UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

	)	
	)	Project No. 15024-000
	)	
Pumped Hydro Storage, LLC	)	**MOTION TO INTERVENE BY SAVE THE COLORADO, GRAND CANYON TRUST, LIVING RIVERS & COLORADO RIVERKEEPER, NATIONAL PARKS CONSERVATION ASSOCIATION, SIERRA CLUB, WATERKEEPER ALLIANCE, INC., AND WILDEARTH GUARDIANS**
	)	
Preliminary Permit Application for Big Canyon Pumped Storage Project	)	
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August 3, 2020

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INTRODUCTION

On June 2, 2020, the Federal Energy Regulatory Commission issued a notice of acceptance of Pumped Hydro Storage, LLC's ("Pumped Hydro") application for a preliminary permit for the Big Canyon Pumped Storage Project (the "Big Canyon Project") (Project No. 15024-000).[1] Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, Save the Colorado, Grand Canyon Trust, Living Rivers & Colorado Riverkeeper, National Parks Conservation Association, Sierra Club, Waterkeeper Alliance, Inc., and WildEarth Guardians (collectively, the "Conservation Coalition") hereby move to intervene in the preliminary permit proceeding and oppose the requested permit. *See* 18 C.F.R. § 385.214. This motion to intervene is timely because it is filed within the 60-day window initiated by the Commission's notice of acceptance dated June 2, 2020. *See id.* §§ 385.210(b), 385.2007(a)(2).

This proceeding involves the third pumped storage project that Pumped Hydro has recently proposed in the vicinity of the lower Little Colorado River. All three projects would be located near one another on the Navajo Nation, just miles outside Grand Canyon National Park. Previously, Pumped Hydro proposed two projects that would dam the Little Colorado River. These two projects drew strong opposition from tribes, environmental groups, and members of the public because constructing dams on this stretch of the Little Colorado River would very likely eliminate the humpback chub's most important critical habitat in the Grand Canyon

[1] In its application, Pumped Hydro named this project the Navajo Nation Big Canyon Pumped Storage Project. The Commission has omitted "Navajo Nation" from the project's name because the project is not in any way affiliated with the Navajo Nation.

and destroy several Traditional Cultural Properties. In response to this overwhelming opposition, Pumped Hydro has proposed a third project that is at issue here, which Pumped Hydro apparently believes will be less harmful and less controversial because it would move the necessary dams and reservoirs onto a tributary of the Little Colorado River, rather than in the Little Colorado River itself. However, the Big Canyon Project suffers from largely the same insurmountable problems that the prior two projects do.

The core and unresolvable problem with the Big Canyon Project is that it would destroy the ecological and spiritual integrity of the final reaches of the Little Colorado River as it flows into the Grand Canyon. This section of the Little Colorado River often takes on a vivid, turquoise color due to a complex of aquifer-fed springs that send warm, limestone-rich water over travertine dams, before it flows into the muddy Colorado River in the Grand Canyon. The confluence of these two rivers with contrasting waters is otherworldly and renowned. The confluence is also essential to the survival and recovery of the endangered humpback chub, and it is a sacred place to many Native peoples. This area is invaluable and irreplaceable, and it is unsuitable for hydropower development.

The Commission should dismiss the preliminary permit application for the Big Canyon Project for two primary reasons. First, Pumped Hydro lacks the requisite "fitness" for a preliminary permit and is unlikely to diligently pursue this speculative project. One of Pumped Hydro's two principal members has a long history of denied, canceled, and surrendered preliminary permits. Moreover, Pumped Hydro has filed an excessive number of preliminary permit applications, and it is unlikely to pursue all of these projects. Perhaps most telling, one of

Pumped Hydro's principal members was reportedly surprised that the Commission issued preliminary permits for the previous two proposals on the Little Colorado River, because when the Commission issued the permits the company had already decided it would likely not move forward with those projects. Pumped Hydro's latest proposal remains excessively speculative and unlikely to proceed to licensing.

Second, even if Pumped Hydro were to file a license application, the Commission will very likely deny the license. To fill the project's reservoirs, the company proposes to pump enormous amounts of groundwater from the same aquifer system that provides the base flow for the humpback chub's critical habitat and primary spawning grounds in the lower Little Colorado River. This region is arid, and this aquifer system is already under considerable demand. The large amount of groundwater pumping required for this project would likely drastically alter the Little Colorado River's flow and temperature, and it is implausible that this could occur in compliance with the Endangered Species Act's protections for the humpback chub. The project would also interfere with the exceedingly complex operation of Glen Canyon Dam, further hindering humpback chub recovery.

In addition, although the Big Canyon Project would be located entirely on Navajo Nation lands, the Navajo Nation has not supported this project. Moreover, a number of other tribes opposed Pumped Hydro's previous projects on the Little Colorado River, due in part to the projects' impacts on Traditional Cultural Properties and other sacred areas that are important to Native peoples. The Commission must consult with all impacted tribes under the National Historic Preservation Act before it licenses the project. Any opposition or lack of support from tribes serves as a profound, if not insurmountable, obstacle to the project's

ultimate approval. Moreover, if the Navajo Nation continues to not support the project, Pumped Hydro will face numerous legal and policy barriers that would prevent the Commission from issuing a license.

For these reasons, issuing a preliminary permit for the Big Canyon Project would needlessly sow controversy and unreasonably expend the Commission's limited resources. The Commission should therefore dismiss the preliminary permit application.

BACKGROUND

I. The lower Little Colorado River

Located about five miles from Grand Canyon National Park, the Big Canyon is a mostly dry tributary of the lower Little Colorado River. The Little Colorado River is a tributary of the Colorado River, with its confluence located seventy-six river miles downstream from Glen Canyon Dam.[2] While the Little Colorado River was once a perennial stream except in years of drought, water depletion for domestic, industrial, and agricultural uses have transformed the river into an intermittent stream.[3] During most of the year, there is no surface flow in much of the lower Little Colorado River, and the river flows perennially at the confluence only because of a complex of springs that emerge from a large regional groundwater aquifer system in roughly the last dozen miles of the river's course.[4]

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[2] *See* U.S. Bureau of Reclamation, *Little Colorado River Management Plan* 14 (May 2009), https://tinyurl.com/ydo4nqp2 [hereinafter LCR Management Plan] (Attach. 1).

[3] *Id.* at 16.

[4] *Id.* at 16–17, 20.

This complex of springs—the largest of which is Blue Springs—contribute approximately half the long-term total flows of the lower Little Colorado River.[5] Groundwater from these springs is responsible for base flow in the absence of surface flow.[6] The spring water emerges at about 70°F, a temperature that far exceeds the cold, dam-controlled flows of the Colorado River.[7] As a result, this short stretch of the Little Colorado River is a safe haven for species, such as the humpback chub, that cannot thrive in the mainstem's cold waters.[8] The springs are also the reason for the Little Colorado River's striking turquoise color, due to the water's unusual chemical composition.[9]

Over 99% of the Blue Springs complex flow is discharged from a multiple aquifer system within the Redwall and Muav Limestones coming primarily from the Coconino aquifer, a large underground aquifer that underlies much of the Little Colorado River basin.[10] In the Little Colorado River canyon region, the Coconino aquifer drains downward into the Redwall-Muav aquifer; water issuing from the Redwall Limestone primarily discharges into Blue Springs in the lower Little Colorado River and into Havasu Springs in Havasu Creek (which is the location of a recent successful translocation of humpback chub).[11]

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5 *Id.* at 17–18.

6 *Id.* at 18; U.S. Fish & Wildlife Serv., *Species Status Assessment for the Humpback Chub (Gila cypha)* 65 (Mar. 2018), https://tinyurl.com/y4qqbnwr [hereinafter Species Status Assessment] (Attach. 2).

7 LCR Management Plan at 17 (Attach. 1).

8 Species Status Assessment at 16, 22 (Attach. 2).

9 LCR Management Plan at 17 (Attach. 1).

10 *Id.* at xi, 20; Species Status Assessment at 66 (Attach. 2).

11 LCR Management Plan at 20 (Attach. 1); Species Status Assessment at 66 (Attach. 2).

There is currently a "considerable amount of groundwater pumping" from the Coconino aquifer.[12] Because of the aridity of this region and population growth, the area has become increasingly dependent on groundwater.[13] Approximately 85,000 acre-feet of water is pumped from this aquifer each year for a variety of municipal, industrial, and irrigation uses.[14] Current withdrawals have already impacted the base flow in the Little Colorado River.[15] The aquifer is also "coming under increasing demand."[16] Additional substantial pumping from this aquifer system is likely to reduce stream flow and volume of the Blue Springs complex and the lower Little Colorado River.[17]

II. Pumped Hydro recently filed preliminary permit applications for six projects with 13,150 MW of collective capacity

Pumped Hydro is a Phoenix, Arizona company that was formed in March 2019.[18] The company has two principal members: Justin Rundle and Steve Irwin.[19] Just one month after Mr. Rundle and Mr. Irwin formed the company, Pumped Hydro filed its first preliminary permit application for a 2,100 MW project that would be located fifteen miles southwest of Phoenix.[20] Within the first two months of its

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12 Species Status Assessment at 66 (Attach. 2).
13 LCR Management Plan at 76 (Attach. 1).
14 *Id.* at 19.
15 U.S. Bureau of Reclamation, *North Central Arizona Water Supply Feasibility Study, Interim Report* 22 (Sept. 2016), https://tinyurl.com/yxlubsk2 (Attach. 3).
16 Species Status Assessment at 66 (Attach. 2).
17 *Id.* at 66–67,126–28, 139, 145, 151; LCR Management Plan at 26, 126–28 (Attach. 1); U.S. Bureau of Reclamation, *North Central Arizona Water Supply Feasibility Study, Interim Report* 22, 28 (Attach. 3).
18 Ariz. Corp. Comm'n, Pumped Hydro Storage Articles of Org. (Attach. 4).
19 *Id.*
20 Project No. 14989-000, Appl. for Prelim. Permit for Gila River Indian Community Pumped Storage Project (Apr. 30, 2019). Pumped Hydro later changed the name of this project to Montezuma Pumped Storage Project. *See* Project No.

existence, the company filed preliminary permit applications for five pumped storage projects in Arizona.[21]

In total, Pumped Hydro has filed preliminary permit applications for six projects that have a collective capacity of 13,150 MW.[22] In comparison, as of January 1, 2020, all other pending pumped storage permit applications across the United States had a collective capacity of 17,910 MW.[23] In addition, the twenty-four pumped storage projects that are currently operating and licensed across the United States have a collective capacity of approximately 16,500 MW.[24] Thus, Pumped Hydro is requesting preliminary permits for projects that represent about 42% of the overall pumped storage capacity currently pending before the Commission in permit applications. Moreover, if Pumped Hydro were to construct all six proposed projects,

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14989-000, Appl. for Prelim. Permit for Montezuma Pumped Storage Project (Oct. 7, 2019).

[21] Project No. 14995-000, Appl. for Prelim. Permit for San Francisco River Pumped Storage Project (May 14, 2019); Project No. 14994-000, Appl. for Prelim. Permit for Little Colorado River Pumped Storage Project (May 10, 2019); Project No. 14992-000, Appl. for Prelim. Permit for Salt Trail Canyon Pumped Storage Project (May 8, 2019); Project No. 14990-000, Appl. for Prelim. Permit for Salt River Project Indian Springs Pumped Storage Project (May 3, 2019); Project No. 14989-000, Appl. for Prelim. Permit for Gila River Indian Community Pumped Storage Project (Apr. 30, 2019).

[22] Project No. 15024-000, Appl. for Prelim. Permit for Big Canyon Pumped Storage Project (Mar. 12, 2020); Project No. 14995-000, Rev. Appl. for Prelim. Permit for San Francisco River Pumped Storage Project (July 31, 2019); Project No. 14994-000, Rev. Appl. for Prelim. Permit for Little Colorado River Pumped Storage Project (July 31, 2019); Project No. 14992-000, Rev. Appl. for Prelim. Permit for Salt Trail Canyon Pumped Storage Project (July 31, 2019); Project No. 14990-000, Rev. Appl. for Prelim. Permit for Salt River Project Indian Springs Pumped Storage Project (July 31, 2019); Project No. 14989-000, Rev. Appl. for Prelim. Permit for Montezuma Pumped Storage Project (Oct. 7, 2019).

