



Philpott Water Storage Reallocation Study

Public Information Meeting

Presented by:
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Wilmington District, USACE
August 2022



**US Army Corps
of Engineers®**
Wilmington District



General Notes



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- We are broadcasting on Facebook Live which creates a recording of the meeting. That recording will be available after the meeting to review on the Wilmington District's Facebook page.
- Slides on Facebook Live can be hard to see. For those who are having problems viewing the slides or would like to follow along, the slides can be downloaded by going to: <https://go.usa.gov/xSMH4> and clicking on the "Public Information Meeting" link.
- If you are watching on Facebook Live and have a question for the USACE team, please put your question in the comments section and we will attempt to answer it during the meeting.



Agenda



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- Welcome
- Meeting Purpose
- Study Overview
- Proposed Plan Summary
- How to View the Report and Provide Comment to the Corps



Meeting Purpose



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- Provide background on the study
- Present an overview of the proposed plan
- Provide overview of public review process and commenting period (happening now through August 29, 2022).

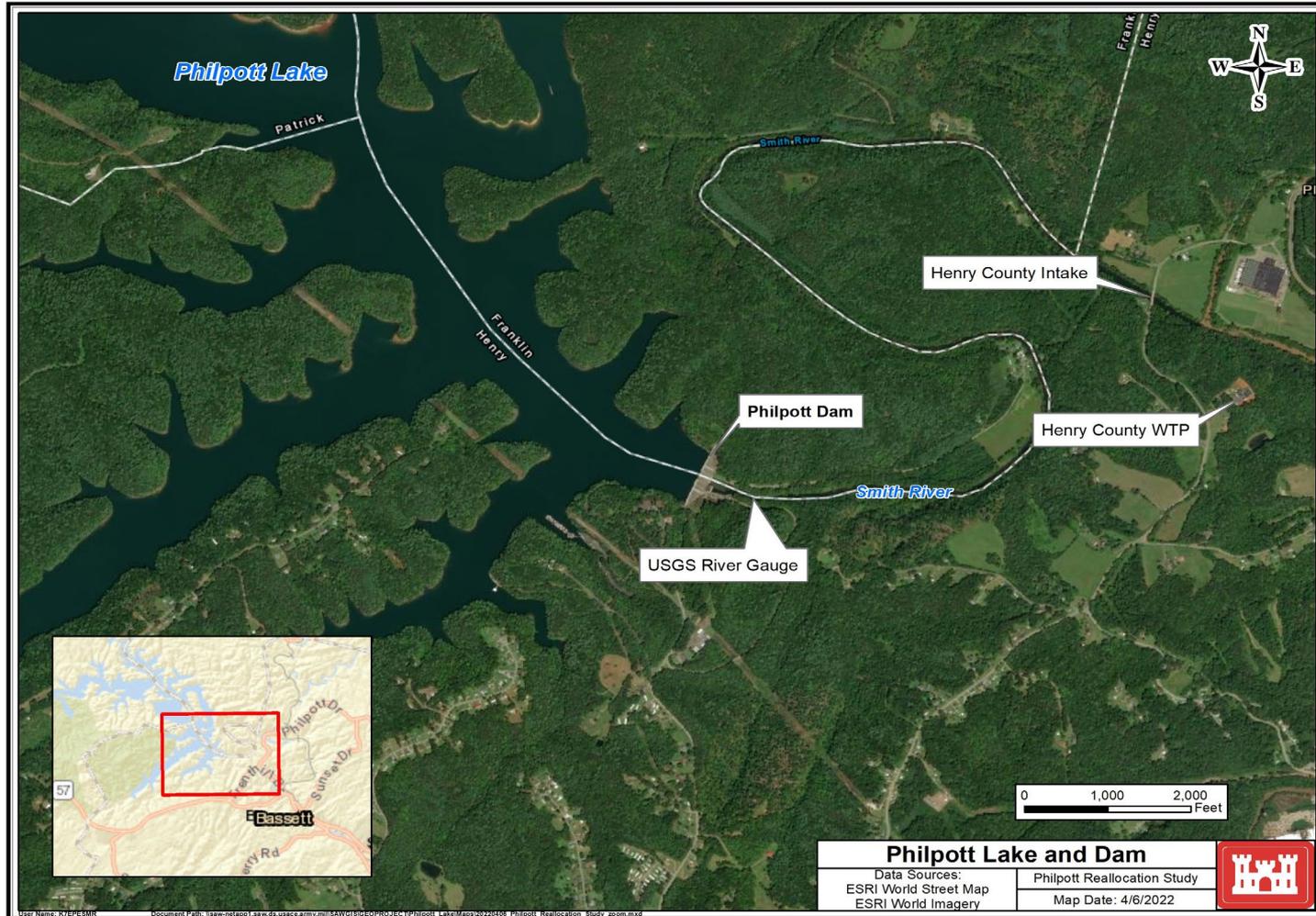


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Philpott Lake and Dam



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Background



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- Philpott Lake project is a multi-purpose facility constructed by the U.S. Army Corps of Engineers
- Completed in 1952 – began producing hydropower in 1953
- Authorized project purposes of Philpott Lake include:
 - Flood Risk Management
 - Hydroelectric Power
 - Recreation
 - Low Flow Augmentation
- Water Storage may be added as a project purpose (WSA of 1958) in any Corps reservoir for the purpose of municipal and industrial water supply

