#### FINDING OF NO SIGNIFICANT IMPACT

# Planned Deviation to the Water Control Plan at Berlin Lake, Ohio

In accordance with the National Environmental Policy Act (NEPA) and its implementing regulations, an Environmental Assessment (EA) was developed to evaluate potential impacts associated with a temporary Planned Deviation from the Water Control Plan (WCP) for the 2018 calendar year at Berlin Lake.

Authorized by the Flood Control Act of 1938, the Project was originally authorized to reduce flooding and provide low flow augmentation for water quality. Subsequent acts authorized supplemental purposes for water supply (Flood Control Act of 1944), fish and wildlife enhancement (Fish and Wildlife Coordination Act of 1958) and recreation (Flood Control Act of 1944, as amended by the Flood Control Act of 1962). Of these three supplemental purposes, additional storage in Berlin Lake was allocated only for water supply.

The temporary Planned Deviation was requested by local residents, businesses and organizations to maintain a higher lake level for a longer period of time during the summer for the purposes of recreation. The agency analyzed three alternatives including a "No Action" alternative (Alternative 1), an alternative where the Planned Deviation extends the summer pool term (Alternative 2), and an alternative where the Planned Deviation extends the summer pool term and meets flow requirements (Alternative 3). Alternative 2 was the alternative requested by the local residents, businesses and organizations, but if low rainfall conditions were to occur during the deviation period it could result in the inability to meet downstream flow requirements at Leavittsburg, Ohio. Alternative 3 was selected as the Corps' recommended alternative. This alternative allows the Corps to meet the downstream flow requirements at Leavittsburg and provides monitoring for water quality impacts. Real-time continuous monitoring of water quality within Berlin Lake and at three locations downstream on the Mahoning River will occur during the deviation period. If water quality impacts occur during the deviation period, the deviation will be terminated and the Corps will return the operation of Berlin Lake back to the current WCP.

This EA has determined that the Proposed Action will not result in significant impacts to the natural or human environment. The Proposed Action does not require the preparation of an Environmental Impact Statement (EIS). All environmental, social, and economic factors that are relevant to the proposal were considered in this assessment. These include, but are not limited to, hydrology and flooding, water quality, recreation, aquatic life, wetlands, public infrastructure, air quality and noise, threatened and endangered species, and cultural resources. Overall, effects are expected to be non-significant.

A 30-day public comment period occurred from 17 May 2018 to 16 June 2018. A total of 141 comment letters were received and have been included in the final EA.

After having carefully evaluated all aspects of the Proposed Action and based on the EA, I have reasonably concluded that the Proposed Action does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, an environmental impact statement is not required and will not be prepared.

John P. Lloyd

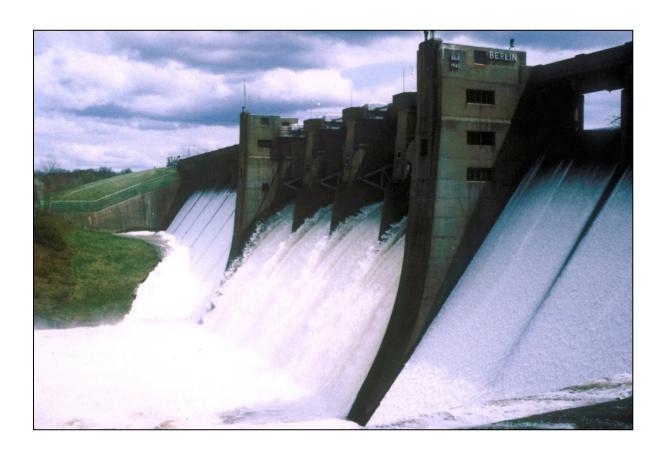
Colonel, Corps of Engineers
Pittsburgh District Commander

26 JUN 2018

Date

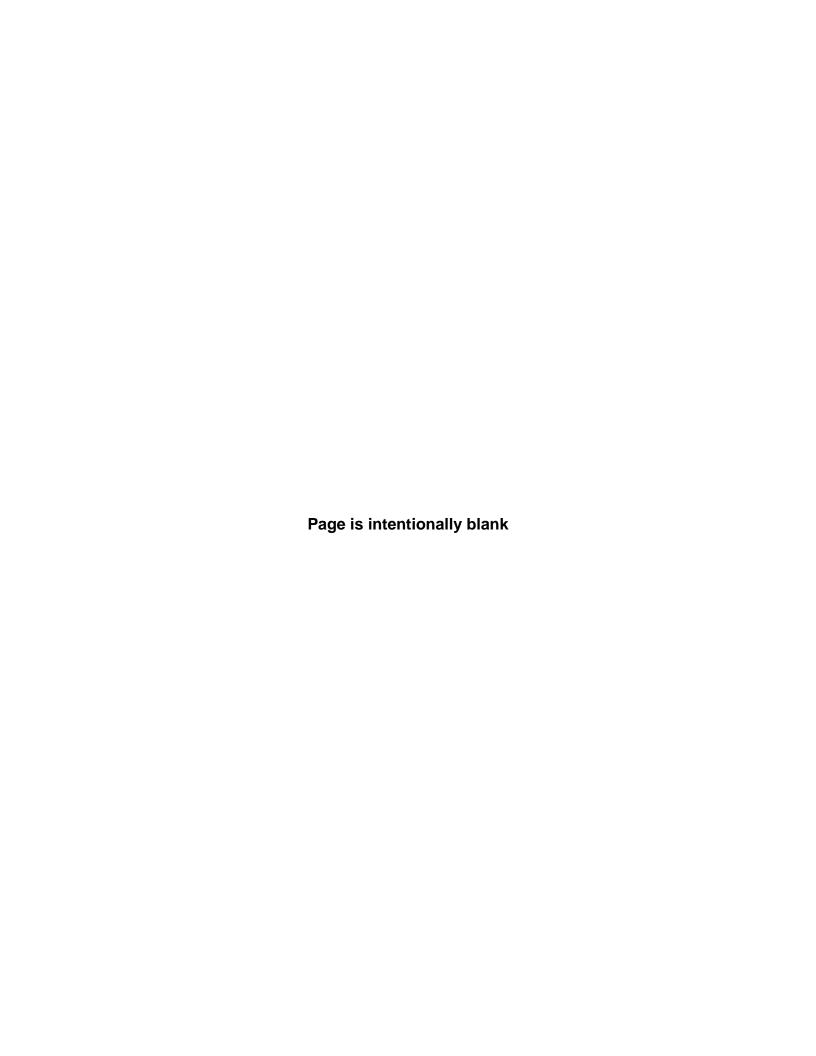
# **ENVIRONMENTAL ASSESSMENT**

# PLANNED DEVIATION TO THE WATER CONTROL PLAN AT BERLIN LAKE, OHIO



**JUNE 2018** 





# TABLE OF CONTENTS

1. INTRODUCTION	2
1.1. Project Location	2
1.2. Authority	5
1.3. Purpose and Need	6
2. ALTERNATIVES CONSIDERED	7
2.1. No Action Alternative	7
2.2. DEVIATION TO EXTEND SUMMER POOL TERM	7
2.3. DEVIATION TO EXTEND SUMMER POOL TERM AND MEET FLOW REQUIREMENTS	7
2.4. MITIGATION FEATURES	
2.5. RECOMMENDED PLAN	8
3. ENVIRONMENTAL RESOURCES OF CONCERN	8
3.1. Hydrology and Flooding	9
3.2. Water Quality	13
3.3. Recreation	17
3.4. AQUATIC LIFE	19
3.5. Public Infrastructure	20
3.6. AIR QUALITY AND NOISE	20
4. CUMULATIVE EFFECTS	21
5. COORDINATION	22
6. ENVIRONMENTAL COMPLIANCE	22
6.1. Federal Statutes	22
6.2. Executive Orders	25
7. CONCLUSION	26
8. REFERENCES	27
APPENDIX A: PUBLIC COMMENTS AND RESPONSES	29

#### 1. INTRODUCTION

The purpose of an Environmental Assessment (EA), as reflected in 15 CFR sections 1500.1(c) and 1508.9(a)(1) of the Council on Environmental Quality regulations implementing the National Environmental Policy Act of 1969 (as amended) is to "provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact" on actions authorized, funded, or carried out by the federal government, and to assist agency officials in taking actions that are based on understanding of "environmental consequences, and take actions that protect, restore, and enhance the environment." This assessment evaluates environmental consequences for a proposed temporary Planned Deviation to be carried out by the U.S. Army Corps of Engineers (USACE), Pittsburgh District (Corps) at Berlin Lake. A Planned Deviation is an intentional and scheduled request to deviate from the Water Control Plan (WCP). The request is prepared at the District level and submitted to the Division for approval.

# 1.1. Project Location

Berlin Lake (Figure 1) is located to the west of Berlin Center in Stark, Portage and Mahoning Counties, Ohio. The Berlin Lake Dam is located at Mahoning River mile 70.7. The Mahoning River flows into the Beaver River in Pennsylvania. The distances (by stream miles) from Berlin Dam downstream to Milton Dam (a non-federal project) is 7.7 miles, to Leavittsburg, Ohio, is 24.3 miles, to Warren, Ohio, is 29.8 miles, to Youngstown, Ohio, is 46.7 miles, to the mouth of the Mahoning River is 70.7 miles, and to the mouth of the Beaver River is 92.4 miles. The dam controls the runoff from 249 square miles of the total 1,140 square mile drainage area of the Mahoning River, located in northeastern Ohio and west central Pennsylvania. About 1,085 square miles or 96 percent of the drainage basin is located in the Ohio counties of Ashtabula, Geauga, Trumbull, Portage, Mahoning, Stark and Columbiana, and the remaining 4% is located in Lawrence County in Pennsylvania.

The Mahoning River headwaters begin in Columbiana County, Ohio, about 12 miles southeast of Alliance. It flows generally northward to a point near Warren, Ohio, where it turns towards the southeast and flows through the communities of Leavittsburg, Warren, Niles, Youngstown, and Lowellville, Ohio, and then into Pennsylvania. There it joins the Shenango River to form the Beaver River (Figure 2).

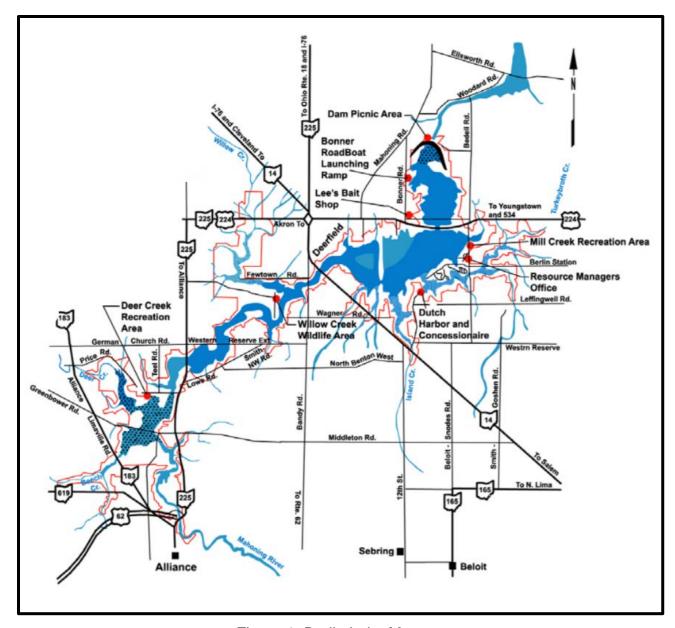


Figure 1. Berlin Lake Map

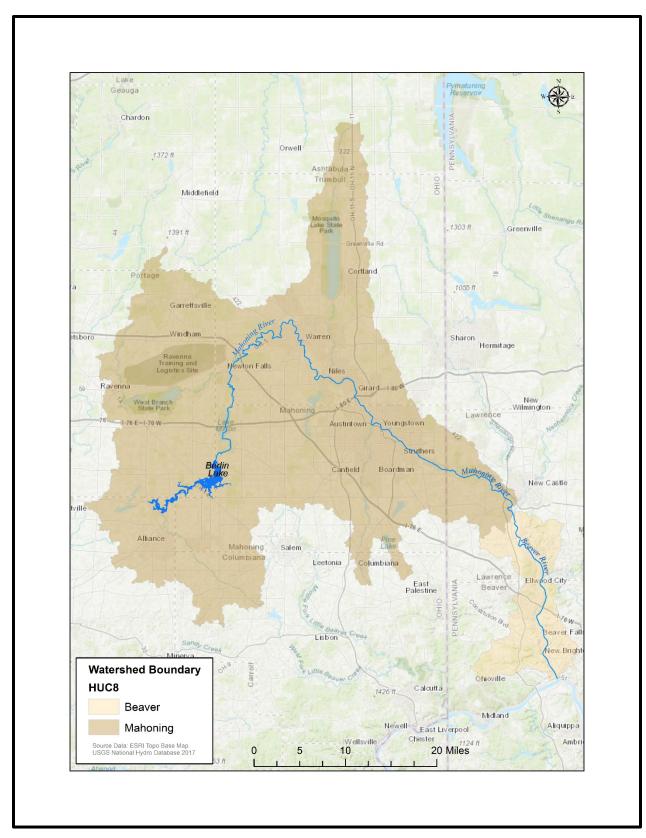


Figure 2. Mahoning and Beaver Watershed Map

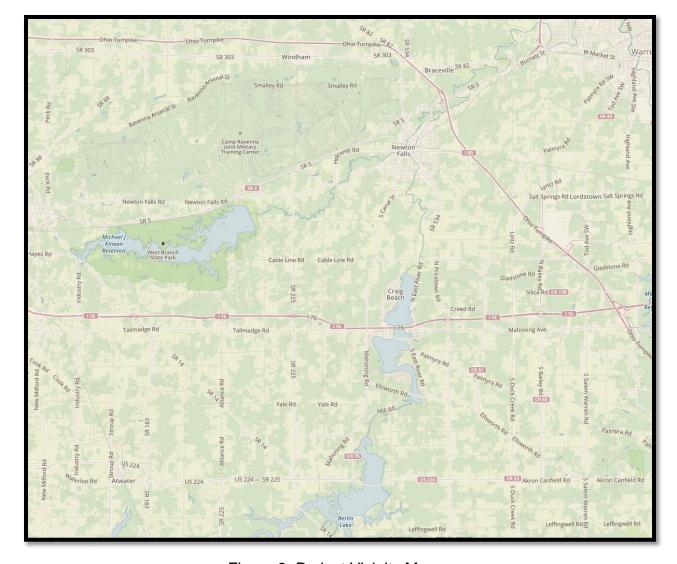


Figure 3. Project Vicinity Map

# 1.2. Authority

The Berlin Lake Project (Project) has five authorized purposes: flood control, low flow augmentation for water quality control, water supply, fish and wildlife enhancement, and recreation. Authorized by the Flood Control Act of 1938, the Project was originally authorized to reduce flooding and provide low flow augmentation for water quality, which included the dedication of active reservoir storage capacity for low water regulation for water quality. Subsequent acts authorized supplemental purposes for water supply (Flood Control Act of 1944), fish and wildlife enhancement (Fish and Wildlife Coordination Act of 1958) and recreation (Flood Control Act of 1944, as amended by the Flood Control Act of 1962). Of these three supplemental purposes, additional storage in Berlin Lake was allocated only for water supply. The Project is one unit of the flood control reservoir system constructed in the Mahoning-Beaver River basin to reduce flooding in the Mahoning, Beaver, and upper Ohio River valleys and to improve water quality. The Project provides low flow augmentation for domestic and industrial water supply. Since its completion in 1943, the Project has prevented flood

damages estimated to be in excess of \$1.7 billion. The Project is operated to meet downstream flow requirements at Leavittsburg, Ohio.

The Corps is responsible for water control management at the Project and implements its authorized project purposes by means of an approved WCP. The Corps follows the WCP to operate the reservoir. The WCP is located within the Berlin Reservoir Water Control Manual. Planned Deviations from the approved WCP may be authorized at the Division level (Great Lakes and Ohio River Division), provided that they do not adversely affect the fulfillment of the Project's authorized purposes. The Project is operated to provide as stable a pool as possible to the extent compatible with other authorized purposes.

The Army Corps of Engineers is bound by the congressionally-authorized purposes of the reservoirs. Any temporary deviation from the WCP must not adversely impact the authorized purposes of flood control, downstream water quality, and water supply. Any change to the purposes of a Federal reservoir, including storage reallocation for recreation, requires congressional approval through a reallocation feasibility study. Corps feasibility studies are regularly cost-shared with a non-Federal sponsor (typically as a 50/50 cost share between the Federal government and the non-Federal sponsor).

A permanent change to the WCP would require a new NEPA analysis and a public outreach effort would be conducted. Before considering permanent changes to the current WCP, impacts on water quality must be thoroughly analyzed. This would require intensive study, including but not limited to basin-wide water quality modeling; continuous water quality monitoring in the reservoir and the Mahoning River; analyses of current and future pollution loads; an assessment of the assimilative capacity of the Mahoning and Beaver Rivers; and analyses of reservoir productivity and sedimentation rates.

# 1.3. Purpose and Need

During the Berlin Visioning Meeting held on 10 July 2017, participants noted a desire to extend the summer recreation season for boating. Local residents, business owners and organizations have requested that the Corps deviate from the WCP in order to maintain a higher reservoir level for a longer period for the purposes of recreation. The intent for the deviation, as expressed by attendees in the meeting, is to facilitate the use of recreational boats throughout a longer portion of the summer recreation season in order to economically benefit the surrounding community. With the current draw down schedule, the reservoir drawdown begins at the end of June to reach winter pool by late August.