[23] Fed. Energy Regulatory Comm'n, Pending Preliminary Permits for Pumped Storage Projects (Jan. 1, 2020), https://tinyurl.com/y6bjdxyu (Attach. 5).

[24] Fed. Energy Regulatory Comm'n, Pumped Storage Projects, https://tinyurl.com/y34anc4o (last updated July 6, 2020) (Attach. 6).

the company would increase the United States' existing licensed pumped storage capacity by approximately 80%. Even discounting the two prior projects in the Little Colorado River gorge that Pumped Hydro has proposed (whose permits the company has indicated it would withdraw if the Big Canyon Project is approved), construction of the other four projects would increase the United States' existing licensing pumped storage capacity by more than 51%.

Collectively, Pumped Hydro estimates it will cost up to $62 million to prepare the necessary studies, plans, and investigations for its six proposed projects. Pumped Hydro has not identified the expected sources of financing to prepare these studies, plans, and investigations; nor has it identified the plan for full project financing for any of the projects.[25]

III. The Big Canyon Project

The Big Canyon Project is the largest of the six pumped storage projects proposed by Pumped Hydro, with a capacity of 3,600 MW.[26] On March 12, 2020, Pumped Hydro submitted the initial preliminary permit application for the Big Canyon Project. The Commission issued its notice accepting the application for filing on June 2, 2020. *See* 85 Fed. Reg. 35,299 (June 9, 2020).

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[25] Project No. 15024-000, Appl. for Prelim. Permit for Big Canyon Pumped Storage Project at 10–11 (Mar. 12, 2020); Project No. 14995-000, Rev. Appl. for Prelim. Permit for San Francisco River Pumped Storage Project at 11–12 (July 31, 2019); Project No. 14994-000, Rev. Appl. for Prelim. Permit for Little Colorado River Pumped Storage Project at 10–11 (July 31, 2019); Project No. 14992-000, Rev. Appl. for Prelim. Permit for Salt Trail Canyon Pumped Storage Project at 10–11 (July 31, 2019); Project No. 14990-000, Rev. Appl. for Prelim. Permit for Salt River Project Indian Springs Pumped Storage Project at 11–12 (July 31, 2019); Project No. 14989-000, Appl. for Prelim. Permit for Montezuma Pumped Storage Project at 12–13 (Oct. 7, 2019).

[26] Project No. 15024-000, Appl. for Prelim. Permit for Big Canyon Pumped Storage Project at 7 (Mar. 12, 2020).

For the Big Canyon Project, Pumped Hydro proposes to construct four dams and four reservoirs in and above the Big Canyon tributary, adjacent to the Little Colorado River.[27] The lower reservoir would cover 260 acres and hold 44,000 acre-feet of water, and would require construction of a 600 feet long and 400 feet high dam in the Big Canyon.[28] The three upper reservoirs would be located north of the Big Canyon and would cover in total 400 acres with a storage capacity of 29,000 acre-feet of water.[29] The upper west dam would be 450 feet long and 200 feet high, the upper middle dam would be 1,000 feet long and 150 feet high, and the upper east dam would be 10,000 feet long and 200 feet high.[30] The project would also require construction of approximately sixteen miles of transmission lines.[31]

To fill and re-fill the four reservoirs, the project would construct and use three wells and a well water supply pipeline to draw large amounts of groundwater from the regional aquifer system.[32] Pumped Hydro's application, however, does not indicate which specific aquifer the company proposes to pump water from. Mr. Irwin, one of Pumped Hydro's principal members, has reportedly stated that, initially, the company would pump 44,000 acre-feet, or 14.3 billion gallons, of groundwater to fill the lower reservoir.[33] To make up for evaporation losses and supply a possible fish hatchery, an additional 10,000 to 15,000 acre-feet, or 3.2 to 4.8

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27 *Id.* at 2, 6–7.
28 *Id.* at 6–7.
29 *Id.* at 7.
30 *Id.* at 6.
31 *Id.* at 7.
32 *Id.* at 6.
33 Ian James, *Facing concerns about damming Little Colorado River, company plans dams in another canyon*, Ariz. Republic (7:15 AM MT, May 23, 2020), https://tinyurl.com/y4brp7qc (Attach. 7).

billion gallons, of groundwater would be pumped each year.[34] Additionally, although the preliminary permit application suggests that this would be a "closed-loop pumped storage project,"[35] Mr. Irwin has reportedly stated: "We would probably let some water go on a continuous basis. It would run through the fish hatchery and then back to the Little Colorado."[36]

These new dams, reservoirs, and transmission lines would be "located entirely on Navajo Nation lands."[37] Notably, the new dams and reservoirs would be located about five miles from the boundary of Grand Canyon National Park, although the application does not disclose this fact.

IV. The Big Canyon Project's relationship to the Little Colorado River Project and the Salt Trail Canyon Project

The Big Canyon Project is not the first or only project that Pumped Hydro has proposed in this sensitive and critical area. Last year, Pumped Hydro proposed two projects that would require the construction of dams and reservoirs directly on the lower stretches of the Little Colorado River: the Little Colorado River Pumped Storage Project (the "Little Colorado River Project") (Project No. 14994-000) and the Salt Trail Canyon Pumped Storage Project (the "Salt Trail Canyon Project") (Project No. 14992-000) (collectively, the "Little Colorado River and Salt Trail Canyon

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[34] *Id.* Even though Mr. Irwin has discussed a possible fish hatchery as part of the Big Canyon Project, the preliminary permit application contains no mention of any fish hatcheries.

[35] Project No. 15024-000, Appl. for Prelim. Permit for Big Canyon Pumped Storage Project (Mar. 12, 2020).

[36] Ian James, *Facing concerns about damming Little Colorado River, company plans dams in another canyon*, Ariz. Republic (Attach. 7).

[37] Project No. 15024-000, Appl. for Prelim. Permit for Big Canyon Pumped Storage Project at 6 (Mar. 12, 2020).

Projects").[38] On May 21, 2020, the Commission issued preliminary permits for the projects. *Pumped Hydro Storage LLC*, 171 FERC ¶ 61,138 (May 21, 2020); *Pumped Hydro Storage LLC*, 171 FERC ¶ 61,137 (May 21, 2020). One of Pumped Hydro's two principal members, Mr. Irwin, was reportedly "surprised to hear" that the Commission had granted its preliminary permit applications for these two projects.[39]

Months before the Commission issued permits for the Little Colorado River and Salt Trail Canyon Projects, Mr. Irwin of Pumped Hydro made statements to the media suggesting that the company had abandoned the two projects. In a news article dated March 6, 2020, Mr. Irwin was quoted as acknowledging that these two projects "caused a lot of opposition," and the article stated "his company is now only pursuing one of the Little Colorado River projects."[40] Another news article dated March 5, 2020 stated that "Pumped Hydro Storage co-founder Steve Irwin said the company is working on a revamped proposal that involves damming a side canyon of the Little Colorado, rather than the river itself."[41]

This "revamped proposal" is the Big Canyon Project. A news article quoted Mr. Irwin as stating: "We had a lot of opposition on aquatic waterway issues,

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[38] In its applications, Pumped Hydro named these projects the Navajo Nation Little Colorado River Pumped Storage Project and the Navajo Nation Salt Trail Canyon Pumped Storage Project. The Commission has omitted "Navajo Nation" from the projects' names because the projects are not in any way affiliated with the Navajo Nation.

[39] Scott Buffon, *Feds approve initial Little Colorado River dam permits; developer eyes third permit*, Ariz. Daily Sun (May 23, 2020; updated June 27, 2020), https://tinyurl.com/y5r8g6e4 (Attach. 8).

[40] Geoffrey Plant, *Dam would create 10-mile finger lake on San Francisco River*, Silver City Daily Press (Mar. 6, 2020), https://tinyurl.com/rhttkme (Attach. 9).

[41] Sammy Roth, *Environmental disaster or key to a clean energy future? A new twist on hydropower*, L.A. Times (Mar. 5, 2020), https://tinyurl.com/uupg4qr (Attach. 10).

basically. I'd say 80% of our issues were aquatic waterways or, specifically, the humpback chub. . . . So, we modified our proposal so that we're adjacent to the Little Colorado and not in the Little Colorado."[42] The article also reported that "[i]f Irwin and his business partner secure approval for their new proposal, Irwin said, they plan to withdraw their two previous proposals for dams on the Little Colorado River and in Salt Trail Canyon."[43] Similarly, another news article reported that, according to Mr. Irwin, Pumped Hydro's application for the Big Canyon Project was "in response to overwhelming criticism that building dams on the river would disrupt the habitat of the endangered humpback chub."[44] The article noted: "Irwin said he won't pursue the dams on the river if the Big Canyon proposal moves forward."[45] Another news article quoted Mr. Irwin as stating that "[Pumped Hydro] tailored the new [project] to get it out of the Little Colorado to avoid all of the aquatic issues by putting the lower reservoirs in a dry canyon."[46]

However, contrary to Mr. Irwin's statements, the Big Canyon Project suffers from largely the same defects as the Little Colorado River and Salt Trail Canyon Projects.

V. Impacts to the endangered humpback chub

The humpback chub is one of four Colorado River fish species listed as endangered under the Endangered Species Act (ESA). 59 Fed. Reg. 13,374 (Mar. 21,

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42 Ian James, *Facing concerns about damming Little Colorado River, company plans dams in another canyon*, Ariz. Republic (Attach. 7).

43 *Id.*

44 *Company floats new proposal for hydropower on tribal land*, AP News (May 26, 2020), https://tinyurl.com/yy84tjjw (Attach. 11).

45 *Id.*

46 Scott Buffon, *Feds approve initial Little Colorado River dam permits; developer eyes third permit*, Ariz. Daily Sun (Attach. 8).

1994) (determining critical habitat for the four species); 32 Fed. Reg. 4001 (Mar. 11, 1967) (initially designating the humpback chub as endangered under the ESA's legal predecessors).[47] The humpback chub is an ancient fish endemic to the warm-water stretches of the Colorado River basin.[48] Humpback chub live in river canyons characterized by rocky habitat and swift currents, and historically lived in the Colorado, Green, and Yampa rivers.[49] Humpback chub were once very abundant in the Grand Canyon.[50] But the construction of dams and other diversions throughout the Colorado River basin, along with predation by non-native species and other factors, put the fish on the brink of extinction.[51] The construction of Glen Canyon Dam in 1963 just upstream of the Grand Canyon separated the Colorado River into two distinct basins. As a barrier to migration, the dam also separated the chub into two distinct populations. Today, there are four populations of chub upstream of Glen Canyon Dam; a fifth upper basin population that used to inhabit the Dinosaur

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47 In January 2020, the Fish and Wildlife Service proposed reclassifying the humpback chub from endangered to threatened. *See* U.S. Fish & Wildlife Serv., *Conservation Gains for Humpback Chub Prompt Service to Propose Downlisting Native Colorado River Fish from Endangered to Threatened* (Jan. 21, 2020), https://tinyurl.com/y4r232rf (Attach. 12). This is merely a proposal. Until the Fish and Wildlife Service makes a final decision regarding the humpback chub's status, this species remains listed as endangered under the ESA.

48 Species Status Assessment at vi (Attach. 2).

49 *Id.*

50 U.S. Nat'l Park Serv., Humpback Chub (Gila cypha), https://tinyurl.com/y6apmvvo (last updated Feb. 24, 2015) (Attach. 13).

51 Species Status Assessment at vi (Attach. 2); U.S. Nat'l Park Serv., Humpback Chub (Gila cypha) (Attach. 13).

National Monument is now considered extirpated.[52] There is one population of humpback chub below the Glen Canyon Dam.[53]

The largest remaining population of the humpback chub resides in the Lower Colorado River and its confluence with the Colorado River.[54] The Fish and Wildlife Service (FWS) has designated this area—from the lower eight miles of the Little Colorado River to its confluence with the Colorado River—as critical habitat for this species. 59 Fed. Reg. at 13,398. The Little Colorado River is particularly important to the humpback chub because it is the primary spawning grounds for the species in the Grand Canyon.[55] According to the National Park Service, the humpback chub in the Little Colorado River is "the only known spawning population of humpback chub in Grand Canyon."[56] The Little Colorado River is particularly well-suited for humpback chub spawning, unlike other waters in the Grand Canyon, because of its diverse canyon rocky habitat, warm temperatures, suitable river flows, and other factors.[57]

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52 Species Status Assessment at vi (Attach. 2); U.S. Fish & Wildlife Serv., Mem. from Regional Director, Mountain-Prairie Region, to Implementation/Mgmt. Comm., Consultants, and Interested Parties, regarding 2017–2018 Abbreviated Assessment of Sufficient Progress under the Upper Colorado River Endangered Fish Recovery Program in the Upper Colorado River Basin, and of Implementation of Action Items in the December 20, 1999, 15-Mile Reach Programmatic Biological Opinion, the December 4, 2009, Gunnison River Basin Programmatic Biological Opinion, and the January 10, 2005, Yampa River Basin Programmatic Biological Opinion 2 (Dec. 19, 2018) (Attach. 14).

