

LAKE LYNN HYDROELECTRIC PROJECT
2018 Recreation Plan Update
FERC Project No. 2459 - License Article 417



Lake Lynn Generation, LLC

April 2018

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LIST OF ACRONYMS

ADA	American with Disabilities Act
AE	Allegheny Energy Supply Co. LLC
CLEAR	Cheat Lake Environment and Recreation Association
cfs	Cubic Feet Per Second
DOI	Department of the Interior
FERC	Federal Energy Regulatory Commission
LLG	Lake Lynn Generation, LLC
NGVD	National Geodetic Vertical Datum
NVA	Nature Viewing Area
PFBC	Pennsylvania Fish and Boat Commission
Project	Lake Lynn Hydroelectric Project (FERC No. P-2459)
WVDEP	West Virginia Department of Environmental Protection
WVDNR	West Virginia Division of Natural Resources

1.0 INTRODUCTION

In accordance with the Federal Energy Regulatory Commission (FERC) License¹ for the Lake Lynn Hydroelectric Project (Lake Lynn Project or Project) (FERC No. 2459), Article 417, as amended² in the FERC “*Order Modifying and Approving Recreation Plan*”, dated April 11, 1997, Lake Lynn Generation, LLC (LLG), as the Licensee for the Project, is required to file the triennial Recreation Plan Update. The Recreation Plan was also updated on March 31, 2008³ and on May 18, 2010⁴. The most recent Recreation Plan Update was filed with FERC on June 1, 2015, and was approved by FERC on August 3, 2015. The 2018 Recreation Plan Update is required to be filed with FERC by April 1, 2018. This Plan Update was prepared based on an evaluation of facility use data and in consultation with agencies and stakeholder groups.

A general description of the Project and Project operations is provided in Section 2, a general description of the recreation sites and facilities is provided in Section 3, and the Plan Update information is provided in Section 4. Supporting documentation is provided in Attachments I through III.

2.0 PROJECT DESCRIPTION AND OPERATION

The Lake Lynn Project is a hydroelectric facility located on the Cheat River in Monongalia County, West Virginia, approximately 10 miles northeast of Morgantown, West Virginia. The Lake Lynn Project was purchased by LLG from FirstEnergy subsidiaries Allegheny Energy Supply Co. LLC (AE) in February 2014. The FERC License for the Lake Lynn Project was transferred to LLG on February 21, 2014.

2.1 Maintenance of Lake Levels

In accordance with License Article 403, LLG maintains the surface elevation of Cheat Lake at the following levels throughout the year:

- During the recreational season from May 1 through October 31, the surface elevation is maintained between 868’ and 870’ National Geodetic Vertical Datum (NGVD).
- During the off-season from November 1 through March 31, the surface elevation is maintained between 857’ and 870’ NGVD.
- For the month of April, surface elevation is maintained between 863’ and 870’ NGVD.

During the winter months, LLG can draw Cheat Lake down to 857’ NGVD in accordance with the FERC License. This drawdown typically only occurs during high inflow river conditions upstream that permit LLG to operate the Lake Lynn Project. The minimum and maximum surface elevations may be temporarily modified if required by operating emergencies and for

¹ Order Issuing New License issued December 27, 1994 (69 FERC ¶ 62,253)

² Article 417 was amended by ordering paragraph (G) of Order Modifying and Approving Recreation and Land Management Plan, issued April 11, 1997 (79 FERC ¶ 62,017)

³ Order Amending Recreation Plan issued March 31, 2008 (122 FERC ¶ 62,267)

⁴ Order Amending Recreation Plan issued May 18, 2010 (131 FERC ¶ 62,128)

short periods for Project maintenance. LLG must provide adequate notification to FERC and the West Virginia Division of Natural Resources (WVDNR) within 10 days if the lake level is modified from the above requirements. Fluctuating lake levels during April are minimized to the extent possible. The purpose for lowering the lake to the 863' elevation is to help lessen the impacts to the habitat downstream during spring flooding and for utilizing the available water resources. In addition to notifying the agencies, LLG also provides notification to the marinas if the lake is lowered below 868' during the recreation season and to the Albert Gallatin Water Company if the lake is lowered to 861' at any time during the year.

2.2 Minimum Flows to the Lower Cheat River

In accordance with License Article 404, LLG releases a minimum flow of 212 cubic feet per second (cfs), or inflow, whichever is less. During extremely low flow periods, LLG provides an absolute minimum flow of 100 cfs. When the lake level is decreasing, LLG cannot reduce the minimum flow by increments greater than 25 cfs per hour to achieve a stable reservoir water level.

The minimum flow release can be temporarily modified if required by operating emergencies beyond the control of LLG and for short periods upon agreement of the West Virginia Department of Environmental Protection (WVDEP). If modified, LLG must notify FERC and WVDEP within 10 days.

3.0 RECREATION SITES AND FACILITIES

Public recreation access to the Lake Lynn Project is provided at several recreation sites. The purpose of the recreation sites is to preserve and enhance public recreation opportunities at the Lake Lynn Project. A map depicting the existing recreation sites and facilities at the Lake Lynn Project is provided in [Figure 1](#) and discussed in more detail in the following subsections.

3.1 Cheat Lake Park

Cheat Lake Park was opened in 2000 and consists of an area of about 46 acres primarily situated on a peninsula between two embayments (Rubles Run and Morgans Run) of Cheat Lake. Recreation facilities at Cheat Lake Park include a hilltop and shoreline picnic area, parking areas, a playground area, a nature viewing area, a car-top/winter boat launch, three restroom facilities, a security/maintenance station, day-use boat docks, swimming beach, a fish cleaning station, fishing platforms, and access to the Cheat Lake Trail. Cheat Lake Park is accessible from a paved parking area, which can accommodate up to 50 vehicles. A second gravel parking area also provides overflow parking for up to 30 vehicles. A paved roadway provides access from the parking and hilltop picnic area to the facilities along the shoreline of Cheat Lake. The roadway is wide enough to accommodate two-way traffic and pedestrians. A short-term and Americans with Disabilities Act (ADA) accessible parking area for the car-top/winter boat launch and bicycle or picnic loading/unloading area is situated near the shoreline area. This parking area provides five parking spaces, without time restrictions, for the disabled.

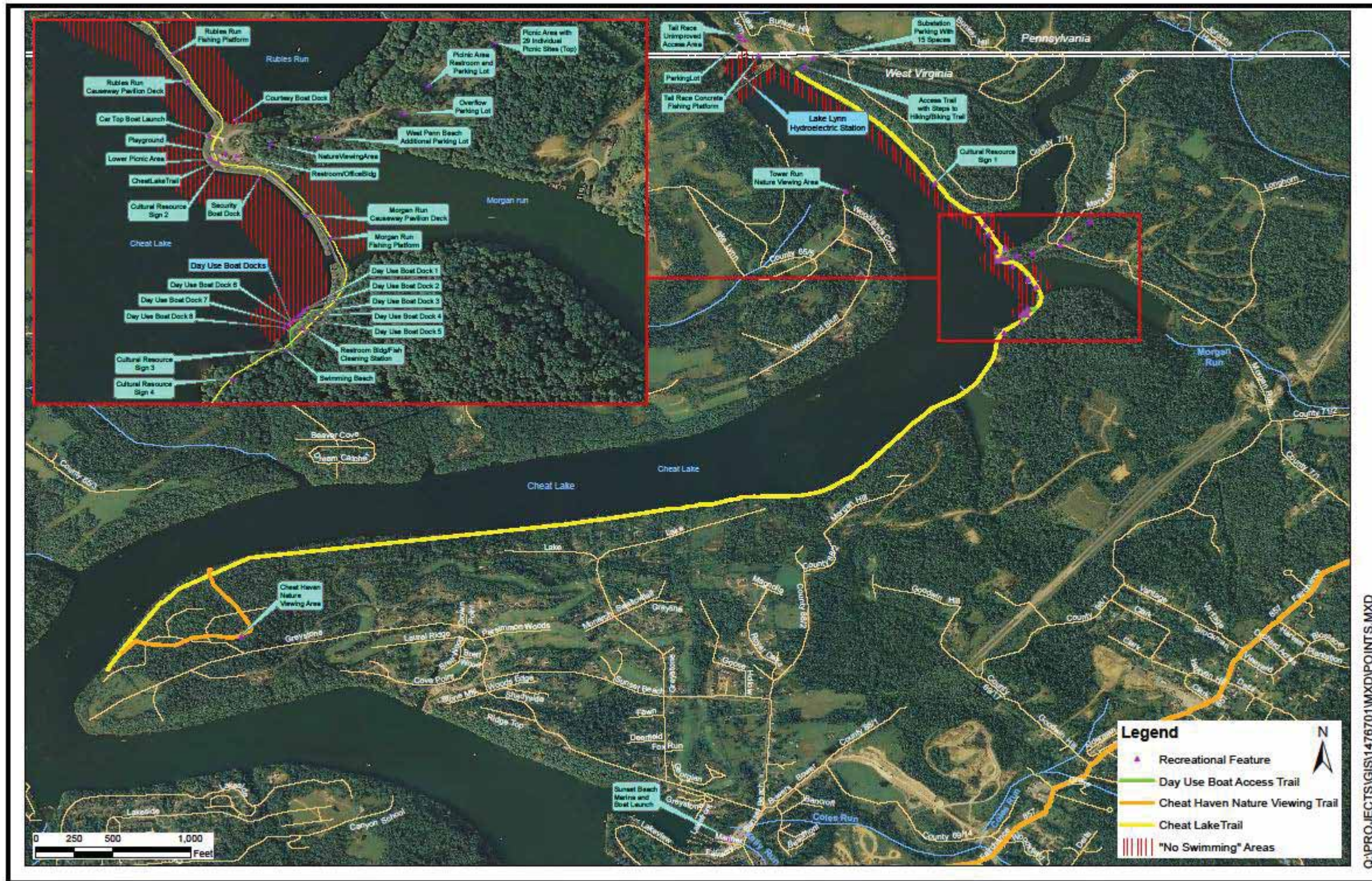


Figure 1. Lake Lynn Project Recreation Sites and Facilities.

The winter boat launch at Cheat Lake Park is available for use from November 1 through April 30. This boat launch provides access onto Cheat Lake for those periods when the public boat launching facility at Sunset Beach Marina is unavailable due to a lake level below 865' NGVD.

A hillside loop provides access to a picnic area that consists of 19 picnic sites, each with its own table, fire ring grill and parking for two vehicles. One of these picnic sites includes handicapped accessible parking. In addition, the picnic area includes a restroom facility and 11 parking spaces, of which two are ADA accessible. There are a total of 29 picnic tables located within the picnic loop and at sites near Cheat Lake.

Two courtesy docks, both ADA accessible at the normal recreational pool levels of 868' to 870', are available for car-top boat users. One courtesy dock is located on the main body of the lake and the other in the Rubles Run embayment behind the new timber bridge structures, constructed to replace the old railway causeway. The courtesy dock that is located on Cheat Lake has been modified to provide winter access for motor boats from November 1 to March 31.

Two timber bridge structures constructed over the Morgan Run and Rubles Run embayments provide access to the 4.5-mile Cheat Lake Trail along the lake shoreline, additional picnic areas, and fishing access. The bridge structures at Rubles and Morgan Runs both have a pavilion deck with picnic tables and a 200-foot long fishing platform, which provides access for fishermen. Both bridges at Morgan and Rubles Runs have a 13-foot clearance when the lake is at maximum depth to allow most boaters access to the embayments. Although the bridge structures are intended for pedestrians only, they are capable of supporting emergency and maintenance vehicles weighing up to 10 tons.

Three restroom facilities are available at the park. All restroom facilities have indoor lighting and a proper ventilation system for maximum comfort of park visitors. One restroom facility is located at the peninsula, near the children's playground. The facility also provides office space for security and maintenance, a public telephone service, and a drinking fountain. The second restroom facility is located between the Morgan and Manning Run embayments and provides a convenient location for boaters utilizing the eight courtesy docks. A fish cleaning station has been installed for public use to provide a sanitary way of eliminating fish waste. The third restroom facility is located at the hilltop picnic area for use by picnickers. The hilltop and peninsula restroom facilities are both ADA accessible.

A small swimming beach was established along the Cheat Lake Trail. This "swim at your own risk area" is approximately 200 feet long and 15 feet wide, and is roped off for swimming. The swimming beach is a natural beach, vegetation was removed and additional sand was added to the area. The beach is located near the restroom facility with the fish cleaning station. The swimming beach is open from dawn to dusk and includes four picnic tables.

3.2 Cheat Lake Trail

The Cheat Lake Trail is a 4.5-mile hiking/biking trail that extends from a parking area near the Lake Lynn powerhouse to its southern terminus at the Cheat Haven Wildlife Habitat and

Nature Viewing Area. The trail is 10-feet wide, constructed of compacted limestone fines, and ADA accessible. A parking lot near the substation at the Lake Lynn Project accommodates 15 vehicles. The trail passes through the Cheat Lake Park and can also be accessed from parking lots located at Cheat Lake Park. Interpretive signs are installed at several historical sites along the Cheat Lake Trail. These signs include a map of the trail and facilities at Cheat Lake Park. Additionally, there are mile-markers every half-mile throughout the length of the trail.

In 1997, after consultation with the public and local property owners, a Trail Management Plan was filed with FERC regarding public use of the Cheat Lake Trail. In the “*Order Approving Trail Management Plan*” dated March 2, 1998, FERC agreed that the trail is a day-use facility and that there would be no use of the trail during the winter months. Pursuant to the FERC order, a locked gate was constructed at the Mannings Run entrance to the trail. This allows LLG the ability to close the southern-most 3.1-mile section of the trail at dusk during the recreational season and the winter months. In response to public comments and pursuant to “*Order Amending Recreation Plan*” issued May 18, 2010, a one-year trial was conducted to assess whether the southern section of the Cheat Lake Trail should be permanently opened for year-round use during daylight hours. Following this trial period, it was decided to allow the southern section of the Cheat Lake Trail to remain open for year-round use during daylight hours; however, because of safety concerns, the trail may be temporarily closed if snow and/or ice are present or other hazardous conditions exist. The northernmost 1.4-mile section of Cheat Lake Trail, from the Lake Lynn powerhouse to Cheat Lake Park, also continues to be open year-round, as long as safe conditions exist. Signs are posted on the Morgan’s Run Bridge to inform hikers of any trail closures.



Picture 1. Interpretive Sign along the Cheat Lake Trail

3.3 Tailrace Recreation Area

The Lake Lynn Project tailrace recreation area provides the public access to the Lower Cheat River below the dam for fishing. The area includes a fishing platform as well as bank fishing opportunities. Access to the fishing platform is provided from Lake Lynn Road along the river.

A gravel parking area at the tailrace recreation area can accommodate approximately 20 vehicles, and includes two ADA accessible spaces. Both the fishing platform and parking area are illuminated. An ADA compliant pedestrian ramp connects the parking area with the fishing platform. The fishing platform can accommodate approximately 20 fishermen and has handrails constructed with barrier free cutouts to provide handicap accessibility. An existing roadway provides easy foot access from the parking lot to the riverbank. A portable ADA toilet has been provided for the public's convenience. To enhance public safety, visual and audible alarms are present to provide sufficient notification of flow increases from the hydroelectric facility and warn the public to exit the water. In addition to the fishing platform, eight rock pile structures were installed in September 2000 to provide fish habitat in the first river mile downstream of the tailrace.

In January 2017, the tailrace fishing platform was temporarily closed due to safety concerns associated with a partial collapse of the concrete deck. A preliminary investigation indicated the failure was caused by erosion of fill material under the platform. FERC was notified of the closure of the fishing platform in a letter dated February 6, 2017. Safety barricades and signage were installed to prevent public access to the walkway and platform, and the public was notified of the closure via the park website (<https://cheatlake.today>). The notice to FERC stated that LLG expected to conduct repairs and restore the platform to service prior to the end of 2017. However, since the closure of the tailrace fishing platform a number of high flow events have resulted in additional deterioration of the platform walkway and bank in the immediate vicinity. These changing conditions have required LLG to reevaluate potential repair solutions that will ensure the long-term safety and effectiveness of the selected repair solutions. LLG currently expects to finalize engineering plans in 2018 and complete repairs and restore the tailrace fishing platform to service in 2019. LLG notified FERC of these changes to the plan and schedule to restore the tailrace fishing platform via letter dated October 23, 2017.⁵ Although the fishing platform was closed in January 2017, results of the recreation counts demonstrated that considerable fishing still occurs at the tailrace recreation area along the banks.

3.4 Public Boat Launching Facility at Sunset Beach Marina

A free public boat launch and associated parking area are provided at Sunset Beach Marina for boating access to Cheat Lake. The parking area at Sunset Beach Marina can accommodate up to approximately 60 boat trailers at one time. This boat launch facility is available year-round when the lake level is above 865' NGVD. LLG maintains the surface elevation of Cheat Lake at certain levels throughout the year, as described in Section 2.1.

During the recreation season, the lake level is maintained such that boat launch use is not affected by Project operations. During the winter months, if the lake level is drawn down to the 857' NGVD elevation for power generation, there could be shallow water in Cheat Lake near the Ices Ferry Bridge, embayments, and possibly several other locations around the lake. However, most boaters utilizing Cheat Lake in the winter are typically familiar with these conditions and would avoid shallow areas. As discussed in Section 3.1, a winter boat launch is

⁵ To date, FERC has not responded to this notification.

available for use from November 1 through March 31 at Cheat Lake Park for those periods when the lake level is below 865' NGVD. The current lake level and the lake temperature are provided on the Cheat Lake website maintained by LLG at <https://cheatlake.today/>.

3.5 Wildlife Habitat and Nature Viewing Areas

In addition to the developed recreation sites, four parcels of Project lands have been designated as nature viewing areas (NVAs). These areas are open for certain public recreation uses and there are no plans to develop these areas in the future. These areas include the following:

- 40 acres between Morgan and Manning Run embayments
- 140-acre Cheat Haven Peninsula
- 12-acre parcel across the lake from Cheat Haven - accessible by boat
- 25 acres Towers Run

The 140-acre Cheat Haven Peninsula area was designed to allow hikers to leave the Cheat Lake Trail and hike along the 1-mile trail through the woods. A bike rack and picnic table are provided at the end of the trail for use by trail users. A three-sided shelter is also provided at the end of the trail. The designated walking trail aids in reducing habitat destruction in the NVA.