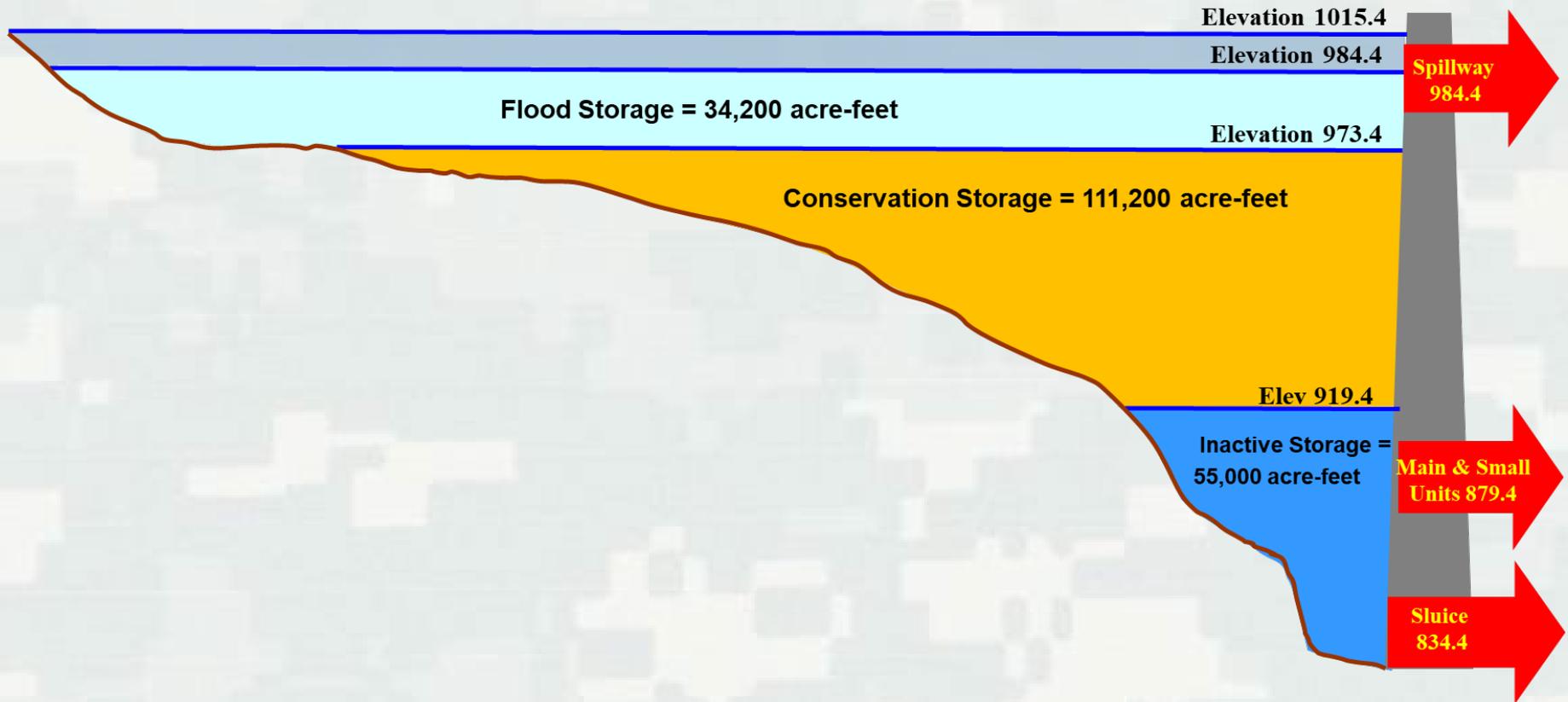


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Existing Philpott Storage Pool Illustration



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Letter of Intent



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- USACE received a letter from Henry County Public Service Authority requesting a water supply reallocation.
 - Request to reallocate water supply storage to support an estimated four (4) million gallons per day (MGD).



Study Purpose



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- Evaluate the request of Henry County PSA, VA of reallocating water supply storage to support four (4) million gallons per day (MGD) additional downstream water withdrawals from conservation storage within Philpott Lake, Virginia.
- Identify the most cost-effective means of providing additional water supply to Henry County for the period 2023 to 2072.

