

Frequently Asked Questions

U.S. ARMY CORPS OF ENGINEERS

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Francis E. Walter Dam Re-evaluation Study

Who are the study partners?

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 will also be coordinating with a number of federal and state resource agencies throughout the study process.

What is the purpose of this study?

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.

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.

Why is the Delaware River Basin Commission (DRBC) involved in the study?

Statement from the Delaware River Basin Commission:

"The DRBC has broad authority under federal and state laws to provide for the planning, conservation, utilization, development, and management of the water resources throughout the Delaware River Basin. The Lehigh River, its tributaries, and the F.E. Walter Reservoir are located within the Delaware River Basin. The DRBC's management responsibilities include water supply, flow management, drought management, flood risk management, water quality, recreation, aquatic life, and fisheries. Therefore, any potential changes to the river flows or reservoir uses or operations are of interest to DRBC and its members, including Pennsylvania and the other basin states of Delaware, New Jersey, and New York."

Why is New York City involved in this study of F.E. Walter Dam?

Statement from New York City Department of Environmental Protection:

"New York City owns and operates three large reservoirs on the headwaters of the Delaware River. Those reservoirs are part of a drinking water system of 19 reservoirs that provides high-quality drinking water to 9.6 million people in New York City and New York State. Those reservoirs also release a significant quantity of water downstream to support multiple objectives on the Delaware River, including cold-water fisheries, enhanced flood attenuation, and flow targets that stretch as far south as Montague and Trenton. As such, New York City plays an important role in river management, drought planning and climate change modeling on the Delaware River. New York City does not want to draw drinking water from F.E. Walter Reservoir, have control of its operations, or purchase space within the reservoir. Its interest in the study is related to drought planning in the face of sea-level rise that is accelerating due to climate change, and how the operation of reservoirs throughout the basin can help meet these future challenges."

Is this study just for show? Is there a pre-determined outcome?

No, USACE will conduct the study objectively, consider all input, and analyze alternatives with sound science. Any proposed changes must be economically justified, environmentally acceptable, and technically sound.

It is worth noting 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.

Recreation

Are you going to account for the economic impact of recreation on the Lehigh (whitewater rafting, etc.)

Yes. Water-based activities on the Lehigh account for millions of dollars in recreational benefits every year. The economic impact of any potential changes to recreation stemming from this study will be explicitly accounted for and measured quantitatively.

What are the expected impacts on recreational water releases from F.E. Walter Dam?

Recreation is a congressionally authorized purpose of F.E. Walter Dam. USACE has no plans to downsize the recreation program. In fact, if a modification to the dam occurs, possible future enhancements to the program will be investigated.

Will the study look at operational changes to the existing reservoir, or structural changes to the dam and/or tower that would change the size and operational flexibility of the reservoir?

Both. In order for the study to be comprehensive and objective, it makes sense to look at a wide range of options that could increase the operational flexibility of F.E. Walter Dam and its infrastructure. For each option, USACE will examine the costs and benefits, environmental impacts, effects on stakeholder groups, future maintenance and construction costs, and a wide range of other factors. The study will be guided by sound science without favor toward operational changes or structural upgrades.

Are you going to look at putting in a new tower with the ability to draw and release water at different elevations (i.e. provide colder water releases at key times)?

A multi-port tower is one of the options that will be considered, along with possible modifications to the existing tower to accomplish a similar task.

Structural/Geotechnical

Is something wrong with the dam?

No. USACE regularly inspects and monitors all aspects of F.E. Walter Dam and prioritizes a variety of actions to manage risk and operate the dam. Public safety is and will remain paramount in all decisions regarding the dam.

If you raise the dam, do you have to acquire land? What else would have to be moved/relocated?

Raising the dam will be one of the alternatives considered. Until the alternatives are fully developed, it is not clear if lands would need to be acquired and what infrastructure and other F.E. Walter Dam project features would need to be moved/relocated.

If you decide to raise the dam, will you evaluate the impacts on F.E. Walter Dam's primary mission of flood risk management?

The study will include identifying and evaluating risks.

Raising the dam is an alternative that will be considered as part of the study, but has not been analyzed at this phase of the study. However, public safety is and will remain paramount in any decisions related (and unrelated) to this study.

Dams reduce but do not eliminate the risk of economic damages. To manage these risks, USACE has a routine program that inspects and monitors its dams regularly. USACE implements short and long term actions, on a prioritized basis, when unacceptable risks are found at its dams.