The purpose of the proposed 2018 calendar year Planned Deviation from the WCP is to act as a pilot project. The proposed Planned Deviation period during the 2018 calendar is the four month period from July 1 through mid-October. The pilot project would allow the Corps to further understand benefits and impacts of a longer term WCP modification. Provided that the 2018 Planned Deviation does not significantly increase the risk of flooding, impact flow requirements at Leavittsburg, or negatively impact water quality, further Planned Deviations may be considered in future years. A cumulative look

at several Planned Deviations could be used to support a full study for a permanent change to the WCP.

#### 2. ALTERNATIVES CONSIDERED

#### 2.1. No Action Alternative

Under the No Action Alternative, the Corps would not deviate from the WCP. No modification to the schedule of reservoir pool changes would occur.

# 2.2. Deviation to Extend Summer Pool Term

Under this alternative, the Corps would maintain Berlin Lake at the maximum summer conservation pool (summer pool) elevation of 1024 ft (NAVD88), until after Labor Day in order to maximize recreation potential for the local community.

If low rainfall were to occur within the watershed in the late summer of 2018, implementation of this alternative could result in the inability to meet the downstream flow requirement at Leavittsburg.

## 2.3. Deviation to Extend Summer Pool Term and Meet Flow Requirements

This alternative allows the Corps to meet the downstream flow requirements at Leavittsburg, while also possibly allowing additional recreation at Berlin Lake during the summer. If there is sufficient rainfall in the watershed to continue to meet the downstream flow requirement and there are no negative impacts to water quality, the reservoir level would be held at summer pool levels until the end of July and then a gradual drawdown to elevation 1021 ft (NAVD88) by Labor Day would occur, followed by a drawdown to winter pool, 1015.9 ft (NAVD88), by late October.

If low rainfall were to occur during the months proposed for the 2018 Planned Deviation, the District would continue to release water in accordance with the WCP in order to meet the downstream flow requirement which would result in corresponding drop in the reservoir level. It is possible that with the implementation of this alternative, given dry weather conditions, no change would be noticeable in terms of the reservoir level from a non-deviation year. However, given wet weather conditions, a higher reservoir level could be maintained while continuing to meet the downstream flow requirement for water quality and water supply.

# 2.4. Mitigation Features

Mitigation for effects of a proposed action is evaluated as part of documentation under NEPA, such as this EA. Mitigation can take any of the following forms:

- 1. Avoiding the effect altogether by not taking a certain action or parts of an action.
- 2. Minimizing effects by limiting the degree or magnitude of the action and its implementation.
- 3. Rectifying the effect by repairing, rehabilitating, or restoring the affected environment.
- 4. Reducing or eliminating the effect over time by preservation and maintenance operations during the life of the action.
- 5. Compensating for the effect by replacing or providing substitute resources or environments.

Project impacts are expected to be minimized by choosing to maintain the required downstream flow requirements and by initiating drawdown procedures (terminating the Planned Deviation and returning to the WCP) if the authorized purposes of the Project are impacted. If negative impacts to water quality in the reservoir and/or the regulated reach of the Mahoning River downstream of the Dam occur, measures will be implemented to avoid and/or minimize potential negative water quality impacts (see Section 3.2.3 for further discussion).

#### 2.5. Recommended Plan

The Corps recommends the Deviation to Extend Summer Pool Term and Meet Flow Requirements Alternative (see Figure 4). The downstream flow requirements at Leavittsburg are described in the Berlin Reservoir Water Control Manual, and were developed based on minimum downstream flow requirements, established by the U.S. Public Health Service in 1965. This alternative incorporates water quality monitoring (see Section 3.1) to minimize risks to the authorized water quality purpose of the Project while potentially allowing the community to benefit from increased recreation by striving to hold the summer pool through Labor Day.

This Planned Deviation is proposed for July through October 2018 only and will act as a pilot project to allow the Corps to further understand the benefits and impacts of a possible longer-term deviation.

As per Engineering Regulation (ER) 1110-2-240, Planned Deviation requests to the WCP in the Great Lakes and Ohio River Division (LRD) must be submitted by the District Commander or their designee to the Water Management Division Chief in LRD. The requests must be submitted and approved prior to commencing the deviation activity.

The Corps proposes to submit a request for the recommended Planned Deviation analyzed within this EA to LRD. The request would address a number of components including environmental coordination and compliance, other agency coordination, documentation of NEPA compliance, and public coordination which are supported by this EA.

As discussed further in Section 5, this EA was made available for public comment. The final Planned Deviation request includes all comments received as well as this final EA.

Initial analyses, as described below in Section 3, indicate that by choosing the alternative that maintains the downstream flow requirement along with water quality monitoring, the expected impact from the proposed temporary Planned Deviation should be minimal. In order to support the implementation of the Planned Deviation in 2018, the EA relies upon the best professional judgment of Corps' team members to determine impacts using available data.

#### 3. ENVIRONMENTAL RESOURCES OF CONCERN

The surrounding ecosystem is accustomed to the rising and falling reservoir levels which result from adherence to the WCP. Summer pool levels may be held longer with the recommended plan. This may increase reservoir storage and retention time, which could lead to stronger reservoir stratification, higher biological productivity, and greater hypolimnetic anoxia, negatively impacting reservoir water quality and aquatic life. As the

Corps' recommended plan includes no construction or structural change, there are no expected impacts to many resources, including: vegetation, soils, topography, wildlife, threatened and endangered species, and cultural resources. The proposed Planned Deviation is not expected to significantly increase the spread of invasive species. The proposed Planned Deviation is only for 2018, therefore no impact to surrounding land use is anticipated.

A qualitative climate change impact assessment has been performed for the Upper Ohio River basin (HUC4) based on guidance provided in ECB 2016-25. In the context of the Planned Deviation for Berlin Lake, this qualitative analysis indicates that the potential impacts to the ecosystem most likely outweigh any potential impacts to flood risk reduction. Any ecosystem (i.e., water quality) impacts identified in Section 3.2 will likely be exacerbated by realization of forecasted future climate scenarios.

# 3.1. Hydrology and Flooding

Berlin Lake is a man-made reservoir, created by the construction of the Berlin Dam in 1943. The construction of the dam and reservoir was undertaken by the Corps for the purposes of downstream flood damage reduction, water quality improvement and dependable water supply. Pool elevations are maintained at levels to support these authorized purposes. The Corps manages the reservoir's water level by opening and closing the gates at the dam to control the outflow in order to adhere to the WCP.

The Water Control Manual containing the WCP was originally written in April 1977 with revisions in July 1978. An update in February 2010 changed the vertical datum from NGVD29 to NAVD88. The reservoir level, also known as the pool level, is driven by the authorized purposes for the reservoir. If the downstream flow schedule is met, then the pool is required to be held at or below elevation 1015.9 ft. (NAVD88) in the fall/winter for flood storage. Following flood storage events, the pool must be drawn down to the proper seasonal elevation within five days. In early March, the pool is raised in order to get to the summer pool of 1024.0 ft. (NAVD88) by early May. The summer pool is held in order to augment downstream water levels for improved water quality. Currently, the Corps begins to lower the reservoir in late June in order to reach winter pool by August 22 for adequate flood storage. The existing (solid line) and proposed (dashed line) drawdown schedules are shown in Figure 4 with normal pool based on a three-decade (30-year) statistical average last computed in 2010. Also indicated in Figure 4 is flood storage capacity at winter pool (4.07" of runoff) and at summer pool (2.35" of runoff). In other words, a storm event generating more than 4.07" of runoff in the watershed while the reservoir is at winter pool or more than 2.35" of runoff in the watershed while the reservoir is at summer pool will cause the reservoir to rise to full pool and will likely result in spillway flow.

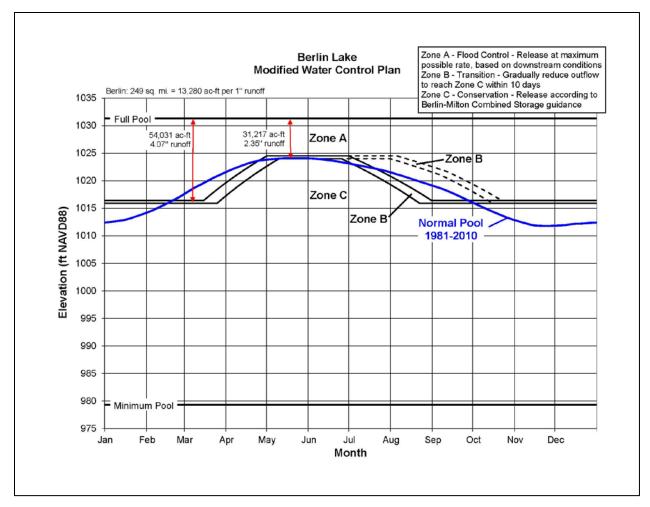


Figure 4. Existing (solid line) and Proposed (dashed line) Drawdown Schedule

Additionally, the WCP requires downstream flows to be maintained at a minimum of 145 cubic feet per second (cfs) in the winter months (November through March) increasing to a minimum of 310 cfs in the summer months (June through August) in Leavittsburg. Therefore, in a dry year, reservoir levels can begin to decrease earlier than the late June target. Berlin-Milton and Michael J. Kirwan Reservoirs are regulated so that minimum downstream flow requirements are met at Leavittsburg. Flow deficiencies at Leavittsburg are augmented 64% by Berlin-Milton and 36% by Michael J. Kirwan Reservoir. If the flow in the Mahoning River at Leavittsburg is below the daily flow schedule, then the Corps releases additional water into the rivers from Berlin Lake and Michael J. Kirwin Lake to make up for the deficiency.

Berlin Lake has a maximum surface area of 5,500 acres and its maximum pool is at elevation 1031.31 ft. The project has the capability to store the equivalent run-off of 4.07" at winter pool from its 249 square mile watershed and the equivalent run-off of 2.35" at summer pool.

A preliminary flood seasonality analysis shows that historically there is a low risk for significant flooding during the proposed deviation months of July and August with the lowest frequency of flooding occurring during September-November. This analysis was

performed using the USACE RMC-RFA program with a threshold flow of 2,700 cfs to produce an inflow record of 35 events in 30 years. The threshold flow represents an annual chance exceedance (ACE) flow for the three-day critical duration of greater than 0.5 (i.e. less than a two year event). Figure 5 shows the analysis of the relative frequency of a flood event by month for the past 30 years.

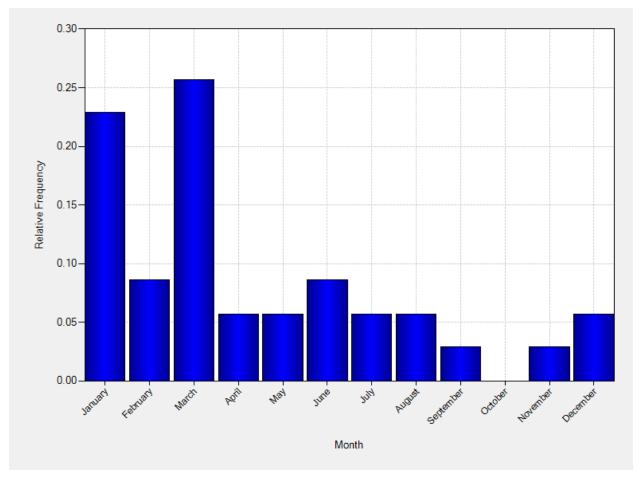


Figure 5. Berlin Lake Flood Seasonality Analysis from 1/1/1988 to 12/31/2017 (30 years)

In the context of this Planned Deviation, maintaining the pool level in the range of 1021-1024 ft (NAVD88) is not expected to have adverse effects on life safety related to the dam. The current Dam Safety Action Classification (DSAC), which reflects USACE's understanding of the risk to the public associated with Berlin Dam, is 5. The basis for this is low likelihood of failure, low estimated consequences, and low uncertainty associated with the dam's condition. The DSAC ratings range from 1 (Very High Urgency) to 5 (Normal). DSAC 5 dams have very low incremental risk—combination of life, economic, or environmental consequences with likelihood of failure. A DSAC 5 rating indicates that USACE considers the level of life-risk associated with the dam to be tolerable.

The proposed Planned Deviation is not expected to impact the dam's DSAC rating and does not increase the probability of failure. Therefore, non-breach life safety risk (the risk of downstream flooding due to non-breach flow releases from the dam) is the focus

of the deviation, and non-breach life safety risk is essentially zero. According to 2017 inundation maps provided by the Modeling, Mapping and Consequences Mandatory Center of Expertise (MMC), pool levels at 1031.7ft (NAVD88) in a non-failure event would result in zero life loss; the releases from the dam would not inundate any structures. This elevation is when spillway flow would begin and the pool could potentially reach this level in a wetter year. If the dam is not failing, there is essentially no life safety risk regardless of whether it is a drier year or a wetter year.

# 3.1.1. No Action Alternative

Under the No Action Alternative the reservoir would continue to be managed per the WCP and no Planned Deviation would occur. No new impacts to hydrology or flooding would occur.

#### 3.1.2. Deviation to Extend Summer Pool Term

Under this alternative, the Corps would maintain Berlin Lake at the summer pool level until after Labor Day in order to maximize recreation potential for the local community.

Although preliminary analysis suggests that the risk for significant flooding is low during the months of the proposed Planned Deviation, there is a chance that a hurricane or other significant storm event could occur. If such a hurricane or storm event occurred while the pool was being held at the summer pool level, there would be a risk of downstream flooding. The Corps would not drawdown the reservoir in advance of a storm event as this would likely lead to more water in the downstream system as the storm event hits. This would likely lead to increased flooding. Downstream of Berlin Lake there could be impacts to residents, businesses, golf courses and Milton Lake should a flood event occur. At summer pool, Berlin Lake has the capacity to hold 2.35" of runoff before reaching the spillway flow. A storm event producing more than 2.35" of precipitation in the watershed will produce uncontrolled spillway flow and could result in flooding downstream. Higher pool elevations could increase erosion along the reservoir shores particularly during high wind and storm events if waves are produced.

Alternatively, in a drier year maintaining the pool level at summer pool could result in the Corps' inability to meet its authorized purpose for Berlin Lake in that minimum downstream flow levels may not met be at Leavittsburg. Impacts of this on other resources, such as water quality and aquatic life, are discussed below.

# 3.1.3. Deviation to Extend Summer Pool Term and Meet Flow Requirements

Implementing this alternative could impact flooding and hydrology similar to that described in Section 3.1.2. The Corps would continue to evaluate flood risk and hydrology as is done with current operating procedures required by the WCP. When flood storage capacity nears full pool level, drawdown procedures would be initiated to draw the reservoir down to summer pool. If a significant storm event occurs during the deviation period, the Corps would hold water during the event and then increase reservoir discharges to drawdown the reservoir to summer pool after the Mahoning River has crested downstream. These increased discharges could cause flooding downstream. Higher pool elevations could increase erosion along the reservoir shores particularly during high wind and storm events if waves are produced.

# 3.2. Water Quality

Water Quality is a primary authorized purpose for Berlin Lake. Given the time and funding constraints associated with this proposed Planned Deviation, along with the understanding that implementation could compromise reservoir and downstream water quality, the Corps will utilize available water quality information and real-time continuous water quality monitoring, and will terminate the Planned Deviation if certain water quality standards and conditions are not met. The water quality monitoring measures described in this EA are based on information taken from cursory analyses of Corps' water quality data collected at Berlin Lake and the results of the Ohio Environmental Protection Agency's (OEPA) 2016 Integrated Water Quality Report (OEPA, 2016), and Total Maximum Daily Load (TMDL) Reports for the Mahoning River and Berlin Lake written by the United States Environmental Protection Agency (USEPA) in 2004 and the OEPA in 2011 (USEPA, 2004 and OEPA, 2011). The information from the Corps' data and the OEPA and USEPA reports was used to determine potential risks to reservoir and downstream water quality and provide measures to monitor and manage water quality impacts.

# 3.2.1. Mahoning River

The upper Mahoning River watershed, which includes the reach of the Mahoning River upstream of Berlin Lake, Berlin Lake itself, Lake Milton, and the reach of the Mahoning River between Milton Dam and Leavittsburg, OH, was assessed by the Ohio Environmental Protection Agency (OEPA) in 2006 and was found to have impairments to aquatic life and recreational uses (OEPA, 2008). OEPA developed a Total Maximum Daily Load (TMDL) report, the "Upper Mahoning River Watershed TMDL Report," for the upper watershed, which was approved by the US Environmental Protection Agency on September 28, 2011, to identify and address these impairments (OEPA, 2011). This TMDL report addresses impairments for total phosphorus, habitat, siltation, and Escherichia coli bacteria. There are a number of point source discharges within the watershed regulated with National Pollutant Discharge Elimination System (NPDES) discharge permits. According to this TMDL report, the reach of the Mahoning River from Berlin Dam downstream to Leavittsburg, OH, which includes Lake Milton, is also impaired. Primary causes of impairment include siltation, flow alteration, nutrients, upstream dam releases, upstream impoundment, low dissolved oxygen, and poor habitat. Pollutants from waste water treatment systems contribute to the impairment of the watershed.

In 2013 the OEPA also assessed the lower Mahoning River watershed, which includes the 35 mile long reach of the Mahoning River from Leavittsburg, OH to the PA/OH state line, and documented impairments to the OEPA's aquatic life and recreation designated uses (OEPA, 2018).

The USEPA prepared a TMDL for pathogens for this reach of the Mahoning River in 2004, "Mahoning River Total Maximum Daily Load for Fecal Coliform Bacteria," which in addition to pathogens, identified metals, sediments, nutrients, and related low dissolved oxygen levels as issues of concern (USEPA, 2004). In 2013, the OEPA conducted comprehensive chemical, physical, and biological monitoring in the lower Mahoning River watershed to identify the pollutants impairing beneficial uses and to support the

development of Total Maximum Daily Loads (TMDLs) for those pollutants. Results were included in the OEPA's 2016 Integrated Water Quality Monitoring and Assessment Report (OEPA, 2016). This report indicated significant recovery of biological communities since the previous assessment that was conducted in 1994. However, this reach of the Mahoning River was still impaired, that is, it did not attain the OEPA's beneficial use designations of aquatic life, recreation, human health, and recreation. Sources of impairment identified included combined sewer overflows, municipal point source discharges, upstream sources, and sedimentation/siltation.

