



January 29, 2020

US Army Corps of Engineers
Planning Division
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Re: Scoping Comments - FE Walter Dam on the Lehigh River

Delaware Riverkeeper Network (DRN) is writing on behalf of our 23,000 members that live and work throughout the Delaware River Basin. Please consider these preliminary comments pertaining to scoping for the new study now underway and in the early stages regarding the FE Walter Dam.

Background Information Provided by the Corps

The dam is located on the Lehigh River, approximately 77 miles above the confluence with the Delaware River, in Carbon and Luzerne County in Northeastern Pennsylvania. The U.S. Army Corps of Engineers (USACE), Philadelphia District, in partnership with the Delaware River Basin Commission and New York City Department of Environmental Protection, has initiated a feasibility re-evaluation study for the Francis E. Walter Dam. USACE says it will also be coordinating with a number of federal and state resource agencies throughout the study process. According to the Corps, the primary missions of F.E. Walter Dam are to reduce flooding risk and to support recreation. Aside from these two primary missions, the study will also consider fisheries, additional recreation, water supply and water quality, to identify possible improvements to the existing structure, infrastructure, and dam operations.

The Corps website states that this study will examine whether potential improvements to infrastructure or operational methods could allow water in the reservoir to be used for additional purposes that could support the ecological health of the Delaware River Basin. In particular, the study will examine reservoir management options that could release additional water under drought conditions to help repel salinity downstream. USACE's role is to objectively evaluate whether various alternatives to optimize the operation of F.E. Water Reservoir are feasible and beneficial to a wide range of stakeholders. Any proposed changes must be economically justified, environmentally acceptable, and technically sound. The Corps notes on its website that some USACE studies result in a no-project recommendation; some result in a recommended plan but don't get authorized by Congress; and some studies/recommendations get authorized by Congress but are not funded and do not get built or implemented.

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History Shared at the Public Hearing on January 9, 2020 by the Corps

The FE Walter Dam (formerly the Bear Creek Dam) was authorized under the 1946 Flood Control Act and construction of the dam was completed in 1961 with the main purpose of flood control. In 1985 a study was conducted by the Corps to analyze the reservoir for drought storage, supplementing NY water supplies and more - **at that time there was a recommendation of a 30-foot increase elevation of the dam.** Congress did not authorize the funding that would be required to raise the FE Walter dam elevation at that time. As a result of the 1985 study, Recreation was added by Congress as an authorized use for the FE Walter Dam in 1988 as part of the Water Resources Development Act. From 2000 – 2014, the Corps, PA Fish and Boat Commission, and DCNR conducted a water quality modeling study

<https://www.nap.usace.army.mil/Missions/Civil-Works/Francis-E-Walter-Dam/Lehigh-River-Water-Quality-Model/> to determine different ports on the tower to release colder water downstream and more frequently to better improve habitat downstream. The Water Resources Development Act of 2014 authorized temporary emergency drought storage at the request of DRBC to address the need for impending drought anticipated through DRBC studies and need for low flow augmentation to keep the salinity wedge downstream of drinking water intakes. This new study underway now had money allocated towards it at the end of 2019 and an agreement with the study partners was signed on Sept 25, 2019.

DRN Comments:

The Delaware Riverkeeper Network was an active member of the Floodplain Regulations Evaluation Subcommittee under the DRBC that convened about 20 years ago. The process was very involved and intensive. Much of the recommendations and needs during that process should be considered as part of this study as it examines the function of this existing dam and how it fits into the larger sustainable approach needed for the Lehigh Valley and the larger Delaware River Basin ecosystem.

Below are some of main points we would like to share now to be considered early in the process for investigation. The Delaware Riverkeeper Network appreciates the agencies time and consideration of these comments. DRN looks forward to being an integral part of this process over the next three years.

First, it is evident from the public hearing held on January 9, 2020 that there is immense public interest in this study and its implications to the Lehigh Valley, the recreation on the River, the upper streams that feed the FE Walter Dam as well as the larger Delaware River Basin and communities throughout the Basin. The information that was shared at the hearing and the factsheets and information available about this project to date do not provide a clear picture of what will be considered for this project and we understand that is part of the scoping process. At the public hearing, people heard for the first time some of the goals of the project that were highlighted by agency staff. DRN requests that a study of this size should follow the NEPA process to allow for better engagement and information throughout the three-year study period and that adequate time and complete information be provided to the public during the process so they can fully be informed and provide the best feedback during lengthy public comment periods and hearings. It was mentioned by an agency presenter that a tentative plan would be available by the Fall of 2020 but it was unclear the various paths for public comment that will occur throughout the process.

