ENVIRONMENTAL ASSESSMENT

Application for Non-Project Use of Project Lands and Waters

Empire District Electric Company

Ozark Beach Hydroelectric Project

FERC Project No. 2221-039

Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Administration and Compliance
888 First Street, NE
Washington, D.C. 20426

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FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF ENERGY PROJECTS
DIVISION OF HYDROPOWER ADMINISTRATION AND COMPLIANCE

1.0 INTRODUCTION

Project Name: Ozark Beach Hydroelectric Project

FERC Project No.: 2221-039

1.1 Application

Application Type:	Non-Project Use of Project Lands and Waters; water withdrawal from licensed project waters
Date Filed:	February 28, 2019
Licensee:	Empire District Electric Company
Water Body:	White River/Lake Taneycomo
County & State:	Taney County, Missouri

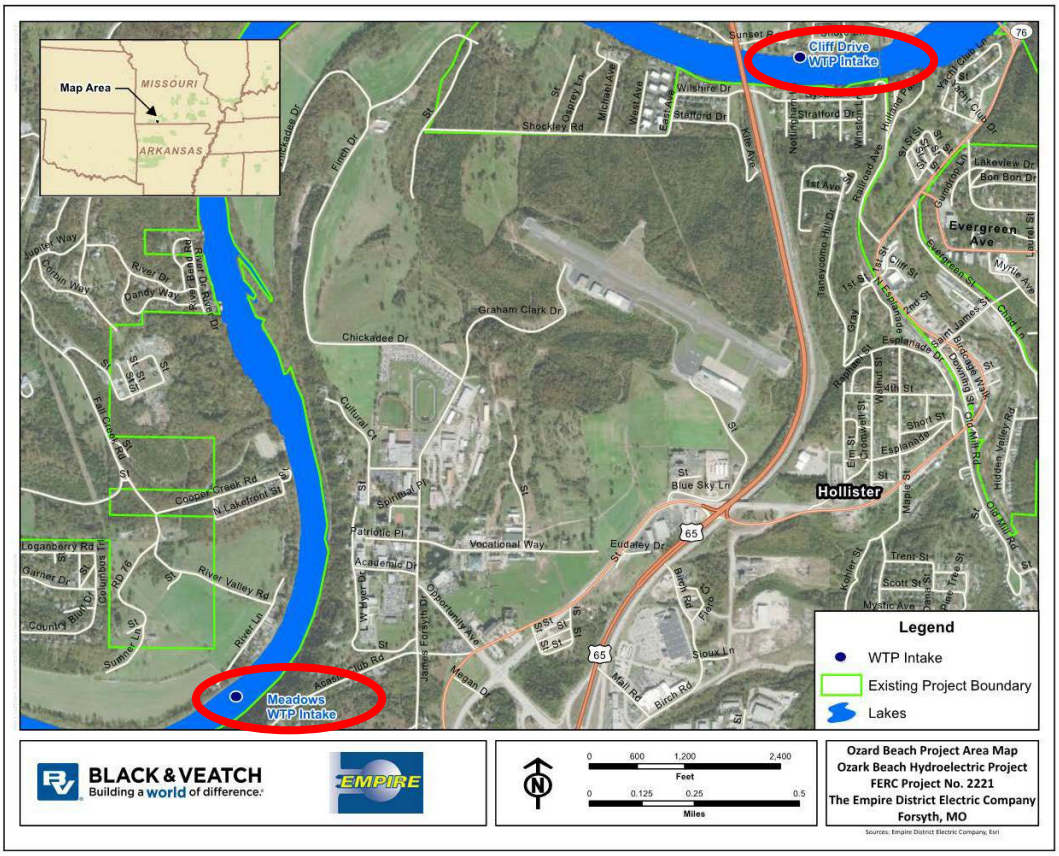
1.2 Purpose and Need for Action

On February 28, 2019, Empire District Electric Company, licensee for the Ozark Beach Hydroelectric Project No. 2221, filed an application requesting Federal Energy Regulatory Commission (Commission) authorization to allow the use of project lands and waters for non-project purposes. Specifically, the licensee is requesting approval to grant the City of Branson, Missouri (City of Branson or City) permission to: 1) continue operating two existing raw water intake facilities (facilities) on Lake Taneycomo, the project's storage reservoir; and, 2) increase the withdrawal from one of the two facilities by 5.0 mgd. Water withdrawn from the project reservoir by the existing facilities is conveyed to two water treatment plants (WTP) located outside of the project boundary. One WTP is located off Cliff Drive (Cliff Drive WTP) and the other WTP is located off Falls Creek Road (Meadows WTP). The Cliff Drive facility is equipped with three pumps and has the capacity to withdrawal 3.3 million gallons of water per day (mgd) from Lake Taneycomo; however, the treatment plant is currently only designed to treat 1.2 mgd, so the City restricts water withdrawal at this plant to 1.2 mgd. The Meadows facility is also equipped with three pumps and is capable of withdrawing 10.0 mgd; however, the treatment plant is currently designed to treat 5.0 mgd. Combined, the facilities are currently withdrawing up to 6.2 mgd of water from Lake Taneycomo. Together, the water withdrawn via the facilities enable the WTPs to provide 80 percent of the drinking water to the City of Branson's customers; the additional 20 percent of the

drinking water is provided by six groundwater wells. The WTPs provide treated water to approximately 4,328 connections.

To reiterate, the City of Branson's two facilities have already been constructed (i.e. are "in-place") and have been operating for years. The Cliff Road intake has been in operation since 1964 and the Meadows intake since 1997. Therefore, the proposed continued use of both facilities, as well as the proposed increase in withdrawal from the facility associated with the Meadows WTP, would not require any construction. Rather, it would represent a continuation of the total 6.2 mgd withdrawal by both facilities and an additional withdrawal of 5.0 mgd by the facility withdrawing water for the Meadows WTP, for a new total withdrawal of 11.2 mgd from Lake Taneycomo, if approved. The Commission's review of the application and resulting Environmental Assessment (EA) is being conducted to determine if any environmental, cultural, or recreational resources are being affected by the withdrawal of water by the existing facilities, and if further environmental measures are necessary to mitigate any effect of the continued 1.2 mgd withdrawal from the facility associated with the Cliff Drive WTP and the proposed increased withdrawal of the facility associated with the Meadows WTP from 5.0 mgd to 10.0 mgd. The analysis in this EA provides a basis for the Commission to make an informed decision on the licensee's February 28, 2019 application for non-project use of project lands and waters.

