biological opinion that would assess whether the modeling-based entrainment estimate of 341 cutthroat trout is accurate. Instead, the Service stated that it “would consider that the amount or extent of incidental take resulting from entrainment is exceeded if project diversions are greater than those analyzed by the Corps’ EIS and the Corps’ BA (2015) and consulted for in this biological opinion.” In other words, so long as Denver Water diverts the amount of water evaluated in the biological opinion, there is no mechanism for reinitiating Section 7 consultation even if *in fact* far more than 341 cutthroat trout are entrained by the actions analyzed in the biological opinion.

H. The Corps’ 2017 Record Of Decision and CWA Section 404 Permit

103. On July 6, 2017, the Corps issued its signed ROD authorizing Denver Water to construct and operate the Moffat Project. At the time the Corps issued the ROD, at least 15 years

of data contradicted the steep and steady increases in water demand projected by Denver Water in 2002. In fact, those fifteen years of more recent data showed that demand had actually leveled off or slightly decreased from 2002 to 2017 (despite an increasing local population)—data which was never evaluated in any formal analysis by the Corps (or Harvey Economics), which instead based its projections on stale, pre-2000 data.

104. The ROD stated that “[t]he Corps independently evaluated the updated projections in 2010 and found them reasonable for use in the Final EIS.” In so doing, however, the Corps pointed to only two documents in an appendix to the FEIS, which were not prepared by the Corps, but instead were prepared by Denver Water (FEIS Appendix A-4) and by Ed Harvey of Harvey Economics (FEIS Appendix A-5)—i.e., the same consultant who developed the 2002 IRP demand model for Denver Water which these subsequent documents purport to justify. Thus, not only has the Corps failed to commission any external “independent” evaluation of water demand, but the Corps itself has not conducted any internal “independent” analysis of water demand before authorizing this project.

105. In an appendix to the ROD, the Corps purported to respond to some of the comments submitted in response to the FEIS. With respect to the glaring flaws in the demand projections highlighted by Petitioners, Lisa Buchanan, Boulder County, and others, the Corps acknowledged for the first time that “Denver Water customers are using 22% less water than they were prior to the 2002 drought and are verifying that these savings are permanent,” but it failed to analyze how these important new trends affect the need for this project in the first instance. Rather than actually evaluate this issue in detail, the Corps dismissed the issue by asserting that “[w]ater supply is only a portion of Denver Water’s need” and “[f]ailing to address

any one of the [needs] would jeopardize Denver Water's ability to meet projected demand needs." In other words, despite the Corps' (and Denver Water's) longstanding insistence that Denver Water needed 18,000 AF of firm yield per year and that this was the primary need driving the project, the Corps' response suggested that the Moffat Project is a foregone conclusion even if new data establishes that, in fact, Denver Water will no longer have a water supply shortfall in the future. In addition, despite many detailed comments by Save the Colorado regarding various omissions in the FEIS, including the Corps' failure to analyze this project's impacts to downstream users in Colorado and other States, as well as this project's effect of increasing the likelihood of a Compact call under the Colorado River Compact of 1922, the Corps brushed aside these concerns and asserted that the Corps need not interpret or address what might occur pursuant to interstate compacts.

106. On September 8, 2017, the Corps issued a CWA Section 404 permit to Denver Water authorizing construction of the project.

I. Petitioners' August 2018 ESA Notice Letter

107. On August 23, 2018, pursuant to 16 U.S.C. § 1540(g)(2), Petitioners submitted a formal 60-day notice letter expressing their intent to sue the Corps and the Service for several distinct ESA violations, including that: 1) the June 17, 2016 biological opinion failed to incorporate the best available scientific evidence; 2) the Service failed to require, in its biological opinion, any RPMs, terms, or conditions designed to reduce entrainment of cutthroat trout, or even to require the Corps or Denver Water to measure the amount of entrainment, in violation of the Service's legal duties; 3) the Service's ITS violated the ESA and its regulations in several ways; 4) the Service's no-jeopardy conclusion was arbitrary and capricious; and 5) the Corps is

arbitrarily relying on a legally deficient biological opinion that will result in the violation of Sections 7 and 9 of the ESA by the Corps (as well as Denver Water if it acts pursuant to the faulty biological opinion and ITS issued to the Corps). As a result of these myriad violations, Petitioners requested that the Corps and the Service reinstate Section 7 consultation pursuant to 50 C.F.R. § 402.16.