53 Species Status Assessment at vi (Attach. 2).

54 U.S. Nat'l Park Serv., Humpback Chub (Gila cypha) (Attach. 13); U.S. Fish & Wildlife Serv., *Humpback Chub (Gila cypha) 5-Year Review: Summary and Evaluation* 5 (Mar. 19, 2018), https://tinyurl.com/y2tnlc2s (Attach. 15).

55 Species Status Assessment at 16, 19, 59 (Attach. 2).

56 U.S. Nat'l Park Serv., Humpback Chub (Gila cypha) (Attach. 13).

57 Species Status Assessment at vi–viii, 15–18 (Attach. 2).

The Big Canyon Project is likely to be a major threat to the existence and recovery of the humpback chub because the project would drastically change the physical environment of the lower Little Colorado River. Increased groundwater pumping from the region's aquifer system, which feeds the springs that provide base flow to the lower Little Colorado River, is likely to reduce the river flow, as well as alter the temperature of the river and the canyon habitat.[58] Particularly, increased groundwater pumping in the vicinity of the springs is expected to have immediate impacts on the flow in the springs and in the humpback chub's critical habitat.[59] The Big Canyon Project would do exactly this: the project would be located near the springs, and it would pump an enormous amount of groundwater from the aquifer system feeding these springs, which would in turn alter the flow, temperature, and habitat of the lower Little Colorado River.

In addition, groundwater pumping for the Big Canyon Project would exacerbate Glen Canyon Dam's harmful impacts to the humpback chub by further changing the Colorado River's temperatures and sediment levels through the Grand Canyon, while also changing the timing and amount of river flows. The construction and operation of Glen Canyon Dam is a major cause of the humpback chub's decline.[60] The dam dramatically reduced the Colorado River's water temperature, rendering it unusable for humpback chub spawning, egg incubation, and larvae

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58 *Id.* at 66–67,126–28, 139, 145, 151; LCR Management Plan at 26, 126–28 (Attach. 1); U.S. Bureau of Reclamation, *North Central Arizona Water Supply Feasibility Study, Interim Report* 22, 28 (Attach. 3).

59 LCR Management Plan at 104 (Attach. 1).

60 U.S. Fish & Wildlife Serv., *Humpback Chub Recovery Plan* 11–13 (2d. rev. 1990) (Attach. 16).

development.[61] Glen Canyon Dam also altered the Colorado River's natural flows and reduced sediment levels, which further harmed the species.[62] In response, the Department of the Interior has developed a Long-Term Experimental and Management Plan (LTEMP) for Glen Canyon Dam operations.[63] The LTEMP is intended to provide a comprehensive framework for managing the dam for the next two decades, so the agency can attempt to fulfill its statutory obligations to conserve the humpback chub and meet other statutory obligations.[64] The Big Canyon Project will likely interfere with the LTEMP.

The map on the following page shows the location of the Big Canyon Project, and the humpback chub critical habitat.

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61 Species Status Assessment at 16, 59 (Attach. 2).

62 U.S. Dep't of Interior, Bureau of Reclamation & Nat'l Park Serv., *Glen Canyon Dam Long-Term Experimental and Management Plan Envtl. Impact Statement* ES-43–ES-44 (Oct. 2016), https://tinyurl.com/y4cpjchs [hereinafter LTEMP FEIS] (Attach. 17).

63 *Id.* at ES-1.

64 *Id.* at ES-3–ES-6.

Proposed Big Canyon Pumped Storage Project
NAVAJO NATION
GRAND CANYON NATIONAL PARK
Colorado River
Confluence of the Colorado and Little Colorado Rivers
LITTLE COLORADO RIVER GORGE
Little Colorado River
Humpback Chub Critical Habitat (in yellow)
Upper Reservoirs (flooding approx. 400 acres)
Approximate Project Boundary
New Access Road (to Highway 89)
Underground Access Tunnel
Transmission Lines
Underground Water Penstocks
Three Water Wells (water supply to reservoirs)
Substation
Powerhouse
Lower Reservoir (flooding approx. 260 acres)
west
middle
east
Big Canyon
Sheep Wash
Bekihatso Wash
Salt Trail Canyon
GRAND CANYON NATIONAL PARK
GRAND CANYON TRUST
Map by Stephanie Smith
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Mile
Data Sources: U.S. Fish and Wildlife Service critical habitat; Pumped storage boundaries are approximated from the March 12, 2020 Preliminary Permit Application for Big Canyon Pumped Storage Project FERC Project No. 15024-000 (map created July 2020).

VI. Impacts to tribal cultural resources and sacred sites

The Big Canyon Project would also harm Traditional Cultural Properties and sacred sites of numerous tribes. The Grand Canyon is a sacred place to Native peoples, including the Navajo Nation, Hopi Tribe, Hualapai Tribe, Kaibab Band of Paiute Indians, Paiute Indian Tribe of Utah, and the Zuni Tribe of the Zuni Indian Reservation.[65] The confluence of the Little Colorado and Colorado Rivers is also a sacred place to many Native peoples.[66] This sacred area is inclusive of the entire ecosystem of the region, including the wildlife, river system, springs, and other features.[67] In addition, the lower Little Colorado River region—where the proposed project would be located—contains numerous sacred sites, such as the Hopi Salt Trail and the location where the Hopi's ancestors emerged into this world.[68] Recognizing the importance of this area to numerous tribes and Native peoples, the U.S. Bureau of Reclamation has determined the Grand Canyon and the Little Colorado River gorge are eligible for listing on the National Register of Historic Places as Traditional Cultural Properties.[69]

Although the project would be located on Navajo Nation lands, the Hopi Tribe and Navajo Nation have entered into an Intergovernmental Compact in which each

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65 *See, e.g.*, Programmatic Agreement among U.S. Bureau of Reclamation, et al. regarding the Glen Canyon Dam Operations and Non-Flow Actions Identified in the Long Term Experimental and Management Plan Envtl. Impact Statement and Record of Decision 1 (May 9, 2017), https://tinyurl.com/yxed6m3r [hereinafter LTEMP Programmatic Agreement] (Attach. 18).

66 *See, e.g.*, *id.* at 4–5.

67 *Id.* at 1, 4–5.

68 *See, e.g.*, Project Nos. 14992-000 and 14994-000, Letter from Clark W. Tenakhongva, Vice Chairman, Hopi Tribe & Timothy L. Nuvangyaoma, Chairman, Hopi Tribe, to Kimberly D. Bose, Secretary, Fed. Energy Regulatory Comm'n 1 (Oct. 23, 2019) [hereinafter 2019 Hopi Letter] (Attach. 19).

69 LTEMP Programmatic Agreement at 5 (Attach. 18).

tribe has agreed to maintain and protect religious sites on their lands for the use and benefit of the members of both tribes.[70] The Compact explicitly notes the significance of the Hopi Salt Trail.[71]

The Navajo Nation has already filed a notice of intervention in this proceeding and has raised concerns that "[t]he Project would likely adversely impact the land, water, wildlife, and cultural resources of the Navajo Nation."[72] Particularly as to cultural resources, the notice states that the Navajo Nation's "list of Traditional Cultural Properties includes the confluence of the Little Colorado River with the Colorado River in the Grand Canyon ('the Confluence'), the Salt Trail to access the Salt Mine south of the Confluence and Ashii Naali ('dripping salt') north of the confluence, and the complex of springs feeding the Little Colorado River known as 'Blue Springs.'"[73] The notice further notes that the Salt Trail and other trails into the Little Colorado River are used to collect waters for ceremonial use.[74] The notice states: "The Project may adversely impact these and other cultural resources including plants for medicinal and domestic use."[75]

Additionally, last year, in the Little Colorado River and Salt Trail Canyon Projects' preliminary permit proceedings, a number of other impacted tribes submitted documents opposing and raising concerns about the projects. The Hopi

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70 Navajo Nation Council Res. CS-35-06, 20th Navajo Nation Council, 4th year (2006), https://tinyurl.com/y496u44s (Attach. 20).

71 *Id.* (Intergovernmental Compact art. 2.2).

72 Project No. 15024-000, Notice of Intervention by the Navajo Nation at 2 (July 30, 2020) (Attach. 21) [hereinafter Navajo Notice of Intervention]

73 *Id.* at 4.

74 *Id.*

75 *Id.*

Tribe submitted a letter "strongly oppos[ing]" the Little Colorado River and Salt Trail Canyon Projects.[76] The Hopi Tribe stated:

> Any development within the area of the Confluence will forever compromise the spiritual integrity of this Sacred Place. The Hopi Tribe and many other Southwestern Tribes including the Navajo Nation hold the Grand Canyon as a sacred place of reverence, respect and conservation stewardship. We are aware that the Zuni Tribe emerged from the Grand Canyon. The Havasupai Tribe lives in the Grand Canyon. It is important to preserve and protect these sites from harm and wrongful exploitation.
>
> This proposed development and location is simply unacceptable to Hopi religious leaders, practitioners and the Hopi people as it will significantly and forever adversely impact Hopi sacred places to which Hopis have aboriginal title and use, and title and use through the Intergovernmental Compact between the Navajo Nation and the Hopi Tribe. Hopi religious leaders and the Hopi people in general strongly oppose this proposal.[77]

The Hopi Tribe's letter also noted that although Pumped Hydro was required to list the tribes the project may impact, the application only listed the Navajo Nation and omitted any mention of the Hopi Tribe, the Zuni Tribe, the Havasupai Tribe, and other tribes.[78]

Similarly, the Hualapai Tribe submitted a letter asking the Commission to "reject" the previous preliminary permit applications.[79] The Hualapai Tribe noted that it was "deeply concerned about the devastating cultural and ecological impacts that would result" from the projects moving forward.[80] The Hualapai Tribe stated

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76 2019 Hopi Letter at 2 (Attach. 19).

77 *Id.*

78 *Id.* at 3.

79 *See, e.g.*, Project Nos. 14992-000 and 14994-000, Letter from Dr. Damon R. Clarke, Chairman, and Mr. Peter Bungart, Tribal Historic Preservation Officer, Office of the Chairperson, Hualapai Tribe, to Kimberly D. Bose, Secretary, Fed. Energy Regulatory Comm'n 2 (Nov. 14, 2019) [hereinafter 2019 Hualapai Letter] (Attach. 22).

80 *Id.*

that "project[s] such as [these] would forever disturb a traditional cultural landscape that maintains historic and sacred values and that is part of the cultural identity of the Hualapai people and other neighboring tribes."[81]

The Havasupai Tribe, which also commented and intervened in the previous proceedings, stated: "The region along the [Little Colorado River] that the Applicant proposes to build its Projects upon contains a number of these important sacred and historical sites to the Tribe."[82] The Tribe further stated that its members "to this day continue to make pilgrimages to these important sites. These sites would be threatened if the Applicant were to proceed with the proposed Projects."[83]

Notably, Mr. Irwin has dismissively downplayed some of the tribes' concerns in statements to the media. A news article stated: "As for the criticisms that tribes and environmental groups have raised, Irwin said, 'Right now, I'm just concerned with the Navajo. It's Navajo ground. It's not Hualapai ground and it's not Hopi ground.'"[84] Pumped Hydro has also essentially admitted that the Big Canyon Project does not address impacts to Traditional Cultural Properties. Mr. Irwin has been quoted as stating that "80% of [the] issues [with the two prior projects] were aquatic waterways or, specifically, the humpback chub," and that the "modified" Big Canyon Project is meant to deal only with the "aquatic" issues.[85]

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81 *Id.*

82 Project Nos. 14992-000 and 14994-000, Comment Letter and Motion to Intervene from Muriel Uqualla, Chairwoman, the Havasupai Tribe, to Kimberly D. Bose, Secretary, Fed. Energy Regulatory Comm'n (Nov. 15, 2019) [hereinafter 2019 Havasupai Letter] (Attach. 23).