The Towers Run area was identified in the original Recreation Plan as a hunting area. On October 7, 1997, FERC issued an “*Order Approving Hunting Area Management Plan and Amending Recreation and Land Management Plan*” at the request of the former Licensee, AE, and local landowners. In that Order, it was agreed by FERC and WVDNR that the Towers Run area is not conducive to hunting because of the number of nearby property owners and the small size of the parcel. Therefore, hunting continues to be prohibited in this area.

3.6 Privilege Permit Areas

Historically, the Licensee granted leases and permits (“privilege permits”) for private recreation access to Project lands and waters. There are approximately 200 privilege permits issued at various locations around the Cheat Lake shoreline that allow holders to install and maintain boat docks. Each permit holder is responsible for the installation and maintenance of any boat docks and the property; however, permits must be approved by LLG prior to any improvements being conducted at a privilege permit site. Currently, LLG issues permits to property owners around the lake, if requested, for the parcel of land in front of their properties and on a limited basis to individuals that had requested a space on the lake for installing a dock for lake access.

Currently there are also twenty-five (25) privilege permits or licenses issued for leased lake-front plots, sometimes referred to as “campsites”. Twenty (20) of these campsites are located along the Cheat Lake Trail. Beginning in 2011, the Licensee notified campsite permit holders that overnight camping is no longer permitted on the campsite plots. Consistent with the Order Approving the 2012 Recreation Plan Update dated October 9, 2012, the Licensee no longer issues new privilege permits for campsites.

3.7 Recreation Site Security and Maintenance

LLG currently contracts with a private security firm to provide security on Project lands. The security firm patrols the Project recreation sites from April 1 to September 30. LLG personnel or separate maintenance contractors handle routine maintenance, mowing, cleaning, and repairs year round. If major construction repairs are required, LLG contracts this work with one of its approved contractors.

4.0 RECREATION PLAN UPDATE

Pursuant to License Article 417, as amended, LLG is required to file an update to the Recreation Plan every three years. The last Recreation Plan Update was filed with FERC on June 1, 2015, and was approved by FERC by Order issued August 3, 2015. The update is prepared based on an evaluation of facility use data and in consultation with agencies and stakeholder groups. The following sections discuss each of the areas that LLG is required to address in the update.

4.1 Recreation Use

4.1.1 Recreation Use Study Methodology

Annual recreation use data for the Project recreation facilities were collected via spot-counts made during 2015, 2016, and 2017. Spot counts were conducted at Cheat Lake Park, the Cheat Lake Trail, and the tailrace recreation area. In addition, boat trailer counts were made at the Sunset Beach Marina.⁶ Within Cheat Lake Park, use information was collected for the following: picnic area use, playground use, day-use boat dock use, bank fishing use, platform fishing use, boat fishing use, and parking areas use. For the Cheat Lake Trail, the two following uses were surveyed: Cheat Lake Trail use and the substation parking lot use. At the tailrace recreation area, the following uses were surveyed: bank fishing use, platform fishing use, boat fishing use, and parking lot use.

Recreation spot-count data were collected daily at the Project recreation sites. With the exception of the tailrace recreation area, spot-count data were collected once during morning and early afternoon hours (approximately 8 am – 2 pm) and once between afternoon and early evening hours (approximately 2 pm – 8 pm). At the tailrace recreation area, Lake Lynn Project staff collected recreation use spot-count data twice daily, including during morning and evening hours, coinciding with the times when peak recreation use occurs at this specific site. All data were collected on datasheets specific to the area of the survey. All recreation use data were collected as spot-counts, with no adjustments made to compensate for visitors that arrive or leave between the data collection times. Spot-counts consisted only of the number of people who were actually observed at the time of the survey, and did not include assumed recreation use. Vehicle spot-counts at recreation site parking areas were also made but were not utilized in estimating recreation use. Unusual recreation use activities or levels observed during the

⁶ Boat trailer data were collected at Sunset Beach Marina. No attempt was made to estimate recreation use days from the boat trailer data. However, the boat trailer data provides some indication of the level of use of the Sunset Beach Marina boat launch and parking area capacity.

course of a day but not recorded during a spot-count (e.g. large groups that visited at some other time of day, special events, or inclement weather conditions) were noted in the comments section of the datasheets.

Recreation use estimates were made from the resulting spot-count surveys for weekdays, weekend days, and peak-use weekend days. Peak weekend days are defined as Memorial Day weekend days (Saturday through Monday), Fourth of July weekend days (Saturday, Sunday, federal holiday date), and Labor Day weekend days (Saturday through Monday). Non-peak weekend days include all other weekend days (Saturday and Sunday).

At the Sunset Beach Marina, a count of parked boat trailers was conducted. Generally, counts were conducted twice per day, once during the morning and once in the afternoon or early evening. To estimate boat trailer use for each day, the average of the two daily counts was calculated to determine the average number of boat trailers parked at Sunset Beach Marina at a single point on a given day.

This 2018 Recreation Plan Update presents data collected in 2015, 2016, and 2017. At Cheat Lake Park (including Cheat Lake Trail) and the tailrace recreation area, data were collected year-round for 2015 and 2016. The data presented for 2017 were collected from January 1 through October 31, 2017, as the data analysis for the 2018 Recreation Plan Update was completed prior to the November and December 2017 data becoming available. The annual recreation use values for 2017 were adjusted to account for the two unavailable months of 2017 data. At the Sunset Beach Marina, data were collected May 13, 2017 through September 30, 2017.

4.1.2 Recreation Use Data Results and Adequacy of Facilities

A summary of the recreation use data collected at the Lake Lynn Project is provided in Attachment I. Results of the recreation use estimates are summarized in [Table 1](#). Total overall use at the Project recreation sites increased between 2015 and 2017. It is estimated that a total of 30,196 visitors used the Cheat Lake Park (including Cheat Lake Trail) and tailrace recreation area facilities in 2015, 38,929 in 2016, and 46,410 in 2017. Total overall recreational use was lowest during the 2015 recreation season.

Compared to the 2015 triennial Recreation Plan Update that included recreational use data for the years 2012-2014, recreation use in the 2015-2017 period was relatively similar, but there was a slight increase in average annual recreation use. During the 2015-2017 period, the average annual number of visitors at the Cheat Lake Park (including Cheat Lake Trail) and tailrace recreation area facilities was 38,047. The average annual recreation use at all sites during the 2012-2014 period was 35,972. The average annual recreation use at Cheat Lake Park increased from the 2012-2014 period to the 2015-2017 period, however, the average annual recreation use at the tailrace recreation area decreased from the 2012-2014 period to the 2015-2017 period ([Figure 4](#)).

The average annual use on non-peak weekends at the Cheat Lake Park (including Cheat Lake Trail) and tailrace recreation area facilities was 17,902. The average annual use on peak weekends at the Cheat Lake Park (including Cheat Lake Trail) and tailrace recreation area facilities was 3,917. As shown in Attachment I, average daily use during the peak weekends

was greater than the average daily use during the non-peak weekends.

TABLE 1. VISITORS AT LAKE LYNN PROJECT DURING THE 2015-2017 PERIOD

DAY TYPE	2015	2016	2017 ¹	2017 ² (Adjusted)	AVERAGE ANNUAL ³	TOTAL (Counted)
I. CHEAT LAKE PARK						
NON PEAK WEEKEND	13,539	17,575	18,925	22,710	17,661	50,039
PEAK WEEKEND	2,900	3,884	4,177	5,012	3,869	10,961
TOTAL ALL DAYS	29,456	38,056	38,385	46,062	37,375	105,897
II. TAILRACE RECREATION AREA						
NON PEAK WEEKEND	279	318	86	103	241	683
PEAK WEEKEND	45	56	35	42	48	136
TOTAL ALL DAYS	740	873	290	348	672	1,903
ALL SITES						
NON PEAK WEEKEND	13,818	17,893	19,011	22,813	17,902	50,722
PEAK WEEKEND	2,945	3,940	4,212	5,054	3,917	11,097
TOTAL ALL DAYS	30,196	38,929	38,675	46,410	38,047	107,800

¹ Data collected Jan 1 – Oct. 31, 2017.

² To account for the fact that data for 2017 includes only January through October data, the following formula was used to estimate a complete year of data. Total sum of collected data, divided by 10 (months), multiplied by 12.

³ The average annual use was calculated with the following formula to account for the fact that data for 2017 included only January through October data. Total sum of 2015, 2016, and 2017 data; divided by 34 (months); multiplied by 12. The resulting number is what is considered to be the Average Annual Use number in this Plan Update.

[Table 2](#) shows a breakdown of recreation use by use-type or area during the 2015-2017 period, including the average annual use. [Figure 2](#) displays the total recreation use by area at the three most highly used locations at Cheat Lake Park. As shown, the use-types with the highest use levels at Cheat Lake Park include the Cheat Lake Trail use, fishing from boats in Cheat Lake, and the playground area use. Average annual use of the Cheat Lake Trail during the period of 2015-2017 for all recreation days was 21,892. Average annual use of fishing from boats at Cheat Lake Park during the period of 2015-2017 for all recreation days was 9,569. Average annual playground use during the period of 2015-2017 for all recreation days was 3,440.

Within the tailrace recreation area, the use-types with the highest use were fishing platform use followed by fishing from the banks ([Table 2](#), [Figure 3](#)). [Figure 3](#) displays total recreation use by area at the tailrace recreation area between 2015 and 2017. In the tailrace recreation area, total recreation use was highest 2016, with a sharp decline in use in 2017 ([Table 1](#)). The overall decline in use of the tailrace recreation area in 2017 is due to the January 2017 closure of the tailrace fishing platform (discussed in Section 3.3). Although the fishing platform was closed in January 2017, results of the recreation counts demonstrated that considerable fishing still occurs at the tailrace recreation area along the banks.

TABLE 2. VISITORS BY MOST POPULAR USE AT RECREATION SITES ON ALL RECREATION DAYS DURING THE 2015-2017 PERIOD

SITE	2015	2016	2017¹	2017² (Adjusted)	AVERAGE ANNUAL³	TOTAL (Counted)
I. CHEAT LAKE PARK						
1. CHEAT LAKE TRAIL	17,800	22,240	21,987	26,384	21,892	62,027
2. FISHING FROM BOATS	6,402	9,351	11,360	13,632	9,569	27,113
3. PLAYGROUND	2,823	3,834	3,090	3,708	3,440	9,747
II. TAILRACE RECREATION AREA						
1. FISHING (ACCESS PLATFORM)	603	692	4	4.8	458	1,299
2. FISHING (BANKS)	113	176	281	337.2	201	570
3. FISHING (BOATING)	24	5	5	6	12	34

¹ Data collected Jan 1 – Oct. 31, 2017.

² To account for the fact that data for 2017 includes only January through October data, the following formula was used to estimate a complete year of data. Total sum of collected data, divided by 10 (months), multiplied by 12.

³ The average annual use was calculated with the following formula to account for the fact that data for 2017 included only January through October data. Total sum of 2015, 2016, and 2017 data; divided by 34 (months); multiplied by 12. The resulting number is what is considered to be the Average Annual Use number in this Plan Update.

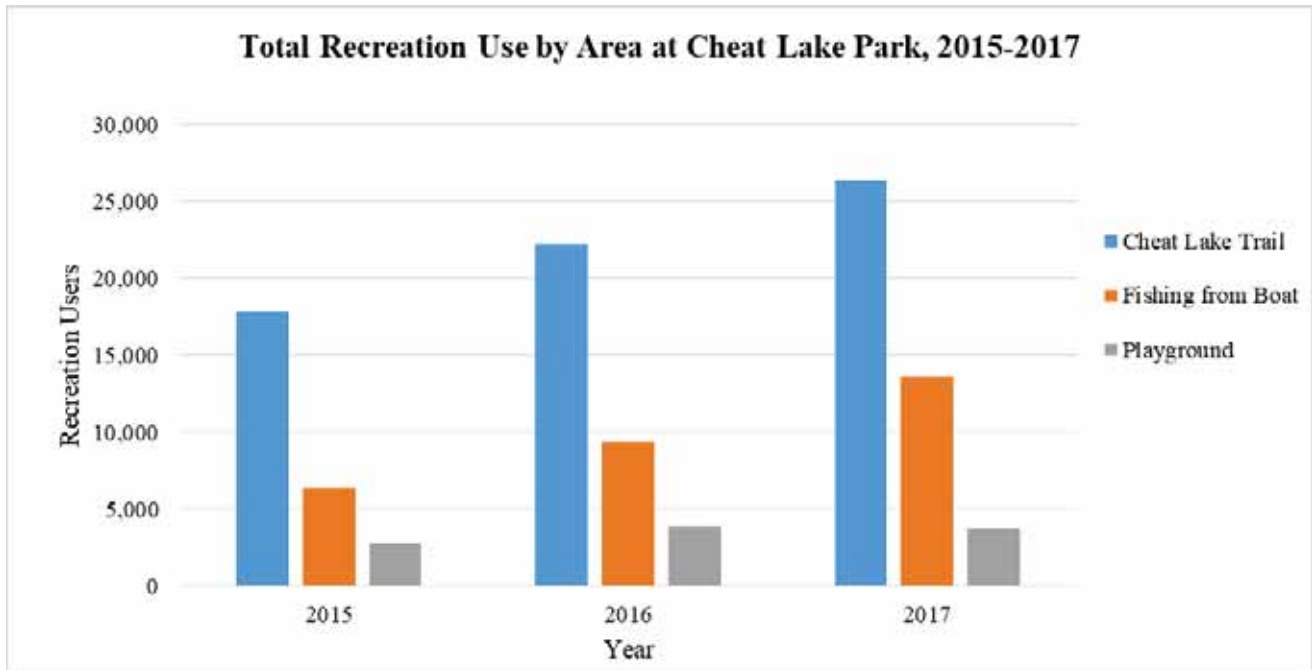


Figure 2. Total recreation use by area at the three most highly used locations at Cheat Lake Park between 2015 and 2017.⁷

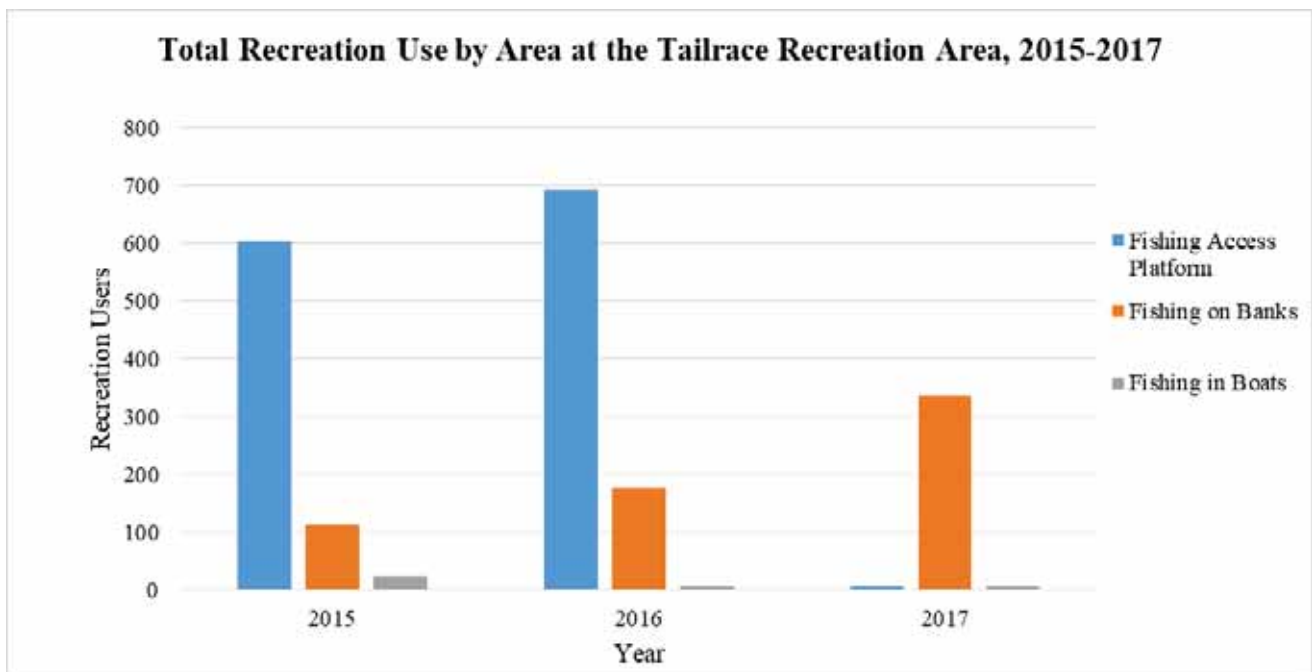


Figure 3. Total recreation use by area at the tailrace recreation area between 2015 and 2017.⁸

⁷ 2017 data have been adjusted as described in Section 4.1.1.

⁸ The decline in use of the fishing access platform in 2017 is due to the January 2017 closure of the tailrace fishing platform (discussed in Section 3.3). 2017 data have been adjusted as described in Section 4.1.1.

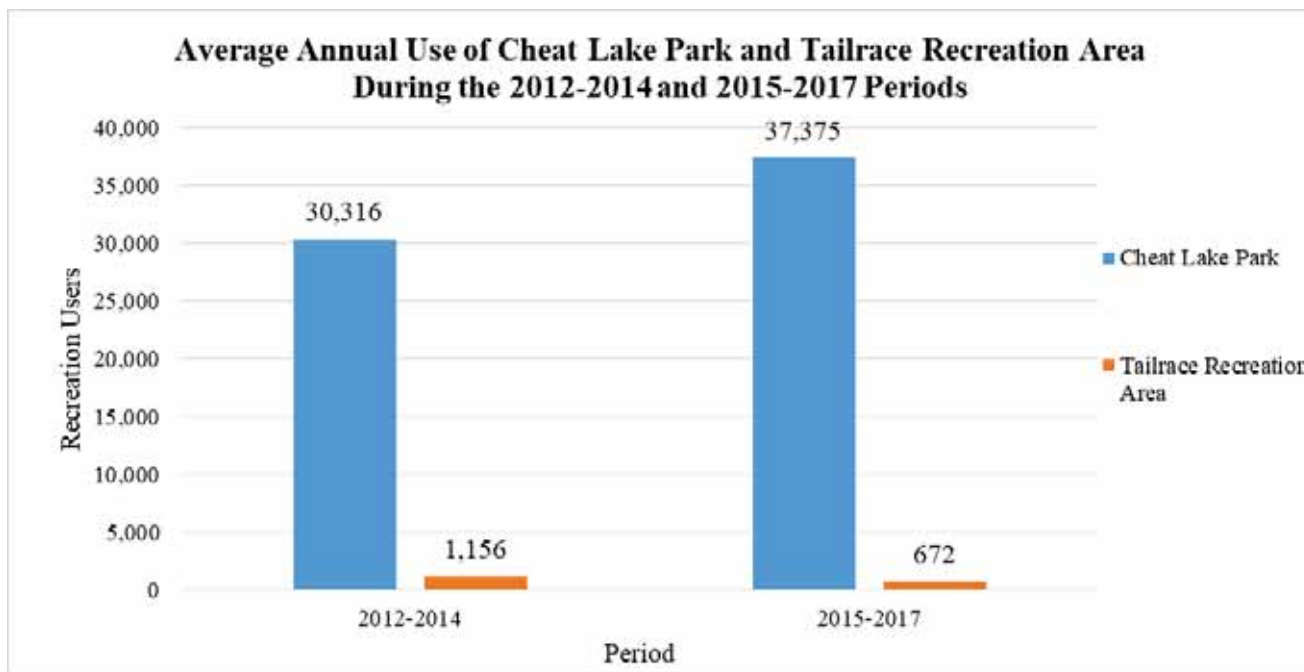


Figure 4. Average annual use of Cheat Lake Park and the tailrace recreation area during the 2012-2014 and 2015-2017 periods.