108. Included with Petitioners' ESA notice letter was a technical report prepared by Dr. Brett Johnson, who is a Professor in the Department of Fish, Wildlife and Conservation Biology at Colorado State University, and who has decades of experience teaching fisheries courses and conducting scientific field research on river and fisheries management and conservation. In his report, Dr. Johnson expressed his expert opinion that "currently available information [in the biological opinion] is inadequate to estimate entrainment accurately and reach a decision on the project that protects green lineage Cutthroat Trout in the affected streams in the manner required by the Endangered Species Act." In particular, Dr. Johnson criticized the overly "simplistic" assumptions built into the model for projecting the amount of take, and then determined that "it is my professional opinion that the Service's conclusion that the diversions analyzed in the Biological Opinion (2016) will not jeopardize these populations of Cutthroat Trout is arbitrary and cannot be verified with reasonable scientific certainty based on the outdated and variable population estimates set forth in the Biological Opinion." Dr. Johnson concluded his report with this statement: "it is my professional opinion that currently available information [in the biological opinion] is inadequate to reach a well-informed decision on the project that protects green lineage Cutthroat Trout in the affected streams in the manner required by the ESA, which directs the Service to ensure that water diversions and other actions will

avoid jeopardizing the species' survival and recovery prospects." "To protect green lineage fish, I suggest that the Service simply require the project proponent to screen the diversions to prevent (or at least reduce) entrainment, or at minimum conduct a rigorous entrainment rate study to determine whether the actual effects of these water diversions affirm the modeling estimates of take set forth in the Biological Opinion."

109. On October 17, 2018, Denver Water responded to Petitioners' ESA notice letter. Denver Water "maintain[ed]" that the biological opinion and ITS "meet the requirements of the Endangered Species Act," but nevertheless agreed to "propos[e] to the [Service] an adaptive management approach to monitor 'take' of green lineage cutthroat trout." According to Denver Water, "[t]he proposed plan will provide the Service with another method to estimate baseline and Project 'take' numbers of green lineage cutthroat trout." In its written response, Denver Water did not provide any additional details about its vague monitoring regime, nor did Denver Water suggest that this monitoring effort would be the subject of reinitiated consultation and incorporated in a new or revised biological opinion which would impose this measure as an enforceable term or condition against the Corps and/or Denver Water—i.e., the only mechanism under Section 7 of the ESA for ensuring that the substantive safeguards of the Act have been satisfied. Nor did Denver Water mention—let alone respond to—Dr. Johnson's detailed expert critique of the various deficiencies in the biological opinion, or explain whether or how this new monitoring regime would ensure rigorous methodology and scientifically defensible results.

110. On October 26, 2018, the Service responded to Petitioners' ESA notice letter with a brief letter. The Service's letter ignored most of the issues raised in Petitioners' notice letter, and merely referenced that fish screens likely would be "operable for only 4.5 months of a given

year.” The Service also asserted that “Denver Water has considered your suggestion that monitoring should occur in order to evaluate potential entrainment, and is proposing a monitoring plan to evaluate potential entrainment of green lineage cutthroat trout.” As with Denver Water’s response, the Service did not suggest that the Service and the Corps would be reinitiating Section 7 consultation, even for the limited purpose of incorporating Denver Water’s new monitoring plan as a mandatory term or condition of a new or revised biological opinion. Nor did the Service mention—let alone respond to—Dr. Johnson’s detailed expert critique of various deficiencies in the biological opinion.

111. The Corps did not send a formal response to Petitioners’ ESA notice letter, but informed Petitioners’ counsel on November 1, 2018 that the Corps “coordinated with the [Service] on the issues raised in your letter.”

J. Petitioners’ August 2018 Letter Requesting Supplemental NEPA Review

112. On August 24, 2018, Petitioner Save the Colorado submitted a formal request for supplemental NEPA review pursuant to 40 C.F.R. § 1502.9(c). In that letter, Save the Colorado explained five distinct grounds for why the supplemental NEPA criteria were satisfied, and attached extensive new information, including statements by FERC (the Corps’ sister agency and a cooperating agency on this project) indicating that the Corps’ FEIS was deficient in certain respects. The request also included recent information published by Denver Water that the Moffat Project will cost at least \$464 million, more than three times the amount assumed in the FEIS which served as the baseline for determining the practicability of alternatives on cost grounds, as well as extensive comments and detailed technical reports prepared by independent experts in hydrology, engineering, statistical analysis, and related fields criticizing the Corps’

(and Harvey Economics’) methodologies and water demand projections, including whether there is even a need for this project in the first instance. Finally, the request attached the post-ROD comments of Boulder County questioning many of the underlying assumptions of the FEIS and ROD due to recent information, and the biological and legal information presented in Petitioners’ ESA notice letter. In total, Save the Colorado placed hundreds of pages of detailed new information before the Corps that had never before been considered or analyzed by that agency in the 2014 FEIS and which called into serious question key underpinnings of the FEIS and ROD.