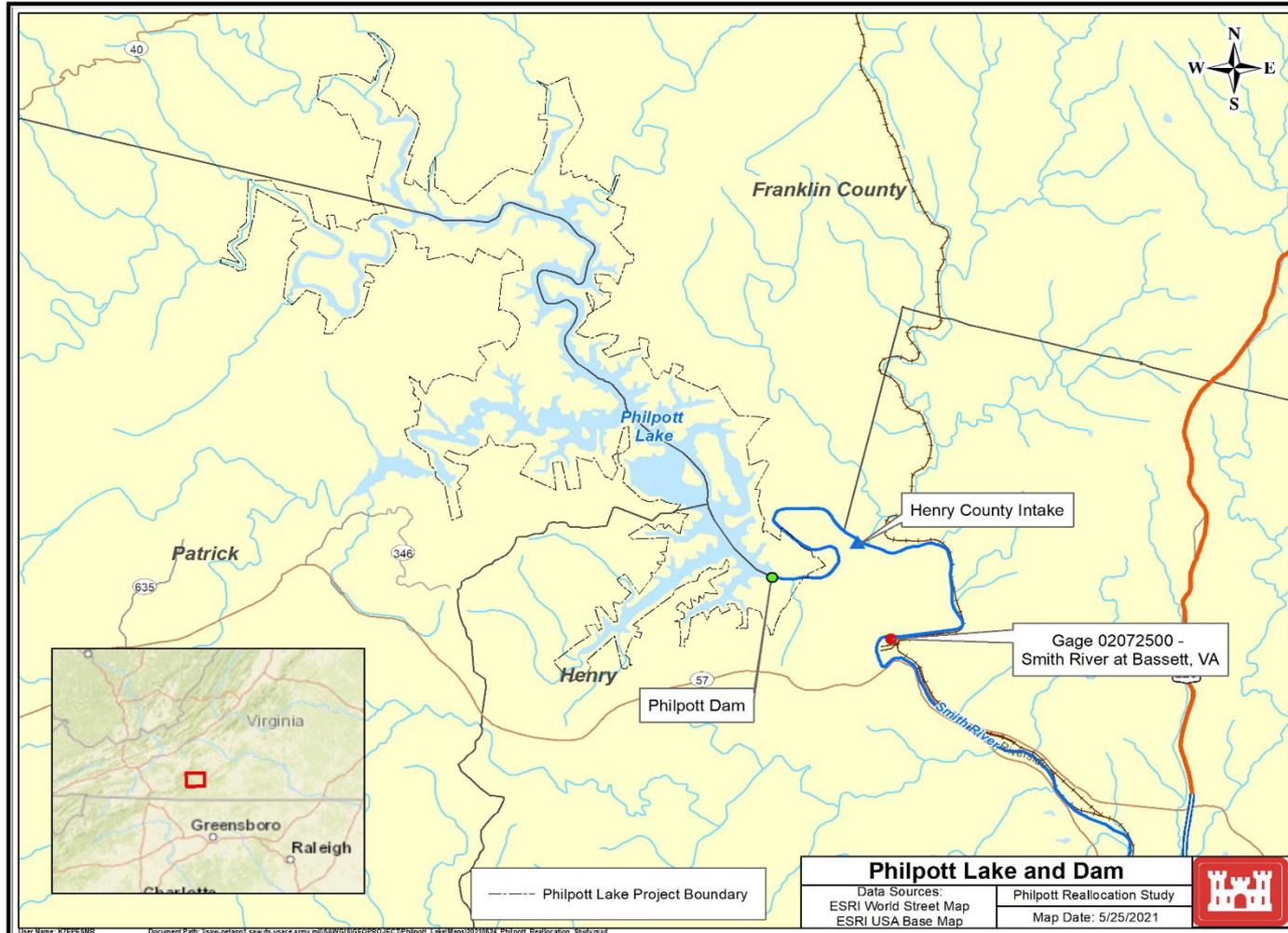


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Study Area



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Reallocation Measures Considered



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Structural measures considered were:

- Groundwater Wells
- New Reservoir
- New Downstream Intake
- Dredge Lake
- Raise Dam Height
- Inter-basin transfer
- Off-line Storage

Non-structural measures considered were:

- Water Conservation
- Water Reuse
- Flood Storage Reallocation
- Inactive Storage Reallocation
- Conservation Storage Reallocation
- Wholesale Purchase
- Aquifer Storage
- Change in Operations
- Withdrawal from Alternative Sources



Final Array of Alternatives



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1. No Action (No Federal Action; sponsor would continue to utilize water conservation and water reuse)
2. Conservation Storage Reallocation
3. New Reservoir
4. Off-line Storage
5. Wholesale Purchase
6. Groundwater Wells
7. Combination of Water Storage, Water Purchase, and Groundwater Wells



Screening of the Final Array



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Philpott Lake, VA Water Reallocation Study Final Alternatives Evaluation							
#	Alternative	Type of Alternative	Federal Action/Non-Federal Action	Meets Objective	Additional Sufficient Supply	Effects On Other Project Purposes	Cost
1	No action	Not Applicable	Non-Federal	No	No	No	\$0
2	Conservation storage reallocation	Nonstructural	Federal	Yes	Yes	No	\$8,460,000
4	New water supply reservoir	Structural	Non-Federal	Yes	Yes	No	\$444,400,000
5	Off-line raw water storage	Structural	Non-Federal	Yes	No	Yes	\$63,998,000
8	Wholesale water purchase	Nonstructural	Non-Federal	Yes	No	No	\$42,428,000
10	Additional groundwater wells	Structural	Non-Federal	Yes	No	No	\$63,754,600
12	Water storage, Water purchase, and Wells	Combined	Non-Federal	Yes	Yes	No	\$170,180,600