At the Sunset Beach Marina, boat trailer counts were made at the site during the 2017 recreation season from May 13 through September 30. The results are shown in [Table 3](#). The average number of boat trailers counted in a single day during peak weekend days was 57, during non-peak weekend days was 39, during weekdays was 20, and during all days surveyed was 27.

TABLE 3. SUNSET BEACH MARINA BOAT TRAILER PARKING

DAY TYPE	AVERAGE Count by Day Type
NON-PEAK WEEKEND DAYS	39
PEAK WEEKEND DAYS	57
WEEKDAYS	20
TOTAL ALL DAYS	27

Based on the most recent FERC Form 80 (2015⁹), all of the Lake Lynn Project recreation facilities continue to be utilized at less than 50 percent of capacity. The facilities that have the highest utilization based on their capacity are the boat launches. The FERC Form 80 reported 46 percent utilization of both boat launches. Boat trailer data collected in 2017 for the Sunset Beach Marina provides a similar estimate of capacity with an average daily boat trailer count of 27 and a vehicle/trailer parking capacity of 60 (45 percent of capacity). All other Lake Lynn

⁹ The 2015 FERC Form 80 for the Lake Lynn Project was revised in 2017.

Project recreation facilities have less than a 25 percent capacity utilization. The Cheat Lake Trail, the most used Project facility, has a 20 percent capacity utilization. Nothing in the recreation use data collected in 2015, 2016, and 2017 suggest any significant changes in recreation facility capacity. Based on the review of the available facilities, annual use numbers generated in 2015, 2016 and 2017, and the FERC Form 80 capacity utilization rates, the existing facilities, as operated, are adequate to meet the current demonstrated demand for recreation use at the Project and comply with the Recreation and Land Management Plan approved by FERC on June 26, 1995 and amended on April 11, 1997, March 31, 2008, and May 18, 2010.

4.2 Boating Carrying Capacity Study

LLG received a comment during the public comment period for the 2015 Recreation Plan Update regarding Cheat Lake's boating carrying capacity. In FERC's Order Approving the 2015 Recreation Plan Update dated August 3, 2015, FERC required a boating carrying capacity study to be included in the 2018 Recreation Plan Update.¹⁰ LLG conducted a boating carrying capacity study in 2017. The study methods and results are described below. The study report is provided in Attachment III.

First, an inventory of active boat use at Cheat Lake was conducted by an aerial survey from an aircraft (Cessna 172) on Saturday, July 15, 2017.¹¹ This resulted in a count of 42 boats in use on Cheat Lake. A second survey, conducted from a boat while driving around the lake, occurred on Sunday, August 13, 2017.¹² This resulted in a count of 291 boats in use on Cheat Lake.

In addition to the survey to determine the number of boats in use on Cheat Lake, counts of docked (or moored) boats and trailered boats were conducted. The docked boat count occurred on Wednesday, July 19, 2017 and resulted in a count of 1,226 moored or docked boats (414 at 204 private docks, and 804 at 4 marinas). Trailered boat counts were conducted at the Sunset Beach Marina on four dates (6/24/2017, 7/22/2017, 8/5/2017, and 8/12/2017). The results of the trailered boat counts produced an average count of 69 trailered boats.

A desktop literature review was conducted to determine the recommended boating carrying capacity for lakes. This review found a wide range of suggested boating space standards. The carrying capacity based on safety is derived from the traditional "space standards" approach for assessing boating carrying capacity.¹³ The literature review found that, as a general rule, the National Park Service adopted a range of 9 to 18 acres per boat as a guideline for safe boating on open water.¹⁴ Using the more conservative 9 acres per boat, the size of the lake (1,598

¹⁰ Order Approving the 2015 Recreation Plan Update issued August 3, 2015 (152 FERC ¶ 62,081)

¹¹ The weather during the survey was overcast with a temperature of 71 degrees Fahrenheit. The previous two days before the aerial survey the watershed experienced a total of 3.1 inches of rain leaving the lake very muddy and debris filled.

¹² The weather during the survey was sunny and 82 degrees Fahrenheit, and the lake water conditions were clear.

¹³ Bureau of Outdoor Recreation 1970 "Outdoor Recreation Space Standards." Graefe, A.R., F.R. Kuss, and J.J. Vaske.

¹⁴ 1987 "The Carrying Capacity of Lake Powell: A Management Analysis of Capacity for Boater Recreation." Technical Report prepared by the National Park Service: Glen Canyon National Recreation Area and Rocky Mountain Regional Office. Stankey, G.H., D.N. Cole, R.C. Lucas, M.E. Peterson, and S.S. Frissell.

acres) divided by 9 acres results in a conservative estimate of carrying capacity of 177 boats. The boating carrying capacity study resulted in two significantly different numbers of active boat use. The aerial survey produced a boat use estimate of 42 boats, which is below the carrying capacity. The second survey produced a boat use estimate of 291 boats, which exceeds the carrying capacity standard used for assessment in this study.

LLG is aware that boating use on the lake may be approaching capacity. LLG does not plan to issue any new permits until relicensing studies have been completed during the upcoming relicensing process, which will occur 2019 – 2022, during which boating use may be more fully examined in context with other recreational uses and needs. WVDNR is the agency responsible for establishing boating safety regulations which would be applicable to Cheat Lake, but based on the Licensee's understanding, WVDNR does not have an established boating carrying capacity standard.

4.3 Proposed Plan Amendments

LLG does not propose any new recreation sites, facilities, or amenities in this Recreation Plan Update. As discussed in Section 4.1.2, the Lake Lynn Project recreation facilities continue to be utilized at less than 50 percent of capacity based on the most recent (2015¹⁵) FERC Form 80. No suggestions were made for new recreation sites, facilities, or amenities during the 2015 Recreation Plan Update. Based on the review of the available facilities, annual use numbers generated in 2015, 2016 and 2017, and the most recent FERC Form 80 capacity utilization rates, the existing facilities, as operated, are adequate to meet the current demonstrated demand for recreational use at the Project.

LLG proposes several changes to the recreation use data collection and reporting. The Licensee has collected extensive annual recreation use data on a daily basis that exceeds FERC requirements for monitoring recreation use at hydropower projects. The results of the recreation use data from the past three years indicate annual use of the recreation facilities at the Lake Lynn Project for the period 2015-2017 showed similar overall average annual use as the previous (2015) triennial Recreation Plan Update for the period 2012-2014. Accordingly, LLG proposes to discontinue annual recreation use data collection, and will next report Project recreation use on the 2021 FERC Form 80.

LLG also proposes to make this 2018 Recreation Plan update the final update of the current Recreation Plan. The relicensing process for the Lake Lynn Project (P-2459) will be initiated in 2019, and will continue through 2022. During relicensing, agencies and stakeholders will have an opportunity to participate in the process and provide input on resource concerns, including those related to recreation resources. The Licensee anticipates that the relicensing process will result in the creation of new Recreation Management Plan for the Lake Lynn Project that will better address current recreation issues and potential Project impacts in context of other resource issues and concerns that may be raised by agencies and stakeholders. FERC License Article 415 requires the Licensee to provide professional security patrols during daylight hours on weekends and holidays beginning Memorial Day weekend through Labor

¹⁵ The 2015 FERC Form 80 for the Lake Lynn Project was revised in 2017.

Day. Pursuant to FERC License Article 415, the Licensee for the Lake Lynn Project filed a Recreation and Land Management Plan which was approved by FERC on June 26, 1995 that proposed that a security agency would be employed during daylight hours on summer weekends between Memorial Day and Labor Day. FERC's approval of the plan dated April 11, 1997 required the Licensee to develop a trail management plan for the Cheat Lake Trail to address concerns of private property owners related to trespass and vandalism that they anticipated once the trail was constructed. The Trail Management Plan was filed with FERC on October 14, 1997 and approved by FERC on March 2, 1998. Consistent with the Recreation and Land Management Plan, in the Trail Management Plan the Licensee proposed to provide security for the daylight hours for the trail during the period it is open and to contract additional security personnel for nighttime security duties. In the 2015 Recreation Plan Update, the Licensee indicated that it would provide a private security firm to provide on-duty security personnel for 16 hours a day 7 days a week during the recreation season, and for 10 hours a day 7 days a week during the off-season.

Since the 2015 Recreation Plan Update, LLG has not received any reports of security issues or trespass at the Project or at Project recreation sites. Currently, there is no fee for the public to use the Cheat Lake Park recreation facilities to offset the expense associated with contracting with a professional security firm. Because recreation site security has not been an issue, and because of the considerable expense associated with contracting with a professional security firm for 16 hours a day 7 days a week during the recreation season, and for 10 hours a day 7 days a week during the off-season, LLG proposes to amend the Recreation Plan (and, by reference, the Trail Management Plan) to provide safety/security patrols of the Project recreation sites during the daylight hours on weekends and holidays from Memorial Day weekend through Labor Day to enforce LLG's policies. Day to day maintenance tasks such as cleaning, mowing, and minor repairs from will be completed, as needed, either by LLG personnel or a maintenance contractor, year round.

In summary, LLG proposes the following amendments to the Recreation Plan:

- 1) LLG proposes to modify its recreation use reporting cycle to be consistent with the FERC Form 80 six-year report and review cycle. Accordingly, LLG proposes to discontinue the triennial Recreation Plan updates and next report recreation use data in 2021 with the FERC Form 80, and on 6-year intervals with the FERC Form 80 cycle thereafter.
- 2) The Licensee proposes that this is the final update of the Recreation Plan. The Licensee anticipates that a new Recreation Management Plan will be prepared as part of the upcoming Lake Lynn Project relicensing effort.
- 3) LLG proposes to provide safety and security patrols of the Project recreation sites during daylight hours on weekends and holidays from Memorial Day weekend through Labor Day. By reference, the Licensee is also hereby amending the security requirements of the Trail Management Plan consistent with this proposal.

4.4 Agency Consultation

On February 27, 2018, LLG distributed a draft 2018 Recreation Plan Update for comment. The draft Recreation Plan Update was provided to the Department of Interior (DOI), WVDNR, the Pennsylvania Fish and Boat Commission (PFBC), Monongalia County, CLEAR, local communities, law enforcement, and local and regional interest groups. LLG provided a 30-day comment period for all parties to comment on the draft plan update. In addition, LLG consulted with the interested agencies, DOI and WVDNR. An agency meeting (teleconference) was held on March 19, 2018.

Attachment II includes all comments received and LLG's responses to comments. Attachment II includes a table summarizing all comments specific to the Recreation Plan Update and LLG's responses to each comment. Specific descriptions of how the agencies' comments are accommodated are included. Attachment II also includes copies of the comments received, in chronological order, and documentation of agency consultation.

4.5 Project Specific Issues per Article 417

Article 417 of the FERC License requires that the Recreation Plan Update consider Project-specific issues. FERC's Order Approving the 2015 Recreation Plan Update¹⁶ described all issues and conclusions that need to be addressed as part of this 2018 Recreation Plan Update.

4.5.1 Safety and Security

Safety and security is considered a Project-specific issue to be considered in the Recreation Plan Update. As discussed in Section 4.3, since LLG has not received any reports of security issues or trespass at the Project or at Project recreation sites since the 2015 Recreation Plan Update, LLG proposes to provide safety and security patrols that would periodically patrol the Project recreation sites during the daylight hours on weekends and holidays from Memorial Day weekend through Labor Day to enforce LLG's policies. Based on FERC's Order Approving the 2015 Recreation Plan Update dated August 3, 2015, there are no concerns specific to security that need to be addressed in this 2018 Recreation Plan Update.

4.5.2 Water Navigation

Navigational problems such as shallow water or heavy boat traffic is considered a Project-specific issue to be considered in the Recreation Plan Update. In FERC's Order Approving the 2015 Recreation Plan Update dated August 3, 2015, FERC required LLG to include a boating carrying capacity study in the next Recreation Plan Update. LLG conducted a boating carrying capacity study in 2017 and the results are summarized in Section 4.2. The study report is provided in Attachment III. There are no additional concerns related to water navigation to be addressed in this 2018 Recreation Plan Update.

¹⁶ Order Approving the 2015 Recreation Plan Update issued August 3, 2015 (152 FERC ¶ 62,081)

4.5.3 Swimming

Swimming use, such as demand for swimming, commonly used sites, any problem areas, and the advantages and disadvantages of establishing permanent swimming sites, is considered a Project-specific issue to be considered in the Recreation Plan Update. Based on FERC's Order Approving the 2015 Recreation Plan Update dated August 3, 2015, there are no remaining concerns related to swimming areas that need to be addressed in this 2018 Recreation Plan Update.

4.5.4 Boat Launching

There are boat launches available year-round on Cheat Lake. These are further described in Section 3. The capacity utilization, as described in the most recent (2015) FERC Form 80, indicates that the boat launch facilities are used at less than 50 percent capacity (46 percent of their capacity currently utilized) and continue to provide adequate access, so additional or alternate boat launch sites are not proposed.

4.5.5 Camping and Privilege Permits

The viability of continuing the primitive camping and privilege permit lease lot programs, including modifications to address demand, user conflicts, or other issues is considered a Project-specific issue to be considered in the Recreation Plan Update. Currently there are also twenty-five (25) privilege permits or licenses issued for leased lake-front plots, sometimes referred to as "campsites". Twenty (20) of these campsites are located along the Cheat Lake Trail. Beginning in 2011, the Licensee notified campsite permit holders that overnight camping is no longer permitted on the campsite plots. Consistent with the Order Approving the 2012 Recreation Plan Update dated October 9, 2012 and the Order Approving the 2015 Recreation Plan Update dated August 3, 2015, LLG no longer issues new privilege permits for campsites.

4.5.6 Other

Based on FERC's Order Approving the 2015 Recreation Plan Update dated August 3, 2015, there are no remaining concerns that need to be addressed in this 2018 Recreation Plan Update.

5.0 SUMMARY/CONCLUSIONS

During the 2015-2017 period, LLG conducted recreation counts at Cheat Lake Park, Cheat Lake Trail, and the tailrace recreation area to estimate recreation use of the recreation sites and facilities provided at the Lake Lynn Project. Overall recreation use increased during the 2015 through 2017 period. Total overall recreation use was lowest during 2015, and highest during 2017. Results of the recreation surveys during the 2015-2017 indicate an average annual use of 38,047 visitors at the Project recreation facilities. Compared to the most recent (2015) Recreation Plan Update which contained recreation use data for 2012-2014, recreation use in the 2015-2017 period showed a similar overall average annual use, with a slight increase in amount of average annual use. The average annual recreation use at all sites during the 2012-2014 period was 35,972. The highest recreation use types during 2015-2017 period include the

Cheat Lake Trail (average annual use of 21,892), fishing from boats in Cheat Lake (average annual use of 9,569), and the playground area (average annual use of 3,440).

Recreation use of the entire tailrace recreation area in 2015 and 2016 remained similar to the annual use from the most recent triennial Recreation Plan Update, however in 2017 there was a notable decrease in tailwater use. This was due to the January 2017 closure of the tailrace fishing platform, which is described in Section 3.3. The tailrace fishing platform is anticipated to be restored. LLG currently expects to finalize engineering plans in 2018, complete repairs, and restore the tailrace fishing platform to service in 2019.

In addition to the annual recreation use data collected at Cheat Lake Park, Cheat Lake Trail, and the tailrace recreation area, boat trailer counts were made at Sunset Beach Marina. These data were collected during the 2017 recreation season from May 13 through September 30. Results from these data showed that the average number of boat trailers parked at Sunset Beach Marina during this period on peak weekend days was 57, during non-peak weekend days was 39, during weekdays was 20, and the average for all days surveyed was 27.

Based on the review of the available facilities, annual use numbers generated in 2015, 2016 and 2017, and the FERC Form 80 capacity utilization rates, the existing facilities, as operated, are adequate to meet the current demonstrated demand for recreation use at the Project and comply with the Recreation and Land Management Plan.

As discussed in Section 4.3 of this Recreation Plan Update, LLG proposes the following amendments to the Recreation Plan: 1) discontinuing annual collection of recreation use data and next report Project recreation use as part of the 2021 FERC Form 80, and every six years thereafter in conjunction with the FERC Form 80 cycle; 2) make this the final update to the current Recreation Plan since a new Recreation Management Plan is expected to be developed during the Project relicensing process that will commence in 2019; and 3) amending the Recreation Plan (and, by reference, the Trail Management Plan) security requirement to provide safety and security patrols of the Project recreation sites during the daylight hours on weekends and holidays from Memorial Day weekend through Labor Day.