Without conducting a thorough review of past studies conducted so far, DRN would echo as shared at the hearing, that past studies and work and data collected with those studies and models for the dam and broader Delaware River Basin should be utilized where appropriate for this new study to help complement data

already gathered for the dam and the surrounding watersheds and reservoirs. It was mentioned that with technology we no longer have dump and

The study should examine and use existing information and studies available to it to comprehensively consider the entire Delaware River watershed and its ecological needs, examine the entire system and consider the impacts or effects of other existing dams located in the Schuylkill, the Delaware River's headwaters and throughout the Basin in addition to the FE Walter Dam. Fish and Boat Commission and the DRBC commented on the need to quantify how this FE Walter Dam fits into the entire basin as well.

Natural ecological flows, natural floodplain restoration and smart floodplain management for the Basin that keeps people out of harms way are essential to looking forward and planning for the next 50 years and beyond, especially in light of extreme weather events predicted due to climate change.

Agency staff indicated "development expansion" within the next 50 years will be considered which we believe means growth of people living in the watershed. DRN would like to state that it is essential to preserve natural forests where they exist and not allow for unsustainable growth and sprawl which has been underway for far too long – land acquisition and natural land preservation should be a fundamental part of this study and using mechanisms possible to acquire and protect forests and natural areas is important to water quality and flooding as well as water use, groundwater replenishment and infiltration. Ensuring innovative and trusted green stormwater management for redevelopment projects and new projects is also key to a sustainable approach to mimic nature's natural designs. We address floodplains in more detail below which are a key consideration for preservation, especially with the threats of climate change that we will face in the Basin and beyond.

Delaware Riverkeeper Network will not support any recommendations to construct a higher dam at FE Walter for flood control, recreation, salt line and drought reasons or any other use. We understand from the public hearing that this recommendation was already part of the history of this dam from a prior study and it was rejected/not funded by Congress - and it should be rejected again as it is not a sustainable and viable option for many reasons beyond just economic cost. We believe that non-structural alternatives and sustainable solutions for flood control and better floodplain management, innovative stormwater management, and restoration must be pursued instead; and these non-structural options should be outlined and investigated fully for this study.

Need for Smarter Floodplain Management, Preservation and Restoration

The Basin community must ensure that floodplain regulations are put in place that are strong, forward thinking, and keep people out of harms way. It is clear that the regulations we have in place regarding floodplain development historically are not effectively protecting our communities from flood damages:

- ✓ Not those being allowed to build and expand anew in the floodplain,
- ✓ Not those who live downstream and in adjacent communities, and
- ✓ Not those that have to invest their tax dollars and limited community resources in responding to a catastrophic flood and flood damages.

The catastrophic floods that occurred in the 2000's in the Delaware Basin were the result of extreme weather events, and things are only predicted to get worse with climate change. The reality remains that there will always be changing storm scenarios that will cause new, different and catastrophic harm in the

future. As climate change continues, we will not just continue to have catastrophic events, but it is expected that we will have more of them, and that they will be more extreme.

Continuing to support existing development patterns focused on new construction in the floodplain – whether it be construction of entirely new buildings or expansion of those already present – is unwise, unsafe, unfair, and frankly unconscionable.

Floods are a natural, normal and needed part of a river's life cycle – not only will future floods not be prevented, but a healthy Delaware River for us all demands that periodic floods be allowed to continue. It is time to start embracing that reality and to make decisions that recognize and honor this important and needed fact.

The best protection, the only true protection, we can provide for reducing flood damages is to prevent new development in the floodplain, to remove existing development where it has already occurred, and to protect and, where appropriate, restore the floodplain to the greatest extent possible.

By implementing a program of floodplain protection and restoration, including removing structures and reforestation, we

- ✓ provide the greatest level of flood protection and flood damage reduction to our region,
- ✓ provide drought protection,
- ✓ filter pollution from our river, fish and drinking water supply,
- ✓ maintain and improve existing water quality of particular import to the Wild and Scenic and Special Protection Waters designations of the upper, middle and lower sections of the River.
- ✓ and we provide food and habitat that support the fisheries, ecosystems, ecotourism, economies and quality of life so important to our watershed community as a whole.

A program of floodplain protection and restoration can still acknowledge and make exceptions for those communities and structures where there are other unique cultural, historic or community values it is agreed should be preserved. The Delaware Riverkeeper Network urges strong steps to improve protection of floodplains from future development and to identify and invest in programs that will help restore those areas of the floodplain that have already been compromised. Building a bigger dam at the FE Walter reservoir is not a viable nor protective option.