Figure 1. Location of City of Branson Raw Water Intakes in Lake Taneycomo (Source: Empire District Electric Company, 2019)



1.3 Statutory and Regulatory Requirements

A. Endangered Species Act

Section 7 of the Endangered Species Act requires federal agencies to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or result in any adverse modification of the critical habitat of such species. Three federally listed bat species potentially occur in Taney County, Missouri: the endangered grey bat (*Myotis grisescens*), the endangered Indiana bat (*Myotis sodalist*), and the threatened Northern long-eared bat (*Myotis septentrionalis*). Of these bat species, critical habitat for the Indiana bat has been designated; however, none of the critical habitat exists in the project area. Additionally, Tumbling Creek cavesnail (Antrobia culveri), is also listed as endangered in Taney County, with no critical habitat designation (FWS, 2019) and no accounts or habitat exist in the project area.

Due to the fact that both facilities have already been constructed and no new construction is proposed, it is unlikely that the continued operation of these facilities, or the proposed increased in withdrawal of water from the reservoir would have any effect on any federally-listed species.

The continued operation of the facilities and proposed increase in withdrawal from the reservoir would not result in any disturbance to the natural habitat of the above-listed species because the pumphouses for the facilities have already been constructed and the intake pipes are submerged. To date, there is no evidence on the record to indicate that the original construction of the facilities or the operation has adversely affected any of these species and it is expect that since no changes in operation of the facilities are proposed, this would continue to be the case. Given that the two water treatment plants are in-place and have been operating, the existing treatment plants are considered disturbed areas as they are already cleared and constructed. Based on all of this, no effect to these species or their habitat has been identified or is expected as a result of the proposed action. No critical habitat exists near the water withdrawal facilities. The licensee consulted with the U.S. Fish and Wildlife Service (FWS) regarding the proposed action and included its consultation record in its February 28, 2019 filing. The licensee provided a memorandum documenting its attempt to consult with the FWS regarding the amendment to approve the existing water withdrawal facilities. The FWS indicated that it would waive consultation regarding the proposed action since it is currently involved in consultation regarding the relicensing of the project (EDEC, 2019).

B. National Historic Preservation Act

Under section 106 of the National Historic Preservation Act,[1] and its implementing regulations,[2] federal agencies must take into account the effect of any proposed undertaking on properties listed or eligible for listing in the National Register of Historic Places (defined as historic properties or National Register) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This generally requires the Commission to consult with the State Historic Preservation Officer (SHPO) to determine whether and how a proposed action may affect historic properties, and to seek ways to avoid or minimize any adverse effects.