ATTACHMENT I

**RECREATION USE DATA SUMMARY FOR CHEAT LAKE PARK, SUNSET
BEACH MARINA, AND TAILRACE RECREATION AREA**

2015-2017

Lake Lynn Hydroelectric Project - Cheat Lake Park, Hiking/Biking Trail, and Sunset Beach Marina
Recreational Use Surveys
Monthly Summary

Month	Cheat Lake Park																		Hiking/Biking Trail						All Visitors (Total People)			Sunset Beach Marina								
	Picnic Area			Playground			Day Use Boat Docks			Fishing (Banks)			Fishing (Platforms)			Fishing (Boats)			Cheat Lake Parking			Hikers/Bikers on Trail			Substation Parking			Total	NonPeak WE	Peak WE	Total	NonPeak WE	Peak WE			
	Total	NonPeak WE	Peak WE	Total	NonPeak WE	Peak WE	Total	NonPeak WE	Peak WE	Total	NonPeak WE	Peak WE	Total	NonPeak WE	Peak WE	Total	NonPeak WE	Peak WE	Total	NonPeak WE	Peak WE	Total	NonPeak WE	Peak WE	Total	NonPeak WE	Peak WE									
January, 2015	0	0	n/a	8	6	n/a	0	0	n/a	7	7	n/a	0	0	n/a	4	4	n/a	89	61	n/a	168	107	n/a	16	7	n/a	187	124	n/a	n/a	n/a	n/a			
February, 2015	0	0	n/a	13	13	n/a	0	0	n/a	0	0	n/a	0	0	n/a	0	0	n/a	43	35	n/a	134	95	n/a	18	7	n/a	147	108	n/a	n/a	n/a	n/a			
March, 2015	0	0	n/a	87	47	n/a	0	0	n/a	48	21	n/a	9	3	n/a	27	13	n/a	246	100	n/a	535	228	n/a	70	46	n/a	706	312	n/a	n/a	n/a	n/a			
April, 2015	9	7	n/a	261	139	n/a	0	0	n/a	146	64	n/a	24	10	n/a	231	109	n/a	609	289	n/a	1093	601	n/a	60	15	n/a	1764	930	n/a	n/a	n/a	n/a			
May, 2015	128	24	80	398	123	85	15	15	0	336	128	61	17	9	0	887	753	25	1332	517	293	2637	1032	718	44	13	9	4418	2084	969	n/a	n/a	n/a			
June, 2015	25	10	n/a	262	66	n/a	48	7	n/a	225	66	n/a	16	7	n/a	698	289	n/a	1022	297	n/a	2154	722	n/a	45	9	n/a	3428	1167	n/a	n/a	n/a	n/a			
July, 2015	11	6	0	532	189	43	107	72	6	286	67	38	77	36	8	1931	1294	154	1212	461	174	3123	1406	489	60	13	11	6067	3070	738	n/a	n/a	n/a			
August, 2015	33	21	n/a	522	251	n/a	161	112	n/a	222	98	n/a	51	37	n/a	1816	1394	n/a	1558	678	n/a	3662	1839	n/a	49	21	n/a	6467	3752	n/a	n/a	n/a	n/a			
September, 2015	21	6	15	330	66	118	56	7	15	167	61	44	8	0	2	489	64	202	858	168	319	1979	444	797	38	3	8	3050	648	1193	n/a	n/a	n/a			
October, 2015	0	0	n/a	169	75	n/a	10	1	n/a	61	26	n/a	3	3	n/a	112	51	n/a	570	222	n/a	979	446	n/a	23	6	n/a	1334	602	n/a	n/a	n/a	n/a			
November, 2015	0	0	n/a	139	70	n/a	0	0	n/a	50	7	n/a	4	3	n/a	140	25	n/a	460	149	n/a	814	312	n/a	24	5	n/a	1147	417	n/a	n/a	n/a	n/a			
December, 2015	0	0	n/a	102	55	n/a	0	0	n/a	38	13	n/a	12	3	n/a	67	25	n/a	331	155	n/a	522	229	n/a	56	35	n/a	741	325	n/a	n/a	n/a	n/a			
January, 2016	0	0	n/a	57	49	n/a	0	0	n/a	14	8	n/a	0	0	n/a	10	7	n/a	120	71	n/a	287	191	n/a	22	5	n/a	368	255	n/a	n/a	n/a	n/a			
February, 2016	0	0	n/a	76	63	n/a	0	0	n/a	27	19	n/a	0	0	n/a	6	4	n/a	241	151	n/a	441	281	n/a	10	6	n/a	550	367	n/a	n/a	n/a	n/a			
March, 2016	0	0	n/a	302	74	n/a	0	0	n/a	126	29	n/a	5	2	n/a	147	56	n/a	568	194	n/a	1203	443	n/a	19	7	n/a	1783	604	n/a	n/a	n/a	n/a			
April, 2016	8	2	n/a	202	102	n/a	0	0	n/a	186	98	n/a	10	5	n/a	267	127	n/a	664	344	n/a	1280	728	n/a	14	7	n/a	1953	1062	n/a	n/a	n/a	n/a			
May, 2016	7	0	4	465	63	103	21	0	18	288	61	45	2	0	0	547	48	311	885	171	312	2239	367	958	18	2	0	3569	559	1439	n/a	n/a	n/a			
June, 2016	6	6	n/a	679	287	n/a	119	55	n/a	324	129	n/a	58	30	n/a	1737	1141	n/a	1774	952	n/a	4298	2387	n/a	37	8	n/a	7221	4035	n/a	n/a	n/a	n/a			
July, 2016	5	2	3	740	215	112	150	74	13	298	100	22	16	6	2	3205	2456	125	1907	865	164	4028	1704	465	9	1	3	8442	4557	742	n/a	n/a	n/a			
August, 2016	4	0	n/a	499	124	n/a	184	103	n/a	181	76	n/a	77	70	n/a	1945	1405	n/a	1807	685	n/a	3541	1655	n/a	25	4	n/a	6431	3433	n/a	n/a	n/a	n/a			
September, 2016	37	10	22	345	118	60	137	43	67	148	54	28	17	3	6	1219	309	711	911	226	276	2239	557	809	31	5	4	4142	1094	1703	n/a	n/a	n/a			
October, 2016	8	8	n/a	244	96	n/a	3	3	n/a	82	45	n/a	9	2	n/a	159	78	n/a	726	400	n/a	1551	863	n/a	30	12	n/a	2056	1095	n/a	n/a	n/a	n/a			
November, 2016	0	0	n/a	164	50	n/a	0	0	n/a	51	14	n/a	1	0	n/a	85	14	n/a	362	126	n/a	771	314	n/a	18	4	n/a	1072	392	n/a	n/a	n/a	n/a			
December, 2016	0	0	n/a	61	6	n/a	0	0	n/a	17	3	n/a	5	0	n/a	24	8	n/a	193	57	n/a	362	105	n/a	14	7	n/a	469	122	n/a	n/a	n/a	n/a			
January, 2017	0	0	n/a	69	49	n/a	0	0	n/a	29	18	n/a	3	0	n/a	21	13	n/a	239	126	n/a	459	254	n/a	16	6	n/a	581	334	n/a	n/a	n/a	n/a			
February, 2017	0	0	n/a	164	89	n/a	0	0	n/a	56	21	n/a	1	0	n/a	73	22	n/a	371	146	n/a	784	324	n/a	25	11	n/a	1078	456	n/a	n/a	n/a	n/a			
March, 2017	0	0	n/a	190	105	n/a	0	0	n/a	63	30	n/a	3	3	n/a	75	41	n/a	391	196	n/a	840	461	n/a	28	13	n/a	1171	640	n/a	n/a	n/a	n/a			
April, 2017	0	0	n/a	548	251	n/a	0	0	n/a	206	118	n/a	6	5	n/a	329	168	n/a	1026	453	n/a	2092	964	n/a	47	30	n/a	3181	1506	n/a	n/a	n/a	n/a			
May, 2017	0	0	0	424	106	96	16	0	16	238	54	76	22	5	0	435	69	171	829	183	212	1770	427	466	83	7	3	2905	661	825	709	182.5	228.5			
June, 2017	6	6	n/a	438	195	n/a	75	53	n/a	271	121	n/a	44	21	n/a	2675	2068	n/a	2425	1643	n/a	4633	2764	n/a	125	35	n/a	8142	5228	n/a	n/a	715	307.5	n/a		
July, 2017	0	0	0	362	95	53	74	27	16	154	52	21	34	9	4	3888	1491	1409	1589	522	380	4350	1428	1331	35	12	1	8862	3102	2834	1079	374.5	204.5			
August, 2017	0	0	n/a	344	123	n/a	62	28	n/a	141	55	n/a	36	16	n/a	2890	2362	n/a	1363	600	n/a	2893	1450	n/a	54	25	n/a	6366	4034	n/a	n/a	755	314	n/a		
September, 2017	0	0	0	289	110	43	40	18	3	185	71	34	17	9	5	665	249	111	867	364	114	2034	888	322	49	18	11	3230	1345	518	542	184.5	84			
October, 2017	0	0	n/a	262	132	n/a	10	5	n/a	139	70	n/a	17	9	n/a	309	189	n/a	877	464	n/a	2132	1214	n/a	51	21	n/a	2869	1619	n/a	n/a	n/a	n/a			
November, 2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
December, 2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a		
Total Rec Days	308			9747			1288			4810			604			27113			28485			62027			1263			105897			3800					
Average per Month	9.1			286.7			37.9			141.5			17.8			797.4			837.8			1824.3			37.1			3114.6			50039					
Total Non Peak		108			3602			623			1804			306			16366			12071			27230			426			50039			1363				
Total Peak			124			713			154			369			27			2244			6355			50			10961						517			

Total (Cheat Lake Park and Trail) Peak Weekends, Jan'15 - Sept'17		
	Total/Weekend	Avg./Day
Memorial Day (Sat - Mon)	3233	359.2
4th of July (4th, Sat and Sun)	4314	479.3
Labor Day (Sat - Mon)	3414	379.3

Total (Cheat Lake Park and Trail) Non-Peak Weekends, Jan'15 - Sept'17	
Saturday and Sunday	50039
Avg/per day	169.1

Cheat Lake Park (Cheat Lake Park and Trail)	105897
Total Visitors Counted, 2015-2017	

Total (Sunset Beach Marina) Peak Weekends, 2017		
	Total/Weekend	Avg. Count
Memorial Day (Sat - Mon)	228.5	76.2
4th of July (4th, Sat and Sun)	204.5	68.2
Labor Day (Sat - Mon)	84.0	28.0

Total (Sunset Beach Marina) Non-Peak Weekends, 2017 (May 13 - Sept. 30)	
Saturday and Sunday	1363
Avg. Count	38.9

Lake Lynn Hydroelectric Project - Tailrace Recreation Area
Recreational Use Surveys
Monthly Summary

Month	Fishing (Banks)			Fishing (Access Platforms)			Fishing (Boating)			Parking			All (Total People)		
	Total	Total Non Peak Weekend	Total Peak Weekend	Total	Total Non Peak Weekend	Total Peak Weekend	Total	Total Non Peak Weekend	Total Peak Weekend	Total	Total Non Peak Weekend	Total Peak Weekend	Total	Total Non Peak Weekend	Total Peak Weekend
January, 2015	0	0	n/a	0	0	n/a	0	0	n/a	0	0	n/a	0	0	n/a
February, 2015	0	0	n/a	9	6	n/a	0	0	n/a	8	4	n/a	9	6	n/a
March, 2015	0	0	n/a	7	5	n/a	0	0	n/a	10	9	n/a	7	5	n/a
April, 2015	8	2	n/a	15	2	n/a	1	0	n/a	23	6	n/a	24	4	n/a
May, 2015	35	11	8	154	69	15	0	0	0	111	45	11	189	80	23
June, 2015	7	4	n/a	50	22	n/a	1	1	n/a	37	17	n/a	58	27	n/a
July, 2015	14	5	0	55	18	0	22	20	0	48	16	1	91	43	0
August, 2015	19	4	n/a	135	55	n/a	0	0	n/a	82	27	n/a	154	59	n/a
September, 2015	13	4	0	89	31	22	0	0	0	53	15	10	102	35	22
October, 2015	4	1	n/a	36	10	n/a	0	0	n/a	28	10	n/a	40	11	n/a
November, 2015	6	0	n/a	41	7	n/a	0	0	n/a	27	4	n/a	47	7	n/a
December, 2015	7	0	n/a	12	2	n/a	0	0	n/a	16	3	n/a	19	2	n/a
January, 2016	4	4	n/a	9	7	n/a	0	0	n/a	8	6	n/a	13	11	n/a
February, 2016	1	0	n/a	7	3	n/a	0	0	n/a	11	4	n/a	8	3	n/a
March, 2016	29	4	n/a	68	22	n/a	3	2	n/a	72	14	n/a	100	28	n/a
April, 2016	27	16	n/a	82	45	n/a	0	0	n/a	62	33	n/a	109	61	n/a
May, 2016	25	10	3	84	24	27	0	0	0	85	29	18	109	34	30
June, 2016	43	6	n/a	140	42	n/a	0	0	n/a	90	25	n/a	183	48	n/a
July, 2016	12	3	5	102	28	14	0	0	0	69	20	8	114	31	19
August, 2016	8	6	n/a	64	22	n/a	0	0	n/a	37	14	n/a	72	28	n/a
September, 2016	6	5	0	64	32	7	1	1	0	40	15	5	71	38	7
October, 2016	12	7	n/a	21	12	n/a	0	0	n/a	29	15	n/a	33	19	n/a
November, 2016	6	0	n/a	41	13	n/a	1	0	n/a	36	10	n/a	48	13	n/a
December, 2016	3	2	n/a	10	2	n/a	0	0	n/a	10	3	n/a	13	4	n/a
January, 2017	12	6	n/a	4	0	n/a	0	0	n/a	10	4	n/a	16	6	n/a
February, 2017	12	6	n/a	0	0	n/a	0	0	n/a	9	3	n/a	12	6	n/a
March, 2017	16	6	n/a	0	0	n/a	0	0	n/a	11	3	n/a	16	6	n/a
April, 2017	41	10	n/a	0	0	n/a	0	0	n/a	27	8	n/a	41	10	n/a
May, 2017	77	13	24	0	0	0	0	0	0	44	7	17	77	13	24
June, 2017	53	20	n/a	0	0	n/a	3	0	n/a	34	9	n/a	56	20	n/a
July, 2017	39	15	5	0	0	0	2	0	2	30	14	4	41	15	7
August, 2017	4	2	n/a	0	0	n/a	0	0	n/a	0	0	n/a	4	2	n/a
September, 2017	14	2	4	0	0	0	0	0	0	1	0	0	14	2	4
October, 2017	13	6	n/a	0	0	n/a	0	0	n/a	0	0	n/a	13	6	n/a
November, 2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
December, 2017	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Rec Days	570			1299			34			1158			1903		
Average per Month	16.8			38.2			1.0			34.1			56.0		
Total Non Peak		180			479			24			392			683	
Total Peak			49			85			2			74			136

Total Peak Weekends, Jan'15 - Sept'17		
	Total/Weekend	Avg./Day
Memorial Day (Sat - Mon)	77	8.6
4th of July (4th, Sat and Sun)	26	2.9
Labor Day (Sat - Mon)	33	3.7

Total Non-Peak Weekends, Jan'15 - Sept'17	
Saturday and Sunday	683
Avg/per day	2.3

Tailrace Recreation Area, Total Visitors Counted, 2015-2017	1903
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ATTACHMENT II

RECREATION PLAN UPDATE COMMENTS AND RESPONSES
and
DOCUMENTATION OF AGENCY CONSULTATION

Agency/Stakeholder Comment Summary¹⁷
on the Draft 2018 Recreation Plan Update for the Lake Lynn Hydroelectric Project (FERC No. 2459)
April 1, 2018

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
Mon River Trails Conservancy (MRTC)	3/12/2018 (Email; Ella Belling)	In the 2015 Recreational Plan under 3.5.2 Recreation Trails, Safety and Security, there is inclusion of a plan to open the gate and coordinate a connection to the Sheepskin Trail. The start of the Sheepskin Trail construction will begin in a few weeks from state line to Point Marion, PA and engineering planning is underway for the next 2 miles getting us closer to where the two trails would connect. It would be helpful if LLG would be willing to share property maps so we could plan this connection which I am sure crosses in between WV and PA. I am hoping you will include this in the plan to FERC and let me know who to possibly coordinate with to get property information.	Comment acknowledged. The Licensee will allow a connection of the Sheepskin Trail to the Cheat Lake Trail and will continue to work with Mon River Trails Conservancy, outside of the Recreation Plan Update process, including by providing available information as needed.
	3/29/2018 (Email - Letter; Ella Belling)	The Mon River Trails Conservancy supports the Cheat Lake Environment & Recreation Association (CLEAR) in its mission of promoting recreation, safety, and environmental protection at Cheat Lake (aka Lake Lynn). This popular recreation spot could serve to have staff that could facilitate public use such as providing information, promoting safe use, and helping to coordinate having more events at the park. With the downsizing of security that is proposed, we hope the trail and lake facilities continue to be well maintained.	Comment noted. See response to similar comment from CLEAR below.
		MRTC hopes that you will honor the commitment given in the 2015 Recreational Plan to allow the connection to happen between the Cheat Lake Trail	Comment acknowledged. The Licensee will continue to work with Mon River Trails Conservancy, outside of the Recreation Plan Update

¹⁷ The draft 2018 Recreation Plan Update was distributed for comment on February 27, 2018. This table summarizes comments received on the draft 2018 Recreation Plan Update, and the Licensee’s response to these comments. Documentation of agency consultation and all comments follow this summary table.