Regarding 2017 communications maintaining voids in the NY City reservoirs for the purposes of flood control, the Delaware Riverkeeper Network reiterates our position to be considered here as this FE Walter study gets underway. We outlined this position in a May 19, 2017 letter to the Governors of the four basin states and the Mayor of New York.

The Delaware Riverkeeper Network does not support the use of voids in the NYC reservoirs for purposes of flood control beyond the communities that are located immediately downstream in the tailwaters area. Voids is not only an ineffective solution for flood damage reduction as you go down the length of the nontidal Delaware River, but forcibly creating voids for this stated purpose reduces the volume of water available for protecting fish populations, aquatic life, and for other important ecological purposes. In addition, it provides a false sense of security that diverts resources from other truly beneficial flood damage reduction strategies.

Artificial releases from the reservoirs in anticipation of future floods will not provide the flood damage reduction communities are seeking, it will actually encourage new and expanding development placing more structures and communities in the path of harm, and will deprive our River of the flows needed to

support clean water and healthy fisheries during low flow conditions, as well as put at risk the drinking water supplies of those downstream.

DRN would like for agencies to instead work to secure better regulation of floodplain development along the Delaware and for restoration of the floodplains that have already been damaged through funding and common sense solutions, and for advancing other nonstructural strategies.

Delaware Riverkeeper Network supports managing reservoirs to achieve more natural flows

The Delaware Riverkeeper Network supports the concept of managing the reservoirs so as to achieve a more natural flow regime for the Lehigh River, the Delaware River and its ecosystems. This is a beneficial and laudable goal that has been advanced by New York City and other decree parties in the past for the New York city reservoirs. Prematurely releasing water from the reservoirs in New York that was discussed in 2017 undermines the accomplishment of this important objective.

Altering flow releases so as not to contribute to flooding in communities immediately downstream of the existing dam may make sense – their immediate proximity to the dams means that they can become victim to spills created by the dams. But beyond these communities, attempting to use voids in the reservoirs for reducing flooding and flood damages is not a successful strategy. And for political and community leaders to suggest otherwise is misleading and unfair.

Therefore, the Delaware Riverkeeper Network opposes making flood control a priority or goal for reservoir management. Presenting the reservoirs as a successful method for reducing flooding or flood damages provides a false sense of security for River communities. This false sense of security will encourage communities to not only continue to develop in the floodplain, but will very likely spur even more development in the current and future floodplain. The result will be to put more people in harm's way of flooding and flood damages and to put more people at risk from a catastrophic dam failure should one ever come to pass.

Below DRN comments to the DRBC states and the Mayor of New York after flood events in the Upper Delaware that should be considered when considering the Lehigh and FE Walters Dam study and goals.

The catastrophic floods that have taken place in recent years in the Delaware River Basin were the result of extreme weather events. Had we attempted to use the upper Delaware dams for flood control...

- ✓ We would have still had flooding and tremendous flood damages,
- ✓ We would still have had a tremendous investment in emergency services
- ✓ We would still have had tremendous infrastructure damage and the erosion of public and private lands,
- ✓ We would have still had lives and homes in jeopardy.

While folks may want to argue that any reduction in flooding has benefit, and they may want to argue the extent to which changed reservoir operations may have provided some level of flood reduction, there would still have been catastrophic flooding and damages. Modeling by the Delaware River Basin Commission in cooperation with other agencies has demonstrated this. In the 2006 flood 1,224 structures were inundated. Had there been the 20% voids, voids that risk drinking water and fresh water flows for other purposes, the vast majority of those structures would still have been inundated. 10% voids similarly fail to provide the level of protection communities are seeking or being promised. As a community we need to be investing in strategies that provide across the board protection for all structures in the floodplain and that also benefit, and do not harm, the rest of the River community.

Promising undeliverable flood protection means that our communities and region will not have the time, resources or the inclination to seek out and fund truly effective flood protection measures. For example, the momentum for regulatory reforms and increased funding leveraged by release of the DRBC and New Jersey Flood Mitigation Task Force Reports was quickly lost partly because of the false attention placed on the use of voids in the reservoirs. The Delaware River Basin Commission had received a report with recommendations from two of its committees (the Floodplain Regulation Evaluation Subcommittee and the Flood Advisory Committee) to adopt a comprehensive set of strengthened floodplain regulations that would apply to Delaware River communities. This recommendation, along with many others, were never advanced. We should not focus this FE Walter study on such a narrow view that would undermine some of the forward thinking work already done and desperately needed.