83 *Id.*

84 Ian James, *Facing concerns about damming Little Colorado River, company plans dams in another canyon*, Ariz. Republic (Attach. 7).

85 *Id.*; Scott Buffon, *Feds approve initial Little Colorado River dam permits; developer eyes third permit*, Ariz. Daily Sun (Attach. 8).

INTERESTS OF INTERVENORS

I. The Conservation Coalition's interests

The Conservation Coalition's interests in this permit proceeding are in the public interest pursuant to 18 C.F.R. § 385.214(b)(2)(iii), as described below.

Save the Colorado

Save the Colorado is a grassroots, non-profit 501(c)(3) environmental organization dedicated to the protection and restoration of the Colorado River and its tributaries. Save the Colorado has approximately 20,000 members, supporters, and followers throughout the Colorado River Basin, including within Arizona. Save the Colorado's mission is to promote the conservation of the Colorado River and its tributaries through science, public education, advocacy, and litigation, by opposing new dams and diversions. Recently, Save the Colorado opposed the Bureau of Reclamation's management plan for Glen Canyon Dam, which regulates the Colorado River's flows through the Grand Canyon. *See, e.g.*, Compl., ECF No. 1, *Save the Colo. v. U.S. Dep't of the Interior*, No. 3:19-cv-08285-MTL (D. Ariz. Oct. 1, 2019). Save the Colorado has actively opposed every proposed new dam, diversion, and pipeline in the Colorado River basin—including in Colorado, Wyoming, and Utah—through litigation and pre-permitting processes.

Grand Canyon Trust

The Grand Canyon Trust is a nonprofit corporation with over 3,500 members. The Trust is headquartered in Flagstaff, Arizona and has offices in Utah and Colorado. The Trust's mission is to safeguard the wonders of the Grand Canyon and the Colorado Plateau, while supporting the rights of Native peoples. The Trust's advocacy is motivated by a vision for the Colorado Plateau in which wildness, a

diversity of plants and animals, clean air, and flowing rivers abound, and where a livable climate endures.

Advocating for the protection of the confluence and of the humpback chub has often been a focal point of the Trust's work to protect the Grand Canyon. In 1992, for example, the Trust worked closely with Senator McCain to secure the passage of the Grand Canyon Protection Act of 1992, which instructed the Secretary of Interior to alter the management of the Glen Canyon Dam to protect the values for which Grand Canyon National Park and Glen Canyon National Recreation Area were established. An Adaptive Management Program for the Glen Canyon Dam ensued whose purpose was to adjust the dam's operations to protect downstream resources, including the humpback chub. In the wake of this decision, the Trust spent many years in federal court under the Endangered Species Act advocating for additional adjustments to the dam's operation to avoid jeopardizing the humpback chub and adversely modifying its critical habitat.

In recent years, the Trust has worked in support of local families advocating at the chapter level of the Navajo Nation in opposition to a private developer's proposal to build a gondola and mega-resort at the confluence. In 2017, after more than six years of resistance from local families, the Navajo Nation Council rejected the bill that would have enabled this so-called "Escalade" development to proceed. The Trust continues today to back the efforts of local families to permanently protect the confluence and to support sustainable, culturally appropriate businesses as an alternative to mega-developments like the Escalade.

Living Rivers & Colorado Riverkeeper

Living Rivers & Colorado Riverkeeper is a watershed advocacy organization dedicated to the protection of the Colorado River and the many rivers of the American West. Living Rivers is headquartered in Moab, Utah and is a non-profit 501(c)(3) organization that emphasizes achieving ecological river restoration while balancing human needs. Living Rivers' many supporters and members live throughout the Colorado River Basin, including Arizona. Recently, Living Rivers has opposed the Bureau of Reclamation's management plan for Glen Canyon Dam, which regulates the Colorado River's flows through the Grand Canyon. *Id.*

National Parks Conservation Association

National Parks Conservation Association is a non-profit organization based in Washington, DC, with fulltime staff based in Arizona. Since 1919, National Parks Conservation Association has been the leading advocate for the National Park System, with nearly 1.4 million members and supporters, including 30,000 in Arizona, who want to ensure that future generations can enjoy the beauty, majesty, and cultural heritage provided by parks like Grand Canyon National Park. National Parks Conservation Association's mission requires that its interest extend beyond the individual boundary of each park unit, as threats to a park's resources and visitor experience often originate outside the park itself. At Grand Canyon National Park, National Parks Conservation Association has worked to reduce many outside threats to the national park, including: campaigning to ban new uranium mines on a million acres of public land adjacent to the park; successfully opposing the proposed "Escalade" development at the confluence of the Colorado and Little Colorado Rivers; and participating in the Adaptive Management Working Group of the Glen

Canyon Adaptive Management Plan to study and protect the resources of Glen Canyon National Recreation Area and Grand Canyon National Park by advising on the operation of the Glen Canyon Dam.

Sierra Club

The Sierra Club is America's largest and most influential grassroots environmental organization, with more than 3.5 million members and supporters. In addition to protecting every person's right to get outdoors and access the healing power of nature, the Sierra Club works to promote clean energy, safeguard the health of our communities, protect wildlife, and preserve our remaining wild places through grassroots activism, public education, lobbying, and legal action. The Grand Canyon Chapter of the Sierra Club, representing more than 13,000 members, has a long history of public education and advocacy to protect the Grand Canyon and the water and public land resources in the Colorado River Basin. In recent years, the Sierra Club has worked to change operations of Glen Canyon Dam to benefit the downstream ecosystem, advocated for restoring the Colorado Pikeminnow to the mainstem of the Colorado, worked to ensure better management of the Colorado River through Grand Canyon National Park, and opposed developments at the confluence of the Colorado and Little Colorado rivers.

Waterkeeper Alliance, Inc.

Waterkeeper Alliance, Inc. is a global nonprofit environmental organization dedicated to protecting and restoring water quality to ensure the world's waters are drinkable, fishable, and swimmable. Waterkeeper Alliance unites more than 350 Waterkeeper Organizations and Affiliates around the world, focusing citizen action on issues that affect our waterways, from pollution to climate change. The

Waterkeeper movement patrols and protects over 2.5 million square miles of rivers, lakes and coastlines in 44 countries on 6 continents, the Americas, Europe, Australia, Asia, and Africa. In the United States, Waterkeeper Alliance represents the interests of approximately 175 U.S. Waterkeeper Member Organizations and Affiliates, which include Living Rivers and other organizations in Utah and Arizona, to preserve and protect waterways. Waterkeeper also represents the collective interests of over 10,000 individual supporting members that live, work, and recreate in and near waterways across the nation, including in Arizona. 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. In recent 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 the Colorado River Basin.

WildEarth Guardians

WildEarth Guardians is a regional non-profit working for 30 years to protect and restore the wildlife, wild places, wild rivers, and health of the American West. With offices throughout the western United States and representing 275,000 members and activists, Guardians seeks to safeguard and restore dynamic flows in western rivers, advocate for western water policy reform, ensure protection of imperiled fish and wildlife, and fight to undam and restore healthy and sustainable aquatic and riparian ecosystems for current and future generations. In recent years, Guardians has filed federal court litigation challenging the permitting of two water

development projects in the Upper Colorado River basin including the Windy Gap Firming Project and Moffat Collection System Project. In addition, Guardians has devoted significant resources to advocate for living rivers (including the Colorado River), combat the extinction crisis, and promote climate resilience.

II. The Conservation Coalition's intervention is in the public interest.

Intervention by the Conservation Coalition is in the public interest. *See* 18 C.F.R. § 385.214(b)(2)(iii). The Conservation Coalition represents a cross-section of organizations and members that have unique and direct interests in the Little Colorado River, the Colorado River, and the Grand Canyon that the Big Canyon Project will harm if it proceeds.

The Conservation Coalition organizations have direct and tangible interests in protecting the Little Colorado and Colorado Rivers, and in preserving the wildlife and recreation activities that rely on healthy rivers. Their members use and enjoy the areas affected by the proposed pumped storage project for aesthetic enjoyment, spiritual renewal, and recreation, including rafting, fishing, camping, hiking, photography, wildlife viewing, and enjoyment of the outdoors. Many members rely on these waterways and the nearby lands for their recreational, scientific, educational, cultural, conservation, and economic interests.

The Big Canyon Project would harm these interests. The project's new dams, reservoirs, and wells would irreversibly degrade the ecology of the Little Colorado River, and the fish and wildlife that live in and near the river, especially the humpback chub. The project would spoil the renowned turquoise color of the river's final miles. In addition, the project would negatively affect the Colorado River's flows through the Grand Canyon. This project would thus directly harm the rivers,

springs, national parks, public lands, fish, wildlife, and cultural resources that each organization and its members highly value. No other party can adequately represent these same interests.

In addition, many of the members of the Conservation Coalition have special knowledge of the Commission's preliminary permit proceedings, as they intervened in the Wyco Power and Water preliminary permit proceeding for the Flaming Gorge Pipeline and successfully opposed a preliminary permit for that project (specifically Sierra Club, Save the Colorado, Living Rivers, and National Parks Conservation Association intervened in the Wyco proceeding). *See Wyco Power & Water, Inc.*, 138 FERC ¶ 62,150 (2012) (denying preliminary permit application). The members of the Conservation Coalition also intervened in the Little Colorado River and Salt Trail Canyon Projects' preliminary permit proceedings, both of which relate to this proceeding. These groups and their members have developed knowledge and relevant experience regarding preliminary permits and hydropower projects that will benefit the public interest in this proceeding.

The Conservation Coalition will actively participate in this preliminary permit process and in any subsequent licensing proceeding to ensure the protection of the Little Colorado and Colorado Rivers and Grand Canyon National Park. This participation will lead to more informed decision making, develop a more complete record, and be in the public interest. Accordingly, the Conservation Coalition organizations request intervention on behalf of themselves and their members.

LEGAL BACKGROUND

The purpose of the Federal Power Act (FPA) is to promote balanced and responsible hydropower development. The FPA authorizes the Commission to

license private hydropower projects, but requires the Commission to weigh the power generation and developmental goals of a project against impacts to fish, wildlife, recreation, and other resources before issuing a license. 16 U.S.C. § 797(e); *Udall v. Fed. Power Comm'n*, 387 U.S. 428, 450 (1967); *Am. Rivers v. Fed. Energy Regulatory Comm'n*, 201 F.3d 1186, 1191 (9th Cir. 2000); *Symbiotics, LLC*, 99 FERC ¶ 61,100, at 61,417 (2002).

The FPA also authorizes the Commission to issue preliminary permits for potential hydropower projects. 16 U.S.C. § 798; 18 C.F.R. § 4.80 *et seq.* According to the Commission, the "purpose of a preliminary permit is to encourage hydroelectric development" by providing a permit holder a first-in-time right to file a license application to construct and operate a hydropower project while the permit holder determines the feasibility of the project and prepares the license application. *Mt. Hope Waterpower Project LLP*, 116 FERC ¶ 61,232, at ¶ 4 (2006).

The Commission has "broad discretion" to determine whether to issue a preliminary permit. *Symbiotics, LLC*, 100 FERC ¶ 61,010, at 61,018 (2002); *see also Preliminary Permits for Wave, Current, and Instream New Technology Hydropower Projects* (Docket No. RM07-08-000), at 3 n.9 (Feb. 15, 2007) ("[N]othing in the FPA requires the Commission to issue a preliminary permit; whether to do so is a matter solely within the Commission's discretion."). Although the Commission's general policy is to defer analysis of a project's impacts until the later licensing proceedings, the Commission has discretion to deny a preliminary permit application at any time, so long as "it articulates a rational basis for not issuing the permit." *Wyco Power & Water, Inc.*, 139 FERC ¶ 61,124, at 61,852 (2012); *see also Mt. Hope Waterpower*, 116 FERC ¶ 61,232, at ¶ 4 ("We may, however, make exceptions to established policies if

we articulate a rational basis for doing so, and we have recently done so with regard to issuance of preliminary permits in other proceedings."). The Commission has exercised this discretion on a number of occasions.