Commission consultation with the SHPO is ongoing as part of the relicensing process for the project. In its Final Application for New License, filed with the Commission on February 28, 2020, the licensee included the results of a cultural resource analysis for lands within and surrounding the project boundary (including the area where

[1] 16 U.S.C. §§ 306108 et seq. (2016). The National Historic Preservation Act was recodified in Title 54 in December 2014.

[2] 36 C.F.R. Part 800 (2016).

the facilities are located). Based on the results of this analysis, Commission staff determined that no significant, ongoing impacts to cultural resources are occurring, or are expected to occur, as a result of the project's operation of the water withdrawal facilities.

No land-disturbing activities are being proposed by the licensee as part of the proposed action since the facilities have already been constructed. Also, the operation of the facilities, along with the proposed increase in withdrawal, does/would not require land disturbance. With these factors in consideration, Commission staff determined that the proposed undertaking will not adversely affect cultural resources or historic properties.

The licensee is required to implement the project's Cultural Resources Management Plan, filed with the Commission on August 26, 1991, pursuant to Article 407 of the project license.[3] The Cultural Resources Plan identifies cultural and historic sites identified by the SHPO and are addressed in the current implementation of the original 1992 license.

2.0 PROJECT DESCRIPTION AND OPERATION

2.1 Ozark Beach Project Description

The Commission issued a license for the Ozark Beach Project on March 31, 1992, which expires on February 28, 2022. The project is currently undergoing relicensing in the Commission's Division of Hydropower Licensing. The licensee filed its Final Application for New License with the Commission on February 28, 2020.

The project consists of a reservoir (Lake Taneycomo), created by the damming of the White River, with a storage capacity of 28,000 acre-feet and a surface area of 2,200 acres at normal pool elevation of 701.1 feet mean sea level (msl). The Ozark Beach Dam is 63-foot-high and 1,300-footlong and composed of a 593-foot-long reinforced concrete Ambursen-type spillway with a crest elevation of 697.1 feet msl, a 12-foot-thick concrete wall west of the spillway section and an earthen embankment with a continuous reinforced concrete core wall east of the spillway section. The spillway section is equipped with a 485-foot-long section of 4-foot-high flashboards and a 108-foot-long section of controllable gates. An intake structure and concrete powerhouse are located on the concrete wall section and contains four 4-megawatt (MW) turbine-generator units. A 200-foot-long, 5-kV transmission line and other appurtenances are also part of the project.

[3] Order Issuing New License (58 FERC ¶ 62,254), issued March 31, 1992.

2.2 Ozark Beach Project Operation

Lake Taneycomo, the project reservoir, is approximately 22 miles long and is dependent on the flows released from the upstream Table Rock Project, which is owned and operated by the U.S. Army Corps of Engineers (Corps). Several small tributaries entering the lake also provide a small portion of flow to the project. Water passing through the Ozark Beach project is passed downstream to the Bull Shoals Project, also owned and operated by the Corps. Operation of the licensee's Ozark Beach Project is based primarily on flow releases from Table Rock Lake. The minimum flow releases from Table Rock Lake equate to an inflow to the Ozark Beach Project of 245.6 mgd. Operation of Ozark Beach for power generation and flow management is coordinated between the licensee and Corp based on flow releases from Table Rock Lake (FERC, 1992).

2.3 Existing Water Withdrawals

The City of Branson's two existing water treatment plants are the primary facilities withdrawing from the project reservoir. As previously stated, the combined withdrawal by the two facilities is currently 6.2 mgd. In addition to these withdrawals, there is a third water withdrawal facility, owned by the College of the Ozarks that withdrawals an average of 158 thousand gallon per day (0.158 mgd) with an overall capacity to withdrawal 432 thousand gallons per day (0.432 mgd) (EDEC, 2019). In total, water withdrawal facilities withdrawal approximately 6.79 mgd from the lake; this represents approximately 2.8 percent of the minimum inflow to the lake.

Approval of the proposed action would allow the City to increase its withdrawal from Lake Taneycomo from 6.2 mgd to 11.2 mgd, to accommodate the increased need for municipal water supply.