Environmental

What is the geographic scope of your environmental assessment? Will you be looking at impacts throughout the entire Delaware River Basin?

The current geographic scope of the environmental assessment will consider potential positive and negative impacts of a proposed project at F.E. Walter Dam and the Lehigh River and Delaware River watersheds in proportion to the size and scope of the project alternatives and their potential to impact other areas within the basin.

Is USACE going to do a full Environmental Impact Statement?

The National Environmental Policy Act (NEPA) process begins when a federal agency develops a proposal to take a major federal action. The current level of planning for the evaluation study includes the development of project alternatives, and the extent of potential impacts is unknown at this time. As project alternatives are further defined, the environmental review under NEPA will initially consist of the preparation of an Environmental Assessment (EA), which will determine whether a federal action has the potential to cause significant environmental effects. If the EA or project scoping and coordination determines that the environmental impacts of a proposed federal action will be significant, an Environmental Impact Statement (EIS) is prepared. Federal agencies prepare an EIS if a proposed major federal action is determined to significantly affect the quality of the "human environment" (a term interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment).

What sort of environmental impacts will you be looking at? Which agencies do you coordinate with?

The re-evaluation study will consist of the formulation and evaluation of alternative plans. In accordance with the National Environmental Policy Act (NEPA) of 1969, USACE will solicit public and agency comments concerning existing environmental resources and potential environmental issues associated with alternative plans that should be addressed in the course of the NEPA process.

NEPA is a federal law applicable to all federal agencies. It requires USACE to undertake an environmental assessment of the proposed actions before making decisions and taking action. The NEPA process is intended to promote better agency decisions by ensuring high-quality environmental information is available to agency officials and the public before the agency decides whether and how to undertake a federal action. While NEPA does not require an agency to achieve particular environmental results, it does require an agency to take a hard look at the potential environmental impacts of a proposed federal action.

The NEPA process is one opportunity for the U.S. Army Corps of Engineers to hear and consider the opinions and concerns of potentially affected communities. The NEPA decision-making process allows USACE, other agencies and community members to work together to create the best environmental outcomes. Under NEPA, the Philadelphia District will work closely with other federal agencies and states, local and tribal governments; public and private organizations; and the general public to better understand potential environmental impacts. USACE considers many different factors in the natural, economic and social environments, such as:

U.S. Army Corps of Engineers – Philadelphia District 100 Penn Square East, Philadelphia, PA 19107 https://www.nap.usace.army.mil/Missions/Civil-Works/Francis-E-Walter-Dam/Reevaluation-Study/

- Endangered or sensitive species and their habitats
- Cultural resources
- Floodplains and wetlands
- Noise levels, water quality and air quality
- Human health and safety
- Social and economic impacts to communities
- Cumulative effects of an action
- Environmental justice
- Climate change

In addition, where appropriate, measures to avoid, minimize or mitigate environmental impacts are included in the analysis.

Public Comments

When can I submit a comment in this process?

At the initial public meeting, both written and verbal (as time allows) comments will be accepted. Comments may also be submitted via email or in writing by January 29, 2020; however, the public is strongly encouraged to submit comments sooner than the deadline so they may be considered in the earlier phases of the study. After the January 29 deadline, public comments will continue to be accepted on an ongoing basis as the study moves forward and will be incorporated and considered in future phases of the study as deemed appropriate.

Economics & Costs:

How do you calculate a "Benefit to Cost" ratio when there are so many variables (economic impact of recreational releases, water supply, and flood risk management benefits)?

USACE is required to identify the National Economic Development plan, which is the plan that maximizes Net Economic Benefits. Different types of economic benefits and costs must be translated into dollar values in order to create an "apples to apples" comparison. For example, although reducing flood risk and providing water for water supply are very different, they both provide economic benefits that can be quantified and compared. Economic costs and benefits are not the only variables that are considered in the analysis; consideration is also given to environmental quality and to other social effects (such as life safety and community cohesion).

How is the study funded? How will construction be funded?

This study is funded 50% by the federal government with Energy and Water appropriations made to the U.S. Army Corps of Engineers. The other 50% is funded by the non-federal study sponsors, the Delaware River Basin Commission and the New York City Department of Environmental Protection. The study is estimated to cost approximately \$3 million in total. At this time, there is no funding identified to implement any construction recommendations that may result from this study.