#### 3.2.2. Berlin Lake

Berlin Lake is a nutrient enriched and hyper-eutrophic impoundment that experiences moderate to severe thermal and chemical stratification during the summer season. Concentrations of iron, manganese, aluminum, phosphorus, ammonia nitrogen, apparent color and acidity all increase with depth during the summer season and conversely, water temperature, dissolved oxygen, phytoplankton, chlorophyll, nitratenitrite, nitrogen, and pH values decrease with depth in the reservoir. Anoxic conditions, defined for this EA as dissolved oxygen concentrations of 4.0 mg/l or less, first develop in the deeper hypolimnetic waters of the reservoir in May and persist there until late September or early October. Anoxic water conditions during the summer stratification period normally persist at depths approximately 15 feet beneath the reservoir surface. Factors that contribute to reservoir productivity and algae growth include nutrient overenrichment, high water temperatures, sunlight, impoundment, and related summer thermal stratification. A rapid increase in algae growth is called an algae bloom, and a bloom of a species of algae or cyanobacteria (bluegreen algae) that can naturally produce biotoxins is called a harmful algae bloom (HAB). HABs can create biochemical conditions that may harm the health of the environment, plants, or animals. While algae and bluegreen algae blooms commonly occur every summer at Berlin Lake, the Corps has never documented a HAB.

It is likely that poor water quality conditions in reaches of the Mahoning River downstream of Berlin Dam that are not currently in attainment or are partially in attainment of the State of Ohio's water quality designated uses will be exacerbated by the Planned Deviation. This is because Mahoning River summer flows, and therefore the river's assimilative capacity, will be reduced. In addition, the Planned Deviation will increase water storage and retention time in Berlin Lake, which could lead to stronger, more persistent reservoir stratification, higher biological productivity and associated algae production, hypolimnetic anoxia, and negative impacts on aquatic life. Therefore, to monitor and manage water quality impacts in Berlin Lake and the Mahoning River downstream of the reservoir, the Corps will monitor water quality, real-time and continuously, (pH, dissolved oxygen, water temperature, and specific conductivity), prior to and throughout the deviation period as discussed below in Section 3.2.3. If/when water quality standards and conditions are not met, then the Planned Deviation will be terminated.

#### 3.2.3. No Action Alternative

Under the No Action Alternative the reservoir would continue to be managed per the WCP and no deviation would occur. No impacts to water quality differing from those

already documented by the OEPA in Berlin Lake or the Mahoning River downstream of the dam would occur.

#### 3.2.4. Deviation to Extend Summer Pool Term

This alternative would negatively impact water quality. A drier year would result in less flow in the Mahoning River downstream of Berlin Lake in July through early September. The greatest impact to Mahoning River water quality would therefore occur if the summer and fall of 2018 are dry, as less flow would cause an increase in water temperatures, less dilution of any pollutants entering the watershed below Berlin Lake, and lower amounts of dissolved oxygen. In addition, the negative impacts of this alternative on Berlin Lake water quality would be greater than impacts of the other alternatives since the reservoir retention time will be the longest, with the most severe water quality impacts occurring during drought years. Reservoir water quality impacts will include stronger, more persistent reservoir stratification, higher biological productivity and associated algae production, and increased and shallower hypolimnetic anoxia. Poor water quality would negatively impact aquatic life, and would increase the risk of fish kills and HABs. Under this alternative, downstream flows would be increased during September and early October, as the current WCP requires drawdown to winter pool by late August.

# 3.2.5. Deviation to Extend Summer Pool Term and Meet Flow Requirements

This alternative should not significantly impact water quality as it includes real-time continuous water quality monitoring in the reservoir and also at three locations on the regulated reach of the Mahoning River downstream of Berlin Dam that are not currently attaining state designated water quality uses, from June through October 2018.

# 3.2.5.1. Mahoning River

Parameters to be monitored along the Mahoning River downstream of Berlin Dam include water temperature, pH, dissolved oxygen, and specific conductivity. The first Mahoning River monitoring location requires the installation of a new United States Geological Survey (USGS) water quality gage in Warren, Ohio, at river mile 35. The second Mahoning River monitoring location is an already existing USGS water quality gage located downstream of Youngstown, Ohio at river mile 21. The third Mahoning River monitoring location is also an existing USGS water quality gage located downstream of Lowellville, Ohio at river mile 12.88, which is to be upgraded to include additional parameters (dissolved oxygen and pH).

Continual compliance with Ohio's state water quality standards for dissolved oxygen, pH and water temperature will be required at all three Mahoning River monitoring locations to continue the Planned Deviation. Specific conductivity measurements will act as a surrogate for the pollution load at the monitoring sites. If standards are not met or are trending toward non-compliance or if the specific conductivity exceeds 600 uhmos/cm, the Corps will terminate the Planned Deviation and normal drawdown procedures will commence to draw down the reservoir pool elevation in accordance with the guide curve as indicated in the current WCP.

## 3.2.5.2. Berlin Lake

During the Planned Deviation, water quality will be monitored real-time and continuously in Berlin Lake at two depths at the District's existing water quality buoy, which is located near Berlin Dam. The Corps currently measures water quality at the buoy at the reservoir surface; parameters measured include water temperature, pH, dissolved oxygen, specific conductivity, turbidity, bluegreen algae phycocyanin, chlorophyll, nitrate nitrogen, and turbidity. A second monitor will be added to the buoy at a depth of 10 feet, prior to the commencement of the Planned Deviation period, which will measure water temperature, pH, dissolved oxygen, and specific conductivity. A depth of 10 feet was selected because it is the approximate depth of the average summer season metalimnion, and the reservoir typically becomes anoxic at deeper depths. Dissolved oxygen levels at 10 feet are typically 4.0 mg/L or higher.

Continuous real-time monitoring will allow the Corps to manage the reservoir to reduce water quality risks. As mentioned, the Planned Deviation will result in more water being stored at Berlin Lake for a longer period of time over the summer and early fall, which could lead to stronger, more persistent reservoir stratification, higher biological productivity and associated algae production and increased hypolimnetic anoxia, with negative effects on aquatic life. A deeper reservoir with a longer retention time will also increase the potential for HABs and fish kills (which can occur when water temperatures rise and/or dissolved oxygen levels drop). Once HABs occur in a system, not only can that individual occurrence be harmful but it may perpetuate future HABs as they can persist in aquatic systems and the biotoxins produced by the algae can survive in reservoir sediments year-round (Corbel et al. 2014, Johnson et al. 2013).

Another potential impact to aquatic life could result from reservoir stratification. Holding the summer pool increases the chance for reservoir stratification keeping colder waters at the bottom of the reservoir where there is little circulation and low amounts of dissolved oxygen. This would force aquatic life into the warmer upper layer of water where higher temperatures could negatively impact fish and other aquatic organisms. A stretch of higher temperatures could result in fish kills if water temperatures rise and dissolved oxygen levels fall.

Real time continuous monitoring of the algae pigment chlorophyll, the blue-green algae pigment phycocyanin, and pH at the reservoir surface will allow the Corps to track reservoir productivity and allow detection of algae and bluegreen algae levels before HABs occur. If at the Berlin Lake surface chlorophyll levels exceeds 50 ug/L, phycocyanin levels exceed 5 ug/L, and/or the pH exceeds 9 pH Units, then the Planned Deviation would be terminated and the Corps would increase the discharge of the dam and return the operation of Berlin Lake to the current WCP.

Real time continuous water temperature, dissolved oxygen, and specific conductivity monitoring in the reservoir at a depth of 10 feet will allow the Corps to track reservoir stratification, increasing water temperatures and conductivity levels, and decreasing dissolved oxygen levels. If in Berlin Lake at a depth of 10 feet, the dissolved oxygen level drops below 4 mg/L, water temperature exceeds 85 degrees F, and/or specific conductivity exceeds 600 uhmos/cm, then the Planned Deviation would be terminated

and the Corps would increase the discharge of the dam and return the operation of Berlin Lake to the current WCP.

The water quality action levels prescribed for the Planned Deviation were determined based on water quality data collected at the Berlin Lake buoy over the past 10 years. The Corps may revise these measures any time during the Planned Deviation period as necessary.

#### 3.3. Recreation

There is a legislative basis for Federal participation in recreation development as discussed in Section 1.2. This authority allows the Corps, sometimes in partnership with other agencies, to construct and maintain recreation facilities such as campgrounds, playgrounds, trails, and boat ramps on Corps properties for the benefit of the public. Depending upon the type of project and the authorized use of the Corps' projects, they are either fully funded by a non-federal sponsor or cost shared with the Corps.

At Berlin Lake, the Corps and the Ohio Department of Natural Resources (ODNR) partner to manage several recreation facilities, including a picnic area, a camping area, boat ramps, hiking trails, a swimming pool, a playground, and a marina.

As discussed in Section 1.3, local residents, businesses and organizations have requested that the Corps deviate from the WCP in order to maintain a higher reservoir level for a longer period for the purposes of recreation for recreational boaters. Holding the summer pool through Labor Day will allow more recreational opportunity for all boaters.

Dutch Harbor Marina and Les's Bait Shop, Berlin Lake's two largest commercial marinas, report that once Berlin Lake reaches an elevation of 1021 (ft-NAVD88), their businesses experience negative financial impacts. Regardless of whether it is a dry or a wet year, boaters generally start storing their vessels once the water lowers to this level. Although Berlin Lake could still be utilized by most vessels at this elevation, many boat owners perceive elevation 1021 (ft-NAVD88) to be the reservoir level at which their boats are subject to an unacceptable level of risk of sustaining damage, and therefore they remove their boats from the water and put them into storage. Maintaining summer pool through Labor Day will allow all boaters more recreational space throughout all of Berlin Lake. Due to the increase in space, boaters would likely not start storing their vessels until after Labor Day, which would lead to an increase in recreation.

The potential increase in recreation is dependent on the weather conditions throughout the boating season. An average decade-long weather cycle is displayed below in Table 1. On average at Berlin Lake, dry conditions occur once every four years, and drought conditions occur once every 10 years—all other years are considered normal to wet conditions. If 2018 is a dry year, the pool elevation would be higher than 1021 (ft-NAVD88) on average for about 50 additional days; if 2018 is a normal to wet year, the pool elevation would be higher than 1021 (ft-NAVD88) on average for about 31 additional days. There would be no change during drought condition. Based on this decade-long weather cycle, it is estimated that the reservoir elevation would be higher than 1021 (ft-NAVD88) for an additional 32 days on average. The reservoir's highest

usage is on weekend days throughout the boating season, therefore, a more conservative estimate for additional recreation days is approximately nine days.

Schedule of Average Decade-Long Weather Cycle		
Condition	Additional Rec Days	
Normal to Wet	31	
Normal to Wet	31	
Dry	50	
Normal to Wet	31	
Normal to Wet	31	
Normal to Wet	31	
Dry	50	
Normal to Wet	31	
Normal to Wet	31	
Drought	0	
Average Estimated Additional Recreation Days: 32		

Table 1

An estimate of the amount of boaters that utilize Berlin Lake throughout the season can be found below in Table 2.

Boats on Berlin Lake			
	Number of	Number of	
Location	Docks	Estimated Boats	
Private Docks	273	546	
Community Docks	31	541	
Dutch Harbor Marina	1	200	
Les's Bait Shop	1	125	
Mill Creek Recreation Area	1	83	
State Boat Launches	2	200	
Estimated Total Boats:		1,695	

Table 2

# 3.3.1. No Action Alternative

Under the No Action Alternative the reservoir would continue to be managed per the WCP and no deviation would occur. It is expected that boat owners would continue to remove their boats from the water once the pool elevation drops below 1021 ft.

#### 3.3.2. Deviation to Extend Summer Pool Term

This alternative would provide the greatest benefit to recreational boat users. This alternative provides the largest increase of recreational space and extends the period of time that summer pool is held. No significant impacts are expected to other users of the reservoir as the reservoir is widely used for many types of activities (fishing, kayaking, boating, etc.) throughout the season.

If downstream flows are not met at Leavittsburg, there could be recreational impacts for fishing and kayaking downstream of Berlin Lake in an exceptionally dry year if flows within the Mahoning River decrease.

# 3.3.3. Deviation to Extend Summer Pool Term and Meet Flow Requirements

This alternative may provide benefits to recreational boaters, depending on the weather. Actualized benefits are likely to be somewhere between the lower limit set by the No Action and the upper limit set by the Deviation to Extend Summer Pool Term. In a wetter year, provided that the downstream flow requirement is met, summer pool would be held until late July with a gradual drawdown to reach winter pool by late October. In a drier year, draw down may be necessary earlier than late July to meet the flow requirement. Monitoring would be conducted to minimize the risk of negative impacts to water quality and its associated impacts to recreation from fish kills or HABs.

# 3.4. Aquatic Life

Aquatic life within Berlin Lake and downstream in the Mahoning River consists of common species of fish and invertebrates. The beneficial use designation of the Mahoning River by the OEPA is as Warmwater Habitat, which is classified as those waters containing typical populations of fish and invertebrates. Berlin Lake contains fish populations of walleye, channel catfish, bluegill, bullhead, muskellunge, black and white crappie, largemouth bass, smallmouth bass and white bass.

#### 3.4.1. No Action Alternative

Under the No Action Alternative the reservoir would continue to be managed per the WCP and no deviation would occur. No impact to aquatic life would occur.

# 3.4.2. Deviation to Extend Summer Pool Term

In a wetter year, no impacts to aquatic life would be expected in Berlin Lake or downstream. In a drier and hotter year, impacts to aquatic life (including fish larvae, juveniles, and adults) may occur during July through October if reservoir stratification occurs with low dissolved oxygen levels in the deeper waters of the reservoir and high temperatures in the shallower waters of the reservoir. These are conditions that can lead to fish kills and HABs. Lower water levels in the Mahoning River downstream could also impact aquatic life during July through September if water temperatures increase and dissolved oxygen decreases. Mobile aquatic life could move upstream or downstream to escape poor water quality conditions but sedentary aquatic life or fish or invertebrates trapped in scour pools isolated from the main stream channel could be negatively impacted.

Fish spawning typically occurs in spring and early summer, so no significant impacts to spawning are expected although larvae and juveniles may be impacted during the deviation period as described above.

# 3.4.3. Deviation to Extend Summer Pool Term and Meet Flow Requirements

By maintaining the flow to meet the downstream flow requirement, no significant impacts to aquatic life are expected. With this alternative, the monitoring measures for water quality would ensure that water quality conditions would not vary significantly from a typical year (see Section 3.2 for further explanation of the water quality risks). Downstream flow requirements would be met and any significant detrimental change in reservoir and Mahoning River water quality would be managed by initiating drawdown procedures in the reservoir to increase downstream flows. Conditions will likely still change from a non-deviation year in that the timing of the pulse of water from the reservoir drawdown will shift from the early summer to the later summer; however, with maintenance of water quality this four month change in water timing is not anticipated to be a significant impact to aquatic life.

#### 3.5. Public Infrastructure

One roadway/bridge crossing at Bedell Road exists between Berlin Lake and Lake Milton. Another crossing at the upstream end of Milton Lake exists at Ellsworth Road. Public drinking water surface intakes are also located on the Mahoning River downstream of Berlin Lake.

#### 3.5.1. No Action Alternative

Under the No Action Alternative the reservoir would continue to be managed per the WCP and no deviation would occur. No new impacts to public infrastructure would occur.

#### 3.5.2. Deviation to Extend Summer Pool Term

In a drier year if flow requirements at Leavittsburg are not met, there could be impacts to water supply if water elevations fall below the public water surface intakes. In a wetter year as discussed in Section 3.1.2 if a storm event results in uncontrolled spillway flow there is the possibility of flooding downstream, although as discussed in Section 3.1 it is unlikely that structures would be inundated.

# 3.5.3. Deviation to Extend Summer Pool Term and Meet Flow Requirements

If flow requirements are met at Leavittsburg, no impacts to public drinking water surface intakes are expected as this would not vary from existing conditions. In a drier year, the potential for flooding infrastructure would not differ from existing conditions. In a wetter year, impacts would be similar to those discussed in Section 3.1.3. If a significant storm event occurs during the deviation period while the reservoir is at summer pool or higher, the Corps may need to increase reservoir discharges to drawdown the reservoir after the storm. The increased discharges could cause flooding downstream.

#### 3.6. Air Quality and Noise

Northeast Ohio's reliance on manufacturing, industry, coal-fired electricity, and single-occupancy vehicles has contributed to the region's air pollution (NOACA 2017). Air

quality has improved in Northeast Ohio in recent years (NOACA 2017); however, portions of the region remain in nonattainment for one or more of the National Ambient Air Quality Standards (NAAQS, EPA 2018). The EPA's Clean Air Act sets National NAAQS for several criteria pollutants including ozone, lead, carbon monoxide, nitrogen oxides, sulfur dioxide, and particle pollutants with diameters less than 10 microns. Areas that persistently exceed the standards are designated as nonattainment areas. Once a nonattainment area attains and maintains the relevant standard, EPA may designate them as maintenance areas. EPA requires the state to develop maintenance plans for maintenance areas to ensure the area remains in compliance with the standard. Within the project area, Portage and Summit counties are maintenance areas for several NAAQS.

The project site is in a developed rural community. Noise levels are low due to the lower population density in the immediate areas. Rural homes are within close proximity of the lake and associated noises from homes and small agricultural plots contribute to the ambient noise levels. Typical noises in the area include residential and recreational noises such as traffic, lawn care, and motorboats.