3.0 PROPOSED ACTION AND ALTERNATIVES

3.1 Description of Licensee's Proposal

A. Proposed Action

The City of Branson owns and operates two existing raw water treatment plants adjacent to the Ozark Beach Hydroelectric Project, one located off of Cliff Drive (Cliff Drive WTP) and one off of Falls Creek Road (Meadows WTP). Both WTPs provide drinking water for the City of Branson, Missouri. Water is provided to the WTPs by way of two raw water intake facilities, each consisting of a pumphouse and associated submerged intake pipes. Combined, the City is withdrawing 6.2 mgd from Lake Taneycomo.

The proposed action would allow the licensee to continue permitting the City of Branson to operate the intake facilities, and allow for an increase in the withdrawal from one of the facilities (the facility that supports the City's Meadows WTP) from 5.0 mgd to 10.0 mgd, making for a collective withdrawal of 11.2 mgd of water from Lake Taneycomo. No land disturbing activities are being proposed.

Article 204 of the project licensee requires the licensee to obtain Commission approval to grant permission for water withdrawals that are greater than 1 mgd. The Cliff Road WTP was placed into service in 1964. There is no record of Commission review for the 1.2 mgd capacity of that plant at the time. Similarly, the Meadows WTP, which was placed into service in 1997 under a previous license for the project, should have had Commission review and approval since it was over the 1 mgd threshold. It did not; nevertheless, in order to bring the water withdrawals into compliance with the current license requirements, the licensee is seeking Commission approval to grant the City Branson authorization to operate the two withdrawal facilities. The licensee filed a request with the Commission, to amend Article 204, to allow it to grant permission to the City of Branson to continue operation of the withdrawal facilities. Further, as a part of the request, the City of Branson proposed increasing the withdrawal volume at the Meadows WTP from 5.0 mgd to 10.0 mgd. No land disturbing activities are required and the licensee requests amendment of Article 204 as an after the fact authorization for the in-place and operational facilities.

Proposed Environmental Protection Measures

Environmental protection measures that are currently implemented for the water withdrawals are the screened inlet protection of the intakes to prevent the entrainment and impingement of fish and debris as well as to protect the public. Specifically, the Cliff Drive facility employs cast bronze basket strainer on its pipe intakes and the Meadows facility is equipped with stainless steel tee intake screens. The Cliff Road intakes are located along shore and are positioned at 2 feet, 4 feet, and 6 feet below surface when the lake is at 700 feet elevation. The Meadows intakes are located approximately 242 feet from the pumphouse and extend into the lake to the main channel. The intake pipes are positioned at approximately 15 feet below the surface of the lake. Approach velocities for the Cliff Road and Meadows intake facilities are 0.85 and 0.29 feet per second, respectively.

In addition, the licensee must also abide by any environmental protection measures or conditions that may be imposed by various county, state and federal permits, or certifications that are necessary for the continued operation of the facilities.

3.2 No-Action Alternative

Under the no-action alternative, the Commission would deny the licensee's non-project use application. This would affect the agreement the licensee has with the City to operate the facilities and potentially require the City to defer to other sources of water.

3.3 Other Action Alternatives

The licensee's application does not consider other action alternatives. These may have been considered prior to the construction of the two WTP's and associated intakes, however, the intakes are constructed and have been operational for many years. The use of an action alternative or location is not practical, and not an action requiring further consideration. Concerning the increase in withdrawal volume from the intake associated with the Meadows WTP from 5.0 mgd to 10.0 mgd, Commission staff determined that the other action alternative is to deny the increase in withdrawal volume; however, doing so could prevent the City from meeting its demand for municipal water supply. The construction of another WTP could also be used to meet the City's municipal water supply demand, but the added construction and operation of an additional plant would not be practical since the available treatment capacity exists at the existing WTPs.

4.0 AGENCY CONSULTATION AND PUBLIC INVOLVEMENT

4.1 Licensee's Pre-filing Consultation

Prior to its filing with the Commission, the licensee, consulted with Missouri Department of Natural Resources (Missouri DNR), Missouri Department of Conservation (Missouri DC), Missouri State Historic Office (SHPO), FWS, U.S. Environmental Protection Agency, and the Corps. The licensee's non-project use application includes memorandums for meetings held with the resource agencies between March 29, 2018 and April 27, 2018. In these meetings, resource agencies raised several questions concerning the age of the water treatment plants, distribution, future handling of water quality issues, additional raw water intakes in the lake, and the language used in Article 204(c)(8) of the project license. Further, the licensee provided a memorandum documenting its attempt to consult with the FWS regarding its request. In response, the FWS indicated that it would waive consultation regarding the water withdrawal since it is currently involved in consultation regarding the relicensing of the project. Additionally, the licensee conducted a stakeholder review by circulating the request to a list of interested parties. The parties include Indian Tribes, State, Federal and Local governments.