The Commission has routinely dismissed preliminary permit applications if the applicant demonstrates a lack of "fitness" for a license, based on a prior history of delay or noncompliance with Commission orders. *See, e.g.*, *Energie Grp., LLC v. Fed. Energy Regulatory Comm'n*, 511 F.3d 161, 164 (D.C. Cir. 2007) ("In deciding whether to grant a permit, FERC . . . has discretion to consider the fitness of the applicant."); *Pac. Energy Res., LLC*, 128 FERC ¶ 62,154, at 64,460 (2009) (denying permit application because applicant failed to pursue the specific project at issue "with due diligence and in good faith"); *Appalachian Rivers Res. Enhancement, LLC*, 113 FERC ¶ 62,100, at 64,288 (2005) (applicants are generally deemed unfit when there is an "unsatisfactory compliance record as a licensee"); *Ebb Lake Mut. Elec. Co.*, 44 FPC 1160, 1161–62 (1970) (denying permit application when applicant was insufficiently responsive to requests for additional information). As with all denials of preliminary permits, the purpose in evaluating the applicant's history is to avoid tying-up hydropower sites and wasting the Commission's valuable staff time and resources. *Pac. Energy Res.*, 128 FERC ¶ 62,154, at 64,460.

In addition, the Commission will dismiss a preliminary permit application when there is a legal bar that would prevent the Commission from granting a license for the project. *See, e.g.*, *Energie Grp.*, 511 F.3d at 164; *Seneca Nation of Indians*, 134 FERC ¶ 62,148, at 64,246 (2011); *Appalachian Rivers Res. Enhancement, LLC*, 113 FERC ¶ 62,100, at 64,288. Similarly, the Commission will deny a permit where the "information already available indicates no license will result." *Energie Grp.*,

511 F.3d at 164. For example, the Commission properly denied a preliminary permit when it found a prior environmental analysis for a project was "analogous" to a legal barrier, as the analysis indicated the project was not appropriate for the site and thus no license would likely result. *Symbiotics, L.L.C. v. Fed. Energy Regulatory Comm'n*, 110 F. App'x 76, 81 (10th Cir. 2004).

The Commission will also deny a preliminary permit if the applicant is unlikely to receive the necessary authorizations to develop the project, as "there would be no purpose in issuing a preliminary permit" in those circumstances. *Freedomworks, LLC*, 167 FERC ¶ 62,026 at ¶ 11 (2019); *see also Advanced Hydropower, Inc.*, 160 FERC ¶ 62213, at ¶ 6 (2017) (denying permit where a federal agency had already stated that the proposed project was incompatible with federal purposes); *Symphony Hydro LLC*, 150 FERC ¶ 62,092, at 64,165 (2015) (same); *Owyhee Hydro, LLC*, 154 FERC ¶ 61,210, at ¶¶ 22–25 (2016) (affirming denial of permit where the relevant agency stated the applicant's proposed use was unacceptable and would not be permitted).

Finally, the Commission has denied preliminary permits where it found that the proposed project—or further study of the proposed project—would be contrary to the public interest. *See, e.g.*, *Stillaquamish River Hydro*, 40 FERC ¶ 62,207, at 63,356 (1987) (proposed project not in the public interest because it would interfere with military communications and threaten national security); *Mt. Hope Waterpower*, 116 FERC ¶ 61,232, at ¶¶ 5, 12, 13, 15–17 (public interest served by denying preliminary permit to allow competition).

ARGUMENT AND STATEMENT OF POSITION

I. The Commission should dismiss Pumped Hydro's preliminary permit application.

The Commission should not issue a preliminary permit for the Big Canyon Project for two reasons. First, Pumped Hydro lacks the requisite "fitness" for a preliminary permit, and it is unlikely to diligently pursue this speculative project. Second, there are substantial legal and policy barriers in place under the Endangered Species Act and National Historic Preservation Act that make the project unlikely to be licensed. In addition, the project would be located entirely on Navajo Nation lands, and without the Navajo Nation's support, Pumped Hydro cannot obtain a license.

A. Pumped Hydro lacks the requisite "fitness" for a preliminary permit, and the Big Canyon Project is excessively speculative.

The Commission has discretion to dismiss a preliminary permit if the applicant has demonstrated it is unlikely to pursue the project with due diligence and good faith. *See, e.g.*, *Energie Grp.*, 511 F.3d at 164; *Appalachian Rivers Res. Enhancement*, 113 FERC ¶ 62,100, at 64,288; *Pac. Energy Res., LLC*, 128 FERC ¶ 62,154, at 64,460. The Commission can—and should—dismiss a preliminary permit in these circumstances because a permit is not in the public interest and the Commission should not spend its time and resources on speculative and doubtful projects. *Pac. Energy Res., LLC*, 128 FERC ¶ 62,154 at 64,460. Pumped Hydro lacks the requisite "fitness" for a preliminary permit because one of its principal members has a prior history of denied, canceled, and surrendered permits. In addition, the inordinately large volume of the company's permit applications and

Pumped Hydro's recent comments in the media further demonstrate that the project is excessively speculative and unlikely to proceed to licensing.

The Commission should not issue a preliminary permit for the Big Canyon Project because one of Pumped Hydro's two principal members—Justin Rundle—has a long history of seeking preliminary permits for projects that never proceeded to licensing. The Conservation Coalition is aware of at least twelve instances in the past where Mr. Rundle sought preliminary permits that were ultimately canceled, denied, or surrendered. Table 1 below summarizes these prior preliminary permits.

Table 1: Summary of Mr. Rundle's Prior Preliminary Permits

	Preliminary Permit Action	**Reason for Action**	**Date of Action**
Project No. 14624-000 (Alamo Dam v2)[86]	Permit Canceled	Failure to submit progress report	May 13, 2015
Project No. 14353-000 (Alamo Dam v1)[87]	Permit Application Rejected	Failure to provide requested information	March 30, 2012
Project No. 13561-000 (Adler Canyon)[88]	Permit Surrendered	Large amount of capital and high risk for developing project	January 9, 2012
Project No. 11247-001 (Miss. River Lock & Dam No. 11)[89]	Permit Canceled	Failure to submit progress report	August 19, 1994
Project No. 11278-001 (Miss. River Lock & Dam no. 15)[90]	Permit Surrendered	Infeasibility of project	August 11, 1994

[86] *Alamo Dam Hydro Partners*, 151 FERC ¶ 62,104 (May 13, 2015).

[87] Project No. 14353-000, Letter from Timothy J. Welch, Fed. Energy Regulatory Comm'n, to Justin Rundle, President, Phoenix Mgmt. LLC (Mar. 30, 2012) (Attach. 24).

[88] Project No. 13561-000, Letter from Justin Rundle, President, Phoenix Mgmt. LLC, to Kimberly D. Bose, Secretary, Fed. Energy Regulatory Comm'n (Jan. 9, 2012) (Attach. 25).

[89] *Iowa Hydropower Dev. Corp.*, Project No. 11247-001, Order Canceling Prelim. Permit (Aug. 19, 1994) (Attach. 26).

[90] *Iowa Hydropower Dev. Corp.*, Project No. 11278-001, Notice of Surrender of Prelim. Permit (Aug. 11, 1994) (Attach. 27).

Project No. 11245-001 (Miss. River Lock & Dam No. 9)[91]	Permit Surrendered	Infeasibility of project	May 28, 1993
Project No. 11246-001 (Miss. River Lock & Dam No. 10)[92]	Permit Surrendered	Infeasibility of project	May 28, 1993
Project No. 11248-001 (Miss. River Lock & Dam No. 12)[93]	Permit Surrendered	Infeasibility of project	May 28, 1993
Project No. 11249-001 (Miss. River Lock & Dam No. 13)[94]	Permit Surrendered	Infeasibility of project	May 28, 1993
Project No. 11250-001 (Miss. River Lock & Dam No. 16)[95]	Permit Surrendered	Infeasibility of project	May 28, 1993
Project No. 11251-001 (Miss. River Lock & Dam No. 18)[96]	Permit Surrendered	Infeasibility of project	May 28, 1993
Project No. 10747-001 (Rathbun)[97]	Permit Canceled	Failure to submit progress report	March 19, 1990

This extensive history of noncompliance with Commission orders and a lack of due diligence for Mr. Rundle's previous projects are evidence that his latest company, Pumped Hydro, is an "unfit" applicant for a preliminary permit. *See, e.g.*, *Energie Grp.*, 511 F.3d at 164; *Appalachian Rivers Res. Enhancement*, 113 FERC ¶ 62,100, at 64,288.

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91 *Iowa Hydropower Dev. Corp.*, Project No. 11245-001, Notice of Surrender of Prelim. Permit (May 28, 1993) (Attach. 28).

92 *Iowa Hydropower Dev. Corp.*, Project No. 11246-001, Notice of Surrender of Prelim. Permit (May 28, 1993) (Attach. 29).

93 *Iowa Hydropower Dev. Corp.*, Project No. 11248-001, Notice of Surrender of Prelim. Permit (May 28, 1993) (Attach. 30).

94 *Iowa Hydropower Dev. Corp.*, Project No. 11249-001, Notice of Surrender of Prelim. Permit (May 28, 1993) (Attach. 31).

95 *Iowa Hydropower Dev. Corp.*, Project No. 11250-001, Notice of Surrender of Prelim. Permit (May 28, 1993) (Attach. 32).

96 *Iowa Hydropower Dev. Corp.*, Project No. 11251-001, Notice of Surrender of Prelim. Permit (May 28, 1993) (Attach. 33).

97 *Iowa Hydropower Dev. Corp.*, Project No. 10747-001, Order Canceling Prelim. Permit (Mar. 19, 1990) (Attach. 34).

Pumped Hydro's recent actions and statements further demonstrate it is an "unfit" applicant because it is unlikely to diligently pursue the Big Canyon Project. Within two months of its existence, Pumped Hydro filed preliminary permit applications for five pumped storage projects in Arizona, and the Big Canyon Project is the sixth Arizona project that Pumped Hydro has proposed in the last year and a half. Together, these six projects have a collective capacity of 13,150 MW. Even without taking into account the Little Colorado River and Salt Trail Canyon Projects (which Pumped Hydro has indicated it would withdraw if the Big Canyon Project's preliminary permit is approved), Pumped Hydro's other proposed projects have a collective capacity of 8,450 MW. For perspective, all of the other pumped storage permit applications pending before the Commission as of January 1, 2020, had a collective capacity of 17,910 MW.[98] Moreover, all of the currently-operating and licensed pumped storage projects across the United States have a collective capacity of approximately 16,500 MW.[99] Even if Pumped Hydro does not pursue the Little Colorado River and Salt Trail Canyon Projects, the odds are exceedingly small that this two-person Arizona company would single-handedly increase the United States' existing licensed pumped storage capacity by more than 50%.

Additionally, it is highly unlikely that Pumped Hydro will simultaneously be able to diligently pursue the Big Canyon Project along with its other proposed projects. FERC has already approved preliminary permits for four of Pumped Hydro's six proposed projects. *Pumped Hydro Storage LLC*, 171 FERC ¶ 61,138

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98 Fed. Energy Regulatory Comm'n, Pending Preliminary Permits for Pumped Storage Projects (Attach. 5).

99 Fed. Energy Regulatory Comm'n, Pumped Storage Projects (Attach. 6).

(May 21, 2020); *Pumped Hydro Storage LLC*, 171 FERC ¶ 61,137 (May 21, 2020); *PumpedHydroStorage LLC*, 171 FERC ¶ 62,008 (Apr. 2, 2020); *Pumped Hydro Storage, LLC*, 170 FERC ¶ 62,038 (Jan. 17, 2020). Not taking into consideration the Little Colorado River and Salt Trail Projects, Pumped Hydro will have the next three to four years to pursue at least three pumped storage projects if the Big Canyon Project receives a preliminary permit. Together, the cost to develop and perform studies, plans, or specifications for these three projects is estimated to be up to $38 million.[100] If the remaining Pumped Hydro proposed project also receives a preliminary permit, the estimated cost for development and studies, plans, and specifications would be up to $44 million.[101] But Pumped Hydro has failed to identify the expected sources of financing to prepare the studies, plans, and specifications for any of the six proposed projects. Nor has it identified the plan for full project financing for any of the projects. The odds that this two-person company can diligently pursue even one of its costly pumped storage project proposals, let alone at least three, is very low.