Minor impacts to air quality and noise during the Planned Deviation may occur with an increase in use of the reservoir by recreational boats with higher horsepower motors, as these motors could slightly increase emissions and noise on the reservoir.

#### 3.6.1. No Action Alternative

Under the No Action Alternative the reservoir would continue to be managed per the WCP and no Planned Deviation would occur. No change to air quality and noise would occur.

# 3.6.2. Deviation to Extend Summer Pool Term

Minor impacts to air quality and noise during the deviation period may occur with an increase in use of the reservoir by recreational boats with higher horsepower motors, as these motors could slightly increase emissions and noise on the reservoir.

# 3.6.3. Deviation to Extend Summer Pool Term and Meet Flow Requirements

As described in 3.6.2, minor impacts to air quality and noise during the Planned Deviation may occur with an increase in use of the reservoir by recreational boats with higher horsepower motors.

#### 4. CUMULATIVE EFFECTS

Cumulative effects include effects resulting from future Federal, State, tribal, local or private actions that are reasonably foreseeable to occur in the project area.

The proposed request to temporarily deviate from the WCP by maintaining summer pool until late July with a gradual drawdown to reach winter pool by late October in the 2018 calendar year, would not result in significant cumulative effects provided that project impacts are minimized by implementing mitigation including water quality monitoring. Mitigation measures will ensure that the downstream flow requirement at Leavittsburg is met and that Berlin Lake continues to meet its authorized purposes of flood control and water quality/water supply. The Corps will continue to evaluate flood risk and hydrology as is done with current operating procedures identified in the WCP. If future deviations

are planned, the Corps will conduct a new analysis to determine impacts and cumulative effects.

When evaluated in the context of past, present, and reasonably foreseeable future actions, the Planned Deviation would not result in significant cumulative effects.

#### 5. COORDINATION

The Corps conducted a Berlin Visioning Meeting on 10 July 2017. This meeting was to gather information from participants about their values and interests related to the future management of Berlin Lake. Although the Planned Deviation was not the focus, it was a topic discussed. Many participants noted a desire to extend the summer recreation season for boating.

The Corps provided a copy of this EA to the following state and Federal agencies during the environmental coordination of this project:

- Ohio Department of Natural Resources
- Ohio Environmental Protection Agency
- Ohio State Historic Preservation Office
- Pennsylvania Department of Environmental Protection
- United States Environmental Protection Agency
- United States Fish and Wildlife Service

In addition, comments were solicited from the public, including local governments, organizations, etc. A 30-day public comment period occurred from 17 May 2018 to 16 June 2018. The Corps invited submission of comments on the environmental impact of the proposed temporary Planned Deviation. Public comments received and Corps responses can be found in Appendix A.

#### 6. ENVIRONMENTAL COMPLIANCE

#### 6.1. Federal Statutes

#### 6.1.1. American Indian Religious Freedom Act

The American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996) establishes protection and preservation of Native Americans' rights of freedom, belief, expression, and exercise of traditional religions. Courts have interpreted the American Indian Religious Freedom Act to mean that public officials must consider Native Americans' interests before undertaking actions that might impact their religious practices, including impact on sacred sites.

No alternative is expected to have any effect upon Native Americans' rights of freedom of belief, expression, and exercise of traditional religions.

# 6.1.2. Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) prohibits the taking, possession or commerce of bald and golden eagles, except under certain circumstances. Amendments in 1972 added to penalties for violations of the Act or related regulations.

No taking of either bald or golden eagles is likely through any of the actions discussed in this EA. The recommended plan does not involve removal of trees or any construction activity. Eagles in the area are expected to be acclimated to human presence and any noise associated with drawing down the reservoir levels and the proposed Planned Deviation is not expected to disrupt eagles in the area.

#### 6.1.3. Clean Air Act

The Clean Air Act requires states to develop plans, called State Implementation Plans (SIP), for eliminating or reducing the severity and number of violations of National Ambient Air Quality Standards (NAAQS) while achieving expeditious attainment of the NAAQS. The Act also requires Federal actions to conform to the appropriate SIP. An action that conforms with a SIP is defined as an action that will not: (1) cause or contribute to any new violation of any standard in any area; (2) increase the frequency or severity of any existing violation of any standard in any area; or (3) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

The Corps has determined that the recommended plan would not impact emissions as there are no construction activities associated with this request. Any increase in emissions due to the extended use of higher horsepower boat motors is expected to be de minimis and limited to the local area.

#### 6.1.4. Federal Water Pollution Control Act

The Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.) is more commonly referred to as the Clean Water Act (CWA). The CWA is the primary legislative vehicle for Federal water pollution control programs and the basic structure for regulating discharges of pollutants into waters of the United States. The CWA was established to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." The CWA sets goals to eliminate discharges of pollutants into navigable waters, protect fish and wildlife, and prohibit the discharge of toxic pollutants in quantities that could adversely affect the environment.

The Corps does not issue permits for its own civil works activities. Nevertheless, the Corps has accepted responsibility for the compliance of its civil works projects with Section 404, as well as the obligation to seek water quality certification under Section 401. The recommended plan does not involve the discharge of fill material into waters of the United States and does not require a 404 (b)(1) evaluation or Section 401 Water Quality Certification. No earth disturbance is proposed for this request.

# 6.1.5. Endangered Species Act

The Endangered Species Act (16 U.S.C. 1531-1544), amended in 1988, establishes a national program for the conservation of threatened and endangered species of fish, wildlife, and plants and the habitat upon which they depend. Section 7(a) of the ESA requires that Federal agencies consult with USFWS and NMFS, as appropriate, to ensure that proposed actions are not likely to jeopardize the continued existence of endangered or threatened species or to adversely modify or destroy designated critical habitats.

Using the USFWS's online database and information contained on the USFWS Ohio Ecological Services Field Office website, four species were identified as occurring in the Berlin Lake and Mahoning River area (USFWS, 2018). These include the Indiana bat, the northern long eared bat, Mitchell's Satyr Butterfly, and Northern Wild Monkshood (a plant species). As there is no tree removal or construction, no impact to the bat species is expected. As there are no construction activities, vegetation removal, or earth disturbance proposed, no impact to the butterfly or Northern Wild Monkshood is expected.

Per Dr. Michael Hoggarth (personal communication, email 9 Feb 2018), the clubshell mussel is thought to have been extirpated from the Mahoning River. As such, no impact to this species is expected.

Overall, no effect to any species protected by ESA or their designated critical habitat is expected.

# 6.1.6. Federal Water Project Recreation Act

In the planning of any Federal navigation, flood control, reclamation, or water resources project, the Federal Water Project Recreation Act, as amended (16 U.S.C. 460(I)(12), et seq.) requires that full consideration be given to opportunities that the project affords for outdoor recreation and fish and wildlife enhancement. The Act requires planning with respect to development of recreation potential. Projects must be constructed, maintained, and operated in such a manner if recreational opportunities are consistent with the purpose of the project.

This EA assesses impacts of alternative actions on recreation. The Planned Deviation associated with the recommended plan is for the purpose of increasing recreational activities by maintaining a higher reservoir level to facilitate the use of recreational boats for a longer period during the summer than currently exists.

# 6.1.7. National Environmental Policy Act

NEPA (42 U.S.C. 4321, et seq.) requires that Federal agencies consider the environmental effects of their actions. It requires that an Environmental Impact Statement (EIS) be included in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment. The EIS must provide detailed information regarding the proposed action and alternatives, the environmental effects of the alternatives, appropriate mitigation measures, and any adverse environmental effects that cannot be avoided if the proposal is implemented. Agencies are required to demonstrate that these factors have been considered by decision makers prior to undertaking actions. Major Federal actions determined not to have a significant adverse effect on the quality of the human environment may be evaluated through an Environmental Assessment (EA).

This EA evaluates the environmental effects of the recommended plan and alternatives. This EA has been prepared pursuant to NEPA Sec. 102(C). Effects on the quality of the human environment as a result of the proposed project are anticipated to be less than significant. The EA has incorporated any necessary and applicable modifications to the scope and/or nature of the project, any effects to the human environment resulting from these modifications, the procedures and practices used to implement the project, and/or

the type and extent of compensatory mitigation associated with the project. Accompanying this EA is a Finding of No Significant Impact (FONSI).

#### 6.1.8. National Historic Preservation Act

Section 106 of the National Historic Preservation Act requires that a federally assisted or federally permitted project account for the potential effects on sites, districts, buildings, structures, or objects that are included in or eligible for inclusion in the National Register of Historic Places. No earth disturbance or construction activities are proposed. The Corps has determined that the recommended plan does not have the potential to cause effect to either archaeological resources or historic properties.

#### 6.2. Executive Orders

# 6.2.1. Executive Order 11990, Protection of Wetlands

Executive Order 11990 encourages Federal agencies to take actions to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands when undertaking Federal activities and programs. The recommended plan should not cause any effect to wetlands located within Berlin Lake or downstream as the overall range of water levels is unchanged. The recommended plan is consistent with this order.

# 6.2.2. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations

Executive Order 12898, dated February 11, 1994, requires Federal agencies to consider and address environmental justice by identifying and assessing whether agency actions may have disproportionately high and adverse human health or environmental effects on minority or low income populations. Disproportionately high and adverse effects are those effects that are predominately borne by minority and/or low income populations and are appreciably more severe or greater in magnitude than the effects on non-minority or non-low income populations.

The recommended plan does not involve siting a facility that would discharge pollutants or contaminants, so no human health effects would occur. The recommended plan would not have a disproportionate adverse impact on low-income or minority populations since the recommended plan is only delaying the reservoir drawdown period as a temporary trial. Therefore the recommended plan is in compliance with this order.

# 6.2.3. Executive Order 11988, Floodplain Management

Executive Order 11988 requires Federal agencies to avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy of the floodplain, and to avoid direct and indirect support of floodplain development where there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by flood plains."

The recommended plan does not constitute a major rehabilitation project, require extensive engineering and design, or significantly change the project footprint and therefore is not required to be evaluated for its impact on the floodplain.

#### 7. CONCLUSION

Based on the above analysis, the recommended plan of a Planned Deviation of the Berlin Lake WCP with the associated monitoring for water quality is not a major Federal action significantly affecting the quality of the human environment, and therefore does not require preparation of an environmental impact statement.

#### 8. REFERENCES

- Corbel, S., Mougin, C and Bouaïcha, N. Cyanobacterial toxins: modes of actions, fate in aquatic and soil ecosystems, phytotoxicity and bioaccumulation in agricultural crops. Chemosphere. 96 (Suppl. C) (2014), pp. 1-15.
- EPA. 2018. Status of Ohio Designated Areas. Online at: https://www3.epa.gov/airquality/urbanair/sipstatus/reports/oh\_areabypoll.html. Accessed 16 May 2018.
- Johnston, B.R. & Jacoby, J.M. Cyanobacterial toxicity and migration in a mesotrophic lake in western Washington, USA. Hydrobiologia (2003) 495: 79.
- Northeast Ohio Areawide Coordinating Agency (NOACA). 2017. 2017 Air Quality Trends Report. Online at: http://www.noaca.org/modules/showdocument.aspx?documentid=21968. Accessed 16 May 2018.
- Ohio Environmental Protection Agency (OEPA). 2004. Summary of Ohio's Beneficial Use Designations. Online at: http://www.epa.ohio.gov/portals/35/wqs/designation\_summary.pdf
- Ohio Environmental Protection Agency (OEPA). 2008. Biological and Water Quality Study of the upper Mahoning River and Selected Tributaries 2006. Online at: http://epa.ohio.gov/portals/35/documents/MahoningRiverTSD2006.pdf. Accessed 30 April 2018.
- Ohio Environmental Protection Agency (OEPA). 2011. Upper Mahoning River Watershed TMDL Report. Online at: http://epa.ohio.gov/portals/35/tmdl/Mahoning\_upper\_Report\_Final.pdf. Accessed 26 March 2018.
- Ohio Environmental Protection Agency (OEPA). 2016. Ohio 2016 Integrated Water Quality Monitoring and Assessment Report. Online at: http://www.app.epa.state.oh.us/dsw/2016IR.pdf. Accessed 1 May 2018.
- Ohio Environmental Protection Agency (OEPA). 2018. Mahoning River Watershed.
  Online at: http://epa.ohio.gov/dsw/tmdl/MahoningRiver#119916082-monitoring.
  Accessed 17 May 2018.
- United States Army Corps of Engineers. 2000. Planning. Planning Guidance Notebook. ER 1105-2-100.
- United States Army Corps of Engineers. 2016. Engineering and Construction Bulletin. Guidance for Incorporating Climate Change Impacts to Inland Hydrology in Civil Works Studies, Designs, and Projects. ECB 2016-25.
- United States Army Corps of Engineers. 2016. Engineering and Design Water Control Management. ER 1110-2-240.
- United States Environmental Protection Agency (USEPA). 2004. Mahoning River Total Maximum Daily Load (TMDL) for Fecal Coliform Bacteria. Online at:

- http://epa.ohio.gov/portals/35/tmdl/Mahoning\_tmdl\_final.pdf. Accessed 30 April 2018.
- United States Fish and Wildlife Service (USFWS). 2018. Federally Endangered, Threatened, Candidate Species, and Species of Concern in Ohio by County. Online at:
  - https://www.fws.gov/midwest/ohio/EndangeredSpecies/pdf/SpeciesListByCounty April 2018.pdf. Accessed 2 May 2018.
- United States Fish and Wildlife Service (USFWS). 2018. Information for Planning and Consultation. Online at: https://ecos.fws.gov/ipac/. Accessed 3 April 2018.
- United States Geological Survey (USGS). 2017. Water properties: Dissolved oxygen. Online at: https://water.usgs.gov/edu/dissolvedoxygen.html. Accessed 26 March 2018.

# **APPENDIX A: PUBLIC COMMENTS AND RESPONSES**

The draft Environmental Assessment comment period occurred from 17 May 2018 to 16 June 2018. A total of 141 comment letters were received. Commenter names and comments with personal details redacted can be found in the attached spreadsheet and following letters. When individual commenters commented more than once, their comments have been combined and counted as one comment. The Corps thanks all those who provided comments.

# **Public comments and responses:**

**Comment:** 134 commenters expressed overall support for the deviation request. Comments on the perceived benefits of the proposed deviation included increased recreation opportunities and benefits to the local economy. Some commenters mentioned that they feel that lower lake levels can be a hazard to boaters due to the increased potential for boaters to strike sandbars and other obstacles in the shallower waters. One commenter stated that "lowering the lake early creates excess foot and ATV traffic, which damages plant life and animal life that lies in the dried lake bottom."

**Corps response:** The Corps thanks all those who took the time to write comments as they show the level of interest and support in the community.

Comment: The Riverview Golf Course general manager expressed concern regarding the increased potential for higher precipitation and the decrease in available flood storage and provided the following comment: "I am writing about the proposal of keeping the water level of Berlin Reservoir at maximum summer pool until after Labor Day. This would extend this higher level into hurricane season. Our weather patterns have changed and are more unpredictable than ever, from over 50 inches of rain in Houston in a four day period to two 1,000 year floods in Maryland in a two year period. It is only a matter of time before a disaster happens here. According to your own numbers, an event creating over 2.35" of runoff will cause an out of control release. If that occurs, both property and lives in the Leavittsburg and Warren areas are in danger. By keeping the Reservoir higher, you are taking away the opportunity to be proactive in controlling the flooding waters. Thank you for the opportunity to comment on this matter."

**Corps response:** Thank you for your comment. The Corps shares your concern with flood risk in the downstream community. As noted in Section 3.1 of the EA, the risk for significant flooding is low during the months of the proposed Planned Deviation. However as you said, some risk remains. The Corps has been asked to evaluate the possibility of holding the pool longer for the economic benefit of the local community, and as stated in the EA, this comes at the cost of reduced flood storage. The Corps takes the responsibility to make decisions that weigh all of these factors very seriously and your comment helps us to look critically at this issue.

**Comment:** One commenter stated, "I am OK with this proposal providing it does not have negative impact downstream including not negatively affecting the water level of

Lake Milton. If this proposal will negatively impact the water level of Lake Milton then this proposal should not be adopted."

**Corps response:** Thank you for your comment. During the Berlin Lake deviation period, Lake Milton will continue to operate as normal.

**Comment:** One commenter asked, "I would like to know what the harmful effects would be, if you extend the water level season for that lake. How would you compensate for the loss of water flow?"

**Corps response:** Thank you for your comment. Please see Section 3.1 of the EA for discussion on effects to hydrology.

**Comment:** One commenter asked, "I was curious if the water deviation plan has been submitted to keep the water levels up in Berlin until Labor Day?"

**Corps response:** Thank you for your comment. As of June 19, 2018, the deviation plan has not yet been submitted.

# Agency comments and responses:

**Comment:** The US Fish and Wildlife Service commented that adverse effects to federally endangered, threatened, proposed or candidate species were not anticipated nor were there any Federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area.

**Corps response:** Thank you for your comment.

**Comment:** The Ohio Department of Natural Resources (ODNR) provided the following comment: "The Division of Parks and Watercraft staff appreciate the on-going communication with US Army Corps of Engineers staff regarding operations of projects and water control in the Northeast Ohio region. We look forward to continuing our relationship and ensuring the high quality recreational resources that we provide to our customers continues for generations. Based on our review of the draft Environmental Assessment of the planned deviation for Berlin Lake, we would like to address a couple of items with the USACE regarding possible impacts to Lake Milton and the Michael J Kirwan Lake (West Branch).