By letter dated December 19, 2018, the City of Forsyth stated that it had no comment on the proposed non-project use application. In its December 28, 2018 letter, Missouri DC recognized the need to amend the license and to bring the current City's withdrawals into compliance. Further, Missouri DC expressed its recommendation to

include language to include a cumulative capacity on withdrawals. The licensee did not provide a response regarding the cumulative withdrawal capacity; however, Commission staff acknowledges the comment and advises the Missouri DC that the Commission only assess cumulative withdrawals that are greater than 1 mgd, per the standard land use article. Nevertheless, for this project, we discuss the College of the Ozarks water withdrawal in Section 5.3 below. Missouri DNR also provided comments on December 28, 2018 editorial and content comments. The licensee provided responses to the comments and made changes to the application to incorporate the comments. Missouri DNR did not appear to support nor oppose the licensee's request other than to say that it generally discourages "after the fact" license amendments and encourages proactive amendments and communication with the Commission. By letter dated February 21, 2019, the Delaware Nation Cultural Preservation Office stated that it had no issue with the requested amendment.

4.2. Commission's Public Notice Consultation

The Commission issued a public notice of the application on March 28, 2019, that set a deadline of 30-days for filing comments, protests, and motions to intervene. No comments, motions to intervene, or protests were received.

5.0 ENVIRONMENTAL ANALYSIS

In this section of the EA, the affected environment in each resource section is based on the licensee's February 28, 2019 application. Staff analysis of probable impacts from the proposed action then follows in the second part of each resource section under *Environmental Effects*.

5.1 General Area Description

The Project is located at River Mile 506 on the White River near Forsyth, Missouri (population approximately 2,419). The project is situated between the Table Rock Project upstream and the Bull Shoals Project downstream, both of which are owned and operated by the Corps. Besides Forsyth, other towns in the vicinity of the project are: the City of Hollister, which is located approximately 14 miles upstream (population approximately 4,481); the City of Branson, which is located approximately 12 miles upstream (population approximately 10,520), and the City of Rockaway Beach, which is located 7 miles upstream (population approximately 862)(U.S. Census, 2010).

Much of the project area is highly developed for use as vacation homes, permanent residences, and commercial facility and entertainment operations. Development along the project shoreline reflects these characteristics, with some areas comprised largely of public and private parks and campgrounds, waterside resorts and marinas, and various commercial establishments. Small portions of the cities of Forsyth, Hollister, Rockaway

Beach and Branson are within the project boundary, which include small businesses, municipally-owned facilities, such as water and sewage treatment plants and parks, and residential housing and services. Despite the extent of commercial and residential development, portions of the project area are comprised of a natural setting characteristic of the Ozark Mountains. Agriculture in the vicinity of the project is limited, as most lands in the area are not suitable for farming.

5.2 Resource Area Descriptions and Analysis

A. Terrestrial Resources

Affected Environment

Within the vicinity of project, vegetative land cover consists of a mixture of forest, glades, savanna, and prairie lands. Rock outcrops and barrens are common in the region. These areas form areas of open glades with little or no soil and devoid of trees and shrubs. Glades occur on the open slopes and tops of bluff escarpments, and along upland ridges and hilltops. The surrounding forest types are broadly categorized as oak-hickory and pine-oak woodlands. Species of these forests include blackjack, black oaks, red cedar, shortleaf pine, and pignut, shagbark, and mockernut hickories (EDEC, 1991). Alkaline soil areas support sugar maple, blue ash, chinquapin oak, walnut, and American holly. Bottomland hardwood forests in the project area, found adjacent to major tributaries of the White River, include red and white oak, sugar maple, pignut or big shellbark hickory, cottonwood, and river birch.

Environmental Effects

There are no ground-disturbing activities associated with the continued operation of these existing facilities and the proposed increased in withdrawal should not result in any adverse effects to terrestrial resources.

B. Water Quantity

Affected Environment

Lake Taneycomo is 22 miles long and has a surface area of 2,200 acres at 701.35 feet mean sea level (msl). Gross storage capacity of the reservoir is 28,000 acre-feet with a usable storage capacity of 6,500 acre-feet. Flows through the project are largely provided by releases by the Corps upstream Table Rock Project. Several tributaries also contribute to flow into the reservoir and provide a small portion of the total flow through the project including Fall Creek, Roark Creek, Turkey Creek, Bee Creek, and Bull Creek.