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Recommended Plan Summary



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- The Recommended Plan is reallocation of 5,200 acre-feet of conservation storage to water supply storage
- This constitutes 3.58% of usable storage (conservation and flood storage) at the existing project
- No structural modifications or additions to the existing project will be required
- Costs will be borne by Henry County, VA with an assumption of a proportional share of adjusted dam construction costs and future OMRR&R

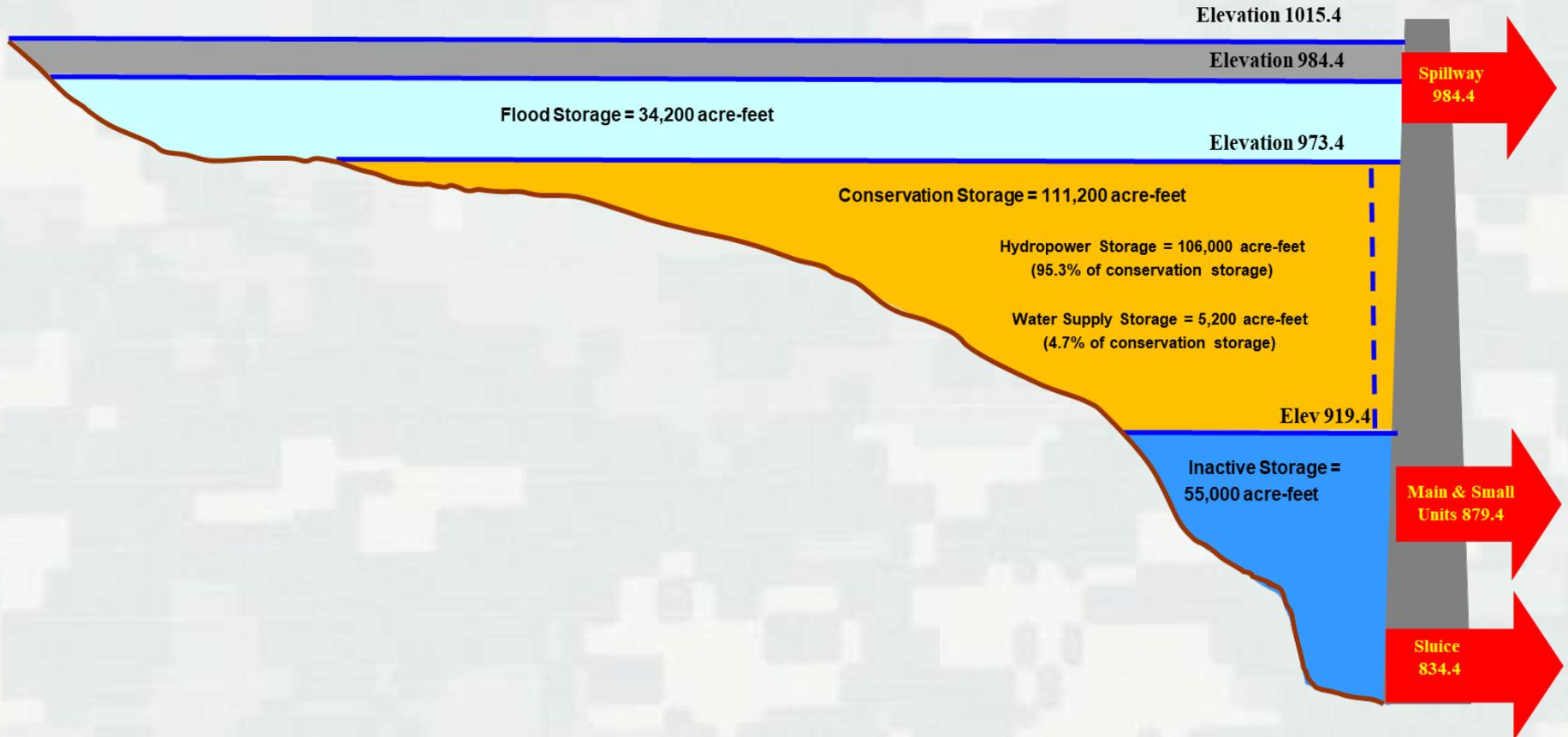


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Philpott Lake Recommended Plan



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Water Quality



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- Coordination with Virginia Department of Wildlife Resources and the Virginia Department of Environmental Quality concluded that water quality modeling was unnecessary due to anticipated insignificant impacts.
- No significant impacts to water quality due to limited additional releases.