Generations of recreational users in Northeast Ohio have relied upon the USACE and ODNR to provide a summer pool level that allows them to use their fixed docks, access boat ramps and provide consistent water-based recreational opportunities. Will the Berlin Lake deviation continue to allow summer pools to remain at expected levels in both Lake Milton and Michael J Kirwan Reservoir (West Branch)? Will these levels still be maintained as best as possible during severe weather conditions (i.e. drought)? In times of low precipitation, will the USACE move water out of Michael J Kirwan Lake to meet the extended, planned lake levels at Berlin Lake? In the past, we have experienced issues with low water elevations at Michael J Kirwan Lake and would like to know if this could potentially exacerbate the situation.

Northeast regional staff within the ODNR Division of Parks and Watercraft would also welcome further discussion on dam safety precautions (i.e. emergency call lists, providing materials such as sand bags or bentonite and monitoring of weather patterns), especially during storm events.

Thank you for the opportunity to review and comment. We look forward to continuing our discussion on the proposed Berlin Lake plan with the USACE.

If you have any questions or need any assistance from ODNR please contact us."

**Corps Response:** Thank you for your comments. Throughout the Berlin Lake deviation period, Lake Milton and Michael J. Kirwan Reservoir will continue to be operated as normal. The Berlin Lake deviation will not affect whether Michael J. Kirwan Reservoir or Lake Milton reach and/or hold summer pool levels.

The Corps maintains an emergency action plan (EAP) for each of our reservoir projects (including Berlin and MJ Kirwan). The EAPs include notification charts with phone numbers for key individuals within the Corps and external organizations, such as state and county emergency management agencies. These charts are updated at least annually. The district also conducts drills and exercises to make sure participants understand the EAPs and individual responsibilities. Exercises also promote communication between participant agencies and are typically conducted annually for district reservoir dams.

During periods of intense and prolonged rainfall, the district forecasts reservoir levels associated with Corps dams. When reservoir pools approach or exceed record levels, dams are staffed on a 24-7 basis to allow more frequent monitoring of the dams. Forecasting enables the district to deploy additional staff (e.g., engineers, geologists and dam safety specialists) to monitor dams that could see record reservoir levels.

The district owns two sand-bagging machines which could be deployed to reservoir projects to augment dam crests with sand bags if forecasts indicate that pool levels will approach the top of dam level.

**Comment:** The US Environmental Protection Agency comment letter stated two recommendations for the Corps' consideration. The first stated, "Clarify how the project could proceed if it would be terminated should water quality standards and conditions not be met, and if standards and conditions are already not being met." The second stated, "Ensure that the project would not exacerbate current impairments, conflict with the TMDL, or otherwise delay efforts to improve water quality."

**Corps Response:** Thank you for your comments. Regarding the first recommendation, if water quality standards and conditions are not met, the Corps will terminate the Planned Deviation and return operations of Berlin Lake to normal conditions by following the current Water Control Plan. This will most likely result in a controlled drawdown of the lake until the lake level reaches a level called for in the

Water Control Plan. The Corps will make efforts to notify lake users if the Planned Deviation is terminated.

Regarding the second recommendation, the Corps' intent is that the deviation would not exacerbate current impairments, conflict with the TMDL, or otherwise delay efforts to improve water quality. As discussed in the EA, the recommended plan requires that downstream flow requirements are met at Leavittsburg. The flow requirements are in place for water quality and the Corps will continue to operate the Project to meet flow requirements during the Planned Deviation. In addition, if water quality standards and conditions are not met the Corps will terminate the Planned Deviation and return operations of Berlin Lake to normal conditions by following the current Water Control Plan. Some risk to water quality remains, although the Corps' recommended plan contains measures to reduce the risk.

Name	Comment
	Please add our names to the list of Ohio residents and VOTERS that highly recommend this gets approval to maintain the water level on Berlin lake for the entire boating season. The
	positives would be a better local economy more jobs and sales and the negatives would be NONE!!!
im and Linda Owens	
	As homeowners on Berlin reservoir we would very much like to see this deviation allowed. It would be very helpful to us to have a more consistent water level in the lake during the
im and Cindy Bezdek	summer months. It would also be safer because the sandbars would not be as numerous in the open water. Please consider allowing this to happen for our lake. Thank you.
	This correspondence is to indicate my support of the proposed deviation from the Water Control Plan currently in place for Berlin Lake in Ohio. I would even like to see this temporary
	deviation made permanent, as a higher water level in Berlin Lake throughout the summer recreational season would economically benefit the surrounding community.
Kathleen Crooks	
Rich Henninger	I would encourage that the Corp would help in in this matter keeping Berlin water levels as high as possible so I am totally in favor of Berlin Deviation Plan.
	I want to thank you for considering this deviation. I have been going to Berlin for 50 years and have loved every second of it. It would be wonderful to be able to enjoy the beautiful Ohio
	late summer weather there. We always have to shut down or lake house earlier than wanted due to low water levels. Thank you again for this consideration. We hope you decide in favor
Kevin Mohr	of the deviation.
	I urge you to implement a permanent deviation water control plan for Berlin lake. As an owner and boater on Berlin lake for 50 years I have had my share of boating mishaps because of
George Kline	striking objects in a low-water condition. It is definitely a safety hazard to lower the water during the peak boating season. Thank you
	Comment 1: We are in favor of decreasing the rate at which water is released from Berlin Lake in order to keep the water level higher for a longer period of time. Thank you Comment 2:
	We are in favor of maintaining a high lake level for a longer period of time at Berlin Lake. Comment 3: Hello, We support keeping the lake level up and constant during the summer boating
Cathy and Joe Henson	season as it increases revenue for the community and provide a family oriented fun venue to build relationships and cherished memories. Thank you,
	I am requesting that you grant the request of the Berlin Lake Association and its members pertaining to way the Berlin Lake water levels are maintained by the Corp of Engineers. As a
	charter member of the BLA, I can attest to the fact that we have been respectfully asking that the water levels in Berlin Lake be increased and maintained at a higher level for as long as the
	BLA has been in existence. I am sure that the leadership of the BLA has provided logical information for this request; and I doubt that I can add any further comments that have not already
	been submitted in an effort to seek this reasonable change. I am highly skeptical that my input will be of any value; however; I support the efforts of the BLA leadership, their efforts are
ames Reese	to be applauded. I wish them the best of luck in this never-ending saga about the water levels of Lake Berlin.
	As member's of pine campground and boat club, we are in favor of the plan to deviate the water at Berlin Lake. Further more we would also be in favor of the plan becoming a permanent
Kevin and Kerry Kuretz	solution.
ames Chmielewski	I am in favor of the temporary deviation to the Water Control Plan for 2018 calendar year at Berlin Lake and would like to see this plan put in place on a permanent basis.
	We are in favor of this deviation and that we would like to see this put in place on a permanent basis. We also ask for your assistance in gaining support for this proposal from your Federal,
ohn and Julie McCauley	State and Local elected officials.
davidldearth	I am in favor of the Berlin Lake water deviation proposal
Michele Johns	I am a homeowner in Berlin Laje and I support the much needed change in water levels. Thank you.
osh Morgan	I am in favor of higher water levels throughout the summer recreational season and would like to see this put in place on a permanent level.
	To whom it may concerm I have been enjoying Berlin Lake since 1969, I am in favor of a planned deviation to the Water Control Plan at Berlin Lake, Ohio and I would like to see this put in
uann Maynard	place on a permanent basis.
	Dear Army Corp. of engineers, I'm in favor of the proposed plan on a permanent basis. My family has been been property owners and boaters on Berlin since 1956. As a third generation
	person who has "grown up" at this Lake and surrounding communities, I can't stress how much this place matters to us. Most of surrounding communities, farms, businesses and tax
	revenue rely on this Berlin. When the pool is drain prior to Labor Day people can not use the lake and hurts these local farms businesses and families more then anything. I ask that
David Supple	gentlemen you look at this proposal as a way to help this area , communities, property owners and boaters . Thank you!
	We would first like to thank you for having speakers at the last BLA meeting. We are in favor of the proposed deviation and would also be in favor of having it implemented on a
Bob and Debby Strohhacker	permanent basis. Thank you for your consideration and time.
Bob McMaster	I am in favor of the deviation plan for Berlin Lake. I use the lake from spring till fall. It is time for a change to help the lake water level throughout the seasons.
	Hello, I'm an avid skier and boater and we really enjoy Berlin lake, especially since the new ramp makes it easier for us to access it. I'm in favor of keeping the water in longer and thank
Paul Schwarz	you for your kind consideration in this :)

	I am in favor of a temporary deviation from the Water Control Plan, requesting approval for a higher water level in Berlin Lake throughout the summer recreational season. I would like to
Renee	see this put in place on a permanent basis. Thank you for your consideration.
Convision	Having used Berlin as a recreational boater for 39 years the impact of prematurely drawing the water level down to winter pool has had a huge impact on our recreation. Having been a boat club member and "camper" in the North Benton Island Creek area we have been left high and dry many seasons by end of July. It seems senseless to dump the water before the last Holiday even when there is an excess of precipitation. The alternative plan allowing for extending the draw down and longer boating season has been our wish for over 40 years.  Monitoring down stream flows and water quality and adjusting "extending " the draw down period makes good sense. As a long term member of the Island Creek Boat Club I say it is about time exploration of this option is being considered. Looking forward to a positive ((longer draw down period test) outcome on this with the hope that the WCP could be amended in
Gary Sipe	the future. Thank you
Mary Butenschon	It would be wonderful to see an adjustment to the planned water downdraw at Berlin Lake. I understand there are considerations downstream to changing the downdraw at Berlin lake but I believe it will be a boost to the local economy if the water levels are able to remain higher longer. It seems crazy that as most lakes would be in their busiest season late July through early September we are fearful that we will have to pull our boats from the water because there is a mandatory drawdown that does not add value to the downstream waters but is negative to Berlin lake. I understand the need to support the waterways downstream but an evaluation should occur to determine if the current plan in effect is the best plan. We do not wish to create issues for those downstream we would just like to enjoy our lake as long as possible. Thank you
Tom McKeown	To whom it may concern: Thank you for the berlin deviation plan that keeps the water level normal until Labor Day. This will be a benefit to boaters, fisherman and the local economy.  Please consider making this a permanent plan. If this is implemented as a permanent plan I believe it will be a great boost to the surrounding area. Thank you.
Karen Vrabec	To Whom It May Concern, My family and I camp and boat on Berlin Lake and would appreciate a delay in the water draw until as late in July as possible as well as a more gradual reduction of the water level. Thank you
Tony McNamara	Gentleman I would like to express my concern over how early that the water is currently drawn down on the lake. I believe that the deviation that has been discussed is good for everyone concerned. I know that the lake was built for flood control. But I believe that it can coexist with recreation and flood control. It seems to me that because it's not be used to feed a many barges as once were on the Mahoning and Ohio rivers, that it wouldn't need to be drawn down as aggressively early as it once was. Recreation provides a big influx of money for the region. By waiting until later to draw the water level down it provides a much larger opportunity for fishing and boating which brings in even more money and enjoyment for everyone. Your consideration to lengthening the time when a total drawdown is necessary would be greatly appreciated. Thank You
	USACE, As a concerned stakeholder, I am in full support of the deviation proposal. Making this deviation permanent is crucial in order to recover, maintain and grow the regional economy
Seth Daniels	Please consider making this deviation permanent. Thanks
Jim Thompson	I have read the information on the proposed Berlin Lake Drawdown Deviation and find that I am in total agreement with it. The current program is out of date and is no longer applicable with conditions at this time. Please proceed with the proposed deviation.
Todd Maynard	I am in total in favor of make this a permanent decision for all those that spend their summers on that lake.
, , , , ,	
Todd Jones	Dear USACE, As a concerned stakeholder of Berlin Lake, I am fully in support of the proposed deviation plan. I would also request that this deviation be made permanent. Thank you
	I and my family are in favor of this deviation plan for Berlin Lake and we would like to see this put in place on a permanent basis. I never makes sense that a lake with businesses and
David Ballinger	houses loses water at such an increased rate over the other lake that has no businesses or houses on it. Thanks
David Ballinger	Dear USACE, As a concerned stakeholder of Berlin Lake, I am fully in support of the proposed deviation plan. I would also request that this deviation be made permanent. Thank you
	To whom it may concern, I am writing to express my support for the temporary deviation initiative for Berlin reservoir thru Labor Day. I find the lower lake levels in August and into Sept make it extremely difficult to launch a boat and creates issues in various place on the lake. Further, I would like to see this deviation become permanent. Thanks you for your
Kevin Taraszewski	consideration on this issue. Thanks
John Muzika	Dear USACE, As a concerned stakeholder of Berlin Lake, I am fully in support of the proposed deviation plan. I would also request that this deviation be made permanent. Thank you
Cheryl Stalder	Dear USACE, As a concerned stakeholder of Berlin Lake, I am fully in support of the proposed deviation plan. I would also request that this deviation be made permanent. Thank you
Tom Dawson	I sail regularly at Berlin Lake. I support the Planned Deviation for Berlin Lake Water Control Plan for 2018. As a recreational user, I am in favor of the "Deviation to Extend Summer Pool Term" option. Thank you for considering my input on this important project.

	Please consider keeping the lake up longer. From an environmental standpoint lowering the lake early creates excess foot and ATV traffic which damages plant life and animal life that lies
	in the dried lake bottom. The increased community revenue would also generate taxes that help to support environmental programs. Also the more time families and the community have
sraderman	to enjoy life outside of electronics, the more said persons will buy into protecting our environment. Please extend the Berlin lake water season.
	i approve and request you approve this to keep the water level up during the summer season and in the future for summers. gaining approval for a higher water level in Berlin Lake
Sandra Paris and Ron Schubert	throughout the summer recreational season.
	Dear Sirs, As a life long user of Berlin Lake, I am very much in favor of the proposed plan and would love to see it implemented permanently. My parents met on the docks in 1961, and we
John Kleptach	have never left. Thank you
	I sail regularly at Berlin Lake, and I support the Planned Deviation for Berlin Lake in 2018. In particular, as a recreational user I support the "Deviation to Summer Pool Term" option
	contained in the proposal. I also support a permanent adoption of the Deviation to Summer Pool Term outlined in the Planned Deviation Proposal. Thank you for considering my opinion
Jack Finefrock	on this important project.
	To Whom it May Concern, I sail regularly at Berlin Lake, and I support the Planned Deviation for Berlin Lake in 2018. In particular, as a recreational user I support the "Deviation to Summer
	Pool Term" option contained in the proposal. I also support a permanent adoption of the Deviation to Summer Pool Term outlined in the Planned Deviation Proposal. Thank you for
Brian Cook	considering my opinion on this important project.
	For the past 10 years I have regularly sailed at Berlin Lake as a recreational user. I wanted to express my support of the planned deviation for Berlin Lake in 2018. In particular I support
John Bauer	the "Deviation to Summer Pool Term" adoption outlined in the planned deviation proposal. Thank you for considering my opinion on this important matter.
	Here is an article I think you will find interesting: Blockedhttp://www.lrp.usace.army.mil/Media/News-Releases/Article/1530569/army-corps-seeks-comments-for-a-draft-environmental-
l	assessment-related-to-berli/ Would love to let water stay up till Oct. if possible. We boaters never get to take advantage of boating season like Lake Milton does. Don't see how it would
John Dorbish	make much difference in flood control.
	We just got a dock this year. We almost did not due to the levels and shorter season and we were late getting a dock on Lake Milton. The lake is bigger and we would probably stay if the
Steve Abe	season was extended for next year.
	Being a stakeholder at Berlin Reservoir I am all in favor of the proposed deviation for 2018. I would also appreciate any thought of making this deviation permanent in order to improve
Daniel Caralla	recreational activities along with Economic Development Area. Being a homeowner on Berlin Reservoir with waterfront property my family and friends look forward to the Summer's out
Roman Swerdan	there when there is water levels that allow safe boating.
Dan Hopkins	Hi, I support the deviation. Thanks  Thank you for taking the time to consider the delay in dropping the water level at Berlin Lake. If the water level would remain higher through the month of August, our family would be
	able to enjoy a full summer of fishing, boating, and camping. Since Mill Creek Campgrounds is not opening early this year, it would be very nice to have water levels up longer for those who plan to camp at the end of the summer. It is also good for the small businesses that sale fishing, camping, and boating supplies. Again thank you for taking the time and consideration
Heath	for the water deviation at Berlin Lake.
i i eatii	I am sending this to let you know how important it is for you to keep the water level up in Berlin Lake. We are camping at Mcdermott's campground, when you lower the water level it
	really effects our ability to enjoy our time at the campground. We worked really hard to raise money for the Deerfield fire dept to get a rescue vote. Please let us keep enough water to
Natalie Winkle	use it. Thank you
Tracane Wilkie	use it. Thank you
	To whom it may concern, I would like to voice my support for the proposed Berlin Lake deviation plan. My family has been enjoying Berlin Lake for well over 50 years, and likely since
	around the time that the original water control plan was put into place. Almost 60 years later, I believe a new plan will benefit the community and all the local boaters that help support it.
Colin Andrews	By bringing the plan up to date, and increasing the usability of the lake through Labor Day, everyone will benefit. Thank you
	USACE, Thank you for you careful consideration and plan for a deviated water level in 2018. I am hopeful the study will result finding no impact to extend the summer level. I believe that a
	30 day extension would have a way more positive impact, compared to the current schedule. Local business would easily see a 25% revenue boost. Home owners could see a 25% increase
	in home value. With that would be additional tax, larger government budgets, etc. I have said for years, the current schedule was devised when there was a large industry base on the
	Mahoning. Now that industry is 90% gone. I understand there is still poor water quality downstream. My argument is: 70 years of drawdown hasn't resolved this. The sediment should be
John Kress	removed. 30 day extension would truly not matter. I understand dry years would still equate to a draw down in order to maintain the Leavittsburg flow. Again Thanks for your help!
David Mosure	What took so long? I have a boat at Dutch Harbor Marina.
Jim Mineo	Please accept my full support of the aforementioned plan. I am confident that the impact will be positive and supported by numerous individuals. Thank you
	Please keep the water in the lake later in the season. I'm an avid fisherman and I thought last year the lake was drained at least 6 weeks too early, maybe even 10 weeks too early. Pleas
Kris Smith	let's not have a similar problem this year. Thanks