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
		and the Sheepskin Trail. This undertaking would connect the Cheat Lake Trail to a much larger rail-trail network that would extend 50+ miles to the Mon River Trail to the south and to the Sheepskin Trail and Great Allegheny Passage to the north. This commitment would involve allowing a connector trail from the Lake Lynn / Bunker Hill Road to the Cheat Lake Trail and an opening or removal of the trail gate at Bunker Hill Road to allow non-motorized use recreational use. The Federal Energy Regulatory Commission (FERC) has stated in the 2015 Recreational Plan under 3.5.2 Recreation Trails, Safety, and Security “that the plan to link the Cheat Lake Trail to the Sheepskin Trail would be in the public interest.”	process, and provide available information as needed.
US Fish and Wildlife Service (USFWS)	3/19/2018 (Conference call – Agency Meeting; Rick McCorkle)	No comments on the draft plan, and USFWS will not be preparing written comments.	Comment noted.
West Virginia Division of Natural Resources (WVDNR)	3/30/2018 (Email-Letter) 3/26/2018 (Email; Jacob Harrell) 3/19/2018 (Conference call – Agency Meeting; David Wellman and Jacob Harrell)	While the licensee has expressed assurances that the fishing platform will be brought back into service in 2019, the Wildlife Resources Section (WRS) requests that steps be taken to restore functionality to the fishing platform within the current year. A free public boat launch is available at the Sunset Beach Marina year-round when pool elevation is above 865'. It has recently come to the attention of the WRS that conditions of the public boat launch have deteriorated to the point of lost functionality. It has been reported that the boat launch functions at a diminished quality at 868' and by 866' and lower	Comment noted. Consistent with the Licensee’s letter to the FERC dated October 23, 2017 (FERC Accession Number: 20171020-5214), because of the additional high water damage that has been sustained at the fishing platform, and the changed conditions, the Licensee now anticipates needing additional time to prepare a fishing platform facility design that will ensure long-term effectiveness and safety. The Licensee expects to finalize the engineering plans in 2018 and complete repairs and restore the fishing platform in 2019. The Licensee was not aware of any functionality issue at the Public Boat Launching Facility at Sunset Beach due to sedimentation. The Licensee will investigate this concern and consider maintenance options for the boat launch, as needed. The Licensee will also investigate the functionality of the car-top/winter boat launch, and address any functionality

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
		<p>elevations it is unusable due to years of sedimentation. Therefore, the WRS requests that measures be taken to restore functionality of the boat launch to at least a pool elevation of 865'. The WRS further requests that sedimentation of other boat launch areas throughout the lake maintained by the licensee be examined more thoroughly and any issues be addressed, if need be.</p>	<p>issues, however, the Licensee is not currently aware of such issues.</p>
		<p>At this time, the WRS does not consider the boat occupancy of Lake Lynn to be an issue of great concern. While use on the lake has increased, law enforcement records for the past three years indicate that any increases in use have not had a deleterious impact on general boater safety. There were no citations issued in 2017, three citations were issued in 2016, and two citations were issued in 2015. With the exception of a 2015 drowning fatality related to alcohol consumption, each of these citations were relatively minor events. This is not to say that boat occupancy and safety won't be an issue in the near future and that steps should not be taken to address boat occupancy. Rather, this is an issue that may be better examined and fully understood through the relicensing process.</p>	<p>Comment acknowledged.</p>
		<p>The WRS finds the proposed amendments, as included within the draft 2018 Recreation Plan Update, to be reasonable and acceptable. Any changes and additions to recreation sites, facilities, or amenities could be more properly addressed within the upcoming relicensing schedule. No further updates to the Recreation Plan would be necessary as efforts related to the relicensing are set to begin within the next five years.</p>	<p>Comment acknowledged.</p>
		<p>The proposed update in security measures should be sufficient considering the lack of security issues or reports of trespasses at the project or its associated</p>	<p>Comment acknowledged. The Licensee agrees that should any security issues arise, the Licensee would reconsider safety/security needs at the Project.</p>

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
		recreation areas. However, the licensee should be prepared to amend site security in the event of any rise in vandalism, violence, or general crime within the project area and its associated recreation areas.	
Monongalia County Commission	3/28/2018 (Email-Letter)	Regarding the plans in the 2018 Recreation Plan Update, we support CLEAR in seeking to achieve a recreation presence in the form of one or more persons trained in recreation activities to host visitors and provide information and assistance as appropriate for hiking, biking, and swimming, as well as usage of the boat docks and picnic facilities. These activities can substitute for some of the security guard activities which you have addressed in the draft report as no longer needed.	Comment noted. See response to similar comment from CLEAR below.
		You are also proposing to suspend the three year recreation review updates given the upcoming six-year re-licensing review. Along with CLEAR, we would favor a brief annual review to be shared among all interested parties so that any concerns can be made known and addressed relatively quickly. This would also provide an opportunity to learn of your success and progress in a timely manner.	Comment acknowledged. The Licensee would note that the next 3 year review update would occur in the midst of Project relicensing when recreation use and facility needs will be fully reevaluated. The Licensee does not agree that a formal annual recreation review is needed, but is committed to continuing to working informally with recreation interests on an ongoing basis.
Friends of the Cheat (FOC)	3/29/2018 (Email-Letter; Amanda J. Pitzer)	FOC also works closely with the Mon Rivers Trails Conservancy, and supports the Sheepskin Trail extension project. The completion of this small but critical section of trail is integral to this region's trail network.	Comment acknowledged. See response to similar comment from Mon River Trails Conservancy, above.
		FOC and CLEAR have been in communication regarding the Recreation Plan update. FOC echoes their concerns and urges Cube Hydro to work with our partner to support the community's desire to capitalize on the lake's recreation opportunities.	Comment acknowledged.
Cheat Lake Environment & Recreation Association	3/30/2018 (Email-Letter; Prepared by Frank Jernejcic [Retired Fish Biologist,	Page 2. 2.1. Maintenance of Lake Levels. The flood control ability of Cheat Dam is minimal. The main purpose for raising the lake elevation to 863' in April is to increase walleye spawning success by reducing	Comment acknowledged.

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
<p>(CLEAR) and Upper Monongahela River Association</p>	<p>WVDNR], Vice President Upper Monongahela River Association; Submitted by CLEAR)</p>	<p>the chance of dewatering incubating walleye eggs. When the first FERC license was issued, our knowledge of walleye spawning times suggested a peak around April 1. This may not be accurate now and a change in the filling schedule might be warranted to enhance the walleye and also yellow perch populations. David Wellman will address this issue during the relicensing phase.</p>	
		<p>Page 2. 3.1. Cheat Lake Park. The fish cleaning station is really not usable because of its location and the infrequency of anglers harvesting fish. I would recommend eliminating the station if it is still being maintained. It is an unnecessary expense for the company.</p>	<p>Comment acknowledged. The location and utility of the existing fish cleaning station is an issue that can be addressed at relicensing.</p>
		<p>Page 6. 3.3. Tailrace Recreation Area. The fishing platform is not cantilevered to prevent fish abrasion against the wall during landing. I have never heard of this reasoning. Any “cantilever” would be to allow straight down jigging into water of sufficient depth to attract fish. The eight rock structures were installed adjacent to the shoreline in the channel that exits the tailrace pool. These are no longer functional because of movement and deposition during high flows.</p>	<p>Comment acknowledged. The final 2018 Recreation Plan Update has been revised to no longer describe the fishing platform as being cantilevered. The potential for cantilever can be considered as part of the fishing platform restoration design.</p>
		<p>The tailrace fishing platform repair should be completed in 2018, not 2019. It has been unusable since 2017 and there is no reasonable excuse for a 2-year delay. Anglers are now forced to fish on a very limited shoreline that is comprised of very unstable walking substrate. Additionally, 50% of this available shoreline is adjacent to shallow fast water that is poor fish habitat. If the repair delay is unavoidable until 2019, then an immediate improvement in the shoreline access should be implemented by adding/constructing a better walking surface along the shoreline. This would consist of</p>	<p>Comment acknowledged. See response to a similar comment from WVDNR, above.</p>

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
		smaller stone to fill the voids of the existing larger shot-rock. This would probably have to be maintained after high water events but would also be an incentive for the company to complete the platform repair more quickly.	
		Table 2 (page 11) shows a loss of 688 users (692-4) on the fishing platform during 2017. This loss of use will continue in 2018 and part of 2019. Some of these displaced anglers, 105 (281-176) moved to the shoreline. This shoreline use does not begin to compensate for the lost fishing platform capacity and quality. The platform was family friendly; the shoreline is not.	Comment acknowledged. The final 2018 Recreation Plan Update identifies the loss of the fishing platform due to high water damage as a probable reason for the reduction in tailwater fishing use.
		Note: In 2017 the company started generating power at lower flows than had previously occurred. This moved the low flow spillage from the middle of the dam to the turbine discharge along the fishing platform. This was a benefit to anglers since the current attracted fish along the shoreline instead of to the middle of the dam and inaccessible to anglers.	Comment acknowledged.
		Page 6. 3.4. Public Boat Launching Facility at Sunset Beach Marina. The Sunset Beach ramp is no longer usable at 865'. It also may be unusable at 866' and will become marginal at 868'. The company should be planning for the eventual dredging of the ramp area and not use the relicensing schedule as a delaying tactic.	Comment acknowledged. See response to similar issue raised by WVDNR, above.
		Page 7. 3.6. Privilege Permit Areas. It should be acknowledged that the Corps of Engineers, WV DNR, and a previous project owner, Monongahela Power agreed that property owners would not be allowed to place fill in the lake below an elevation of 868'. This could be a contentious issue and must be strictly adhered to and enforced.	The Licensee expects that no fill is placed in the lake below the normal full pool elevation of 870' at any time without the explicit approval of the Licensee, and without the necessary permits/approvals from the US Army Corps of Engineers.
		Page 19. Summary/Conclusions. The tailrace fishing platform must be repaired in 2018. Based on	Comment acknowledged. See response to a similar comment from WVDNR, above.

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
		the 2016 use, there is an annual loss of almost 700 fishing platform users that has been inadequately addressed. Some type of mitigation must be assessed if the platform is not repaired in 2018. It seems the company wasted an entire year in planning for repairs.	
Cheat Lake Environment & Recreation Association (CLEAR) and WVU Division of Forestry and Natural Resources	3/30/2018 (Email-Letter; Prepared by Robert Burns, Ph.D. Professor of WVU Division of Forestry and Natural Resources; Submitted by CLEAR)	I reviewed the 2018 Lake Lynn draft Hydroelectric project Recreation Plan Update to understand the methods used to determine adequacy of the methods. After reading the report, I conclude that no recreation use study occurred. A simple inventory of the number of people and vehicles using the lake is not a recreation use study. The citations referenced in the report specify a specific process that should be undertaken in any outdoor recreation study, and specifically a water-based recreation study. All four of the studies and methods cited (1970, 1985, 1987, and 1990, page 34) indicate that visitor use perceptions must be taken into account, not a simple inventory. Each of these methods makes use of a 9-step process, and that process was simply not used in this study. Thus, I conclude that the study is not completed to the standard set in the “best practices” of outdoor recreation, nor to the standards set in the literature review conducted and cited in the report. I recommend that an adequate recreation study be conducted by an external entity that will adequately represent the perceptions of the visiting public.	The recreation use information presented in the current Recreation Plan Update was collected following methods similar to those used for the previous triennial (3 year) report updates, and consistent with the FERC License Article 417. Surveys of recreationists and recreation user preferences can be undertaken, as needed, during the upcoming relicensing effort.
Cheat Lake Environment & Recreation Association (CLEAR)	3/30/2018 (Email-Letter; Duane Nichols)	1. Access via Morgan Run Road and Signage: The Morgan Run access road to the Cheat Lake Park & Trail needs attention from the WV Department of Highways. This road should be improved (center line added) and widened to allow safe passage from the increased park users. The maintenance of signage on WV Route 857 near Morgan Run Road is essential for the benefit of the public.	Comment acknowledged. As noted by CLEAR, West Virginia Division of Highways is responsible for maintenance of Morgan Run Road. However, the Licensee does maintain its Part 8 recreation site signage at the entrance to the Project.

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
		<p>2. Cheat Lake Park & Trail Facility - It is unclear on the statement on page 13 that says, "Based on the most recent FERC Form 80 (20159), all of the Lake Lynn Project recreation facilities continue to be utilized at less than 50 percent of capacity." What capacity is referring to? There is no mention of a proper user survey on preferences or usage that should be done by professionals in parks and recreation.</p>	<p>Capacity and percent of capacity utilized as reported on FERC Form 80 refers to the design capacity of the recreation facility, and what percent of the design capacity that facility is typically utilized. For example, an access area that has a parking lot designed for 10 vehicles, which on average (as typically determined by use counts) is used by 5 vehicles, would have a reported capacity usage percentage of 50%. User surveys do not typically play a part in Form 80 data collection, which is concerned with use levels.</p>
		<p>3. Cheat Lake Trail – 1.5 mile north trail and 3.5 mile south trail: It is recommended that the security crew refrains from driving a pickup truck on the trail since it creates ruts in the trail, puddles, and can be dangerous since the trucks are so wide to oncoming runners and bikers. It would be best to patrol the area in the available electric cart vehicles.</p>	<p>Comment acknowledged. Typically, trail patrols are made in golf carts (electric carts). From time to time the Licensee must be able to use trucks on the trail. However, the Licensee makes every effort to minimize truck use.</p>
		<p>A number of the interpretive signs are worn out from sunshine damage or vandalism and need replaced along the trail.</p>	<p>Comment acknowledged. The Licensee inspects all recreation site signage periodically, and will perform maintenance when needed.</p>
		<p>It should be feasible to interconnect to the Sheepskin Trail in Pennsylvania with the next few years.</p>	<p>Comment acknowledged. See response to similar comment from Mon River Trails Conservancy, above.</p>
		<p>4. Security System – Guards, Recreation Attendant, Emergency Service: It is important that security, recreation, and maintenance services should cover the period from May 1 to October 31 and not just Memorial Day to Labor Day. We believe that usage of the Park & Trail is significant during this more comprehensive period. The Trails are open all year long, and need to remain so as this is an important public benefit.</p>	<p>Comment acknowledged. Based on our assessment of recreation use, and based on the fact that there have been no security issues of note at the Project recreation sites in the past ten years, the Licensee is proposing to continue safety and security patrols on during daylight hours on weekends between Memorial Day and Labor Day, consistent with the FERC license, but does not agree that these services need to extend into the recreation shoulder seasons (including: May, September, and October). Recreation sites will remain open on the current seasonal schedule, and recreation site maintenance</p>

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
			will continue, year round, as needed.
		The opportunity, if not the need, exists for a recreation attendant or specialist to be located at the Cheat Lake Park & Trail. This “ranger” can serve the public as a host, as an information specialist, as an organizer of activities, as a naturalist, as a safety specialist, and as a security staff person. The important qualification is that the recreation staff have a background and interest in promoting recreational activities throughout the Cheat Lake Park and Trail. The other functions served will come as a default of these primary activities. Given that the security problems have been minimal in the past and given that the employees of the Lake Lynn Dam are nearby (adjacent) to the Park & Trail when needed, a recreation attendant would not be expected to experience any problems of isolation or inadequacy. Further, the Monongalia County Sheriff deputies routinely patrol the County areas and the Cheat Lake Fire Department is located within a few miles for added support if any emergencies should occur. It is therefore feasible that a recreation attendant be employed to provide public service for the Cheat Lake Park & Trail.	Suggestion acknowledged. However, there is not a demonstrated need for a recreation attendant at the Project. The trail and park already include interpretive signage for the benefit of the recreating public. Also, as the commenter points out the Monongalia County Sheriff’s Department and the Cheat Lake Fire Department are available to address security and emergency situations. Overall, the cost of providing an attendant is not justified.
		5. Contract Maintenance Service: The contract service for recreation maintenance needs to run from May 1 to October 31, so as to more fully cover the active recreation period. The increasing usage of the Park & Trail involves these early and later months of the year. Climate change also is providing warming weather making the Park & Trail more popular. These trends are expected to continue into the future.	See response above regarding Licensee’s proposal to provide safety/security patrols during the daylight hours on weekends between Memorial Day and Labor Day. The Licensee provides recreation site maintenance year round.
		6. Swimming Beach at Mill Stone Point: The swimming beach needs to be open on May 1 and remain open through October 31 and not Memorial Day to Labor Day. The weather in our area is very	The Licensee’s current swim beach season (Memorial Day through Labor Day) is consistent with the traditional swim season adopted by most municipal and public swimming pools and swim

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
		swimmable in May and through October. Many people have walked around the tape and used the beach anyway in the past. There is generally a need for “beach sand” to be applied May 1 and again replenished before July 4th weekend.	beaches. The Licensee monitors beach/sand conditions and will replenish beach sand as needed.
		There are many swimming related issues that need to be addressed regarding improving the beach swimming area, getting rid of rip rap, cleaning the beach from debris, extending it out toward the day use dock area, designation of a dog swimming location, getting better sand, no smoking, and keeping it open from May 1 to October 31.	Comment acknowledged. Swim area modifications and facility needs can be addressed at relicensing.
		7. Camp Sites on Cheat Lake: The southern portion of the south trail has a lot of unsightly remains from permit users and the areas should be cleaned up and the “no overnight” camping should be enforced.	Comment noted. As noted in the Recreation Plan Update, beginning in 2011 the Licensee notified campsite permittees that overnight camping is no longer allowed at these sites. The Licensee will investigate the campsites and undertake necessary measures to reiterate its policy on no overnight camping.
		8. Overflow Camp Sites and Parking: The upper restroom facility was never opened in 2017. The area was closed all summer with gates preventing access. We believe that these facilities are needed on the busy weekends and holidays of the recreation season.	Comment acknowledged. The Licensee will ensure that all Project recreation sites and facilities are open during the scheduled recreation season.
		9. Cheat Lake Water Level – Shore line erosion is a serious problem around the Lake, particularly at the steep shoreline areas, of which there are many. The wave action from boat wake is particularly erosive to the shoreline. We strongly recommend that the maximum “lake level” be limited to 869.5 feet above sea-level during heavy boating times, i.e. week-ends and holidays in the recreation season. This will reduce the shoreline erosion to some degree. See also other comments that fish are spawning earlier.	Comment noted. The Licensee monitors shoreline erosion and files periodic reports with FERC. The most recent shoreline erosion monitoring report was filed with FERC on January 8, 2018.
		10. Dredging of Lake of Soil Accumulations –	Comment noted. As noted in response to a similar

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
		<p>CLEAR requests a special meeting be held on the possible dredging of some areas of Cheat Lake, the purpose of said meeting would be to develop a possible long range plan to address silt accumulation in some specific areas. The area in the Lake at the Sunset Beach Marina and the Lakehouse Restaurant, for example, has become quite shallow due to the buildup of soil from sedimentation. See also the comments of Frank Jernejcic (Retired Fish Biologist) regarding dredging.</p>	<p>comment regarding the usability of the Sunset Beach Marina Boat Launch, the Licensee will investigate this concern and consider maintenance options for the boat launch, as needed. Overall, the Licensee would note that dredging for the purpose of improving other types of recreation conditions is a serious undertaking with potentially adverse effects to natural and environmental resources.</p>
		<p>11. Fishing Access and Activity: The fish habitat assessment work by Dustin Smith of the WVDNR should be noted in this recreational plan update. Specifically, the findings regarding yellow perch, which is an important game fish itself, as well as critical forage for walleye. The yellow perch spawn as early as February and March; a low water level exposes the mud flats at the bridges which can become dry when the Lake is allowed to go below 863 feet. Our suggestion is to require minimum water levels of 863 in March and February as they are in April each year.</p>	<p>Comment noted. The Licensee conducts biological monitoring at the Project, which includes consideration of lake fisheries and fish habitat. The Licensee’s most recent biomonitoring report was filed January 31, 2018 and approved by FERC on March 26, 2018.</p>
		<p>12. Day-Use Boat Docks & Fish Cleaning Station – CLEAR supports the continued maintenance of the Day-Use Boat Docks as an important component of the overall boating recreation service. However, the Fish Cleaning Station appears to be providing little or no service. This facility could be replaced by outdoor shower(s), for example.</p>	<p>Comment noted. Day-use boat docks at Cheat Lake Park will continue to be maintained. The issue of the location and/or need for the fish cleaning station can be addressed at relicensing.</p>
		<p>13. Winter Boat Ramp at Guard House Location: The winter boat ramp should be available from November 1 to April 31 (and not March 31) as noted at the top of page 4. The second line on page 4 states “This boat launch remains available only during winter months to preserve the aesthetics of the park and to provide additional parking for boat trailers</p>	<p>Comment noted. The final 2018 Recreation Plan Update has been revised to indicate that the winter boat launch is open from November 1 through April 30.</p>