The best protection, the only true protection, we can provide for reducing flood damages is to prevent new development in the floodplain, to remove existing development where it has already occurred, and to restore the floodplain to the greatest extent possible so it can once again function to absorb, filter and infiltrate water and provide a healthy, and economically beneficial, riparian habitat. This honest and effective approach to flood damage reduction also supports other community goals and needs including healthy fisheries, enhanced eco-tourism, improved drinking water supplies, as well as maintaining and improving existing water quality of particular import to the pre-existing Wild and Scenic and special protection water designations of the upper, middle and lower sections of the River. A program of floodplain protection and restoration can still acknowledge and make exceptions for those communities and structures where there are other unique cultural, historic or community values it is agreed should be preserved.

The protection and restoration of forested floodplains reduces the harm and threat of flooding to homes, businesses and communities (1) by ensuring they are not located in these most hazardous of areas that are known to flood and (2) by reducing the peak and breadth of flooding thereby protecting homes that historically have not been located in the path of floods. Protection and restoration of the floodplain also removes the need for emergency services, the costs of rebuilding, and all of the other financial, physical and psychological costs associated with flood damaged communities located in the floodplain.

A floodplain protection and restoration program focused on reducing present and future flood damages does not mandate the removal of every structure – for example there are numerous community reasons for maintaining and protecting historic structures and vistas despite their location in the floodplain as these structures and areas have other cultural, historic and social values to the community. A floodplain protection and restoration strategy can and should leave room for honoring these and other values of the community.

Protection and restoration of floodplains provides the greatest level of flood protection, on a permanent basis, in the most cost efficient manner, in a way that provides other economic and ecological benefits to Delaware River communities.

DRN believes the recreational attributes of the FE Walter Dam and the cold water releases are an important component of the region that need high consideration for this study. At the hearing, many local residents expressed the enjoyment they have fishing and paddling on the Lehigh River. Others recreate and picnic at the dam or walk the surrounding trails or enjoy the Lehigh Gorge area. Commenters stated information pertaining to the existing “1370 pool”. A Commissioner for Carbon County commented that there are 1,300-1,400 seasonal white water jobs in Carbon County connected to the Lehigh River. These recreational uses need to be evaluated and considered while also considering natural flows, natural ecosystem function, and water quality for aquatic life that rely on the River to survive and thrive. It was unclear from the meeting what the current releases are from the reservoir but we understand there to be a bottom release that

is used for cold water releases. DEP has stated that bottom releases on other similar reservoirs (Lake Nockamixon re: Tohickon Creek water quality downstream) are anoxic and we would like for the study to further detail or address that point and water quality effects from the FE Walter.

The negative ecological impacts if the dam were raised in regard to upstream wetlands, forested floodplains and buffers and habitats being inundated must also be fully considered. DRN and DEP has documented diverse benthic insect populations on tributaries to the dam and some sections of these tributaries could drastically change if more flooding with an artificial structure was allowed. Private conservation funds have been used to preserve some of these upstream habitats and forests (example: NLT lands on Bear Creek) – they should not be lost by a larger dam pool and the impacts that would be seen upstream.

It is important that water conservation and I&I issues are considered in this study in way of other ways to ensure precious freshwater is not being lost unnecessarily.

In addition, the DRBC cannot allow freshwater to be taken out of the basin for fracking or other unsustainable uses. The DRN and larger community has been calling for a ban on all fracking, freshwater exports to frack elsewhere, and wastewater imports since 2011. This ban must be made permanent now and will be another important component to ensure the salt line does not creep up into drinking water supplies.

In closing, it was mentioned by the agency that 20 years ago the NY reservoirs were operating to “fill and spill” as and not much attention was paid to stakeholders but that is not the case today. The models and gage stations the reservoirs use to support a CWF of the Upper Delaware is much more enhanced. Instead of filling and spilling reservoirs they meticulously proactively release water downstream by June 1 - this management strategy results on larger downstream releases that is good for the CWF and natural ecology of the river. The agency representative mentioned that 20 years ago agency officials would have thought this type of ecological flow management was “crazy” and “they would be rolling over in their graves”. DRN would suggest that the 50-year lens of this study in a time of climate crisis rise to the occasion and also envision and demand innovative non-structural approaches that are long overdue and tried and tested. Many of these nonstructural solutions DRN and others have advocated for for almost thirty years. We cannot afford to wait. We look forward to continuing to be part of this thinking and would welcome to be included in stakeholder meetings at the study advances. Please feel free to contact me directly at keepermaya@delawareriverkeeper.org or at 215-369-1188 ext. 102.

Yours sincerely,



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