Judy Mineo	As a resident on Berlin Lake I wholly support this plan.
	I sail regularly at Berlin Lake, and I support the Planned Deviation for Berlin Lake in 2018. In particular, as a recreational user I support the "Deviation to Summer Pool Term" option
Time I I was a bound	contained in the proposal. I also support a permanent adoption of the Deviation to Summer Pool Term outlined in the Planned Deviation Proposal. Thank you for considering my opinion
Tim Humphreys	on this important project.
Kevin Tarbet	Dear USACE, I am writing to you on behalf of myself and Dr. Roach Outdoor League. I am the president of Dr. Roach Outdoor League as well I have been boating on Berlin Lake for 30+ years. I am writing to support the passage of the deviation request to allow the water level at Berlin Lake to have a slower draw down throughout the summer season. When the water level is dropped early in the summer it has a huge impact to our organization. Our members stop camping as much as without being able to use their boats they tend to seek other places to spend their time, and it puts a burden on our organization. We are a private non-profit organization of about 150-200 people who enjoy the lake and the many things it offers. As the water level falls, our boat ramp becomes unusable while the eastern part of the lake is able to be used typically. The new public ramp that was installed a couple years ago is just around the corner from our organization and when the water level is up the parking lot is usually very full. As the level drops the ramp essentially becomes unusable as the area around the ramp is rather shallow. Holding the summer pool level longer would allow our end of the lake to used much longer and provide a great impact for the organizations, businesses, and community surrounding the lake. Please strongly consider passing this plan and using this as an opportunity to make a long term change that would be a boost for surrounding community. Please feel free to contact me with any questions or concerns. Thanks for your time.
Reviii Tarbet	Tree to contact the with any questions of concerns. Thanks for your time.
	Comment 1: The consensus will be I'm sure to leave the water level up as long as possible. I too agree with that. I have a summer cottage with a dock on Berlin. It is about time Berlin gets
	the attention it deserves. I would be anxious to see the numbers from the BMV When getting boat license/ registration there is a question "what is the primary body of water you intend on using ". Where would Berlin end up on that questionnaire? Maybe that will also be an indication to leave the water level up. Aside from a true drought type scenario, I think it is
	absolutely only fair to allow the boating, fishing and recreation to extend as long as possible. After all, a lot of money is spent and generated from boat license, fishing license, trailer license
	and hunting license. I assume the recent construction on the new German Church rd. Ramp will and should aid in keeping the water up. Otherwise, why would that money be spent for such a historically short boating season. The time is now for change.
	Comment 2: Time for change. I currently own a summer cottage and boat dock at Berlin. Please keep the water level up as long as possible to extend the recreation at Berlin. I like the
Craig Partin	direction the Corp is going. It appears berlin is finally on the radar. Example: new German Church Rd. Boat ramp open summer last season coupled with this deviation assessment may yet be another indication that water levels need to be kept up and Berlin recognized as a place of home and businesses not just a 1940's flood control reservoir.
Beloit Air Tool	I am a docker at Dutch harbor marina on Berlin lake. With the size of my boat, every year I'm forced to either stay at the dock or pull out early August or even July 4 one year. I'm only one person, but I feel I spend a good bit of money supporting local businesses while I'm engaged in the boating season. It's sad to see the marinas and restaurants suffer in late summer due to early low water, with the sparse local population they depend on influx of summer boaters. Thank you for opening up the discussion, hopefully this proceeds.
Cory DePaul	To whom it may concern, I am a concerned citizen. The annual draining of Berlin lake cuts into local economy and makes short what could be a long and lucrative leisure season. I am in favor of the deviation for this year and would appreciate any consideration of making it permanent.
cory ber adi	Dear USACE, As a concerned stakeholder and lift long boater of Berlin Lake, I am fully in support of the proposed deviation plan. I would also request that this deviation be made
M. Wyatt Geissinger	permanent. The current plan limits use of the lake and negatively effects the local economy.
	Dear USACE, As a concerned stakeholder and life long boater of Berlin Lake, I am fully in support of the proposed deviation plan. I would also request that this deviation be made
Matt Geissinger	permanent. There is no reason we can't have water until Labor Day. The downstream Mahoning River has been negatively affected by the steel industry such that a little less water in July and August isn't going to hurt. Thank you
Matt Geissingei	and August isn't going to nurt. Thank you
Dale and Sue Mccormick	Dear Sir/Madam:. We are in favor of a permanent water level Deviation for Berlin LakeWe camp permanently on the lake and have a boat docked on the lakeWe are asking that the water level of the lake remain at a higher level throughout the summer camping season so we are able to fish and enjoy boating all seasonThank you for your consideration
Date and Sac Micconnick	The second secon
	Colonel Lloyd U.S. Army Corps of Engineers, I would like to express my support for the temporary deviation of the Water Control Plan at Berlin Reservoir for 2018 with the goal being that
	this Water Management will then be instituted on a permanent basis. It is an absolutely beautiful lake and I am proud to live in this area. I know that so many more families would take
Sucan Knann	advantage of all that it has to offer if they could count on a safer water level throughout the boating season. Increased usage would in turn provide a desperately needed boost to the
Susan Knapp	economy of the region and to all of the small businesses that have struggled related to the lake level and decreased boating season. Thank You very much for considering the proposal.

	My name is Ken Kollar. We have owned lakefront property at Berlin Lake for the past twelve (12) years. As of August of 2017, we became permanent residents at Berlin Lake. I have spent my entire life boating, swimming, fishing and simply enjoying the amenities that the local lakes have to offer. Whether it is a Corp of Engineers lake or a state park, really has no impact on how much we enjoy a day on the lake. So for that, we are very grateful. Since taking interest in Berlin Lake, I became involved with the Berlin Lake Association. I am currently on the Board of Directors for this organization. I am a firm believer that being involved with an organization that has the best interest of an item that you have a vested interest in is the right thing to do. My point is that I try to back up my words with action. I do not believe in sitting on the sidelines and hoping that something good happens. That being said, I fully understand the true purpose of Berlin Lake. If the downstream needs call for water, it will come from our lake. If water requirements downstream meet or exceed the need, then water will be held in our lake. Pretty simple philosophy. I am not looking to reinvent the wheel. Nor is it my belief that anyone else who comments on this issue is attempting to do so. As I am sure you are already aware, water levels at our lake have a great impact on much more that my ability to go skiing. The economic impact of low water levels on the businesses that are 100% dependent on lake traffic is staggering. I do not have statistics, but is doesn't take a rocket scientist to understand that when people stop coming, local businesses suffer. To that point, boaters that trailer their boats to local lakes will not come to Berlin when the water level starts to drop. I can't say! blame them. The risk of damaging their boat when the water drops increases with every inch of water that we lose. Berlin is a big lake. I am familiar with the topography of the lake bed. Most folks are not. When the sandbar in the main lake adjacen
Ken Kollar	for all your organization does for our lake.
Lovi Coto	We would like to submit our comments regarding the water levels at Berlin Lake. My husband and I would love to use our cottage and our boat into the Fall. But more importantly, it would make a huge impact on the small local businesses that rely on the summer boaters and campers. It would boost the economy of these businesses and keep people coming back
Lori Getz	from year to year! It would mean so much to so many people if you would take this into consideration. Thank you  To Whom It May Concern: I am in total support of the deviation plan for Berlin Lake. I see no negative impact and I encourage the implementation of this plan, not only for the 2018
Lynne Duchon	season, but on a permanent basis as well.
David Fisher	I am in favor deviation option 2. I am a boater.and fisherman.
Jim Mix	Dear USACE, As a concerned stakeholder and life long boater of Berlin Lake, I am fully in support of the proposed deviation plan. I would also request that this deviation be made permanent. There is no reason we can't have water until Labor Day. The downstream Mahoning River has been negatively affected by the steel industry such that a little less water in July and August isn't going to hurt.
Paul Muster	I would love to see the water level at Berlin lakes stay higher longer we pay a lot of money to keep our boat mored there year round and would love the extended season just for the enjoyment of the lake With our cold weather we really don't get started until Mid May and that's a very short season
Grant Banks	Hello We would like to see the season extended by increased water levels throughout the year.
	Please consider extending the water levels in berlin lake. Ive grown up on the lake my entire life and every year the lake is drained too early. We in ohio already have a short summer
Richard Wilkinson	please consider keeping berlin full longer for recreation. Thank you,
Chris Miculan	Please hold the water until at least labor day. Towards the end of each summer I find myself leaving the area for lakes that are still full down south. I would love to continue using the water at Berlin through the entire summer. This lake has become a huge recreational lake over the years and with the addition of the new ODNR ramp, it would be nice to maintain levels.  To whom it may concern I really appreciate the CORP entertaining the idea of delaying the water draw date in the fall. I believe everyone that uses the lake for any type of recreation.
	would greatly benefit from its delay. Besides the entertainment value it will affect the local commerce in the surrounding area. I understand that recreation is the second purpose of the reservoir but if the delay can be accomplished without affecting the prime purpose of the lake then it seems to be a "no brainer" because everyone benefits. Thank you for taking the time
Dan Frederick	to evaluate the situation and I totally respect your decision either way.

	My name is Paul Richards. I have had a lakehouse on Lake Berlin for 15 years and have utilized the lake for nearly 20 years. I am glad you are giving us the opportunity to comment on extending higher water levels longer in the lake. My main concern is, and has always been, safety for those individuals utilizing the lake for recreational purposes. For us "veterans', we are well aware of the dangerously shallow portions of the lake as the summer progresses and the water level drops. However, I was also new to this lake at one point and have several bent propellers to show for it. In one instance, I bent a propeller pulling a water skier. This was very concerning to me. I contacted the Army Corps of Engineers and asked if they could somehow mark the areas that were very shallow as a warning to boaters. I was told it was not the Corps responsibility and that I was to contact the Ohio Department of Natural Resources, which I did. They in turn told me it was not their responsibility and I was to contact the Army Corps of Engineers. So, obviously, nothing got done. Unfortunately, there are a lot of boaters on Lake Berlin that are not familiar with shallow areas. They drive their boats fast across dangerously shallow areas, areas that are present as early as mid July. As a long time homeowner on the lake, I am equally concerned about the low water's effects on the local economy. Over the years, I cannot tell you how many times I have been told by fellow campers/ boat owners they would never take their boat to Lake Berlin over concerns of hitting tree stumps, bending propellers, or damaging their boats because of low water levels and shallow areas. I have heard this over and over again! They choose to camp at other campgrounds where they feel it is safe to take their boats on the water. It is a shame these people take their gear and wallets elsewhere especially when the local establishments around Lake Berlin could benefit from their tourism. In closing, the lake water levels are referred to as "summer pool". Summer to
	draw down summer boating ends in late July or early August depending on the weather and depending on where they are located on the lake. Maintaining water levels from Memorial Day to Labor Day allows EVERYONE to enjoy longer and safer boating days regardless of whether they live on Lake Berlin or not. Thank you for your consideration in dealing with and
Paul Richards	hopefully rectifying this very important issue.
Steve Mihalick	Drainage of lake in late October would be fantastic for the residents in our cove behind Dutch Harbor marina. Thank you for your consideration.
	, ,
	To whom it may concern, I support the proposal to maintain the Berlin lake summer pool until the traditional end of summer, September 22. <x-apple-data-detectors: 0=""> I feel the</x-apple-data-detectors:>
George Moresea	benefits to the local economy, the safety of maintaining the level for boating and the positive impact on family and friends gathering to use the lake outweigh any negatives. Thank you,
	To whom it may concern, I support the proposal to maintain the Berlin lake summer pool until the traditional end of summer, September 22. <x-apple-data-detectors: 0=""> I feel the</x-apple-data-detectors:>
Luke Moresea	benefits to the local economy, the safety of maintaining the level for boating and the positive impact on family and friends gathering to use the lake outweigh any negatives. Thank you
	To whom it may concern, I support the proposal to maintain the Berlin lake summer pool until the traditional end of summer, September 22. <x-apple-data-detectors: 0=""> I feel the</x-apple-data-detectors:>
Brigitta Moresea	benefits to the local economy, the safety of maintaining the level for boating and the positive impact on family and friends gathering to use the lake outweigh any negatives. Thank you,
	It is frustrating not being able to use my boat. I think if the levels were kept at summer pool through November the lake would draw new businesses and increase the revenue of the townships around the lake. After all Berlin is the most popular lake in the state for boating and fishing so it makes sense to keep levels up till the fall. Thank you for taking my comment and
Jerry Szerokman	I hope you decide to keep levels up.
Jon French	As an owner on the water the level is very key to us to go all summer but with only 9 feet of water behind are boat at summer level we usually need to pull or move the boat before end of season and that is usually mid August it would be so nice to be able to leave the boat in until mid to end of September not only for the people that use the lake but also for the businesses around the lake Thanks
Cherlyann Kuti	Thank you for the deviation plan I live on Berlin Lake
Sherryann Raci	Thank you for the deviation plant live on Berlin Eake
·	Comment 1: I represent the 500+ members of the Berlin Lake Association, a non-profit organization dedicated to the preservation and overall improvement of Berlin Lake and the surrounding area. The members of the Berlin Lake Association whole heartedly support the Planned Deviation for 2018 to the very dated Water Control Plan. In addition, we support having this Planned Deviation implemented permanently, allowing for a longer lake recreation season and thereby adding increased economic stability for this area.  Comment 2: I want to express my support for the Planned Deviation to the Berlin Lake Water Control Plan for 2018. In addition, I support having this Planned Deviation implemented
Tim Taylor	permanently, allowing for a longer lake recreation season and thereby adding increased economic stability for this area.
	To whom it may concern, I am a resident of Deerfield Township, owning property adjacent to Berlin Lake. I fully support the proposed plan to deviation from the WCP and to Extend Summer Pool Term and Meet Flow Requirements. Thus, allowing the Corps the option to meet the downstream flow requirements at Leavittsburg, and allowing additional recreation at Berlin Lake during the summer. It is my understanding that if there is sufficient rainfall in the watershed to continue to meet the downstream flow requirement and there are no negative impacts to water quality, the reservoir level would be held at summer pool levels until the end of July and then a gradual drawdown to elevation 1021 ft (NAVD88) by Labor Day, followed
Greg Lawton	by a drawdown to winter pool, 1015.9 ft (NAVD88), by late October. I agree that this change would not have any significant environmental impact. Thank you,

	To whom it concerns, I could not be any happier to see the current lake policy go under an evaluation. The lake level is very important to local economy. It also provides relaxation and
Dave	plenty of enjoyment for the area. Berlin is a beautiful lake, you should come out and spend some time boating or fishing!
Todd Mohr	As a resident of Deerfield Township and a lakefront property owner, I hope that this is the first step toward helping the economy in Deerfield by allowing the lake level to remain higher later in the year. I do understand that Berlin Lake is primarily for flood control and drought recovery and that it would only stay in Berlin if the water is not needed downstream in the fall, but under the current policies, the water is drained out of Berlin whether it is needed or not which does not make any sense. For the Corp of Engineers to flood the Ohio River because it is August 1st and is a mandatory draw down is not good for anyone. I am hopeful that the 2018 Water Control Plan Deviation is approved so that we can verify affects on the environment and wildlife with a hope that in the future, this could be considered for a possible permanent Water Control Plan.
Mark Cartechine	US Army Corps of Engineers, As a long-time recreational user at Berlin Lake with a permanent camp site with direct lake access, I am very much in favor of the 2018 deviation plan being approved and further studies done to permanently change the Water Control Plan for the lake. Personally, I would like to see a permanent Water Control Plan put in place to maintain summer pool levels (within reason) from Memorial Day weekend until Labor Day weekend to take full advantage of the summer boating season on the lake. I believe this would have quite a positive affect for the lake and surrounding communities. Thank you.
Michael and Sarah Gold	Dear USACE at Berlin Lake, Pittsburgh District: I sail and use my pontoon boat for fishing and recreation regularly at Berlin Lake, and I support the Planned Deviation for Berlin Lake in 2018. In particular, as a recreational user I support the "Deviation to Summer Pool Term" option contained in the proposal. I also support a permanent adoption of the Deviation to Summer Pool Term outlined in the Planned Deviation Proposal. Thank you for considering my opinion on this important project.
Jim Stalder	I support the deviation plan.
Vince Cola	Hello I'm emailing the U.S. Army Corps for consideration for the deviation request for Berlin Lake. I truly believe that this will be a tremendous boost for the the economy for the Berlin Lake area. And also the adjacent communities. The resident's and property owners would greatly appreciate just to be able to have just a little more water in the lake come July and August. Also the impact to areas down stream I feel will be minimal. Even though this was not mentioned I feel one year is not enough to get a true gauge of how this would work out for everybody. I think the Corp. should consider a three year plan to get a good feel for this to see how it would work out. Thank you
Michael Furrie	Hello, My name is Michael B Furrie, and own the property at [REDACTED]. After reading all of this, and learning all these facts and findings. I would strongly agree that extending this draw down of pool level, would greatly be a positive impact to the surrounding community, and local business's. I am in retail business myself, I own many retail establishments in other towns, including one in Lake Milton. It is a fact when Milton goes down, My business drops. When all of the local business's could gain more annual revenue, which goes back into their community, and not causing any negative affect to downstream, then why not let the surrounding business and communities thrive for a extra month or two. I also own a home on Berlin and it is a shame to watch and see what happen to the community and business after lake gets to approx 1020.00, everything seems to diminish, people move away, money goes with them. Business's either shut down or lose 25-50% of sales, which is why there isn't many of them. I do not understand why trying this plan, and helping poor lake town communities would even be a question. It only betters all the towns, in multiple counties surrounding this beautiful reservoir. It is one of the most beautiful bodies of water there is in northeastern Ohio. Please take consideration to this deviation plan this 2018, and take note of results for future. If there is a negative impact, I would understand why not to continue.
Richard Berns	To whom it may concern I would like to make it known that I am for water levels that permit safe boating through Labor Day. Myself and many others are major supporters of the lake community, and I believe it would be in everyone's best interest.
Karen Hanshaw	I am a homeowner on Berlin Lake. I support what the Berlin Lake Association has proposed. I feel the water is drained way to early. I am paying lakefront taxes for a property that I can only keep the boat in for a very short period of time. To drain the lake before Labor Day puts a damper on our summer plans,
Gary Slider	Hello I would like to express my support for the proposed deviation from current water control plan. A lot of people make a living selling their goods and services around the lake, it would be fair to all the residents to maintain an elevated water level during the busy summer  Hello, My husband and I have pontoon boat on Berlin Lake and are in support of having water level left at higher pool level through Labor Day. We appreciate the Army Corp of Engineers
Beth and Dean Fisher	giving consideration to deviation of current Water Control Plan in 2018.
Ken North	I believe the local businesses will be greatly impacted with this plan. I do however believe it will take a few years of this type of improved water levels for these businesses as many boaters have been discouraged to even use the lake and surrounding businesses. It will take a few years for those lost boaters and recreational seekers to hear about this improvement. Furthermore, there has been a ripple effect on the residential dock owners as well as many have not used there docks for fear of their boats being grounded as lake levels have dropped drastically. This will be an enormous improvement and may also stop home owners from moving away. I have lived on this lake for 18 years and love it when we have water to enjoy. Our daughters, nieces, nephews and soon to be grandchildren love spending weekends here and enjoy the water and the family experiences it has provided me and my parents. We have always treated the lake with respect and we continue to teach our family this also. Thank you for the opportunity to speak