The project's generating units can be operated approximately 2 hours at 5,800 cfs (all four units operating at a full capacity of 1,450 cfs each), with no releases from the Table Rock Project. If Table Rock is releasing less than approximately 5,800 cfs, and Lake Taneycomo water level is low, fewer units are operated and at a lower load. There is no prescribed procedure for the normal operation of the units. The licensee targets to keep Lake Taneycomo above 699.75 feet msl. The project is operated at full load whenever releases at Table Rock Dam exceed approximately 5,800 cfs. Typically, the project starts a day with Lake Taneycomo drawn down approximately 1 foot and begins operation concurrently with, and operates slightly longer than, the Table Rock Project by using the 1 foot of active storage in Lake Taneycomo. After releases from the Table Rock Project are terminated, Lake Taneycomo is returned to the 1-foot drawdown level (EDEC, 2020).

Historically, flows provided from Table Rock Lake range from 100 cfs up to approximately 20,000 cfs during high flow events. Minimum flow releases from Table Rock into Lake Taneycomo equate to 245.6 mgd, not considering smaller input from the tributaries, under worst-case scenario, the proposed withdrawals at maximum capacity would still be fulfilled without accessing storage capacity. As well, four wastewater treatment plants discharge into the reservoir and release approximately 5.6 mgd of treated effluent into the lake. Generation from the project's powerhouse would continue to operate as approved, and the licensee would continue to be required to maintain project operations. The proposed continued withdrawal of 1.2 mgd from the Cliff Road WTP represents 0.01 percent of the total storage capacity of Lake Taneycomo. The proposed increase in withdrawal capacity to 10.0 mgd to support the Meadows WTP represents 0.11 percent of the total storage capacity.

Environmental Effects

Based on the proposed continued operation and increase of water withdrawal from Lake Taneycomo, adequate water quantity is available to continue to operate the raw water intakes as proposed without affecting project operations. Therefore, the proposed action would not result in any adverse effects to water quantity at the project.

C. Water Quality

Affected Environment

Like water quantity, the water quality conditions in Lake Taneycomo are heavily influenced by flow releases from Table Rock Lake as well as well as from the handful of tributaries feeding the project reservoir. The Missouri DNR and the Clean Water Commission are responsible for setting and enforcing the water quality standards of Missouri. The water quality standards are found in Title 10 of the Code of State Regulations (CSR), Division 20, Chapter 7 (10 CSR 20-7.031). Missouri's water quality

standards include those rules associated with designated beneficial uses, water quality criteria, and antidegradation. Lake Taneycomo has been designated by the Missouri DNR as a Class L2 water body (major reservoirs). Consequently, water quality in Lake Taneycomo must remain suitable for the following uses:

- Livestock and wildlife watering
- Protection of aquatic life (cold-water fishery)
- Human health protection (fish consumption)
- Protection of warm-water aquatic life
- Whole body contact recreation.
- Secondary contact recreation.
- Drinking water supply.

Generally, water quality conditions near the dam in Lake Taneycomo comply with state standards. Low dissolved oxygen (DO) levels below Table Rock Dam typically occur during the late summer and early fall months. Water quality in tributaries to Lake Taneycomo including Fall Creek, Roark Creek, Turkey Creek, Bee Creek, and Bull Creek has been shown to be good. According to the 2016 Missouri Integrated Water Quality Report and Section 303(d) list, there are no new impairments to Lake Taneycomo or its tributaries (Missouri DNR, 2016). Lake Taneycomo, which is listed as impaired for DO, having concentrations below the water quality standard, has since received a total maximum daily load for DO.

The 2016 Missouri Integrated Water Quality Report has the trophic state of Lake Taneycomo as mesotrophic, or having an intermediate level of productivity, with clear water and beds of submerged aquatic plants and medium levels of nutrients (Missouri DNR 2016).

Environmental Effects

No new construction is proposed, so no construction-related effects on water quality would occur. The continued operation of the facilities, along with the 5.0 mgd proposed increase in withdrawal, would not have an effect on water quality in the vicinity of the water withdrawal facilities nor within the overall project reservoir. Therefore, the proposed action would not result in any adverse effects to water quality at the project.