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
		<p>during summer months.” (Please clarify this latter phrase regarding parking.) The courtesy dock in Cheat Lake to the left of the boat ramp needs to be replaced due to ice damage. (Other courtesy docks just to the left of the boat ramp dock could also be installed.)</p>	
		<p>14. CLEAR Courtesy Dock Maintenance: It is requested that the CLEAR dock along the South Trail be installed this year to allow public access, given it was not installed this past summer season.</p>	<p>Comment noted. The Licensee has previously provided CLEAR with permission to seasonally install a dock at the approved location along the South Trail. The Licensee considers the CLEAR dock a permitted private dock.</p>
		<p>15. Recreational Boating – Carrying capacity, length, horsepower, speed, noise: Section 4.2 of the Recreational Use Plan document describing the carrying capacity study does not accurately summarize the information performed in the study and fails to acknowledge the inherent responsibility Cube Hydro has regarding allowing boats being added to the lake for use. The aerial survey of boats was not conducted on a typical summer weekend. As noted in the Appendix by the consultant:</p> <p><i>“It should be noted that the aircraft rental had to be done weeks in advance and therefore prevented us from being able to consider the impact of a storm that occurred in the watershed a day before flying. It is quite evident in the imagery that the lake was high and muddy which obviously discouraged boat use that weekend afternoon. It should be noted that due to aircraft scheduling we could not predict the conditions of the lake on the July 15 collection date. The previous two days before the aerial survey the watershed experienced a total of 3.1 inches of rain leaving the lake very muddy and debris filled which greatly reduced use. The day of flying was overcast and cool with a temperature of 71.”</i></p>	<p>Comment acknowledged. The Licensee made a good faith effort to estimate boat use on the lake via two methods, aerial survey, and boat counts. The report acknowledges that the aerial survey was not conducted on a peak-use day. The report also indicates that the boat counts made were of all boats located around the lake, not just those in use. Therefore, the two counts provide a range of potential boat use. We note however, that WVDNR has indicated that there is not a set boating carrying capacity for Cheat Lake, and that there have been no boating accidents or incidents related to overcrowding.</p>

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
		<p>The consultant included a second survey technique which we feel was more representative of use, involving piloting a boat (not a car as noted by Cube Hydro) from one end of the lake to the other and count boats in use. The total found of 291 was representative of summer use during a warm sunny weekend day. It is recommended that Cube Hydro acknowledge that typical summer weekend boat use during good weather easily exceeds 250 boats at a time. It would not be difficult to target days of high use and pilot a boat from one end to the other and count boats in this way again to provide additional samples.</p> <p>The reason the number of boats used in operation is important is because it directly impacts safety on the lake. Too many permitted boat docks creates potentially dangerous situations especially since the lake has unlimited horsepower and no speed limits. While the WV Division of Natural Resources (Office of Enforcement) monitors the lake for safe operation, their job becomes much more difficult if an unsafe number of boats are permitted on the lake.</p> <p>The boat use carry capacity study performed for Cheat Lake was based on peer-reviewed scientific publications in the parks and recreation discipline. Using the models from the peer-reviewed work, it was determined that Cheat Lake should not have more than 177 boats in use at any one time on the lake. With the number of boats permitted currently at the Lake (1,295), plus boats trailered at the Sunset Beach public launch for day use, it only takes 13.6% of these boats for the lake to be at a safe capacity. Since Cube Hydro is responsible for boat dock</p>	

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
		permits at both marinas and personal access sites around the Lake, it is strongly recommended that Cube Hydro significantly limit boat dock permits using a well-defined (explicit) procedure. Yearly inspections and surveys are also recommended to insure the boats moored at the lake are all permitted ones.	
		16. Floating Debris Management & Removal: Since dock permits are managed by Cube Hydro, they should support the two annual cleanups of the lake which remove dock barrels, debris, and other boating hazards to improve the safety and aesthetic of the lake. CLEAR volunteers plan to sweep the lake for debris removal in cooperation with Cube Hydro, who would be responsible for debris/trash haul-out after collection.	Comment noted. Private dock permits and private use of the Project is an issue that is outside of the Recreation Plan Update. The Licensee anticipates a complete review of the private dock permitting process at relicensing.
		17. Recreation Status – Data Collection & Analysis: The facility use data is flawed. Sampling at set times of the day misses many users. Also, information for the swimming beach usage was not presented? Noting the number of fishing boats just at the park and trail area does not come close to measuring the total fishing boat use.	Comment noted. Use estimates made in support of this Recreation Plan Update were not designed to be an exact record of actual use of the Project recreation sites. Rather, the method used here utilized observed recreation use as “spot counts” that were then extrapolated to develop reasonable estimates of recreation use. This method is a very standard way of estimating Project recreation site use.
		18. Leases for Marinas and Food Service on Cheat Lake – It is recommended that the leasing activity for boat marinas and for food service activities on Cheat Lake be open to <u>public</u> review and comment, given that the Lake is to serve a public recreation function and the <u>public</u> residents and citizens are the users of these facilities.	Comment noted. Private marinas are not considered Project Recreation Sites. Private marinas are considered non-Project use of Project lands and are authorized by the Licensee and FERC consistent with FERC’s Standard Land Use Article in the Project License.
		19. Annual Report(s) Frequency & Content – It is recommended that a Draft Annual Report be circulated for comment to the primary concerned organizations, then a Final Annual Report be prepared and distributed. A face-to-face annual	Comment noted. In accordance with its FERC license requirements the Licensee met with the resource agencies to discuss a draft of this Recreation Plan Update, and provided opportunity for stakeholder review and comment on the plan.

Agency / Stakeholder	Date (Type of Comm.; Representative)	Comment	Response / Recommendation
		working session would be useful after the draft report is prepared, so as to discuss the subjects of primary interest.	Having now received comments on the draft Recreation Plan Update, the Licensee is addressing those comments prior to filing the final Recreation Plan Update with FERC.

From: David Fox [<mailto:dfox@cubehydro.com>]

Sent: Tuesday, February 27, 2018 1:54 PM

To: duane330@aol.com; Michael Strager <mstrager@wvu.edu>; john_schmidt@fws.gov; barbara_douglas@fws.gov; Danny.A.Bennett@wv.gov; David.I.Wellman@wv.gov; jacob.d.harrell@wv.gov; hsmiles@pa.gov; amanda@cheat.org; rmcclure@moncommission.com; info@monsheriff.com; ella@montrails.org

Cc: Jody Smet <jsmet@cube Carolinas.com>

Subject: Lake Lynn Hydro - Draft Recreation Plan Update

Greetings,

The Lake Lynn Hydroelectric Project Federal Energy Regulatory Commission (FERC) License requires that Lake Lynn Generation conduct a triennial review and update of the project's Recreation Plan. As part of the review process, Lake Lynn is required to distribute a draft of the Recreation Plan to stakeholders for review and comment. Attached please find the 2018 Lake Lynn Hydroelectric Project Draft Recreation Plan Update. Please review and email me any comments or questions your organization may have within 30 days (by 3/29/2018). Once I've received all comments, we will update the draft as appropriate and file the Final Plan with FERC for approval. If I've inadvertently left someone from your organization off this email, or if there are other stakeholders you believe should have a chance to review this document, please feel free to forward as appropriate.

Thank You,

David

David H. Fox

Director, Environmental and Dam Safety Programs

Cube Hydro Partners, LLC

2 Bethesda Metro Center | Suite 1330 | Bethesda, MD 20814

dfox@cubehydro.com

Tel: 240-482-2707

Mobile: 201-306-5616

From: Ella Belling <ella@montrails.org>
Sent: Monday, March 12, 2018 12:55 PM
To: David Fox <dfox@cubehydro.com>
Cc: Duane Nichols <Duane330@aol.com>
Subject: Re: Lake Lynn Hydro - Draft Recreation Plan Update

Hi David,

Thank you for including me in this email. In the 2015 Recreational Plan under 3.5.2 Recreation Trails, Safety and Security, there is this inclusion (see below) of a plan to open the gate and coordinate a connection to the Sheepskin Trail. The start of the Sheepskin Trail construction will begin in a few weeks from state line to Point Marion, PA and engineering planning is underway for the next 2 miles getting us closer to where the two trails would connect. It would be helpful if LLG would be willing to share property maps so we could plan this connection which I am sure crosses in between WV and PA. I am hoping you will include this in the plan to FERC and let me know who to possibly coordinate with to get property information. If you need this comment in a formal letter, then I can provide this before your deadline. Thanks, Ella

"During 2009 and 2012 Recreation Plan Updates, public commenters requested that a connector trail be developed from the existing Cheat Lake Trail to the Sheepskin Trail. Currently, the planned extension of the Sheepskin Trail to the Cheat Lake Trail has not been constructed; however, LLG maintains that, if and when, the Sheepskin Trail is constructed to the Project, LLG will request approval from FERC to provide access from the Lake Lynn/Bunker Hill Road to the Cheat Lake Trail. In the Order Approving the 2012 Recreation Plan Update dated October 9, 2012, FERC stated that the plan to link the Cheat Lake Trail to the Sheepskin Trail would be in the public interest."

Ella Belling
Executive Director
Mon River Trails Conservancy
P.O. Box 282
Morgantown, WV 26507
<http://montrails.org>
304-692-6782

**2018 Lake Lynn Triennial Recreation Plan Update
Lake Lynn Hydroelectric Project (FERC Project No. 2459)
Lake Lynn Generation, LLC**

Conference Call Summary

Date: Monday March 19, 2018

Time: 11:00 AM – 11:25 AM

Attendees:

Rick McCorkle, U.S. Fish and Wildlife Service (USFWS)
David Wellman, West Virginia Division of Natural Resources (WVDNR)
Jacob Harrell, WVDNR
David Fox, Cube
Jody Smet, Cube
Robert Flickner, Cube
Joyce Foster, TRC
Wendy Bley, TRC

Call Summary/Notes:

David Fox, Cube, opened the call with a review of the 2018 Lake Lynn Recreation Plan Update (2018 Plan Update) process. Electronic copies of the 2018 Plan Update were distributed via email on February 27, 2018 for review and comment and the 2018 Plan Update is due to be filed with the Federal Energy Regulatory Commission (FERC) on April 1, 2018 (or April 2, since April 1 is a Sunday).

Jody Smet, Cube, provided a brief overview of the major sections of the 2018 Plan Update. Jody described the proposed amendments discussed in the 2018 Plan Update, as summarized below:

- Discontinue the triennial Lake Lynn Recreation Plan updates and next report recreation use data in 2021 with the FERC Form 80, and on 6-year intervals with the FERC Form 80 cycle thereafter. The annual collection of recreation use data is more intense than what is collected at other projects.
- This will be the final update of the Recreation Plan since the relicensing of the Project will commence soon.
- Provide a reduced level of security at the Project from what is currently required by the Recreation Plan and the Trail Management Plan.

Jacob Harrell, WVDNR, indicated that WVDNR does not have concerns about the proposed amendments. He noted that the 2018 Plan Update showed reduced recreation in the tailrace and asked about the status of the tailrace fishing platform repair.

David Fox, Cube, responded that the current plan is to develop the engineering repair solution in 2018 and to implement the repair to the tailrace platform in 2019.

Jacob Harrell and David Wellman, WVDNR, said that they are not aware of WVDNR looking at carrying capacity as an issue in terms of recreation. They noted that they are aware of one fairly significant boating accident on Lake Lynn in 2015 which was alcohol related and not related to carrying capacity.

Jody Smet, Cube, asked if written comments could be provided by the March 29 deadline.

Jacob Harrell and David Wellman, WVDNR, commented that they thought the proposed amendments are reasonable and that they would provide written comments.

Rick McCorkle, USFWS, indicated that the USFWS and Department of Interior has no comments or concerns on the 2018 Plan Update, and will not be providing written comments, and asked that the call summary reflect this.

At the conclusion of the call, Jody Smet noted that a comment summary will be appended to the final 2018 Plan Update and that Cube will try and file the 2018 Plan Update by April 2 depending on the nature of the written comments. The conference call was adjourned at about 11:25 a.m.

Action Items:

- Cube will prepare a call summary that reflects comments made during the call and prepare a comment summary, which will be appended to the 2018 Plan Update.
- WVDNR will provide written comments by the March 29 deadline.

From: Harrell, Jacob D <Jacob.D.Harrell@wv.gov>

Sent: Monday, March 26, 2018 9:54 AM

To: David Fox <dfox@cubehydro.com>

Subject: RE: Lake Lynn Triennial Recreation Plan Update - 3/19/2018 Conference Call Summary

David,

Thanks for sending this out. We are currently working on comments and should have them to you before the end of the day.

One issue has come up since our call, however. The Upper Mon river Association has provided us comments concerning the recreation plan update. They had brought up an issue with regards to the Public Boat Launching Facility at Sunset Beach that we were unaware of. Sedimentation has diminished the ramps ability to adequately meet the needs of the boaters. At 868' the ramp begins to function at a reduced capacity and at 866'-865' it becomes unusable. Are you of aware of this issue and, if so, what measures can be taken to alleviate these concerns? Dredging of sediment, perhaps?

Also, we have looked further into the boat occupancy concerns presented in the recreation plan. According to the law enforcement records we have on file, there were no citations in 2017, 3 citations in 2016, and 2 citations in 2015. All citations were relatively minor incidents with the exception of one alcohol-induced drowning that occurred in 2015. All said, it does not appear that boat occupancy is an issue at this time.

Thanks,

Jacob Harrell

From: Rennetta McClure <rmcclure@moncommission.com>

Sent: Wednesday, March 28, 2018 3:10 PM

To: David Fox <dfox@cubehydro.com>

Cc: duane330@aol.com

Subject: Lake Lynn Hydro Project - Recreation Plan Update

Mr. Fox,

Attached is a Letter of Support approved by the Monongalia County Commission during their regular meeting this morning regarding the 2018 Recreation Plan Update.

The Commission supports recommendations made by the Cheat Lake Environment & Recreation Association (CLEAR) and hopes that the comments are received well.

If you have any questions, please feel free to contact me.

Warmest regards,

Rennetta McClure

County Administrator
Monongalia County Commission
243 High Street, Room 202
Morgantown, WV 26505
304-291-7293
304-284-7366
rmcclure@moncommission.com

MONONGALIA COUNTY COMMISSION

243 HIGH STREET, ROOM 202
COURTHOUSE
MORGANTOWN, WEST VIRGINIA 26505

Tom Bloom, Commissioner
Edward A. Hawkins, Commissioner
Sean P. Sikora, Commissioner



Telephone: 304 291-7257

March 28, 2018

Mr. David H. Fox, Director
Environmental & Dam Safety
Cube Hydro Partners
2 Bethesda Metro Center, Suite 1330
Bethesda, Maryland 20814

Dear Mr. Fox:

We appreciate this opportunity to provide input to the Recreation Plan Update for the Lake Lynn Hydro Project, known more commonly in Monongalia County as Cheat Lake. This recreation area is well known regionally and is quite popular for boating, fishing and more recently swimming at the Mill Stone Point Beach. Hiking and biking on the Cheat Lake Trail have been growing in popularity since that Trail was opened in the Year 2000.

As you know, the Cheat Lake Environment & Recreation Association (CLEAR) has been active in promoting recreation, safety and environmental protection for the past 25 years and many of the activities have been supported by the Monongalia County Commission over the years.

Regarding the plans in the 2018 Recreation Plan Update, we support CLEAR in seeking to achieve a recreation presence in the form of one or more persons trained in recreation activities to host visitors and provide information and assistance as appropriate for hiking, biking, and swimming, as well as usage of the boat docks and picnic facilities. These activities can substitute for some of the security guard activities which you have addressed in the draft report as no longer needed.

You are also proposing to suspend the three year recreation review updates given the upcoming six-year re-licensing review. Along with CLEAR, we would favor a brief annual review to be shared among all interested parties so that any concerns can be made known and addressed relatively quickly. This would also provide an opportunity to learn of your success and progress in a timely manner.

We want to join CLEAR in recognizing the fine job that your company has been doing in providing recreational opportunities regionally and for providing a valuable electrical supply at 54 megawatts. You may know that the Monongahela River Trail is being extended into Pennsylvania,

so the opportunity to connect this extension to the Cheat Lake Trail may well become a reality within a few years.

Thank you for this opportunity to provide input to the 2018 Recreation Plan Update.

Monongalia County Commission,



Thomas C. Bloom
President



Edward A. Hawkins
Commissioner



Sean P. Sikora
Commissioner

cc: Perry Palmer, Sheriff of Monongalia County
Richard Wood, Monongalia County Planner
WV DNR

From: Amanda Pitzer <amanda@cheat.org>

Sent: Thursday, March 29, 2018 3:31 PM

To: David Fox <dfox@cubehydro.com>

Cc: Adam Webster <webster.adam@gmail.com>; Mike Strager <mstrager@wvu.edu>; David Petry <david@cheat.org>; Owen Mulkeen <owen@cheat.org>

Subject: Re: Lake Lynn Hydro - Draft Recreation Plan Update

Mr. Fox,

Please find Friends of the Cheat's comments attached to this email. Thank you for the invitation to comment.

Sincerely,

Amanda



Friends of the Cheat

Working to Restore, Preserve, & Promote the Outstanding Natural Qualities of the Cheat River Watershed since 1994

March 28, 2018

Director David H. Fox, Environmental and Dam Safety Programs
Cube Hydro Partners, LLC
2 Bethesda Metro Center, Suite 1330
Bethesda, MD 20814

Re: Lake Lynn Generation FERC Recreation Plan Triennial Review

Dear Mr. Fox:

Thank you and the Cube Hydro team for the opportunity to submit comments as part of the triennial review process of Lake Lynn Generation's Recreation Plan.

