

31 January 2022

Kimberly D. Bose  
Secretary of the Federal Energy Regulatory Commission  
888 First St. NE Room 1A  
Washington, DC 20426

Re: Docket P-4881-031

Dear Secretary Bose,

The Boise River Enhancement Network (BREN), Golden Eagle Audubon Society (GEAS), and Boise Valley Fly Fishers (BVFF) make the following additional study requests concerning the Barber Dam Hydroelectric Project No. P-4881. These include requests made during the pre-application process that were not completed or not completed adequately in our opinion, plus a study related to the proposed construction of an adjustable weir.

BREN was founded as a 501(c)(3) organization in 2011 in Boise, Idaho. The organization has approximately 1,700 members who live, work, and play in the lower Boise River watershed. BREN works with a variety of public and private partners to promote riparian restoration and wise use of the Boise River.

GEAS was founded as a 501(c)(3) organization in 1972 in Boise, Idaho. The organization has approximately 1,300 members. GEAS's mission is to build an understanding, appreciation, and respect for the natural world to conserve and restore natural ecosystems for birds and other wildlife. GEAS's area of interest includes Ada, Elmore, Canyon, Owyhee, Washington, Payette, Gem, and Boise counties. The

organization is actively involved in several habitat restoration activities along the Boise River, including in proximity to the Barber Pool.

Boise Valley Fly Fishers is the oldest fly-fishing organization in Idaho, founded in 1971, and has around 200 active members who call the Boise River their home water. The club's mission is to promote the sport of fly-fishing through education and conservation activities. The club is a recognized 501 (C)(3) corporation.

Our additional study requests fall into five areas: noxious and invasive plants, sediment behind Barber Dam, riparian and native vegetation, construction of the proposed adjustable weir, and recreation. We believe the Applicants' existing studies of noxious and invasive plants, sediment behind Barber Dam, and recreation are inadequate and do not reflect the initial study requests made during the pre-application process or the extent of the actual conditions within the study area established by the Applicants. We believe additional characterization of riparian and native vegetation is needed if dam operations are to meet the stated objective of providing terrestrial and aquatic wildlife habitat. Lastly, now that the proposed adjustable weir is a part of the application process, we believe study of the potential impacts of constructing that weir is needed.

### **Noxious and Invasive Plant Species**

*We request that the Applicants conduct a more extensive survey for invasive plants that covers the entire study area, not just within 100 feet of the Boise River shoreline.*

Given the species already documented, it is likely that invasive plants are far more extensive than currently mapped and control measures are needed over a much larger area than what has been identified. Further, it appears that the invasive species survey did not account for additional invasive species that we know to be present from field visits by members of BREN. They include, but are not limited to, dog rose (*Rosa canina*), Himalayan blackberry (*Rubus armeniacus*), and Russian olive (*Elaeagnus angustifolia*).

In 2019, BREN requested that noxious, exotic, and invasive vegetation species throughout the study area be inventoried and their impact on fish and wildlife habitat, recreation, water quality, and aesthetics be assessed. In 2020, BREN reviewed the proposed study plan for noxious and invasive plants and stated that it was inadequate, requesting a more detailed study of non-native plants be performed. In 2021, BREN responded to the Draft License Application stating that the invasive plant survey conducted was inadequate as it covered only the area within 100 feet of the shoreline and mapped invasive plant areas with densities of 20% or greater, without defining what is meant by "density". Does it mean plants per unit area, cover per unit area, or something else? We support a density definition of cover per unit area and that mapping should include cover

as low as 5% for invasive plants and 1% for species listed as noxious by the state of Idaho and Ada County.

The study area and area of potential impact encompasses the entire Barber Pool, a much larger area than within only 100 feet of the shoreline (see Figure 1 of the McMillen Jacobs Associates and Stantec Consulting Services, Inc. final study plan). We suspect inspection of the full study area will show it contains additional populations of invasive plants that are not presently shown by the Applicants.

The FLA merely states that the Licensee would conduct periodic invasive weed management in upland areas, defining those as the powerhouse parking area, roadway embankment, and flood control berm. The Applicants state that weed management in these areas would decrease the potential for invasive plants to further colonize the area and spread to surrounding vegetation communities. However, the invasive plant mapping in the FLA shows populations of invasive plants well beyond the control areas identified. It is also likely that invasive plants are present well beyond the area surveyed. The Applicants have a duty under state law to take control actions for designated noxious weeds (Title 22, Chapter 24, section 22-2407). The area the Applicants identify for control measures will not effectively decrease the potential for invasive plants to spread.