Lisa McDermott	We are in support of the Berlin Lake Water Deviation. We want the water level to stay up as long in the season as possible.
	To whom it may concern, I support the proposal to maintain the Berlin lake summer pool until the traditional end of summer, September 22. I feel the benefits to the local economy, the
Michael McWhorter	safety of maintaining the level for boating and the positive impact on family and friends gathering to use the lake outweigh any negatives. Thank you,
	We are seasonal residents of Deerfield and have owned our cottage since 1983. We also bought property adjacent to the other in 2013. We have been boaters on Berlin Lake since the
	70's when we were in high school. We enjoyed it so much that we purchased the cottage on [REDACTED] in the Hickory Grove neighborhood. Our children enjoyed the summers here as
	well and we purchased the additional property for them to bring their campers. The lake is wonderful and very enjoyable for us boaters. However, each year we dread AUGUST as we
	know the water level goes down and our season has to end. All these years we did not know that the water was let out on August 1st whether it was needed elsewhere or not. We always
	assumed that it was let out for flood control for winter snow melt and heavy rains. We just learned that it does not have to be let out unless it is needed. This email is to encourage you to
Loo and Dabby Phaeniy	consider the water control plan deviation. We would be so thrilled to be able to keep our pontoon boat in the lake longer and enjoy the water. Our grandson loves the wildlife he views
Lee and Debby Phoenix	and has just started to enjoy fishing. It would be wonderful to keep our boat in longer and continue our season on the lake. Thanking you in advance for anything you can do
	Greetings, I write today in support of the plan. I'm excited the Army Corps is willing to attempt this and hopefully, the plan may be implemented on a frequent or permanent basis in the
	future. I visited the lake many times when a resident of Austintown, Ohio. Seven years ago my wife and I built a house on 9 acres right on the lake. Our house is on a bay near the Route 14
	bridge and as a result of our location, the bay empties early. One year our boat was almost stuck for the winter in the mud! We had a bunch of friends to help push it back into the water.
	So, We are not just summer visitors, this is our permanent home. By the way, I need to give credit to the local Army Corp staff. They have been great to work with, very knowledgeable
Bill Padisak	and caring about the lake. Thanks for taking the time to consider my thoughts.
	I support the 2018 Berlin Lake proposed deviation from the current water control plan. We have a summer camper/trailer that is lake-front that we use all summer. The low water level
David Wilson	limits our ability to use the lake.
	Dear U.S. Army Corps of Engineers, Pittsburgh District, I have been a business owner since 1988 in Berlin Center, OH at Berlin Lake. The drop of water levels in the summer drastically
	affects us and other area businesses each year, due to boaters, fishermen and campers being unable to use the lake due to low water levels. I was very grateful to hear about taking steps
	forward to gain approval for higher water levels in Berlin Lake throughout the summer. I am very much in favor of this Deviation Request and would like to see this put in place on a
Sherry Bendetta	permanent basis also. Thank you for listening and your support.
	The water level has been bad for the last several years. We belong to boat club of 14 way back in the bay before the railroad tressels. I like to boat and fish later in years. And the past few
	years water level to low to use my boat dock. I know your not into this for recreation purposes. But I am sure many people including me feel otherwise. Lowering in any sooner would not
Jim Patti	be good for out boat club and for other property owners leading back to out Duck Creek Boat Club. Thank you,
Torny Fyons	As a member of the Berlin Lake Association, I would like to ask you to consider Deviation 3.1.2. to extend the summer pool term. Much of the economy of local business depends on the
Terry Evans	summer season to exist, and to serve the residents and campers in the area. Thank you for your consideration
	To whom it may concern: My family has owned lakefront property at Berlin Reservoir since 1956. I hope that you will consider allowing the lake level to remain higher later in the year. I
	do understand that Berlin Lake is primarily for flood control and drought recovery and that it would only stay in Berlin if the water is not needed downstream in the fall, but under the
	current policies, the water is drained out of Berlin whether it is needed or not. For the Corp of Engineers to drain Berlin just because it is a mandatory draw down is not good for anyone,
	including local businesses. I am hopeful that the 2018 Water Control Plan Deviation is approved so that we can verify affects on the environment and wildlife with a hope that in the
Fay and Ken Mohr	future, this could be considered for a possible permanent Water Control Plan.
	To Whom it May Concern, I have recently learned that Berlin Lake will be going through test to keep the water level higher into the fall to allow for a longer boating season and use of the
	lake. I think this is a fantastic idea and will only help to bring people to the lake, help with investment opportunities around the lake (with the increase traffic and length of season), and
	allow the users greater enjoyment of the already amazing amenity that the lake is. From what I have read, it appears pretty clear that the impact of keeping water levels high is minimal
Pete Scott	to the downstream environment and will have little affect on wild life. Please consider implementing this longer season permanently so we all can benefit. Thank you for your time.
	To whom it was come to be a year of the David Lake and resistant at the state of Ohio and was all the state of Ohio and was at the S
	To whom it may concern, I am a user of the Berlin Lake and registered voter in the state of Ohio and would support wholeheartedly the proposed Berlin deviation. There are probably
	many reasons why this is a great idea, but the three that come to my mind and are personal are as follows. First of all there are not that many lakes in the state of Ohio. Local businesses and others profit from the use of the lake by providing hours, fishing equipment, and all the other items needed to be on the water. Secondly, it provides jobs for the supporting businesses
	and others profit from the use of the lake by providing boats, fishing equipment, and all the other items needed to be on the water. Secondly, it provides jobs for the supporting businesses such as restaurants, gas stations, including the animal sanctuary. Even such companies as the electric company profit by people using the lake. Third, the overall biology of the lake and it's
	inhabitants. Over the 11 years of using the lake I have noticed an increase in the bird life on the lake. From my knowledge of environmental issues, increases and diversity of the animal
Mary Loss	population are indicators of a "healthy" body of water. Berlin Lake is an asset to the state of Ohio and I feel it is time to treat it as such.
14101 y 2000	population are managed of a meaning body of material barn about to the state of only and meeting time to treat it as such.

Christopher Lebiedz	Keep the water level up until the 1st frost of the season. Make the camping season last the same.
	As a lifetime boater and seasonal inhabitant, I support deviating from the normal plan and keeping the water at a higher level longer into the season. The area is supported financially
	throughout the boating season and sees a huge drop off when the lake is no longer viable for safe boating. The area marinas, restaurants, stores, gas stations and drive thrus take a huge
	hit when the campers, seasonal residents and casual boaters are not able to utilize the lake. The effect is spread all the way from Alliance to Western Mahoning County, Randolph, Atwater
	and on towards the Lake Milton Area, beside the communities that border the lake. As of this writing, the Army Corps Campground has not opened for the season and this has had an
	adverse affect also. A longer boating season would be beneficial towards making up for the lost revenues this season, in particular. The lake is much safer when the water level is
Gary Young	maintained and there is much less chance for property damage and bodily injury. I appreciate the opportunity to voice my opinion.
	Subject Line: I am in great support of keeping the water level of Berlin Reservoir at normal pool for a longer portion of the summer. I use the lake on a regular basis and with it being
rafrazzini	lowered so earlier in the season it creates a hazard for our bo [NOTE: No message within body of email.]
	Dear U.S. Army Corps of Engineers, Pittsburgh District, I have been a business owner since 1988 in Berlin Center, OH at Berlin Lake. The drop of water levels in the summer drastically
	affects us and other area businesses each year, due to boaters, fishermen and campers being unable to use the lake due to low water levels. I was very grateful to hear about taking steps
	forward to gain approval for higher water levels in Berlin Lake throughout the summer. I am very much in favor of this Deviation Request and would like to see this put in place on a
John Bendetta	permanent basis also. Thank you for listening and your support.
	To whom it may concern: As a dock renter, and Berlin lake visitor of over 20 years, I support the proposed temporary deviation to Berlin Lake water control plan that would extend higher
	water levels longer in the lake. I wish to see the businesses surrounded by the lake thrive during a longer season, and I also would like to see longer use of my rented dock space. As the
	weather has proved the past couple of years, the temperature stays hotter well into October, and it is BEYOND ridiculous that the lake has been almost empty before the first week of
Jennifer Sobnosky	September. I hope this proposal makes a difference and Berlin can be used to its fullest capacity. Thank you,
	To whom it may concern, I support the proposal to maintain the Berlin lake summer pool until the traditional end of summer, September 22. <x-apple-data-detectors: 11=""> I feel the</x-apple-data-detectors:>
Susan Bluhm	benefits to the local economy, the safety of maintaining the level for boating and the positive impact on family and friends gathering to use the lake outweigh any negatives. Thank you,
Susan blumm	benefits to the local economy, the safety of maintaining the level for boating and the positive impact of family and menus gathering to use the lake outweight any negatives. Thank you,
	To whom it may concern: I am writing you today regarding the issues we face every year when Berlin Lake is drained accounting to some regulation that was put in place a lot of years ago.
	Where we are located on the lake, when they start draining water way to early in the season, we are forced to either move our boat to the harbor or pull our boat entirely. This sometimes
	happens even before Labor Day. May of us are loosing valuable time on the lake which in turn affects the local businesses. Not to mention, there was a new boat ramp put in that cost a
Michelle French	ton of money that cannot even be used when the water starts getting dropped. Hoping there can be some changes made to this regulation and we can keep our water longer.
	To whom it may concern, I support the proposal to maintain the Berlin lake summer pool until the traditional end of summer, September 22. <x-apple-data-detectors: 0=""> I feel the</x-apple-data-detectors:>
Adam Moresea	benefits to the local economy, the safety of maintaining the level for boating and the positive impact on family and friends gathering to use the lake outweigh any negatives. Thank you,
	Dear Core of Engineering Representative I am writing in response to the proposal to keep the Berlin Lake water level higher during the summer months and to lower the lake later in the
	season. I am OK with this proposal providing it does not have negative impact downstream including not negatively affecting the water level of Lake Milton. If this proposal will negatively
Edward Arango	impact the water level of Lake Milton then this proposal should not be adopted.
	I heard that you are asking for comments on a proposal to extend the water level season for Berlin Lake in Ohio. Before I comment I would like to know what the harmful effects would be,
Dave Navoyosky	if you extend the water level season for that lake. How would you compensate for the loss of water flow?

	First, thank you for your consideration and efforts to evaluate and assess the possibility of extending the recreation season on Lake Berlin. I have been a resident of Deerfield township for 18 years and a member and Lieutenant on the Deerfield Fire Department for 11 years. There is no doubt, Deerfield township thrives in the summer months during the recreation season and there is a very obvious drop in activity when the lake water is drawn down. We own our home on [REDACTED] on the East side of the lake and we have two children ages 3 and 6. My two girls absolutely love to be on the water and out in our pontoon boat. We are also members of a local campground, Columbiana boat and ski club located off of Bedell Road in Berlin Center township. We enjoy boating, skiing, swimming, and fishing on Lake Berlin; Berlin Lake is a big part of our summer activity. Over the years, the water draw down has been a real challenge for most of our activities. It's almost as though shortly after the water temperature reaches a point where it is comfortable to swim and ski, we see the lake depth dropping
	quite rapidly. Berlin becomes a very dangerous lake as the water is drawn down. As you know, there are a significant number of shallow areas in the lake that create hazardous conditions when the water level is drawn down. From a safety point, keeping the water level up throughout the boating season will obviously help to reduce these boating dangers. Additionally, as
	the water is drawn down, boaters must resort to traffic within the river channels of the lake. By funneling boat traffic into these narrow sections of the lake, it creates another safety risk
	of boat traffic congestion, until the lake level reaches a point where it is just too unsafe to boat and the majority of people just leave the lake. The issue is, this happens much too early in
	the summer season. From a safety concern to a boating pleasure view, I am 100% in favor of the extended season draw down of Lake Berlin. Again, thank you for your significant amount
Nick Lam	of effort to consider this deviation and research to hopefully one day make this a reality for our community.
Keith Nezbeth	Hello, I was curious if the water deviation plan has been submitted to keep he water levels up in Berlin until Labor Day?
	We are in agreement for the proposed deviation plan for Berlin Lake. We do not think the water level should be lowered until after the Labor Day Weekend so that boaters can enjoy the
Jack and Susan Faulkner	lake longer during the summer.
	As members of a camp ground on beautiful Berlin Lake we support the proposed deviation from the current Water Control Plan to allow additional hours of enjoyment boating, fishing,
1 Mg	and kayaking that additional water later in the season would allow. Our families look forward to sharing family time lake side and would welcome the opportunity to enjoy the water into
Larry Wise	the beautiful fall season. Thank you for your time.
Mally and Mary Ellan Bayesh	To Whom It May Concern: We are so encouraged by this new plan. We have been on Berlin Lake for over 30 years. We LOVE our lake and take great pride in it. We appreciate and value
Wally and Mary Ellen Pausch	all your work and help in continuing to keep it beautiful. Yes, we would love to see the water level stay for the summer season.
Beth Fullerton	Dear Army Corpse Please keep our Lake level up through. September. It is vital for our local economy. Especially dependent Deerfield We need the boaters campers tourist and the "wet shoes" and "flippers" Please Please Please
Betii Fullertoii	shoes and hippers Please Please Please
	Dear Sirs: Thank you for offering us the opportunity to comment on the proposed deviation from past lake drawn schedules at Berlin Reservoir. As a summer resident at our present location for 46 years, and growing up at another family location for 15 years prior to that, we have seen many years where summer drawdowns have ended our recreation seasons even by the 4th of July in some years. This has been especially disturbing since the addition of West Branch Reservoir and the subsequent demise of the steel industry down stream along the Mahoning River, the primary assets that the Reservoir's managed river flow was intended to support. It has been especially disturbing when the other USACE reservoirs in the district are not drawn down to the same extent. It is especially disturbing that in the hottest months of the year, there is insufficient water volume left to properly dilute the discharges coming into Areas 4 and 5 that flow into the lake from further upstream making those areas unhealthy to swim in. The early drawdowns add to environmental issues for man, fish, and animals because of the undiluted scum on the surface. More volume would be an environmental improvement. When one considers the huge chunk of real estate that is taken off the local tax base, it is not a good use of resources to let so much land being underutilized and not contributing the maximum to the local economy. Extending the season would increase local earning potential. Maintaining a normal lake level would also provide a larger safe boating area which would reduce damage and injury because of underwater obstacles put into play by low water levels and would reduce congestion in the northern areas of the lake because the southern areas would still be boat-able. A higher late season water level would also allow full use of the new launching ramp recently constructed in Area 4. To close with a short answer: With respect to Resource utilization, safety, local economy, service to local citizens, and environment, the results of maintaining a nor
Charles Peck	