For 24 years, Friends of the Cheat (FOC) and our River of Promise (ROP) partners have worked diligently to restore water quality to the Cheat River and Cheat Lake through reclamation of mine lands and the remediation of acid mine drainage (AMD). Irresponsible mining had left the Cheat and nine of its lower tributaries severely damaged by AMD. Walleye were extirpated by the late 1940s. Historic data collected by WV Division of Natural Resources (DNR) show mean lake pH levels less than 5 between the 1950s and early 1990s. A few pollution tolerant fish species including bullhead catfish and white suckers sought refuge in the lake's sheltered embayments. Massive pollution releases from the T&T mine into Muddy Creek in 1994 and 1995 dropped the pH of the lake to 4. As a result, the Cheat River was named one of America's Most Endangered Rivers in 1995 by the national organization American Rivers. These events catalyzed the formation of Friends of the Cheat and the River of Promise task force.

The efforts of FOC and our ROP partners, most notably the US Office of Surface Mining (OSM) and WV Department of Environmental Protection (DEP), have restored water quality to the Cheat River main stem and Cheat Lake. Over 200 land reclamation and water treatment projects have been implemented with millions of dollars of funds resulting in millions of pounds of AMD pollution removed from the Cheat's tributaries. The river and lake have not seen a pH depression below 6 since 2011 and the main stem has been removed from the state's list of impaired waters for pH impairment. The removal of iron (ferrous hydroxide or "yellow boy") as well as aluminum and manganese is visibly noticeable by reduced staining of rocks near the water's edge as well as armoring of fiberglass boat bottoms, which was a prevalent problem through the '90s.

Improved water quality has fostered the rebound of Cheat Lake's fishery. DNR reports a dramatic recovery of species richness (27-34 species per year) including abundant sportfish such as largemouth and smallmouth bass, yellow perch, and walleye. Fishing tournaments now attract anglers from across the country which benefits the local economy. FOC is particularly excited about the walleye, which research shows are spawning up into the northern reaches of the Cheat Canyon.



Friends of the Cheat

Working to Restore, Preserve, & Promote the Outstanding Natural Qualities of the Cheat River Watershed since 1994

Beyond AMD, FOC has expanded our efforts to include bacteria monitoring near 10 popular recreation areas in the watershed, including Millstone Point Beach. FOC staff collect samples and process them in our new lab. Results are shared with the public at www.theswimguide.org (direct link to Cheat Lake Beach site: www.theswimguide.org/beach/7999).

FOC's mission is to restore, preserve, and promote the outstanding natural qualities of the Cheat River watershed. We could not achieve our mission without the support of our partners, including the Cheat Lake Environmental and Recreation Association (CLEAR). FOC and CLEAR have worked together for many years, most recently during our State of the Watershed education events. Historically, FOC and CLEAR were engaged in the protection of the Cheat Canyon for conservation through early meetings of the Cheat Canyon Coalition as well as the enhancement and promotion of the lake as a recreational resource. FOC also works closely with the Mon Rivers Trails Conservancy, and supports the Sheepskin Trail extension project. The completion of this small but critical section of trail is integral to this region's trail network. FOC and CLEAR have been in communication regarding the Recreation Plan update. FOC echoes their concerns and urges Cube Hydro to work with our partner to support the community's desire to capitalize on the lake's recreation opportunities.

It is important to acknowledge that Cheat Lake is at the "bottom" of our watershed. Every drop of water or pollution that enters the Cheat's 1422 square mile basin ends up in Cheat Lake. Maintaining good water quality and quantity is critical to sustaining the health of the lake and the livelihood of the people who live, work, and play there. Acid mine drainage is not a "fix it and forget it" type of problem; water remediation takes ongoing operations and maintenance which costs money. Without the reauthorization of the Federal Surface Mine Reclamation and Control Act (SMCRA), continued funding for AMD cleanup could dry up and our hard-fought progress could be lost. SMCRA is up for reauthorization in 2021, and FOC will need support from our partners like Cube Hydro.

In closing, FOC is appreciative of the relationship we have developed with Manager Bob Flickner. Bob joined us as a guest speaker for our Cheat Lake State of the Watershed event in October. We also had the opportunity to tour the facility with Bob, which was completely fascinating to FOC staff. Both FOC and Cube Hydro can now just pick up the phone and reach a friendly, informed individual with concerns, questions, or "heads-ups". For example, Bob reached out to FOC this winter for upstream river conditions as ice flows were breaking up. FOC looks forward to continued improvements in recreation opportunities at the lake and will support these efforts in whatever way we can. Thank you again for the opportunity to share these comments.

Sincerely,

A handwritten signature in blue ink that reads "Amanda J. Pitzer".

Amanda J. Pitzer
Executive Director

CC: Mike Strager, CLEAR

Phone: 304/329-3621 Fax: 304/329-3622 Email: foc@cheat.org www.cheat.org

1343 North Preston Highway, Kingwood, WV 26537

From: Ella Belling <ella@montrails.org>
Date: March 29, 2018 at 4:40:13 PM EDT
To: David Fox <dfox@cubehydro.com>
Cc: Duane Nichols <Duane330@aol.com>
Subject: Re: Lake Lynn Hydro - Draft Recreation Plan Update

Hello Mr. Fox,

I have attached a letter of comment and I will also put it in the mail to you. Primarily I would like to see in the Plan the commitment from your company to allow the Cheat Lake Trail to connect to the Sheepskin Trail once it is built next to the Lake Lynn property boundary. Any assistance with property maps would be of great appreciation to the trail organizations and engineers looking to design this connection. Let me know if you can connect me with someone from your company that could assist in this research. Thank you for this opportunity to provide input on the recreation plan. Ella

Ella Belling
Executive Director
Mon River Trails Conservancy
P.O. Box 282
Morgantown, WV 26507
<http://montrails.org>
304-692-6782



P.O. Box 282
Morgantown
West Virginia
26507-0282

March 28, 2018

Mr. David H. Fox, Director
Environmental & Dam Safety
Cube Hydro Partners
2 Bethesda Metro Center, Suite 1330
Bethesda, Maryland 20814

Dear Mr. Fox,

On behalf of the Mon River Trails Conservancy (MRTC), I appreciate the opportunity to submit input on the Recreation Plan Update for the Lake Lynn Hydro Project. This recreation area is well known regionally and is popular for boating, swimming, and fishing. The Cheat Lake Trail is a beautiful, well-maintained rail-trail that is used for biking, running and hiking and enjoyed by people of all ages. In past years, it has been used by organizations such as the Mountaineer Chapter of Audubon for birding outings, running groups to host races, and families for reunions and birthday gatherings to enjoy the picnic area, playground and trail.

The Mon River Trails Conservancy supports the Cheat Lake Environment & Recreation Association (CLEAR) in its mission of promoting recreation, safety, and environmental protection at Cheat Lake (aka Lake Lynn). This popular recreation spot could serve to have staff that could facilitate public use such as providing information, promoting safe use, and helping to coordinate having more events at the park. With the downsizing of security that is proposed, we hope the trail and lake facilities continue to be well maintained.

MRTC hopes that you will honor the commitment given in the 2015 Recreational Plan to allow the connection to happen between the Cheat Lake Trail and the Sheepskin Trail. This undertaking would connect the Cheat Lake Trail to a much larger rail-trail network that would extend 50+ miles to the Mon River Trail to the south and to the Sheepskin Trail and Great Allegheny Passage to the north. This commitment would involve allowing a connector trail from the Lake Lynn / Bunker Hill Road to the Cheat Lake Trail and an opening or removal of the trail gate at Bunker Hill Road to allow non-motorized use recreational use. The Federal Energy Regulatory Commission (FERC) has stated in the 2015 Recreational Plan under 3.5.2 Recreation Trails, Safety, and Security "that the plan to link the Cheat Lake Trail to the Sheepskin Trail would be in the public interest."

The Mon River Trails Conservancy is a non-profit 501c3 organization founded in 1991 to develop and manage the Mon River and Deckers Creek Rail-Trails, a tri-county rail-trail system in North Central West Virginia. I can be reached at 304-692-6782 or ella@montrails.org.

Sincerely,
Monongahela River Trails Conservancy, Ltd.

Ella Belling, Executive Director

Page 6. 3.4. Public Boat Launching Facility at Sunset Beach Marina. The Sunset Beach ramp is no longer usable at 865'. It also may be unusable at 866' and will become marginal at 868'. The company should be planning for the eventual dredging of the ramp area and not use the relicensing schedule as a delaying tactic.

Page 7. 3.6. Privilege Permit Areas. It should be acknowledged that the Corps of Engineers, WV DNR, and a previous project owner, Monongahela Power agreed that property owners would not be allowed to place fill in the lake below an elevation of 868'. This could be a contentious issue and must be strictly adhered to and enforced.

Page 19. Summary/Conclusions. The tailrace fishing platform must be repaired in 2018. Based on the 2016 use, there is an annual loss of almost 700 fishing platform users that has been inadequately addressed. Some type of mitigation must be assessed if the platform is not repaired in 2018. It seems the company wasted an entire year in planning for repairs.

Prepared by Frank Jernejcic (Retired Fish Biologist, WV-DNR), Vice President
Upper Monongahela River Association, March 20, 2018

Submitted by CLEAR, 330 Dream Catcher Circle, Morgantown, WV 26508
Duane Nichols, duane330@aol.com, 304-216-5535

Comments on 2018 Lake Lynn Recreation Plan Draft

Submitted to CLEAR and WVDNR

Page 2. 2.1. Maintenance of Lake Levels. The flood control ability of Cheat Dam is minimal. The main purpose for raising the lake elevation to 863' in April is to increase walleye spawning success by reducing the chance of dewatering incubating walleye eggs. When the first FERC license was issued, our knowledge of walleye spawning times suggested a peak around April 1. This may not be accurate now and a change in the filling schedule might be warranted to enhance the walleye and also yellow perch populations. David Wellman will address this issue during the relicensing phase.

Page 2. 3.1. Cheat Lake Park. The fish cleaning station is really not usable because of its location and the infrequency of anglers harvesting fish. I would recommend eliminating the station if it is still being maintained. It is an unnecessary expense for the company.

Page 6. 3.3. Tailrace Recreation Area. The fishing platform is not cantilevered to prevent fish abrasion against the wall during landing. I have never heard of this reasoning. Any "cantilever" would be to allow straight down jigging into water of sufficient depth to attract fish. The eight rock structures were installed adjacent to the shoreline in the channel that exits the tailrace pool. These are no longer functional because of movement and deposition during high flows.

The tailrace fishing platform repair should be completed in 2018, not 2019. It has been unusable since 2017 and there is no reasonable excuse for a 2-year delay. Anglers are now forced to fish on a very limited shoreline that is comprised of very unstable walking substrate. Additionally, 50% of this available shoreline is adjacent to shallow fast water that is poor fish habitat. If the repair delay is unavoidable until 2019, then an immediate improvement in the shoreline access should be implemented by adding/constructing a better walking surface along the shoreline. This would consist of smaller stone to fill the voids of the existing larger shot-rock. This would probably have to be maintained after high water events but would also be an incentive for the company to complete the platform repair more quickly.

Table 2 (page 11) shows a loss of 688 users (692-4) on the fishing platform during 2017. This loss of use will continue in 2018 and part of 2019. Some of these displaced anglers, 105 (281-176) moved to the shoreline. This shoreline use does not begin to compensate for the lost fishing platform capacity and quality. The platform was family friendly; the shoreline is not.

Note: In 2017 the company started generating power at lower flows than had previously occurred. This moved the low flow spillage from the middle of the dam to the turbine discharge along the fishing platform. This was a benefit to anglers since the current attracted fish along the shoreline instead of to the middle of the dam and inaccessible to anglers.

Page 6. 3.4. Public Boat Launching Facility at Sunset Beach Marina. The Sunset Beach ramp is no longer usable at 865'. It also may be unusable at 866' and will become marginal at 868'. The

company should be planning for the eventual dredging of the ramp area and not use the relicensing schedule as a delaying tactic.

Page 7. 3.6. Privilege Permit Areas. It should be acknowledged that the Corps of Engineers, WV DNR, and a previous project owner, Monongahela Power agreed that property owners would not be allowed to place fill in the lake below an elevation of 868'. This could be a contentious issue and must be strictly adhered to and enforced.

Page 19. Summary/Conclusions. The tailrace fishing platform must be repaired in 2018. Based on the 2016 use, there is an annual loss of almost 700 fishing platform users that has been inadequately addressed. Some type of mitigation must be assessed if the platform is not repaired in 2018. It seems the company wasted an entire year in planning for repairs.

Prepared by Frank Jernejcic (Retired Fish Biologist, WV-DNR), Vice President
Upper Monongahela River Association, March 20, 2018

Submitted by CLEAR, 330 Dream Catcher Circle, Morgantown, WV 26508
Duane Nichols, duane330@aol.com, 304-216-5535

From: Duane Nichols <duane330@aol.com>
Sent: Friday, March 30, 2018 9:11 AM
To: David Fox <dfox@cubehydro.com>
Cc: duane330@aol.com; mstrager@wvu.edu; achester@hsc.wvu.edu
Subject: Comments on Lake Lynn Hydro 2018 Recreation Plan Update

To: David Fox, Cub Hydro
Date: March 30, 2018

Provided below and repeated in the attached document are comments from Professor Robert Burns of the Natural Resources and Design faculty in the WVU Division of Forestry and Natural Resources. His background is in the study of outdoor recreational activities.

Thank you for this opportunity to participate in the 2018 Recreation Plan Update process.

Duane Nichols, President, Cheat Lake Environment & Recreation Association

> >

Comments on 2018 Lake Lynn Recreation Plan Draft

Submitted to CLEAR by Professor Robert C. Burns, March 23, 2018

I reviewed the 2018 Lake Lynn draft Hydroelectric project Recreation Plan Update to understand the methods used to determine adequacy of the methods. After reading the report, I conclude that no recreation use study occurred. A simple inventory of the number of people and vehicles using the lake is not a recreation use study. The citations referenced in the report specify a specific process that should be undertaken in any outdoor recreation study, and specifically a water-based recreation study. All four of the studies and methods cited (1970, 1985, 1987, and 1990, page 34) indicate that visitor use perceptions must be taken into account, not a simple inventory. Each of these methods makes use of a 9-step process, and that process was simply not used in this study. Thus, I conclude that the study is not completed to the standard set in the “best practices” of outdoor recreation, nor to the standards set in the literature review conducted and cited in the report. I recommend that an adequate recreation study be conducted by an external entity that will adequately represent the perceptions of the visiting public.

Robert C. Burns, Ph.D. Professor and Director
Division of Forestry and Natural Resources
WVU College of Agriculture, Natural Resources and Design
[304 293 6781](tel:3042936781), Robert.Burns@mail.wvu.edu
Web: <https://www.davis.wvu.edu/faculty-staff/directory/robert-burns>
Editor: Journal of Park and Recreation Administration: <https://js.sagamorepub.com/jpra>
Monitoring/Measuring Visitor Use Conference: <https://mmv9.sciencesconf.org/>

Comments on 2018 Lake Lynn Recreation Plan Draft

Submitted to CLEAR by Professor Robert C. Burns, March 23, 2018

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Robert C. Burns, Ph.D. Professor and Director

Division of Forestry and Natural Resources

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Editor: Journal of Park and Recreation Administration: <https://js.sagamorepub.com/jpra>

Monitoring/Measuring Visitor Use Conference: <https://mmv9.sciencesconf.org/>

from May 1 to October 31.

Camp Sites on Cheat Lake: The southern portion of the south trail has a lot of unsightly remains from permit users and the areas should be cleaned up and the “no overnight” camping should be enforced.

Overflow Camp Sites and Parking: The upper restroom facility was never opened in 2017. The area was closed all summer with gates preventing access. We believe that these facilities are needed on the busy weekends and holidays of the recreation season.

Cheat Lake Water Level – Shore line erosion is a serious problem around the Lake, particularly at the steep shoreline areas, of which there are many. The wave action from boat wake is particularly erosive to the shoreline. We strongly recommend that the maximum “lake level” be limited to 869.5 feet above sea-level during heavy boating times, i.e. week-ends and holidays in the recreation season. This will reduce the shoreline erosion to some degree. See also other comments that fish are spawning earlier.

Dredging of Lake of Soil Accumulations – CLEAR requests a special meeting be held on the possible dredging of some areas of Cheat Lake, the purpose of said meeting would be to develop a possible long range plan to address silt accumulation in some specific areas. The area in the Lake at the Sunset Beach Marina and the Lakehouse Restaurant, for example, has become quite shallow due to the buildup of soil from sedimentation. See also the comments of Frank Jernejcic (Retired Fish Biologist) regarding dredging.

Fishing Access and Activity: The fish habitat assessment work by Dustin Smith of the WVDNR should be noted in this recreational plan update. Specifically, the findings regarding yellow perch, which is an important game fish itself, as well as critical forage for walleye. The yellow perch spawn as early as February and March; a low water level exposes the mud flats at the bridges which can become dry when the Lake is allowed to go below 863 feet. Our suggestion is to require minimum water levels of 863 in March and February as they are in April each year.

Day-Use Boat Docks & Fish Cleaning Station – CLEAR supports the continued maintenance of the Day-Use Boat Docks as an important component of the overall boating recreation service. However, the Fish Cleaning Station appears to be providing little or no service. This facility could be replaced by outdoor shower(s), for example.

Winter Boat Ramp at Guard House Location: The winter boat ramp should be available from November 1 to April 31 (and not March 31) as noted at the top of page 4. The second line on page 4 states “This boat launch remains available only during winter months to preserve the aesthetics of the park and to provide additional parking for boat trailers during summer months.” (Please clarify this latter phrase regarding parking.) The courtesy dock in Cheat Lake to the left of the boat ramp needs to be replaced due to ice damage. (Other courtesy docks just to the left of the boat ramp dock could also be installed.)

CLEAR Courtesy Dock Maintenance: It is requested that the CLEAR dock along the South Trail be installed this year to allow public access, given it was not installed this past summer season.

Recreational Boating – Carrying capacity, length, horsepower, speed, noise: Section 4.2 of the Recreational Use Plan document describing the carrying capacity study does not accurately summarize the information performed in the study and fails to acknowledge the inherent responsibility Cube Hydro has regarding allowing boats being added to the lake for use. The aerial survey of boats was not conducted on a typical summer weekend. As noted in the Appendix by the consultant:

“It should be noted that the aircraft rental had to be done weeks in advance and therefore prevented us from being able to consider the impact of a storm that occurred in the watershed a day before flying. It is quite evident in the imagery that the lake was high and muddy which obviously discouraged boat use that weekend afternoon. It should be noted that due to aircraft scheduling we could not predict the conditions of the lake on the July 15 collection date. The previous two days before the aerial survey the watershed experienced a total of 3.1 inches of rain leaving the lake very muddy and debris filled which greatly reduced use. The day of flying was overcast and cool with a temperature of 71.”