Moreover, Pumped Hydro's other principal member—Steve Irwin—has made statements to the media that cast further doubt on the company's fitness. A news article from March 5, 2020, reported that in response to the overwhelming opposition to the Little Colorado River and Salt Trail Canyon Projects, "Pumped

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[100] Project No. 15024-000, Appl. for Prelim. Permit for Big Canyon Pumped Storage Project at 10 (Mar. 12, 2020); Project No. 14990-000, Rev. Appl. for Prelim. Permit for Salt River Project Indian Springs Pumped Storage Project at 11 (July 31, 2019); Project No. 14989-000, Appl. for Prelim. Permit for Montezuma Pumped Storage Project at 12 (Oct. 7, 2019).

[101] Project No. 14995-000, Rev. Appl. for Prelim. Permit for San Francisco River Pumped Storage Project at 11 (July 31, 2019).

Hydro Storage co-founder Steve Irwin said the company is working on a revamped proposal that involves damming a side canyon of the Little Colorado, rather than the river itself."[102] This statement suggests that Pumped Hydro had, by March, abandoned the Little Colorado River and Salt Trail Canyon Projects. Rather than withdrawing its applications, however, Pumped Hydro did nothing and allowed the Commission to spend time and resources processing these two projects.

In May 2020, Mr. Irwin was reportedly "surprised to hear" that the Commission accepted the Little Colorado River and Salt Trail Projects' preliminary permits.[103] Where, as here, an applicant has already consumed the Commission's time and resources on speculative projects that it did not intend to pursue, the Commission should dismiss that applicant's permit for a very similar and equally speculative project and should not "continue to direct staff resources to [the] project[ ]." *See Pac. Energy Res., LLC*, 128 FERC ¶ 62,154 at 64,460; *see also In re Wilson*, 28 FPC 571, 575 (1962) ("Under an application for a preliminary permit, the Commission is concerned with the general fitness of the applicant and with his good faith and purpose to prosecute his declared intent and plans diligently . . ."). The circumstances here are sufficient to find that Pumped Hydro is "unfit" for the permit it seeks, and the Commission should accordingly dismiss the permit application.

B. The Big Canyon Project is unlikely to ever be licensed.

Denial of a preliminary permit is also warranted when a proposed project is unlikely to receive a license. This may occur if there is a legal bar or other

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[102] Sammy Roth, *Environmental disaster or key to a clean energy future? A new twist on hydropower*, L.A. Times (Attach. 10).

[103] Scott Buffon, *Feds approve initial Little Colorado River dam permits; developer eyes third permit*, Ariz. Daily Sun (Attach. 8).

analogous barrier that would prevent the Commission from granting a license, or if the applicant is unlikely to receive the necessary authorizations for the project. *See, e.g.*, *Energie Grp.*, 511 F.3d at 164; *Freedomworks*, 167 FERC ¶ 62,026 at ¶ 11.

Pumped Hydro is unlikely to receive a license for the Big Canyon Project due to the project's impacts to the endangered humpback chub and its critical habitat, and the protections the Endangered Species Act provides to the humpback chub. In addition, the opposition of numerous tribes to Pumped Hydro's previous two projects in this same region shows that this project's approval under the National Historic Preservation Act is not forthcoming, and this is a matter the Commission must also navigate with all other impacted tribes prior to issuing a license. Moreover, because the project would be located entirely on Navajo Nation lands, it cannot proceed absent the Navajo Nation's support. Because Pumped Hydro is unlikely to receive a license for this project, the Commission should not issue a preliminary permit.

1. The project is inconsistent with applicable Endangered Species Act protections for the humpback chub.

The ESA prohibits the Commission from taking actions that are likely to jeopardize the continued existence of the humpback chub or result in the destruction or adverse modification of its critical habitat. The Big Canyon Project is inconsistent with these ESA obligations. The project would harm the humpback chub by pumping exorbitant amounts of groundwater to fill its reservoirs—the same groundwater that feeds the springs that provide base flow to the humpback chub's designated critical habitat and primary spawning grounds in the Grand Canyon. In addition, the project would interfere with Reclamation's management of Colorado

River flows from Glen Canyon Dam, further hindering humpback chub recovery. It is therefore unlikely the Commission could license the project.

a. The Commission cannot take actions that jeopardize humpback chub recovery or result in adverse modification of its critical habitat.

The FWS has listed the humpback chub as endangered. 59 Fed. Reg. 13,374. Under Section 7(a)(2) of the ESA, the Commission must ensure its actions are "not likely to jeopardize the continued existence" of any listed species or "result in the destruction or adverse modification of" critical habitat. 16 U.S.C. § 1536(a)(2). Jeopardy results when an action is reasonably 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. Destruction or adverse modification means "a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species." *Id.*

To comply with the ESA, the Commission must consult with FWS before undertaking an action—including licensing a hydropower project—that may affect the humpback chub or its critical habitat. 16 U.S.C. § 1536(a)(2), (a)(3); 50 C.F.R. § 402.14(a). For actions that are "major construction activities," such as the Big Canyon Project, a biological assessment (BA) is required. 50 C.F.R. § 402.12(b). The BA "shall evaluate the potential effects of the action on listed and proposed species and designated and proposed critical habitat and determine whether any such species or habitat are likely to be adversely affected by the action." *Id.* § 402.12(a). Unless the Commission determines, as a result of the BA or as a result of an informal consultation with FWS, that its action is "not likely to adversely affect" the

species or its critical habitat, the Commission must initiate formal consultation. *Id.* § 402.14(a), (b).

Following formal consultation, FWS will issue a biological opinion determining whether the effects of the proposed action, taken together with its cumulative effects, are "likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat." *Id.* § 402.14(g)(4). The biological opinion must find one of the following: (1) that the action is not likely to cause jeopardy or adverse modification; (2) that the action is likely to cause jeopardy or adverse modification, but such jeopardy or adverse modification can be avoided by implementing reasonable and prudent alternatives to the proposed action; or (3) that the action is likely to cause jeopardy or adverse modification, and no reasonable and prudent alternatives are available. *Id.* § 402.14(h)(1), (h)(2). If FWS issues a jeopardy or adverse modification biological opinion without reasonable and prudent alternatives, it is exceedingly unlikely that the Commission will be able to license the project.

b. The project would harm the humpback chub's critical habitat and primary spawning grounds in the Grand Canyon.

The lower Little Colorado River is "an important stream for the Humpback Chub in the Grand Canyon,"[104] and the groundwater flow that feeds this river is "vital to sustaining the humpback chub population and its critical habitat."[105] This project would significantly reduce the groundwater flows in the region, thereby harming this critical habitat and jeopardizing the humpback chub's recovery.

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104 Species Status Assessment at 64 (Attach. 2).

105 LCR Management Plan at xi (Attach. 1).

While humpback chub were once abundant in the Grand Canyon, the construction of dams and other projects in the area fundamentally altered the flows and habitat of this region and were a major factor leading to the humpback chub's decline.[106] The largest remaining humpback chub population resides in the Lower Colorado River and its confluence with the Colorado River.[107] FWS has designated this area as critical habitat. 59 Fed. Reg. at 13,398.

The Little Colorado River is particularly important to the humpback chub because it is the primary spawning grounds for the species in the Grand Canyon.[108] According to the National Park Service, the humpback chub in the Little Colorado River is "the only known spawning population of humpback chub in Grand Canyon."[109] Historically, humpback chub spawning likely occurred in the mainstem Colorado River.[110] But cold releases from the Glen Canyon Dam starting in the 1960s have precluded spawning in the mainstem.[111] Likewise, spawning historically may have also taken place in large tributaries of the Grand Canyon, but reduced flows and increased predation have made these waters unusable and inaccessible.[112] Today, the Little Colorado River is particularly suited for humpback chub spawning, unlike other waters in the Grand Canyon, because of its diverse canyon rocky

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106 U.S. Nat'l Park Serv., Humpback Chub (Gila cypha) (Attach. 13); U.S. Fish & Wildlife Serv., *Humpback Chub Recovery Plan* 11–13 (Attach. 16).

107 U.S. Nat'l Park Serv., Humpback Chub (Gila cypha) (Attach. 13); U.S. Fish & Wildlife Serv., *Humpback Chub (Gila cypha) 5-Year Review: Summary and Evaluation* 5 (Attach. 15).

108 Species Status Assessment at 16, 19, 59 (Attach. 2).

109 U.S. Nat'l Park Serv., Humpback Chub (Gila cypha) (Attach. 13).

110 Species Status Assessment at 16 (Attach. 2).

111 *Id.*

112 *Id.*

habitat, water temperature, suitable river flows, and other factors.[113] In addition, egg incubation and larval development of humpback chub in the Grand Canyon also occur primarily in the lower Little Colorado River.[114] This river also suits humpback chub juveniles better than other waters in the Grand Canyon.[115]

The Big Canyon Project would adversely alter this critical habitat. The project requires pumping of an enormous amount of groundwater, but Pumped Hydro's preliminary permit application fails to even identify the source of the groundwater that the project would use. Given the location of the project, however, it is likely that the project will withdraw water from the Coconino and Redwall-Muav aquifer system—a system that presently has a considerable amount of groundwater pumping and is already coming under increasing demand.[116] Increased groundwater pumping from the Coconino and Redwall-Mauv aquifer system is likely to drastically reduce the flow of the Blue Springs, which constitutes approximately half of the total flows in the Little Colorado River.[117]

Mr. Irwin has reportedly stated that 44,000 acre-feet of groundwater would be pumped initially to fill the reservoirs.[118] For perspective, the groundwater pumped for all municipal, industrial, and agricultural uses from the Coconino aquifer currently is 85,000 acre-feet per year.[119] Increased pumping from this

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113 *See, e.g.*, *id.* at vi–viii, 15–18.
114 *Id.* at 59.
115 *Id.* at 23, 59.
116 *Id.* at 66.
117 *Id.* at 66–67,126–28, 139, 145, 151; LCR Management Plan at 17–18, 26, 126–28 (Attach. 1); U.S. Bureau of Reclamation, *North Central Arizona Water Supply Feasibility Study, Interim Report* 22, 28 (Attach. 3).
118 Ian James, *Facing concerns about damming Little Colorado River, company plans dams in another canyon*, Ariz. Republic (Attach. 7).
119 LCR Management Plan at 19 (Attach. 1).

aquifer system by more than 50% solely for the Big Canyon Project could overburden the aquifers and significantly reduce the flow to the Blue Springs and, in turn, to the Little Colorado River. The Fish and Wildlife Service has determined that this kind of "sudden and substantial decrease in flow" to the Little Colorado River could be "disastrous to the Humpback Chub population in Grand Canyon."[120] Reduced base flow from Blue Springs would negatively affect the fish through reduced stream capacity, spawning potential, survival, growth, and food production.[121] Indeed, "[t]he Humpback Chub in the lower [Little Colorado River] is entirely reliant on flow from the Blue Springs complex for base flow, when there is otherwise no surface flow."[122] Reduced base flow could also allow for a build-up of travertine in the river that could further reduce available space and habitat for the various life stages of the humpback chub.[123] Moreover, changes in flow can alter water temperature, which would further threaten humpback chub recovery.[124]

Furthermore, Mr. Irwin estimates the project would require pumping of up to 15,000 acre-feet of water per year to make up for evaporative losses, around 18% more of what is currently pumped by municipal, industrial, and irrigation projects.[125] Moreover, the losses are likely to be significantly more than estimated, since Pumped Hydro seems to have not considered the losses that will probably occur due to leakage from reservoirs built on fissured limestone. This ongoing

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120 Species Status Assessment at 151 (Attach. 2).
121 *Id.* at 67.
122 *Id.* at 65 (emphasis added).
123 *Id.* at 67.
124 *Id.* at 16, 73, 127–28.
125 Ian James, *Facing concerns about damming Little Colorado River, company plans dams in another canyon*, Ariz. Republic (Attach. 7).

additional pumping every year would also reduce the flow of the springs and the lower Little Colorado River.

Under these circumstances, the Big Canyon Project is highly unlikely to pass muster under the ESA. Pumping immense amounts of groundwater from an aquifer system that is the source of base flow for the lower Little Colorado River will likely adversely impact this critical habitat. Given how crucial this habitat is to the humpback chub's survival, it is implausible that the project would not also cause jeopardy to the fish. 50 C.F.R. §§ 402.12(a), 402.14(g)(4). It is highly unlikely that any reasonable and prudent alternatives exist for a project that would imperil the primary spawning grounds for the largest remaining humpback chub population. *Id.* § 402.14(h)(2). Because the project will not be able to proceed in compliance with the ESA, the Commission will not be able to issue a license for the project and it should therefore deny the requested preliminary permit. *See Wyco Power & Water, Inc.*, 139 FERC ¶ 61,124, at ¶ 61,852.

c. The project will interfere with the Bureau of Reclamation's management of flows from Glen Canyon Dam, which is a key component of humpback chub recovery.