113. On October 26, 2018, the Corps responded to Save the Colorado’s formal request for supplemental NEPA review in a cursory, one-page letter. Without any explanation for how it reached its conclusion or the basis for its decision, the Corps stated that it “determined that supplemental NEPA is not required because the proposed action has not been substantially changed, there are no new significant circumstances, and there is no new significant information relevant to environmental concerns.” Thus, the Corps made clear that it will not prepare any supplemental NEPA review for this project in response to Save the Colorado’s request.

K. Petitioners’ December 2018 Letter Requesting Supplemental NEPA Review

114. On December 3, 2018, Petitioner Save the Colorado submitted a new formal request for supplemental NEPA review pursuant to 40 C.F.R. § 1502.9(c). In that letter, Save the Colorado identified and attached two recently obtained memoranda prepared by BBC in 2000 and 2001—under the direction and supervision of Ed Harvey, now with Harvey Economics—calling into question the independence of the sole contractor hired by the Corps (i.e., Harvey Economics) to evaluate the validity of Denver Water’s asserted purpose and need underlying this

project. Because these documents, which were obtained in November 2018 from Denver Water through a Colorado Open Records Act request, suggest that Harvey Economics could not (and did not) analyze Denver Water's demand projections in an impartial and unbiased manner, Save the Colorado requested that the Corps, at bare minimum, prepare supplemental NEPA review to address this significant new information that bears directly on the project's purpose and need, as well as the alternatives analysis that flows directly from the purpose and need adopted by the Corps. In the letter, Save the Colorado asked the Corps to respond by December 17, 2018.

115. On December 17, 2018, the Corps responded to Save the Colorado's letter via email to undersigned counsel, requesting additional time to prepare a response. Although the Corps said it might be able to provide a response by mid-January of 2019, the agency did not commit to any specific deadline for providing a response or making the threshold determination as to whether supplemental NEPA review is required under these circumstances.

PETITIONERS' CLAIMS FOR RELIEF

Claim 1: Violations of NEPA and the APA

116. Petitioners hereby incorporate Paragraphs 1-115 by reference.

117. By failing to "exercise independent judgment in defining the purpose and need for the project," 33 C.F.R. Part 325 App. B § 9(b)(4), and instead adopting the purpose and need identified by Denver Water and thereby artificially narrowing the analysis of feasible alternatives that could achieve the underlying purpose and need, the Corps violated NEPA, its implementing regulations, and the APA.

118. By failing to "exercise independent judgment in defining the purpose and need for the project," 33 C.F.R. Part 325 App. B § 9(b)(4), and by failing to independently verify that

Denver Water in fact needs 18,000 AF per year of firm yield to address actual near-term water supply shortfalls, the Corps violated NEPA, its implementing regulations, and the APA.

119. By failing to independently determine that the other purported needs identified by Denver Water would in fact be satisfied by the project, especially where evidence demonstrates that the project will fail to consequentially increase the “balance” in the system that Denver Water deems essential, the Corps violated NEPA, its implementing regulations, and the APA.

120. By failing to independently establish that the Moffat Project will in fact achieve its stated purpose and needs for the foreseeable future in light of consensus-based projections of climate change, the increased likelihood of a Compact call, and other relevant factors, the Corps violated NEPA, its implementing regulations, and the APA.

121. By adopting four conceptually distinct needs in its purpose and need statement (firm yield, reliability, imbalance/vulnerability, and flexibility) and requiring a single federal action to address and satisfy each distinct need, and then incorporating these needs into the screening criteria for determining the practicability of alternatives, the Corps arbitrarily eliminated from consideration alternatives that could satisfy some (but not all) of these needs and also alternatives that in combination could satisfy all four needs, but individually could only satisfy some of the stated needs, in violation of NEPA, its implementing regulations, and the APA.

122. By failing to establish that the four distinct needs set forth in the purpose and need statement must be addressed by a single federal action (and cannot be addressed through separate federal or non-federal actions), the Corps acted arbitrarily and capriciously in violation of NEPA, its implementing regulations, and the APA.