The consultant included a second survey technique which we feel was more representative of use, involving piloting a boat (not a car as noted by Cube Hydro) from one end of the lake to the other and count boats in use. The total found of 291 was representative of summer use during a warm sunny weekend day. It is recommended that Cube Hydro acknowledge that typical summer weekend boat use during good weather easily exceeds 250 boats at a time. It would not be difficult to target days of high use and pilot a boat from one end to the other and count boats in this way again to provide additional samples.

The reason the number of boats used in operation is important is because it directly impacts safety on the lake. Too many permitted boat docks creates potentially dangerous situations especially since the lake has unlimited horsepower and no speed limits. While the WV Division of Natural Resources (Office of Enforcement) monitors the lake for safe operation, their job becomes much more difficult if an unsafe number of boats are permitted on the lake.

The boat use carry capacity study performed for Cheat Lake was based on peer-reviewed scientific publications in the parks and recreation discipline. Using the models from the peer-reviewed work, it was determined that Cheat Lake should not have more than 177 boats in use at any one time on the lake. With the number of boats permitted currently at the Lake (1,295), plus boats trailered at the Sunset Beach public launch for day use, it only takes 13.6% of these boats for the lake to be at a safe capacity. Since Cube Hydro is responsible for boat dock permits at both marinas and personal access sites around the Lake, it is strongly recommended that Cube Hydro significantly limit boat dock permits using a well-defined (explicit) procedure. Yearly inspections and surveys are also recommended to insure the boats moored at the lake are all permitted ones.

- . Floating Debris Management & Removal: Since dock permits are managed by Cube Hydro, they should support the two annual cleanups of the lake which remove dock barrels, debris, and other boating hazards to improve the safety and aesthetic of the lake. CLEAR volunteers plan to sweep the lake for debris removal in cooperation with Cube Hydro, who would be responsible for debris/trash haul-out after collection.
- . Recreation Status – Data Collection & Analysis: The facility use data is flawed. Sampling at set times of the day misses many users. Also, information for the swimming beach usage was not presented? Noting the number of fishing boats just at the park and trail area does not come close to measuring the total fishing boat use.
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- . Annual Report(s) Frequency & Content – It is recommended that a Draft Annual Report be circulated for comment to the primary concerned organizations, then a Final Annual Report be prepared and distributed. A face-to-face annual working session would be useful after the draft report is prepared, so as to discuss the subjects of primary interest.

Submitted by Duane Nichols, President,
Cheat Lake Environment & Recreation Association (CLEAR)

5. Contract Maintenance Service: The contract service for recreation maintenance needs to run from May 1 to October 31, so as to more fully cover the active recreation period. The increasing usage of the Park & Trail involves these early and later months of the year. Climate change also is providing warming weather making the Park & Trail more popular. These trends are expected to continue into the future.
6. Swimming Beach at Mill Stone Point: The swimming beach needs to be open on May 1 and remain open through October 31 and not Memorial Day to Labor Day. The weather in our area is very swimmable in May and through October. Many people have walked around the tape and used the beach anyway in the past. There is generally a need for “beach sand” to be applied May 1 and again replenished before July 4th weekend.

There are many swimming related issues that need to be addressed regarding improving the beach swimming area, getting rid of rip rap, cleaning the beach from debris, extending it out toward the day use dock area, designation of a dog swimming location, getting better sand, no smoking, and keeping it open from May 1 to October 31.

7. Camp Sites on Cheat Lake: The southern portion of the south trail has a lot of unsightly remains from permit users and the areas should be cleaned up and the “no overnight” camping should be enforced.
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Submitted by Duane Nichols, President,
Cheat Lake Environment & Recreation Association (CLEAR)

From: Harrell, Jacob D <Jacob.D.Harrell@wv.gov>
Sent: Friday, March 30, 2018 8:06 AM
To: David Fox <dfox@cubehydro.com>
Subject: Lake Lynn 2018 Recreation Plan Update Comments

David,

Please see the attached comments concerning the 2018 Recreation Plan update for Lake Lynn. Most of it is as we had discussed during the conference call. There has been one issue of concern that has recently come up with regards to sedimentation at the boat ramps that we didn't discuss earlier. If you have any questions, comments, or wish to discuss these matters further, please do not hesitate to contact me.

Thanks,

Jacob Harrell

Coordination Unit
WV DNR – Elkins Operations Center
738 Ward Road
Elkins, WV 26241
(304)704-9328
Jacob.D.Harrell@wv.gov

March 28, 2018

David Fox, Director
Environmental and Dam Safety Programs
Cube Hydro Partners, LLC
2 Bethesda Metro Center
Suite 1330
Bethesda, MD 20814

**RE: Draft 2018 Recreation Plan Update; Lake Lynn Hydroelectric Project
(FERC No. 2459)**

Mr. Fox,

Thank you for allowing the West Virginia Division of Natural Resources, Wildlife Resources Section (WRS) the opportunity to review the draft 2018 Recreation Plan Update for the Lake Lynn Hydroelectric Project (Lake Lynn). Article 417 of the Lake Lynn license requires the licensee to file and update every three years a Recreation Plan Update in consultation with the Department of the Interior, the West Virginia Division of Natural Resources, and the Pennsylvania Fish and Boat Commission. The WRS has reviewed the draft update and offers the following comments and recommendations for your consideration:

Section 3.3 – Tailrace Recreation Area

Public angler access to the Cheat River below the dam is provided by Lake Lynn through the tailrace recreation area. This area includes parking for up to 20 vehicles, a fishing platform, an ADA compliant pedestrian walkway, illumination of the parking area and fishing platform, a portable ADA-compliant toilet, and rock pile structures in the water for habitat. The tailrace fishing platform was closed in January 2017 due to safety concerns related to a partial collapse of the concrete deck. Closure of the tailrace fishing platform has reduced the total recreation days for the tailrace recreation area from 873 days in 2016 to 348 days in 2017 (adjusted value using an estimate for November and December). Visitor data demonstrates the importance of the fishing platform to the area. While the licensee has expressed assurances that the fishing platform will be brought back into service in 2019, the WRS requests that steps be taken to restore functionality to the fishing platform within the current year.

Section 3.4 – Public Boat Launching Facility at Sunset Beach Marina

A free public boat launch is available at the Sunset Beach Marina year-round when pool elevation is above 865'. It has recently come to the attention of the WRS that conditions of the public boat launch have deteriorated to the point of lost functionality. It has been reported that the boat launch functions at a diminished quality at 868' and by 866' and lower elevations it is unusable due to years of sedimentation. Therefore, the WRS requests that measures be taken

to restore functionality of the boat launch to at least a pool elevation of 865'. The WRS further requests that sedimentation of other boat launch areas throughout the lake maintained by the licensee be examined more thoroughly and any issues be addressed, if need be.

Section 4.2 – Boating Carrying Capacity Study

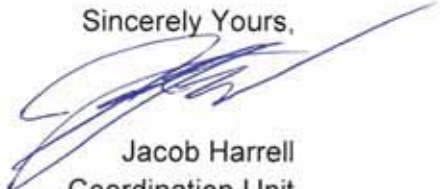
At this time, the WRS does not consider the boat occupancy of Lake Lynn to be an issue of great concern. While use on the lake has increased, law enforcement records for the past three years indicate that any increases in use have not had a deleterious impact on general boater safety. There were no citations issued in 2017, three citations were issued in 2016, and two citations were issued in 2015. With the exception of a 2015 drowning fatality related to alcohol consumption, each of these citations were relatively minor events. This is not to say that boat occupancy and safety won't be an issue in the near future and that steps should not be taken to address boat occupancy. Rather, this is an issue that may be better examined and fully understood through the relicensing process.

Section 4.3 – Proposed Plan Amendments

The WRS finds the proposed amendments, as included within the draft 2018 Recreation Plan Update, to be reasonable and acceptable. Any changes and additions to recreation sites, facilities, or amenities could be more properly addressed within the upcoming relicensing schedule. No further updates to the Recreation Plan would be necessary as efforts related to the relicensing are set to begin within the next five years. Finally, the proposed update in security measures should be sufficient considering the lack of security issues or reports of trespasses at the project or its associated recreation areas. However, the licensee should be prepared to amend site security in the event of any rise in vandalism, violence, or general crime within the project area and its associated recreation areas.

If you have any questions regarding this letter or wish to discuss this issue further, please contact me by telephone at (304)825-6787, or by email at Jacob.D.Harrell@wv.gov.

Sincerely Yours,

A handwritten signature in blue ink, appearing to read 'Jacob Harrell', is written over a white background. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jacob Harrell
Coordination Unit

ATTACHMENT III
BOATING CARRYING CAPACITY STUDY REPORT

FINAL REPORT

Boating Carrying Capacity Study for Cheat Lake, WV

August 23, 2017

To: David Fox, Director, Environmental & Dam Safety Programs at Cube Hydro Partners LLC,
dfox@cubehydro.com

From: Mike Strager, Ph.D. Strager Consulting, 102 Lakepointe, Morgantown WV 26508,
mstrager@gmail.com 304-276-3334, TAX ID NUMBER 04-362-2376, DUNS # 128441644, TPIN #
88375879, MPIN # strager99, CAGE code # 4RR47

Executive Summary

A boating carrying capacity study was performed for Cheat Lake, WV using data collected during the 2017 boating season. The lake was surveyed for active use by boaters, boats docked around the lake and an average of boats trailered to the lake for day use. Boats were identified for this study as those with motors which include personal watercraft but do not include canoes, kayaks, or paddleboards. The active boat use count was calculated using different approaches over two different summer weekend days. An aerial survey from a Cessna 172 aircraft with a three person crew found a total of 42 boats in active use around the lake. In comparison, a drive by boat survey later in the summer found 291 boats in use around the lake. The main reason for this large difference was due to weather and lake conditions.

As for boats docked around the lake, we counted a total of 1,226 boats. This includes 414 at 204 private docks and 812 at the four Marinas. In addition, we visited the Sunset Beach public boat launch on the lake to find an average of 69 boat trailers for four different weekend afternoons.

The traditional approach to calculate a boating carrying capacity for lakes is from published literature in the outdoor recreation, parks and conservation, and National Park Service Literature as well as EPA Environmental Impact Statements and lake management planning. This boating carrying capacity for Cheat Lake focused on the safety carrying capacity of the lake. The carrying capacity based on safety is derived from the traditional "space standards" approach for assessing boating carrying capacity (Bureau of Outdoor Recreation 1970). This approach specifies the amount of space needed for safe boat operation (expressed in acres of surface area per boat, or acres per boat). A wide range of boating space standards have been

suggested in the literature, but as a general rule the National Park Service has adopted a range of 9 to 18 acres per boat as a guideline for safe boating on open water (NPS 1987). Considering the steep topography which creates narrow lines of sight, two bridges, and the fact that Cheat Lake is on average less than a quarter mile wide (measured from 30 random transects), the most restrictive 9 acres per boat was justifiably used in this study.

For this limiting factor, boating capacity is determined by dividing the number of water surface acres by the "acres per boat" standard. The total boat-able or navigable acres of water for Cheat Lake is 1,598 acres (calculated with a Geographic Information Systems and 1:4,800 scale hydrography). According to this factor, the boating capacity of Cheat Lake maxes out at 177 boats in use at one time using the 9 acres per boat ratio.

Based on the observed total of 291 boats in use on August 13, 2017, the lake was greatly over its carry capacity and was therefore a safety issue. In addition, the total number of boats moored at the lake plus an average of 69 trailered on a warm summer weekend day only requires 13.6 % of boats to be in use before the 177 boat carrying capacity is reached.

The following sections provide more details about this study.

Data Collection Approach

1. Inventory of active boat usage at Cheat Lake

Inventory of active boat use at the lake was collected using two different techniques. The first included an aerial survey of boats in use at the lake from a Cessna 172 rented from the Morgantown Airport, WV on Saturday July 15 at 12:45pm. Complete coverage of the lake was done in 25 minutes and the imagery was downloaded and evaluated by counting boats in motion or anchored around the lake. It should be noted that the aircraft rental had to be done weeks in advance and therefore prevented us from being able to consider the impact of a storm that occurred in the watershed a day before flying. It is quite evident in the imagery that the lake was high and muddy which obviously discouraged boat use that weekend afternoon. It should be noted that due to aircraft scheduling we could not predict the conditions of the lake on the July 15 collection date. The previous two days before the aerial survey the watershed experienced a total of 3.1 inches of rain leaving the lake very muddy and debris filled which greatly reduced use. The day flying was overcast and cool with a temperature of 71. We were able to note a total of 42 boats from the aerial imagery of this survey. The imagery can be downloaded from this link:

https://drive.google.com/file/d/0B8_FNSXkkHDYd0c3M3VLOVF1aFE/view?usp=sharing

Because we believed the aerial survey to not be representative of a normal weekend day of use, we also provided for this study another active boat use inventory using a more traditional manual approach. We started at one end of the lake in a boat and drove at around 30mph the

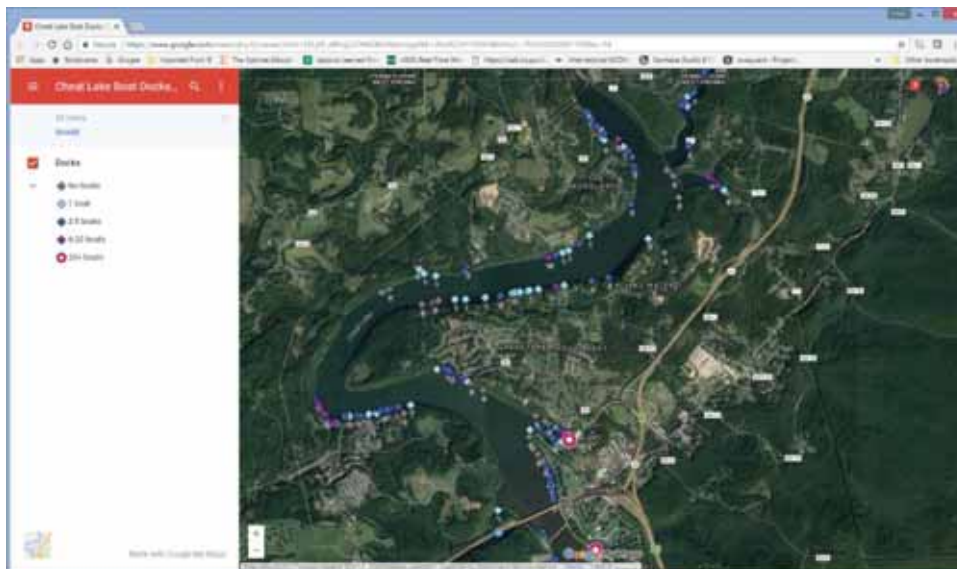
13miles of the lake to count the boats in use. This approach started at 2:45pm and took us to 3:35 to complete. We made sure to note all boats visually with a spotter and used a baseball pitch counter device to note all boats. The weather during that survey on Sunday August 13 was sunny and 82 degrees. The lake water conditions were clear. The specific boat count related to locations on the lake is shown in the table below.

Location on Lake	Boats in use
Morgan’s Run backwater	18
Ruble’s Run backwater	71
Cheat Lake Dam to Park	20
Park to Summit Development	16
Summit Development to Emma Kaufman Camp	10
Emma Kaufman Camp to CLEAR dock	3
CLEAR dock to Warm Hollow	11
Warm Hollow to Sunset Beach	17
Sunset Beach to I68 bridge	19
I68 bridge to Cheat Lake Marina	12
Cheat Lake Marina to Beach in River	22
Beach in River to Old House Foundation	30
House foundation to Lake headwaters	42
TOTAL	291

2. Inventory of boats docked at Cheat Lake

Boats were counted at docks around the lake during the early morning hours of July 19. For each dock location the GPS coordinates were collected and attributed with observed boats moored to the dock. Later, a point layer was created in GIS and then exported to a KML file for use in Google Maps or Google Earth for viewing. The link to this data which allows for web viewing is shown here:

https://drive.google.com/open?id=1ZLjM_d9PcjZxORldDB2XtdcVqqs&usp=sharing



This information can be zoomed in, queried, etc using a web browser of the user's choice. *NOTE that the imagery used in Google Maps is not current to when the GPS points were collected this summer for each dock and boat(s) present there.*

Summary of Boats docked at Cheat Lake:

Marinas	Boats moored
Sunset Beach Marina	199
Edgewater Marina	239
Cheat Lake Marina	256
Mont Chateau Marina	118
Marina total	812
Private Docks (n=204)	414
TOTAL	1,226

3. Inventory of trailered boats to public launch at Sunset Beach at Cheat Lake

For four different weekend Saturdays this summer (June 24, July 22, Aug 5, Aug 12) we inventoried the boats that were brought to Cheat Lake for day use boating. Each of these days were chosen because they were good weather days for boating. We used a drone to take a picture of the only public launch on Cheat Lake at Sunset Beach Marina. An example of one of the aerial imagery days is shown below.



Summary of boats trailered to Cheat Lake public boat launch:

Date:	Trailer/boat count
June 24	76
July 22	62
Aug 5	71
Aug 12	68
AVERAGE	69

Recommendations

We learned from this study that to have a safe boating environment for Cheat Lake, WV requires a ratio of 1 boat for every 9 acres of water. The size of the lake (1,598 acres) divided by 9 acres allows for 177 boats at one time. Due to the observed boating use count of 291 boats on August 13th, the lake for that day was greatly over the safe National Park Service standards for operation. It can also be concluded that with 1,226 boats at the lake plus an average of 69 more trailered into the lake to total 1,295, it only takes 13.6% of these boats to be in use for the lake to be at the recommended user capacity.

To prevent accidents at the lake as well as a general more comfortable operating experience for all users it is recommended to limit any expansion of marina docks and to prevent any more dock permits at the lake. It is also conceivable to ask for a launch permit to use the public launch which is used at many of the US Army Corps Lakes in the region (ie Summersville Lake).

Another possible suggestion is to charge out of state boaters a higher use fee to operate at the lake.

Future Work

This study for boating use could be improved by increasing the number of survey days to more accurately characterize the active boating use. We learned that the manual method of traveling the lake and noting the number of boats in use was fairly easy and accurate because of the narrow width of the lake and the ability to travel the entire lake in around 45 minutes.

Annual boating surveys of the docks would also be beneficial to compare and assure owners were honestly reporting the boats at their docks to match permits requested.

And lastly, the perception of crowdedness and safety is a subjective index that could be enhanced by soliciting preferences and opinions of users to determine if the lake can better meet the community's recreational needs and desires.

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