### **More Detailed Sediment Study**

*We request that the Applicants complete the detailed sediment study requested by IDEQ before a license for an additional 40 years is granted.*

In 2019, BREN requested that the Applicants analyze and characterize the chemical constituency of the sediments behind the dam and identify what hazardous materials the sediments may contain. Barber Dam predates the four larger dams upstream. This suggests to us buried sediments likely contain wastes resulting from mining operations that occurred upstream, and from the original use of the area as log storage for the Barber Lumber Company. In 2020, BREN stated that the proposed sediment study was inadequate to characterize not only the potential contaminants present, but also their distribution throughout the pool area. Instead, that study was designed to look only for heavy metals.

The actual sediment study was conducted with hand tools, the sample design was compromised by the inability of the hand tools to penetrate the packed sediments in several parts of the pool, and what sampling occurred included only the top few inches of sediment. Further, sampling occurred only in the forebay area, whereas if the dam were to breach, sediment from the entire pool could be mobilized. Because the amount of sediment collected was small, all samples for an individual location were pooled and homogenized for analysis, thus the vertical and horizontal distribution of any hazardous materials could not be determined. Lastly, the analysis covered only certain heavy metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) which might

have resulted from mining operations and did not include potential hazardous materials that may have been deposited when the pool was used for log storage. BREN believes that higher concentrations of heavy metals and potentially other hazardous materials may be present deeper in the deposited sediments down to the original river bed.

In response to a related comment from IDEQ, the Applicants stated that a more detailed sediment study would occur but did not say when that study would occur. BREN believes the study should occur before the license is renewed, and that it is needed to support FERC's environmental analysis.

### **Additional Characterization of Riparian and Native Vegetation**

*We request that the various riparian communities identified in the wetlands delineation be surveyed for more complete description of the plant community composition and that its' condition and trend be assessed to support FERC's environmental analysis standards.*

In 2019, BREN requested that the vegetation analysis include an inventory of the native species present within the study area and that the genetic composition of a representative sample of the black cottonwood present be determined to understand what level of genetic diversity is present. BREN also believes it is important to the management of the area to understand what proportion of the black cottonwood established from seed and what proportion from root sprouts and runners. No such inventory or assessment occurred. BREN has evidence that sexual reproduction of black cottonwood has become rare, which has implications for the ability to reproduce cottonwood gallery forest needed by several wildlife species, including for bald eagle nesting and roosting. While the Applicants conducted a wetlands delineation that complied with USACE protocols, only the dominant vegetation was identified for each wetland type. In some cases, the dominant vegetation was an invasive or non-native species. Better understanding of the species composition of each wetland area is needed to understand the potential impacts to terrestrial and aquatic wildlife habitat quality and how that habitat quality may be expected to change over time.

Riparian vegetation is especially critical for both terrestrial and aquatic wildlife. For example, bird and small mammal diversity is often highest in the riparian areas of semi-arid lands. However, the ability of an area to support healthy and ecologically functional plant and animal communities depends in part on the species composition of the riparian vegetation. The Applicants assume that nothing has changed over the 40 years of their current license and that nothing will change in the subsequent 40 years should a new license be granted. However, the wetlands study clearly shows that conditions likely have changed due to dewatering of side channels after removal of flash boards from Barber Dam. These areas contain only remnant riparian vegetation that is likely disappearing over time, leading to a reduction in the extent of riparian vegetation. Further, invasive plants have moved into the area over the past 40

years and potential exists for additional invasive species to establish, such as tamarisk (*Tamarix* sp.) and brooms (*Cytisus* sp.), which are present downstream. As the climate changes, increased variability in water quantity, and possibly water quality, in the river is likely to affect these remnants of existing wetlands and favor establishment of invasive plants. The wetlands study noted the presence of reed canarygrass (*Phalaris arundinacea*) but this species is not listed in the invasive plants survey. Reed canarygrass is an aggressive rhizomatous invasive and will displace native herbaceous vegetation, such as cattails and sedges, and prevent natural establishment of native woody vegetation, leading to further degradation of the affected riparian plant communities and associated wildlife.