123. By failing to “[r]igorously explore and objectively evaluate all reasonable alternatives” to the Moffat Project, 40 C.F.R. § 1502.14(a), including by artificially narrowing the purpose and need and adopting arbitrary screening criteria as part of the alternatives analysis, the Corps violated NEPA, its implementing regulations, and the APA.

124. By only analyzing in detail alternatives that were capable of storing at least 15,000 AF of water supply in a surface impoundment, thereby eliminating from examination smaller impoundment projects, non-infrastructure means of reducing water demand, and advanced conservation measures that could individually or collectively satisfy the basic project purpose, the Corps violated NEPA, its implementing regulations, and the APA.

125. By only analyzing in detail alternatives that would include supplying new, clean water to the Moffat Treatment Plant (i.e., Denver Water’s “north system”), the Corps arbitrarily refused to examine other means of meeting the basic project purpose in violation of NEPA, its implementing regulations, and the APA.

126. By analyzing in detail five action alternatives—all of which involve the same action of significantly expanding Gross Reservoir (albeit at different storage capacities)—the action alternatives are virtually indistinguishable and fail to constitute a reasonable range of alternative means of serving the basic project purpose, in violation of NEPA, its implementing regulations, and the APA.

127. By failing to take a hard look at the cumulative impacts of and foreseeable consequences of climate change in light of available scientific evidence, and by failing to account for how future climate change models and predictions affect the ability of the Moffat Project to satisfy the stated purpose and need for this project (without requiring additional

infrastructure projects to satisfy at least a portion of this same water demand need), the Corps violated NEPA, its implementing regulations, and the APA.

128. By failing to take a hard look at this project's climate change impacts and at how the project will exacerbate the adverse ecological effects of climate change as compared to less environmentally damaging alternatives, including by failing to quantify or evaluate the loss of sequestered carbon in the future due to the cutting of more than 500,000 trees, or the carbon that will be released through the disposal of this vast quantity of trees, and by failing to analyze the major climate change impacts related to project quarrying, construction, and transportation, the Corps violated NEPA, its implementing regulations, and the APA.

129. By failing to take a hard look at this project's impacts on downstream users in Colorado and other States located within the Colorado River basin, including the failure to analyze the increased likelihood of a Compact call in light of this project and the consequent environmental impacts of that action, the Corps violated NEPA, its implementing regulations, and the APA.

130. By failing to prepare an SEIS—or any supplemental NEPA review at all—when presented with new information triggering the regulatory criteria for NEPA supplementation, *see* 40 C.F.R. § 1502.9(c), and by reaching the arbitrary and capricious decision that NEPA supplementation was not required under the circumstances without providing any coherent and legally defensible explanation for this decision, the Corps violated NEPA, its implementing regulations, and Section 706(2) of the APA, *see* 5 U.S.C § 706(2).

131. By failing to prepare an SEIS—or any supplemental NEPA review at all—after the Corps’ legal duty to do so was triggered under NEPA, the Corps’ inaction constitutes agency action “unlawfully withheld or unreasonably delayed” pursuant to Section 706(1) of the APA.

132. For all of these reasons, Federal Respondents’ actions and omissions violate NEPA, its implementing regulations, and the APA. Petitioners are harmed by these violations in the manner described in paragraphs 12-31.

Claim 2: Violations of the CWA and the APA

133. Petitioners hereby incorporate Paragraphs 1-115 by reference.

134. By skewing the purpose and need for this project and by artificially narrowing the range of practicable alternatives through screening criteria and otherwise as alleged in paragraphs 117-126, the Corps did not select the least environmentally damaging practicable alternative that could achieve the basic project purpose, therefore violating the CWA, its implementing regulations, and the APA.

135. By failing to accurately present the full costs of the Moffat Project in the FEIS and ROD, and by failing to include relevant mitigation, permitting, and other necessary costs of the Moffat Project which serve as the baseline against which alternatives and their costs were compared (and filtered out if their costs were deemed impracticable), the Corps violated the CWA, its implementing regulations, and the APA.

136. For all of these reasons, Federal Respondents’ actions violate the CWA, its implementing regulations, and the APA. Petitioners are harmed by these violations in the manner described in paragraphs 12-31

Claim 3: Violations of the ESA and the APA

137. Petitioners hereby incorporate Paragraphs 1-115 by reference.

138. By relying on outdated and highly variable population estimates as modeling inputs to quantify take of cutthroat trout, by failing to adequately account for recent evidence of climate change, wildfires, and other climate-related events affecting this species, and by adopting an overly simplistic and biologically indefensible model for quantifying take that fails to incorporate the best available scientific evidence, the Service acted arbitrarily and capriciously, and in violation of the ESA, its implementing regulations, and the APA in issuing its June 17, 2016 biological opinion.