The Commission is also unlikely to issue a license because the Big Canyon Project would disturb the Bureau of Reclamation's management of Glen Canyon Dam. The construction and operation of Glen Canyon Dam is a major cause of the loss of humpback chub habitat and its decline.[126] The dam dramatically reduced the Colorado River's water temperature, rendering it unusable for humpback chub

[126] U.S. Fish & Wildlife Serv., *Humpback Chub Recovery Plan* 11 (Attach. 16).

spawning, egg incubation, and larvae development.[127] Glen Canyon Dam also altered the Colorado River's natural flows and reduced sediment levels, which further harmed the species.[128]

In response to this and other adverse environmental impacts of Glen Canyon Dam, the Department of the Interior has developed a Long-Term Experimental and Management Plan (LTEMP) for its Glen Canyon Dam operations.[129] The purpose of the LTEMP is to provide a comprehensive framework for managing the dam for the next two decades, so the agency can attempt to fulfill its statutory obligations to conserve listed species under the ESA and meet other statutory obligations.[130]

An important objective of the LTEMP is to "[m]eet humpback chub . . . recovery goals, including maintaining a self-sustaining population, spawning habitat, and aggregations in the Colorado River and its tributaries below the Glen Canyon Dam."[131] The LTEMP recognizes that "[m]aintain[ing] spawning habitat for humpback chub in the Lower Little Colorado River" is vital to reaching this objective.[132] In developing the LTEMP, the agency conducted Section 7 consultations with FWS, and analyzed related biological opinions and environmental impact statements.[133] The implementation of the LTEMP involves Reclamation's

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127 Species Status Assessment at 16, 59 (Attach. 2).
128 LTEMP FEIS at ES-43–ES-44 (Attach. 17).
129 *Id.* at ES-1.
130 *Id.* at ES-3–ES-6.
131 *Id.* at ES-5.
132 U.S. Fish & Wildlife Serv., Mem. from Field Supervisor, Ariz. Ecological Serv. Off., to Regional Director, U.S. Bureau of Reclamation, Upper Colo. Regional Off., regarding Biological Opinion for the Glen Canyon Dam Long-Term Experimental and Management Plan, Coconino County, Arizona 40 (Nov. 28, 2016), https://tinyurl.com/tgeqkqj (Attach. 35).
133 LTEMP FEIS at ES-11–ES-17, ES-20, ES-40 (Attach. 17).

complex management of flow releases from Glen Canyon Dam, in an attempt to minimize impacts on canyon resources, including humpback chub habitat.[134] Because the dam also supplies hydropower, these adjustments affect its power output.

Since the Big Canyon Project would require pumping a large amount of groundwater from the same aquifer system that feeds the Little Colorado River, the project would necessarily influence the river flows, water temperature, sediment levels, and other vital components of the ecosystem in the Grand Canyon's inner gorge. This would exacerbate the current, already harmful impacts of Glen Canyon Dam on the humpback chub. This further shows that a determination of no jeopardy and no adverse modification is highly unlikely. 16 U.S.C. § 1536(a)(2); 50 C.F.R. §§ 402.12(a), 402.14(g)(4).

The new dams and reservoirs would also upend Reclamation's efforts to encourage humpback chub recovery, and consequently would pit the project's hydropower output against that of Glen Canyon Dam. Because the project would influence and alter water flows in the region, including in the downstream Colorado River, Reclamation would have to reconsider how it manages water releases from Glen Canyon Dam. It is hard to imagine that the project's significant adverse impacts to humpback chub would not force Reclamation to reexamine the LTEMP and adjust the operation of Glen Canyon Dam to compensate for those harms. These adjustments would inevitably affect the dam's power output. In short, if the

134 *Id.* at ES-1, ES-3.

Commission licenses this project, Reclamation might have to amend the LTEMP, or even develop a new plan.

The federal government has spent decades attempting to reduce the damage caused by Glen Canyon Dam and recover the humpback chub from the brink of extinction.[135] Licensing a project that would worsen Glen Canyon Dam's effects, and further jeopardize the species, would undermine these efforts and is inconsistent with the ESA. It would also jeopardize the LTEMP, putting the Big Canyon Project's power production in direct conflict with the power output of Glen Canyon Dam. This conflict would not be in the public interest and would violate the Federal Power Act's admonition to ensure that the projects the Commission licenses are "best adapted to a comprehensive plan . . . for the improvement and utilization of water-power development." 16 U.S.C. § 803(a)(1) (emphasis added). The Commission should dismiss the preliminary permit application.

2. The objections and concerns of the Hopi Tribe, Hualapai Tribe, and Navajo Nation would stand in the project's way under the National Historic Preservation Act.

Last year, the Hopi Tribe, Hualapai Tribe, and Navajo Nation objected to the Little Colorado River and Salt Trail Canyon Projects because the projects, among other things, would harm tribal Traditional Cultural Properties protected by the National Historic Preservation Act. The Big Canyon Project does not even attempt to address these concerns. It therefore appears likely that the Hopi Tribe, Hualapai Tribe, and Navajo Nation will not support this new project on similar grounds.

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135 U.S. Fish & Wildlife Serv., *Humpback Chub Recovery Plan* 14–16 (Attach. 16).

Traditional Cultural Properties are properties eligible for inclusion in the National Register of Historic Places because of their association with cultural practices or beliefs of a living community that are (1) rooted in that community's history, and (2) important in maintaining the continuing cultural identity of the community.[136] As the Bureau of Reclamation has recognized, the Grand Canyon region and the lower gorge of the Little Colorado River are Traditional Cultural Properties.[137] The Grand Canyon is sacred to the Hopi Tribe, Navajo Nation, the Hualapai Tribe, the Havasupai Tribe, and other tribes.[138] This includes the entire ecosystem of the region, including the wildlife, the river system, springs, and other features.[139] As Reclamation noted, Native peoples' cultural-natural symbiotic relationships are embedded in the landscape, both above and below the surface of land and water, and are germane to the continued survival of their cultural identities.[140] Native peoples continue to maintain a cultural and spiritual connection to the Grand Canyon, and it continues to be an integral part of their respective individual and collective cultural identity and way of life.[141] In addition, the area of the lower Little Colorado River where Pumped Hydro plans to build the project contains numerous historically and culturally important sites, such as the

136 Patricia L. Parker & Thomas F. King, U.S. Nat'l Park Serv., *Nat'l Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties* 1 (rev. 1998) (Attach. 36); *see* 36 C.F.R. § 60.4 (listing criteria applied to evaluate properties for the National Register).

137 LTEMP Programmatic Agreement at 5 (Attach. 18).

138 *See, e.g.*, *id.* at 1; 2019 Havasupai Letter (Attach. 23).

139 LTEMP Programmatic Agreement at 1, 4–5 (Attach. 18).

140 *Id.* at 1.

141 *Id.*

Hopi Salt Trail and the location where the Hopi's ancestors emerged into this world.[142]

Under Section 106 of the National Historic Preservation Act, the Commission must consider the impact of its future actions on these Traditional Cultural Properties before issuing a license. 54 U.S.C. § 306108; *City of Tacoma, Wash. v. Fed. Energy Regulatory Comm'n*, 460 F.3d 53, 69 (D.C. Cir. 2006). The Commission must first consult with impacted tribes and relevant tribal historic preservation officers to identify all historic properties potentially affected by the license. 36 C.F.R. §§ 800.3, 800.4. Taking the impacted tribes' views into account, the Commission must identify reasonably foreseeable "adverse effects," which are defined as any impacts that may directly or indirectly alter any of the characteristics of a historic property eligible for listing on the National Register of Historic Places in a manner that would diminish the integrity of the property. *Id.* § 800.5(a). After identifying adverse effects, the Commission must continue to consult with impacted tribes and tribal historic preservation officers, and seek ways to avoid, minimize, or mitigate the adverse effects. *Id.* § 800.6(a), (b). Where, as here, the license would be issued to a project occurring on or affecting Traditional Cultural Properties on tribal lands, resolution of the adverse effects must involve approval from a tribal historic preservation officer. *Id.* § 800.6(b), (c).

Here, the Commission would have to consult with the Navajo Nation, the Hopi Tribe, the Hualapai Tribe, the Havasupai Tribe, and any other impacted tribes that wish to participate in the consultation process. Because the Big Canyon Project

142 *See, e.g.*, 2019 Hopi Letter at 1 (Attach. 19).

would harm Traditional Cultural Properties and sacred sites, it appears likely that the tribes will not support this project. Indeed, the Navajo Nation's District III Grazing Committee has already passed a resolution to deny Pumped Hydro's request regarding feasibility studies for the Big Canyon Project (and the Little Colorado River and Salt Trail Canyon Projects), partly because of impacts to "the cultural resources of the Navajo Nation, including the Traditional Cultural Projects of The Confluence, Salt Canyon, and Blue Springs."[143] The Navajo Nation's notice of intervention in this proceeding states that the Big Canyon Project "would likely adversely impact . . . cultural resources of the Navajo Nation," including the Confluence, the Salt Trail, and the Blue Springs (all of which are listed as Traditional Cultural Properties by the Navajo Nation Heritage and Historic Preservation Department).[144] Additionally, Howard Dennis, a Hopi clan leader, was quoted as stating that "[he] think[s] [this new project is] even going to be worse because when you're sucking up groundwater, you're taking it out of the springs."[145]

Moreover, the Navajo Nation, the Hopi Tribe, and the Hualapai Tribe opposed the related Little Colorado River and Salt Trail Canyon Projects last year. The Hopi Tribe explained that "any development within the area of the Confluence will forever compromise the spiritual integrity of this Sacred Place."[146] The Hopi

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143 Navajo Nation Dist. III Grazing Comm. Res. D3GCM 2020-06-10 (June 8, 2020) & Navajo Nation Dist. III Grazing Comm. Res. D3GCM 2020-11-04 (Dec. 5, 2019) (Attach. 37). Last year, the Cameron Chapter of the Navajo Nation also passed a resolution to deny Pumped Hydro's request for feasibility studies for the Little Colorado River and Salt Trail Canyon Projects. Navajo Nation Cameron Chapter Res. CAMNOV-20-19 # 6 (Nov. 2019) (Attach. 38).

144 Navajo Notice of Intervention at 2, 4 (Attach. 21).

145 Ian James, *Facing concerns about damming Little Colorado River, company plans dams in another canyon*, Ariz. Republic (Attach. 7).

146 2019 Hopi Letter at 2 (Attach. 19) (emphasis added).

Tribe also stated that the previous projects' "proposed development[s] and location [are] simply unacceptable to Hopi religious leaders, practitioners and the Hopi people as [they] will significantly and forever adversely impact Hopi sacred places," and "Hopi religious leaders and the Hopi people in general strongly oppose" the proposals.[147] The Hualapai Tribe noted that it was "deeply concerned" about the devastating cultural impacts of the projects, since "project[s] such as [these] would forever disturb a traditional cultural landscape that maintains historic and sacred values and that is part of the cultural identity of the Hualapai people and other neighboring tribes."[148] The Havasupai Tribe also raised similar concerns.[149]

Despite promoting the Big Canyon Project as a "revamped" project, Pumped Hydro has not even attempted to address these concerns raised by the tribes. The Big Canyon Project is still located within the tribes' sacred area in the Grand Canyon region, adjacent to the lower Little Colorado River and mere miles from the confluence of the Little Colorado and Colorado Rivers, and right next to the Salt Trail Canyon. Moreover, the Big Canyon Project would pump large amounts of water in ways that would impact Native peoples' sacred springs, rivers, and other waters. The groundwater pumping and the construction of large dams, wells, and pipeline structures would necessarily impact this sacred area.

Instead of addressing these and other cultural impacts, Pumped Hydro has admitted that the new project has modified the prior projects solely to address

147 *Id.*
148 2019 Hualapai Letter at 2 (Attach. 22).
149 2019 Havasupai Letter (Attach. 23).