Water Quantity



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- Lake will remain within historical lake elevation range during normal operations
- Downstream flows
 - Extra water released continuously through station service unit
 - Slightly higher flows will occur between dam and county intake
 - No reduction in flows downstream of county intake



Hydropower Analysis



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- Analysis completed by USACE Hydropower Analysis Center
- Analysis indicates that “For the small amount of reservoir storage reallocated from the Conservation Pool there will be a very small annual hydropower value loss of \$6,077 (or 0.21%).”



Climate Change Analysis



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- Qualitative assessment using USACE assessment tools did not identify a vulnerability
- Assessment strategy reviewed by USACE Climate Preparedness and Resilience Center of Expertise



Environmental Summary



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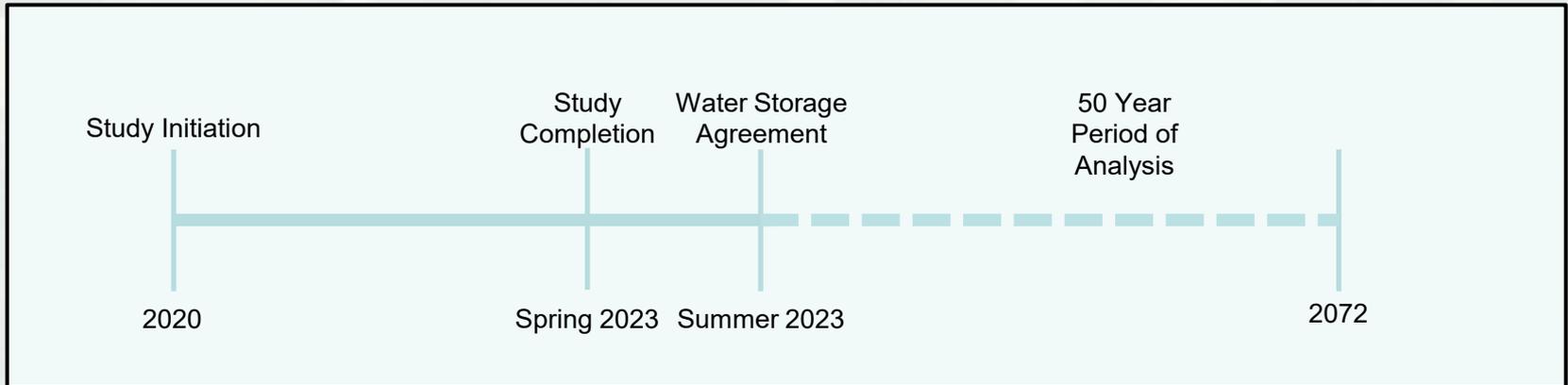
- Species list was developed by the USFWS IPAC system and informal consultation was initiated on 07 May 2021
- The USACE made a “No Effect” determination under the Endangered Species Act
- Environmental mitigation will not be required for this project
- The USACE determined that the proposed project will have No Significant Impacts to the environmental



Study and Reallocation Timeline



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For more information



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To view the draft report, please visit:

<https://www.saw.usace.army.mil/Locations/District-Lakes-and-Dams/Philpott/Reallocation-Feasibility-Study/>

To comment on the draft report, send an email to:

philpott-reallocation-feasibility-study@usace.army.mil

The public commenting period closes August 29, 2022