D. Aquatic Resources

Affected Environment

Cold water releases from the upstream Table Rock Project drawn from the hypolimnion provide cold water flow into Lake Taneycomo. The fish population in Lake Taneycomo is managed primarily as a cold-water fishery, although populations of

warmwater fishes also exist in the lake, particularly in its lower reaches (Fry and Hanson, 1968). The lake is managed on a "put-grow-and take" basis with trout produced at several state and national hatcheries within the region. Rainbow and brown trout are stocked annually to provide a popular trout fishery for recreational anglers using the lake. Besides the coldwater trout species, warmwater species such as largemouth bass, smallmouth bass, crappie, and bluegill also provide fishing opportunities. Additional species include various suckers, stonerollers, and gizzard shad. Fisheries survey results from 2018 documented the presence of rainbow trout, brown trout, black bass, largemouth bass, bluegill, red-ear sunfish, black crappie, walleye, smallmouth bass, and white bass (Missouri DC, 2019).

The trout fishery in the upper portion of the lake is largely dependent on invertebrate food sources consisting of amphipods and isopods based on benthos sampling and rainbow trout stomach content analyses conducted by the Missouri DC. Their importance declined progressively downstream, where, in the lower third of the lake, plant material, insects, mollusks, and fish were the dominant food items (Pflieger 1977). Invasive zebra mussels also inhabit the lake.

Environmental Effects

The proposed action would not contribute to any significant effect on aquatic resources. All intake structures are screened to prevent aquatic organisms from entering the intake pipes and since no construction is necessary, there will be no potential for alteration to aquatic habitat in Lake Taneycomo**.** Therefore, the proposed action would not result in any adverse effects to aquatic resources at the project.

E. Threatened and Endangered Species

Affected Environment

Three federally listed bat species potentially occur in Taney County, Missouri: the endangered grey bat (*Myotis grisescens*), the endangered Indiana bat (*Myotis sodalist*), and the threatened Northern long-eared bat (*Myotis septentrionalis*). Of these bat species, critical habitat for the Indiana bat has been designated; however, the project area is not identified as being within designated critical habitat area. Additionally, Tumbling Creek cavesnail is also listed as endangered in Taney County. Critical habitat has been designated for the species but is limited to one cave system in Taney County and outside of the project area (IPaC, 2019). The licensee's application determined that no listed species are known to occur within the vicinity of the intakes; however, given the mobility of bats, it is possible that they could enter the project area at any given time. Habitat for these species or the presence of these species would not be affected by the continued operation of the withdrawal facilities. Tumbling cavesnail presence or its habitat are not associated with the lake or the operation of the water intakes.

Environmental Effects

No significant adverse impacts to federal or state listed species have been known to occur as a result of the operation of the facilities. This could be attributed to the fact that both facilities are submerged in Lake Taneycomo and are not accessible to bats and that Tumbling Creek cavesail are not present at the project due to their habitat preference (i.e. a cave environment). The facilities will continue to be operated and maintained as they have been, with the exception that an additional 5.0 mgd of water would be withdrawn from the project reservoir. Given this, it not be expected that the proposed increased withdrawal would impose adverse impacts to any federal or state listed species. Therefore, no effects on listed species are anticipated as a result of the proposed action.

F. Recreation Resources

Affected Environment

Lake Taneycomo is comprised of 2,200 surface acres within a regional area that is heavily used for recreation, housing, entertainment, and vacationing. There is abundant access to the lake and its surrounding recreational features. The lake supports a popular trout fishery where angler-use and catch rates rank among the highest in the nation (Missouri DC 2016b). About 5 miles of shoreline is available to the public for bank fishing in Table Rock State Park, Shepherd of the Hills Fish Hatchery and Wildlife Area, Branson City Park and Campground, North Beach Park (city of Branson), Rockaway Beach Park, Empire Park, and in the tailrace of the Ozark Beach Dam. Lake Taneycomo shares lake recreation interest with Table Rock Lake and Bull Shoals Lake, which also provide access and recreational use.

Environmental Effects

The two WTPs are both located away from the shoreline of the lake and only pumphouses and submerged intake structures are located within the project boundary. The intake structures are screened and integrated such that they are not a known navigation hazard to boaters or a hazard to other recreationists. There are no known adverse impacts to recreation caused by the existence and operation of the facilities since they were originally constructed in 1964 and 1997. Given this, no adverse effects to recreation are expected as a result of the proposed action.

G. Cultural Resources

Affected Resources

No land disturbing activities are associated with the proposed action, primarily because the two intake facilities are already in place and operational. The proposed increase to withdrawal an additional 5.0 mgd at the Meadows WTP would not require additional construction and therefore would not have any potential impact on cultural resources. Additionally, the licensee currently operates the project under a Cultural Resources Management Plan that was filed with the Commission on August 26, 1991 and required to be implemented by Article 407 of the 1992 license. The Cultural Resources Plan identifies cultural and historic sites provided by the SHPO and are addressed in the current implementation of the original 1992 license.