139. By failing to specify any RPMs to minimize or at least reduce entrainment in the four affected cutthroat trout streams, and by failing even to impose any mandatory terms and conditions for monitoring and reporting the number of cutthroat trout entrained by these diversions, the Service's June 17, 2016 biological opinion violates the ESA, its implementing regulations, and the APA.

140. By refusing to require as a term and/or condition of a biological opinion that Denver Water or the Corps must implement fish screens to reduce entrainment of cutthroat trout on the grounds that fish screens likely would be operable for only 4.5 months per year, the Service violated the ESA, its implementing regulations, and the APA.

141. By issuing an ITS without verifying the real-world validity of the take estimate contained therein, and by failing to explain why it is "difficult" to evaluate the real-world impacts of the project's diversions, the Service's June 17, 2016 biological opinion violates the ESA, its implementing regulations, and the APA.

142. By implicitly adopting a surrogate for cutthroat trout take without explaining why a surrogate is appropriate or why this particular surrogate is a proper proxy for entrainment take of cutthroat trout, and by adopting a surrogate that fails to set a clear trigger for reinitiation of consultation in the event that the take threshold is exceeded, the Service's June 17, 2016 biological opinion violates the ESA, its implementing regulation, and the APA.

143. By collapsing two distinct reinitiation triggers under the ESA's implementing regulations into one, *see* 50 C.F.R. § 402.16(a), (c), the Service's June 17, 2016 biological opinion violates the ESA, its implementing regulations, and the APA.

144. By failing to rely upon the best available scientific evidence, and by failing to adopt any measures actually designed to reduce (or at least monitor) the amount of take of cutthroat trout as enforceable RPMs, terms, or conditions, the June 17, 2016 biological opinion and the Service's no-jeopardy conclusion found therein are arbitrary, capricious, and violate the ESA, its implementing regulations, and the APA.

145. By relying upon the Service's fatally flawed June 17, 2016 biological opinion, the Corps is violating in various ways Section 7 and Section 9 of the ESA, by authorizing actions that will adversely affect and take cutthroat trout in the absence of a lawful ITS supported by a legally compliant biological opinion, in violation of the ESA, its implementing regulations, and the APA.

146. By failing to reinitiate consultation on October 26, 2018 in response to the evidence presented in Petitioners' ESA notice letter, and by failing to respond at all to many of the points raised in that letter or the detailed expert comments of Dr. Brett Johnson, the Service and the Corps violated the ESA, its implementing regulations, and Section 706(2) the APA.

147. By failing to reinitiate consultation after the Corps' and the Service's legal duty to do so was triggered under the ESA, the Corps' and the Service's inaction constitutes agency action "unlawfully withheld or unreasonably delayed" pursuant to Section 706(1) of the APA.

148. For all of these reasons, Federal Respondents' actions and omissions violate the ESA and the APA. Petitioners are harmed by these violations in the manner described in paragraphs 12-31.

PRAYER FOR RELIEF

WHEREFORE, Petitioners respectfully request that the Court enter judgment for Petitioners ordering the following relief:

1. Declaring that Respondents have violated NEPA, the CWA, the ESA, and the applicable regulations implementing those statutes, and also have acted arbitrarily, capriciously, and contrary to law under the APA, and unlawfully withheld action required by law in violation of the APA;
2. Setting aside the Corps' April 2014 FEIS, July 2017 ROD, September 2017 CWA Section 404 permit, and the Corps' October 26, 2018 decision not to conduct any supplemental NEPA review; the Service's June 17, 2016 biological opinion; and the Service's and the Corps' October 26, 2018 decision not to reinitiate ESA consultation; and remanding those matters to the Corps and the Service for further consideration consistent with federal law;
3. Enjoining the Corps and the Service from taking any further actions in furtherance of this project until those agencies have fully complied with federal law;

4. Awarding Petitioners their costs of litigation, including reasonable expert fees and attorneys' fees, pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412, the ESA's citizen suit provision, 16 U.S.C. § 1540(g)(4), and/or any other applicable provision of law; and

5. Granting Petitioners such further relief as may be necessary and appropriate or as the Court deems just and proper.

Respectfully submitted,

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