Lastly, black cottonwood is in decline throughout the Boise River system due to a combination of many factors, including the loss of scouring flows, rapid decline in stage soon after germination, and invasion by introduced species such as silver maple (*Acer saccharinum*), Russian olive, Bradford pear (*Pyrus calleryana*), and false indigo (*Amorpha fruticosa*). Black cottonwood is a keystone riparian species. Understanding the condition and trend of black cottonwood forest and woodlands is essential for determining how well the Barber Pool area will continue to support a diversity of wildlife species.

### **Additional Wildlife Study**

*We request that a wildlife study be completed with respect to the expected work window for the adjustable weir. What species might be affected by the construction on either a temporary or permanent basis?*

Since the adjustable weir construction is expected to take place during low water, basically winter, what species of wildlife might be affected during the construction period. Are any species likely to be affected on just a temporary basis or might one or more species be permanently displaced or displaced for a prolonged period? Would the construction potentially affect the breeding or reproductive success of any wildlife species as a result of any habitat alteration arising from the construction activities? Bald eagles roost in the area in winter and Barber Pool provides wintering habitat for a variety of resident and migratory waterfowl.

### **More Detailed Recreation Study**

*We request that a more detailed recreation study be completed using focus groups and conversations with Idaho Department of Parks and Lands, Ada County Parks and Lands, Boise Parks and Recreation, and adjacent landowners, particularly the Idaho Shakespeare Festival Grounds, and Idaho Foundation for Parks and Lands.*

The recreation study completed by the Applicants consisted largely of surveys conducted mostly during the early stages of the COVID-19 pandemic before vaccines were available and the city of Boise was in lockdown. As such, these surveys are not representative of the actual recreational use of the area. Currently egress to the river from land within the study area is mostly through

private land and involving trespass and consistent problems with off-leash dogs and dog waste. The Applicants maintain that recreation use is low and so additional facilities are not needed, particularly ADA-compliant facilities. We know from casual observation that recreation use levels are higher than the Applicants claim and that use occurs year-round. Their argument concerning the lack of need to provide access for the mobility-impaired due to low use is circular since current access is too difficult for all but the most adventuresome or least mobility-impaired potential users so, of course, present use is low.

Recreation use throughout the Treasure Valley is increasing as population increases, so the Applicants' assumption that recreation use levels will not change is false. In addition to population increases, two additional parks are in the planning stages or beginning development just upriver from Barber Pool – Diane Moore Nature Center and Sue Howell Park. As these parks are developed, access to and use along the Boise River will increase, including a likely increase in floating the Boise River to Barber Dam.

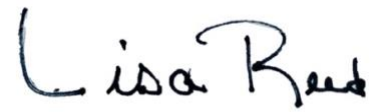
Increased recreation use also can mean increased adverse impacts to wildlife, changes in water quality, increased use of the portage, increased risk of trespass, increased impacts to wetlands and native vegetation, and increased introductions of invasive plants. The Applicants need to better understand current recreation use levels throughout the year, how recreation use will likely increase, how they might manage that use, and what additional recreational facilities may be warranted. At present, there is no designated parking for accessing the portage area and no restroom facilities. Users accessing the river at the portage site currently park on the street in a residential area and must carry their equipment down the powerhouse access road for some distance before even reaching the portage trail. The same is true for anyone leaving the river at the portage site. In the absence of restroom facilities, human waste is likely to become an increasing problem as well if it isn't already.

Thank you for considering these additional study requests. We believe these studies are necessary to support FERC's environmental analysis for a new license for Barber Dam operations. These studies are needed to provide more complete information on whether Barber Dam operations can meet all the Applicants' stated objectives concerning recreation, aesthetics, and wildlife habitat. We look forward to FERC's response to these requests.

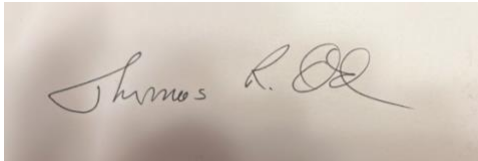
Sincerely

A handwritten signature in black ink, appearing to read "L. Smith", written in a cursive style.

Louisa Evers, Vice Chair, Boise River Enhancement Network

A handwritten signature in black ink that reads "Lisa Reed". The letters are cursive and somewhat slanted to the right.

Lisa Reed, President, Golden Eagle Audubon Society

A handwritten signature in black ink that reads "Thomas Old". The signature is cursive and includes a large, stylized flourish at the end of the name.

Thomas Old, President, Boise Valley Fly Fishers