Kirk Chambers	Dear Sirs: Thank you for giving us the opportunity to comment on the proposed deviation from past lake drawn schedules at Berlin Reservoir. As president of the Treasure Cove Landowners Association, a large group or land owners in Area 4 of Berlin Lake. I am speaking on behalf of this organization when I say we are all in agreement that maintaining full summer pool through Labor Day would have nothing but a positive impact to this area of Northeast Ohio. Growing up at Berlin Lake as a summer resident at our current location for 45 years, I have seen many years where summer drawdowns have ended our recreation seasons as early as the 4th of July. This has been especially disturbing since the addition of West Branch Reservoir and the subsequent demise of the steel industry downstream along the Mahoning River, the primary assets that the Reservoir's managed river flow was intended to support. It has been especially disturbing when the other USACE reservoirs in the district are not drawn down to the same extent. In addition a concern is that in the hottest months of the year, there is insufficient water volume left to properly dilute the discharges coming into Areas 4 and 5 that flow into the lake from further upstream making those areas unhealthy to swim in. The early drawdowns add to environmental issues for man, fish, and animals because of the undiluted scum on the surface. More volume would be an environmental improvement. When one considers the huge chunk of real estate that is taken off the local tax base, it is not a good use of resources to let so much land being underutilized and not contributing the maximum to the local economy. Extending the season would increase local earning potential. Maintaining a normal lake level would also provide a larger safe boating area which would reduce damage and injury because of underwater obstacles put into play by low water levels and would reduce congestion in the northern areas of the lake because the southern areas would still be boat-able. A higher late season water
Kirk Chambers	are all positive. Subject Line: The lake gets emptied to quick every year, when there is no need too.Lake Milton and the Pittsburg water shed had plenty of water the last fews years but they kept on
Eugene Ullrich	emptying Lake Berlin, please keep enough wate (NOTE: No message within body of email.)
Joyce Taylor	To whom it may concern, I support the proposal to maintain the Berlin lake summer pool until the traditional end of summer, September 22. <x-apple-data-detectors: 0=""> I feel the benefits to the local economy, the safety of maintaining the level for boating and the positive impact on family and friends gathering to use the lake outweigh any negatives. Thank you</x-apple-data-detectors:>
Elliott Straus	I am writing to express my support for the Planned Deviation to the Water Control Plan for 2018. Specifically I support section 2.3 Deviation to Extend Summer Pool Term and Meet Flow Requirements. I am impressed with the detail and diligence of the study the USACE performed defining the impact in all respects the proposal would have. I believe the proposed plan would benefit the Berlin Lake community in many ways while maintaining an environmentally responsible management of the Lake.
Alicia Bluhm	To whom it may concern, I support the proposal to maintain the Berlin lake summer pool until the traditional end of summer, September 22. I feel the benefits to the local economy, the safety of maintaining the level for boating and the positive impact on family and friends gathering to use the lake outweigh any negatives. Thank you  Please consider maintaining high water levels through the summer and beyond the labor day weekend. The lake has been enjoyable for myself and nieces and would like to continue to
James Burke	enjoy boating and tubing without the stress of low water levels or ending boating early. Thank you for your consideration
Margie Conner	I am writing in support of the Berlin Lake proposed Deviation form the current Water Control Plan for the 2018 calendar year. As outlined in the Draft Environmental Assessment, deviating from the Water Control Plan for the 2018 calendar year at Berlin Lake will no temporary or permanent adverse environmental affect. Further, allowing the water levels at Berlin Lake to remain higher during the summer months will not only allow continued recreation activities, it will be beneficial to the surrounding ecosystem in the form of, for example, less erosion, more water area for aquatic species and wildlife, and less habitat disruption. Thank you for your attention to this issue and, again, would appreciate you approving the Planned Deviation to the Water Control Plan for 2018 calendar year at Berlin Lake, Ohio.
Mol Crubough	My name is Mel Grubaugh I live on the lake, it is so nice to see the water way being used by fellow boaters. After the water gets let out the activity on the lake becomes a hazard many boats running aground with no support in marking hazards for boaters that do not know the water. My entire family enjoys fishing the lake when the water levels move up and down so much it seems to keep the water disturbed with low visibility, I believe the water would clear up much better with stable elevations. We are not asking for the levels to be altered we only ask that the timing of the alteration be more consistent with the other water ways in our area being able to navigate the water through labor day. By doing so the area would see a
Mel Grubaugh	stronger impact on the business around the lake. I am for leaving the elevation stable until labor day  As a boat owner with lake property and a family that comes to the lake to make lifelong memories, we would appreciate it if the water would remain in the lake for the entire boating
Debby Thomas	season to enjoy with family and friends. Thank you
Barbara Girscht	See attached letter
David Koprek	I fully support later draw down to support the local economy. It makes boating so much enjoyable and enhances the whole area
Kristi Wollam	See attached letter

Robert Gintert	I am writing about the proposal of keeping the water level of Berlin Reservoir at maximum summer pool until after Labor Day. This would extend this higher level into hurricane season. Our weather patterns have changed and are more unpredictable than ever, from over 50 inches of rain in Houston in a four day period to two 1,000 year floods in Maryland in a two year period. It is only a matter of time before a disaster happens here. According to your own numbers, an event creating over 2.35" of runoff will cause an out of control release. If that occurs, both property and lives in the Leavittsburg and Warren areas are in danger. By keeping the Reservoir higher, you are taking away the opportunity to be proactive in controlling the flooding waters. Thank you for the opportunity to comment on this matter. Sincerely, Robert S. Gintert, General Manager, Riverview Golf Course
John Kessler, ODNR	The Ohio Department of Natural Resources (ODNR) has reviewed the Draft EA for the proposed deviation at Berlin Lake. Please see the comments below developed by the ODNR Division of Parks and Watercraft. The Division of Parks and Watercraft staff appreciate the on-going communication with US Army Corps of Engineers staff regarding operations of projects and water control in the Northeast Ohio region. We look forward to continuing our relationship and ensuring the high quality recreational resources that we provide to our customers continues for generations. Based on our review of the draft Environmental Assessment of the planned deviation for Berlin Lake, we would like to address a couple of items with the USACE regarding possible impacts to Lake Milton and the Michael J Kirwan Lake (West Branch). Generations of recreational users in Northeast Ohio have relied upon the USACE and ODNR to provide a summer pool level that allows them to use their fixed docks, access boat ramps and provide consistent water-based recreational opportunities. Will the Berlin Lake deviation continue to allow summer pools to remain at expected levels in both Lake Milton and Michael J Kirwan Reservoir (West Branch)? Will these levels still be maintained as best as possible during severe weather conditions (i.e. drought)? In times of low precipitation, will the USACE move water out of Michael J Kirwan Lake to meet the extended, planned lake levels at Berlin Lake? In the past, we have experienced issues with low water elevations at Michael J Kirwan Lake and would like to know if this could potentially exacerbate the situation. Northeast regional staff within the ODNR Division of Parks and Watercraft would also welcome further discussion on dam safety precautions (i.e. emergency call lists, providing materials such as sand bags or bentonite and monitoring of weather patterns), especially during storm events. Thank you for the opportunity to review and comment. We look forward to continuing our discussion on the proposed Berlin Lake plan with
Jennifer Blonn Tyler, USEPA	See attached letter
	TAILS# 03E15000-2018-TA-1339 Dear Mr. Lloyd, We have received your recent correspondence requesting information about the subject proposal. There are no Federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES COMMENTS: Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, proposed, or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the U.S. Fish and Wildlife Service should be initiated to assess any potential impacts. If you have questions, or if we can be of further assistance in this
Dan Everson, USFWS	matter, please contact our office at (614) 416-8993 or ohio@fws.gov < mailto:ohio@fws.gov > . Sincerely, Dan Everson Field Supervisor
Martha Cobb	See attached letter
Louise Kohler	See attached letter



#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

### REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

JUN 1 5 2018

REPLY TO THE ATTENTION OF:

Bobbi Jo McClain
Chief, Planning and Environmental Branch
U.S. Army Corps of Engineers, Pittsburgh District
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, Pennsylvania 15222

Re: Environmental Assessment for the Planned Deviation to the Water Control Plan for

2018 Calendar Year at Berlin Lake, Ohio

Dear Ms. McClain:

The U.S. Environmental Protection Agency has reviewed the Draft Environmental Assessment (EA) for the project referenced above, pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementing Regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. The U.S. Army Corps of Engineers (USACE) is the lead agency for this project under NEPA.

The EA evaluates a temporary Planned Deviation by USACE at Berlin Lake to maintain higher water levels to extend the summer recreational boating season. A Planned Deviation is an intentional and scheduled deviation from the Water Control Plan. This would be a pilot project, and the EA only considers changes to the 2018 summer season. The EA considers the following alternatives: (1) a no action alternative, (2) an alternative in which USACE maintains summer pool elevation levels until after Labor Day, and (3) USACE's recommended alternative, which maintains summer pool elevation levels until after Labor Day only if downstream flow and water quality requirements are met. Under the recommended alternative, if rainfall levels are low, USACE would release water in accordance with the Water Control Plan.

Berlin Lake is a man-made reservoir within the upper Mahoning River watershed. The Lake and nearby reaches of the Mahoning River are impaired. Ohio EPA developed a Total Maximum Daily Load (TMDL) report for the upper Mahoning River, which U.S. EPA approved in 2011. Ohio EPA's 2016 Integrated Water Quality Monitoring and Assessment Report indicated that the project area still does not attain the Ohio EPA's beneficial use designations of aquatic life, recreation, and human health. Sources of impairment include combined sewer overflows, municipal point source discharges, upstream sources, and sedimentation/siltation (page 13).

#### Water Quality

The EA states that water quality is the primary authorized purpose for Berlin Lake. As part of the recommended alternative, the USACE would utilize available water quality information and real-time continuous water quality monitoring. Page 13 of the EA explains:

It is likely that poor water quality conditions in reaches of the Mahoning River downstream of Berlin Dam that are not currently in attainment or are partially in attainment of the State of Ohio's water quality designated uses will be exacerbated by the Planned Deviation. This is because Mahoning River summer flows, and therefore the river's assimilative capacity, will be reduced. In addition, the Planned Deviation will increase water storage and retention time in Berlin Lake, which could lead to stronger, more persistent reservoir stratification, higher biological productivity and associated algae production, hypolimnetic anoxia, and negative impacts on aquatic life... If/when water quality standards and conditions are not met, the planned deviation will be terminated.

#### Recommendations for USACE's Consideration:

- Clarify how the project could proceed if it would be terminated should water quality standards and conditions not be met, and if standards and conditions are already not being met.
- Ensure that the project would not exacerbate current impairments, conflict with the TMDL, or otherwise delay efforts to improve water quality.

We appreciate the opportunity to review this EA. If you have any questions, please contact Jen Tyler, the lead reviewer for this project, at 312-886-6394 or tyler.jennifer@epa.gov. Please provide any subsequent NEPA documentation, including the decision document for this project, to Jen Tyler via email.

Sincerely,

Kenneth A. Westlake

Chief, NEPA Implementation Section

Office of Enforcement and Compliance Assurance



May 30, 2018

Jeff Hawk 1000 Liberty Ave. Suite 2200 Pittsburgh, Pa 15222

Attention: Planning & Environmental Section

Subject: Deviation Plan to Extend Summer Pool Term Berlin Lake

Sir:

I am writing on behalf of the Wygle Allotment Dock Association Inc. We are a group of 13 families. Four generations ago, our group started as strangers and over the years we have developed into a Family. That would not have happened without Berlin Lake.

Over the years, we have seen Berlin Lake go through many changes. Years ago, our boating season ended 4th of July weekend because the lake helped to supply water to the Steel Mills in Youngstown. Then we had several Great summers of decent water levels through Labor Day due to upgrades on the dam at Lake Milton. This proved to us the water could stay at a descent level through Labor Day and beyond. But, there has been an unfair draw down of Berlin Lake in years since, the worst being last year. In August, from one weekend to the next, people came to their boats and docks to find them in mud with no warning whatsoever. Some boats and docks were damaged due to the rapidness of the reduction in the water levels. These boats and docks cost thousands of dollars. People want a safe place to enjoy the water and time with their families. Due to the fluctuation in water levels and uncertainty week to week during the latter portion of summer, some of these people are finding other locations to boat. Businesses on the lake and the surrounding area are suffering. People depend on Berlin Lake not only for recreation but their livelihoods. The unnecessary reduction in water levels prior to Labor Day year to year hurts our local economy.

The Wygle Allotment Dock Association is requesting the Army Corp of Engineers to seriously consider the proposed Deviation Plan to maintain higher water levels at Berlin Lake to extend our boating season past Labor Day. This is imperative to our local economy as well as to families like ours to carry on the tradition of boating at Berlin Lake for many generations to come.

Thank you for your time and consideration,

Barbara Musetto, Secretary

Barbara Girscht, Secretary

Wygle Allotment Dock Association Inc.

## $Members\ of\ the\ Wygle\ Allotment\ Dock\ Association\ Inc.:$

Scott & Linda Anderson	Chris & Joan Zito	$Mike\ Calmer$	Barbara Gunter
Gindo Sandirso	Joan Lito Chiff	-	**************************************
Joe & Cathy Henson	Marcy Zeppernick	Dennis & Jenn	y Jones
Am Herson	mary	Denny	10000
Cathy Henson	Jeggerner	2 June 1	V V
Justin & Aimee Pownell	Martha Campf	Jeff & Sheila W	
	MarthaCampl	AH WE	Age .
John & Barbara Girscht	Marie Taylor	Lee & Cheryl (	Campf
John Barbers Juecks	Marie Taylor	Cherch	Canf
(2			
Family & Friends of Wygle A	Allotment Dock Associati	on Inc.:	
Catherine Davido	M Dlanne	andus	_
TWAN	My KL	<u></u>	
They Wholeson	- Under Doyle	N	
Wellow O. Dovidor	a ambee &	TOYEL ,	
Glann Wegle	diti	Const	_
William Wygle	Danes	- Carrick	
7: Sig-	Daniel	Campi	•
Ohis Hensen	Kathleen W	beteral	
Betsyllenson	7e-Spe		
TinSpry	Davids	el Q	

U.S. Army Corps of Engineers, Pittsburgh District

To Whom It May Concern,

As I sail regularly at Berlin Lake, this communication serves to lend my support to the Planned Deviation for Berlin Lake in 2018. In particular, as a recreational user I support the "Deviation to Summer Pool Term" option contained within the proposal.

The Berlin Yacht Club which established on Berlin Lake in the late 1950's, has several very active one design fleets that hold many club racing, learn to sail, youth and daysailing events each week on Berlin Lake.

While we enjoy our sailing season, the combination of Ohio's spring weather and the changing water levels cause a shorter than necessary sailing/recreational boating season. It is not uncommon to have the last on the water event at Berlin Yacht Club in August due to lake water levels. Furthermore, lake water levels are often an issue prior to August, as there are several permanent landmarks (under the water) old foundations, sandbars etc. that have the possibility to cause damage to vessels. Sailors and other boaters have to be cautious of these obstacles as soon the lake water levels begin to recede in late June.

This is frustrating for many reasons and much the yacht club members (not wanting to cause damage to their vessel) will often begin to store their vessels during the most enjoyable part of the season. The fall months are generally ideal for sailing, and many in the club are left to travel or pack up their boats until the following season due to lake water levels and the hazards to our vessels that come with these levels.

I also support a permanent adoption of the Deviation to Summer Pool Term outlined in the Planned Deviation Proposal for this reason.

Thank you for considering my opinion on this important project. It is my hope that great consideration will be given to our strong urging to make this a permanent adoption, as it would not only benefit the many members of the Berlin Yacht Club, which has had an advantageous and supportive relationship with the USACE, Pittsburgh District since its incorporation but the many area residents, businesses and community who profit from the ability to use our beloved lake for more months throughout the year.

Respectfully,

Kristi Wollam City of Alliance

Resident

June 14, 2018

Jeff Hawk 1000 Liberty Ave. Suite 2200 Pittsburgh, PA 15222

Attention: Planning & Environmental Section

Subject: Deviation Plan to Extend Summer Pool Term Berlin Lake

Dear Sir,

I have lived on Berlin Lake since 1953, my late husband and I opened Les's Bait in 1961, and I received permission from the Army Corps of Engineers in 1988 to have dock rentals.

Reading the Planned Deviation to the Water Control Plan for 2018 at Berlin Lake, Ohio, paragraph 2.2 Deviation to extend summer pool term would not only help the public but also the businesses that depend solely upon Berlin Lake for a living.

The purpose for Berlin Lake in 1942 was for downstream augmentation to keep the steel mills running for World War II, the war has long been over, steel mills are shut down, and the population in Warren, Niles, Youngstown, and other areas are at a low.

I realize there is a need for downstream flow, the need is not as great as years past, purposes change and policies should be updated.

It would be my fondest dream to see Berlin Lake operated to summer pool through the end of July and taken down slowly to 1021 in August; after Labor Day taken down slowly to winter pool.

Thank you for looking into the water level problem we have on Berlin Lake.

Sincerely,

Martha J Cobb

Owner Operator of Les's Bait Marcko Landing

# Pines Campground and Boat Club, Inc.

May 31, 2018

Jeff Hawk 1000 Liberty Ave. Suite 2200 Pittsburgh, Pa 15222

Attention: Planning & Environmental Section

Subject: Deviation Plan to Extend Summer Pool Term Berlin Lake

Sir:

I am writing on behalf of the Pines Campground and Boat Club. We are a group of 13 families. Four generations ago, our group started as strangers and over the years has developed into a Family. That would not have happened without Berlin Lake.

Over the years, we have seen Berlin Lake go through many changes. Years ago, our boating season ended  $4^{th}$  of July weekend because the lake helped to supply water to the Steel Mills in Youngstown. Then we had several Great summers of decent water levels through Labor Day due to upgrades on the dam at Lake Milton. This proved to us the water could stay at a descent level through Labor Day and beyond. But, there has been an unfair draw down of Berlin Lake in years since, the worst being last year. In August, from one weekend to the next, some people went to their boats and docks to find them in mud with no warning whatsoever. Some boats and docks were damaged due to the rapidness of the reduction in the water levels. These boats and docks cost thousands of dollars. People want a safe place to enjoy the water and time with their families. Due to the fluctuation in water levels and uncertainty week to week during the latter portion of summer, some of these people are finding other locations to boat. Businesses on the lake and the surrounding area are suffering. People depend on Berlin Lake not only for recreation but their livelihoods. The unnecessary reduction in water levels prior to Labor Day year to year hurts our local economy.

The Pines Campground and Boat Club is requesting the Army Corp of Engineers to seriously consider the proposed Deviation Plan to maintain higher water levels at Berlin Lake to extend our boating season past Labor Day. This is imperative to our local economy as well as to families like ours to carry on the tradition of boating at Berlin Lake for many generations to come.

Thank you for your time and consideration,

Pines Campground and Boat Club, Inc

Attached please find a list of the Pinesw Campground and Boat Club, Inc.

Steve & Dall