Environmental Effects

Given the implementation of the Cultural Resources Management Plan and the licensee's consultation with the SHPO for the relicensing of the project, the proposed action is not likely to have an adverse effect on cultural resources since no land clearing activities are associated with the continued operation of the two facilities.

H. Aesthetics

Affected Environment

The WTPs are located outside the project boundary and are not subject to Commission staff's review. However, the intake facilities which include a pumphouse and intake piping are located within the project boundary and are subject to review. Both pumphouses are located along the shoreline of the reservoir and are located in residential developed areas of the lake. The pumphouses are integrated into the visual appearance of the developed lake shoreline. The submerged structures are not visible to the casual observer and continue to operate as required to withdrawal water for municipal use. Under the proposed action, this would not change.

Environmental Effects

As previously discussed, the facility would continue to operate and withdrawal water from the Lake Taneycomo with the added increase of withdrawal volume by the Meadows WTP. Continued operation of the facilities would result in no adverse effects to aesthetic resources.

5.3 Cumulative Impacts of Proposal

According to the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act, an action may cause cumulative impacts on the environment if its impacts overlap in space and/or in time with the impacts of other past, present, or reasonably foreseeable future actions, regardless of what agency or person undertakes such other action. Cumulative impacts can result from individually minor, but collectively significant actions.

Regarding water quantity, one other water withdrawal facility, owned and operated by the College of the Ozarks, is present on the lake. The withdrawal from that intake consists of an average 158 thousand gallon per day (0.158 mgd) with an overall capacity to withdrawal 432 thousand gallons per day (0.432 mgd). Based on the cumulative impact of water volume withdrawn from the lake, the additional volume drawn under the proposed action would not significantly affect water quantity at the project. There are no expected cumulative impacts to any of the other resource areas analyzed in this EA.

5.4 Impacts of No-Action Alternative

Under the no-action alternative, the licensee would not grant the City of Branson approval to continue operation of the intake facilities on Lake Taneycomo, and by default, the proposed 5.0 mgd of water increase in withdrawal from the lake would not be possible. This would affect the agreement the City has with the licensee to allow the City to operate the WTPs, which rely on water withdrawn from the lake, and potentially require the City to defer to other sources of water. Resorting to other sources of water could require additional infrastructure and development of alternative treatment facilities, which most likely create environmental impacts.

6.0 CONCLUSIONS AND STAFF RECOMMENDATIONS

6.1 Conclusions

The proposed action would not result in significant environmental effects or significant cumulative impacts. The proposed action would not affect the existing licensed hydropower operations at the Ozark Beach Project and would not conflict with the hydropower project's purpose of providing a renewable energy source. Based on staff's analysis, there are no known effects to water quantity and water quality for the continued operation and increased water withdrawal of the proposed action. No construction activities are proposed for these "in-place" water treatment plants and their associated intake facilities. As such, no ground disturbing activities are proposed or expected. There are no known historic or cultural sites that would be affected by the proposed action, or critical habitat for threatened or endangered species within the

vicinity of the water intake structures. The continuation of the operation of the two WTPs and the increased withdrawal at the Meadows WTP would continue to provide needed municipal water to the surrounding area. Staff finds that the proposed action, would result in insignificant, if any, adverse effects.

6.2 Staff Recommendations

Staff recommends that the Commission approve the licensee's application for non-project use of project lands and waters for the existing water withdrawal facilities and to allow for the increased withdrawal volume from the lake by the Meadows WTP. Approval and implementation of the proposed action would have no significant adverse effects on any environmental resources analyzed in this EA. Also, the proposed action would not produce or significantly add to any existing cumulative environmental impacts. Based on our analysis, we recommend that the proposed action be approved.

6.3 Finding of No Significant Impact

Based on Commission staff's independent analysis, if the Commission approves the licensee's non-project use of project lands and waters request to allow the City of Branson to continue operation of the intake facilities located on the project reservoir, which use project waters to service the City's WTPs, and increase the current withdrawal by the intake associated with the Meadows WTP by 5.0 mgd of water, resulting in a total withdrawal of 11.2 mgd of water, the proposed action would not constitute a major federal action significantly affecting the quality of the human environment.

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8.0 LIST OF PREPARERS

Robert Ballantine, Project Coordinator (Fisheries Biologist. B.S. Fish and Wildlife Biology)