"aquatic waterway issues."[150] Indeed, in a statement that encapsulates the deep flaws with Pumped Hydro's approach, Mr. Irwin has reportedly stated that "[r]ight now, [he is] just concerned with the Navajo" because "[i]t's not Hualapai ground and it's not Hopi ground."[151]

In sum, the Commission must seek the agreement of impacted tribes to allow adverse impacts to Traditional Cultural Properties in order to license the project. Given the Hopi Tribe, Navajo Nation, and Hualapai Tribe's opposition to Pumped Hydro's earlier projects that implicated exactly the same adverse impacts that the Big Canyon Project does, it appears highly unlikely that all of these tribes will agree. The Commission must also seek approval from all other tribes that wish to consult under the National Historic Preservation Act. The improbability of resolving these objections and any others raised during the consultation process stands as a serious, if not insurmountable, impediment to Pumped Hydro's ability to obtain a license.

3. The project cannot proceed without the Navajo Nation's support.

Because the Big Canyon Project would be located entirely on Navajo Nation lands, the project cannot proceed without the Navajo Nation's political and legal support. *See, e.g.*, *McGirt v. Oklahoma*, 140 S. Ct. 2452, 2477 (2020) (reaffirming that tribes are distinct political communities and that their authority within their

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150 Ian James, *Facing concerns about damming Little Colorado River, company plans dams in another canyon*, Ariz. Republic (Attach. 7); *see* Scott Buffon, *Feds approve initial Little Colorado River dam permits; developer eyes third permit*, Ariz. Daily Sun (Attach. 8).

151 Ian James, *Facing concerns about damming Little Colorado River, company plans dams in another canyon*, Ariz. Republic (Attach. 7).

territorial boundaries is exclusive and guaranteed by the United States). If the Navajo Nation does not support or approve of this project that would be located entirely on its lands, there are at least five additional reasons why the company would be unlikely to obtain a license.

First, if the Navajo Nation does not support the project, it could prevent or limit Pumped Hydro's ability to conduct feasibility studies—which would defeat the purpose of issuing a preliminary permit. *Freedomworks*, 167 FERC ¶ 62,026 at ¶ 11. The purpose of a preliminary permit is to provide a permit holder with a first-in-time right to file a license application while studying a project's feasibility. *Renewable Energy Aggregators*, 168 FERC ¶ 62,143, at ¶ 12 (2019). A preliminary permit "grants no land-disturbing or other property rights." *Id.* Accordingly, the Commission makes it clear that a permit holder "can only enter lands it does not own with the permission of the landholder, and is required to obtain whatever environmental permits federal, state, and local authorities may require before conducting any studies." *Id.* at ¶ 12 n.9; *see also Freedomworks*, 167 FERC ¶ 62,026 at ¶¶ 10–11 (dismissing permit application when the U.S. Forest Service denied the applicant's request to enter its lands to conduct feasibility studies). Feasibility studies for a project that would require new dams and reservoirs can involve core bore drilling and other intensive land-disturbing activities. *See, e.g.*, *Freedomworks*, 167 FERC ¶ 62,026 at ¶¶ 7–8. The Navajo Nation could therefore deny Pumped Hydro access to its lands to study the project, or place conditions on that access. Under either scenario, the company's ability to conduct the necessary feasibility studies would be substantially diminished without Navajo Nation support.

Here, the Navajo Nation's notice of intervention makes clear that "the Nation has not authorized the permit holder to enter upon the lands of the Navajo Nation or to use its waters."[152] Indeed, the Navajo Nation's District III Grazing Committee has already passed resolutions denying Pumped Hydro's request regarding feasibility studies for the Big Canyon Project (as well as the Little Colorado River and Salt Trail Canyon Projects).[153] All three of Pumped Hydro's proposed projects in the Navajo Nation would be located within the Grazing District III.[154] Therefore, granting the preliminary permit in this situation is unwarranted because it is highly unlikely that Pumped Hydro will be able to do the work necessary to move forward with the project.

Second, the Navajo Nation could deny or place conditions on the Clean Water Act 401 certification for the project. 33 U.S.C. § 1341(a)(1) (requiring a 401 certification for a "Federal license or permit" for a project that "may result in any discharge into . . . navigable waters"); 40 C.F.R. § 121.2 ("Certification is required for any license or permit that authorizes an activity that may result in a discharge.") (effective Sept. 11, 2020). Although Pumped Hydro's preliminary permit application states that this would be a closed-loop project, Mr. Irwin has reportedly stated: "We would probably let some water go on a continuous basis. It would run . . . back to

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152 Navajo Notice of Intervention at 2 (Attach. 21).

153 Navajo Nation Dist. III Grazing Comm. Res. D3GCM 2020-06-10 & Navajo Nation Dist. III Grazing Comm. Res. D3GCM 2020-11-04 (Attach. 37). Last year, the Cameron Chapter of the Navajo Nation also passed a resolution to deny Pumped Hydro's request for feasibility studies for the Little Colorado River and Salt Trail Canyon Projects. Navajo Nation Cameron Chapter Res. CAMNOV-20-19 # 6 (Attach. 38).

154 Navajo Nation Dist. III Grazing Comm. Res. D3GCM 2020-06-10 & Navajo Nation Dist. III Grazing Comm. Res. D3GCM 2020-11-04 (Attach. 37).

the Little Colorado."[155] Therefore, this project may result in a discharge into navigable waters. The Navajo Nation administers the Clean Water Act on its lands, and thus the Navajo Nation would issue the 401 certification for this project.[156] Although this 401 certification authority "is not unbounded," the Navajo Nation has relatively broad authority "to place restrictions on the activity as a whole" to ensure a project does not undermine the Navajo Nation's clean water goals. *PUD No. 1 of Jefferson Cty. v. Wash. Dep't of Ecology*, 511 U.S. 700, 712 (1994); *see also S.D. Warren Co. v. Me. Bd. of Envtl. Prot.*, 547 U.S. 370, 386 (2006) ("State certifications under § 401 are essential in the scheme to preserve state authority to address [a] broad range of pollution . . . ."). If the Big Canyon Project would violate applicable water quality standards, the Navajo Nation could deny a 401 certification for the project. *See, e.g.*, *Constitution Pipeline Co., LLC v. N.Y. State Dep't of Envtl. Conservation*, 868 F.3d 87 (2d Cir. 2017) (affirming New York's denial of a 401 certification for a natural gas pipeline); *Islander E. Pipeline Co., LLC v. McCarthy*, 525 F.3d 141 (2d Cir. 2008) (affirming Connecticut's denial of a 401 certification for a natural gas pipeline).

Third, the Navajo Nation could also deny groundwater pumping permits for the project. The waters of the Navajo Nation include "all surface and groundwaters which are contained within hydrologic systems located exclusively within the lands of the Navajo Nation" and "all groundwaters located beneath the surface of the lands

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155 Ian James, *Facing concerns about damming Little Colorado River, company plans dams in another canyon*, Ariz. Republic (Attach. 7).

156 *See, e.g.*, U.S. Envtl. Prot. Agency, Water Quality Standards Regulations: Navajo Nation, https://tinyurl.com/yxvf6lxc (last visited Aug. 1, 2020) (Attach. 39); 4 N.N.C. § 1319 (codifying Navajo Nation's 401 certification authority).

held in trust by the United States of America for the Navajo Nation." 22 N.N.C. § 1104. Under the Navajo Nation Water Code, all entities that desire to use or take actions that would affect the waters of the Navajo Nation are required to obtain permits. *Id.* § 1603. Drilling permits are also required for groundwater pumping. *Id.* § 1604. Because the Big Canyon Project would require the construction of three wells on Navajo Nation lands and the pumping of enormous amounts of groundwater from the region, Pumped Hydro would be required to seek, at the very least, water use permits and well drilling permits. If Pumped Hydro is unable to receive such permits, it is exceedingly unlikely that the Big Canyon Project will be able to move forward.

Fourth, if the Hopi Tribe opposes this project as it did the previous two projects, its opposition will be an additional barrier to licensing because the Navajo Nation and the Hopi Tribe have entered into an Intergovernmental Compact in which the Navajo Nation has agreed to maintain and protect religious sites on its lands for the use and benefit of the members of both tribes.[157] The Compact notes the significance of the Hopi Salt Trail, which is located near the proposed project.[158]

Fifth, the Secretary of the Interior must ensure the project does not harm the Navajo Nation. Under section 4(e) of the FPA, the Commission may only license hydropower projects on tribal reservations subject to the conditions imposed by the Secretary of the Interior that are "deem[ed] necessary for the adequate protection and utilization of such reservation." 16 U.S.C. § 797(e). To discharge the United States' trustee obligations, the Secretary of the Interior must impose conditions on

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157 Navajo Nation Council Res. CS-35-06 (Attach. 20).

158 *Id.* (Intergovernmental Compact art. 2.2).

the Big Canyon Project that are necessary to protect the Navajo Nation's lands, waters, and people. *See generally Navajo Nation v. Dep't of the Interior*, 876 F.3d 1144 (9th Cir. 2017). The Commission must accept those conditions when it issues a license for the project. *Escondido Mut. Water Co. v. La Jolla Band of Mission Indians*, 466 U.S. 765, 777 (1984); *City of Tacoma*, 460 F.3d at 65.

The Commission should not issue a preliminary permit because Pumped Hydro has not secured the support of the Navajo Nation, on whose lands the project would be built. Without the Navajo Nation's support, there are serious questions regarding whether Pumped Hydro could possibly do the work necessary to submit a license application during the time when the preliminary permit would be in effect, and whether a license could ever be issued. Particularly because at least one Navajo Nation local district has already denied Pumped Hydro's requests for feasibility studies for this project, it is unlikely that the company will be able to secure a license. The Commission should therefore dismiss the preliminary permit application.

II. Alternatively, the Commission should require Pumped Hydro to conduct various studies on the project and allow the Conservation Coalition to participate in study development.

If the Commission grants a preliminary permit for the Big Canyon Project—which it should not do for all of the reasons discussed above—the Conservation Coalition requests that the Commission require Pumped Hydro to conduct studies that address, at a minimum, the issues described below. Also, the Conservation Coalition members request that the Commission allow them and all other parties and stakeholders to actively participate in the design and review of all studies.

1. If the project is constructed, how would the project impact humpback chub spawning grounds in and near the Little Colorado River?

2. If the project is constructed, how would the project affect downstream temperatures in the Little Colorado River and Colorado River?

3. If the project is constructed, how would the project affect sediment levels and turbidity in the Little Colorado River and Colorado River?

4. If the project is constructed, how would the project impact annual, monthly, weekly, and daily stream flows in the Little Colorado River and Colorado River?

5. If the project is constructed, how would the project affect annual, monthly, weekly, and daily flows of the Blue Springs and other springs that supply water to the Little Colorado River and Colorado River?

6. If the project is constructed, how would the project affect the groundwater discharge and recharge in the Coconino Aquifer, the Redwall-Mauv Aquifer, or other aquifers in the region?

7. If the project is constructed, how would the project affect other groundwater pumping projects that receive water from the Coconino Aquifer, the Redwall-Mauv Aquifer, or other aquifers in the region?

5. If the project is constructed, how would the project affect the Bureau of Reclamation's Long Term Experimental and Management Plan for Glen Canyon Dam releases?

6. What tribal cultural resources and sacred sites would be affected by the project (recognizing that this data may be confidential)?

7. If the project is constructed, what evaporative losses would occur at the new reservoirs? To what extent would these evaporative losses exacerbate future water shortages in the Colorado River basin?

8. How will climate change impact future Colorado River flows? To what extent will the project exacerbate future water shortages in the Colorado River basin?

9. Can Pumped Hydro obtain rights to the water necessary for the project? If so, on what legal basis will Pumped Hydro obtain the water rights? Would such diversion and appropriation comply with the requirements of Navajo Nation water law and Arizona state water law?

10. What is the "purpose and need" for this project? How would the price of energy from the project compare to the price of battery storage in Arizona today, and in the future?

SERVICE

The Conservation Coalition requests the Commission add the undersigned counsel at Earthjustice to the service list for this proceeding.

CONCLUSION

The Conservation Coalition requests the Commission grant its motion to intervene and dismiss Pumped Hydro's preliminary permit application for the Big Canyon Project. Pumped Hydro lacks the requisite "fitness" for a preliminary permit because it is unlikely to diligently pursue this excessively speculative project. This project is also not in the public interest, and a license is therefore unlikely to result.

Respectfully submitted August 3, 2020.

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CERTIFICATE OF SERVICE

I hereby certify that in accordance with 18 C.F.R. § 385.2010, I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated August 3, 2020.

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