

DRBC Storage Study Update

Water Management Advisory Committee: June 16, 2022



<https://www.nap.usace.army.mil/Missions/Factsheets/Fact-Sheet-Article-View/Article/490859/blue-marsh-lake/>

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Presented to an advisory committee of the DRBC on June 16, 2022. Contents should not be published or re-posted in whole or in part without permission of DRBC.

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Goal: to explore the feasibility of additional freshwater storage to meet future water availability, climate adaptation, drought management and flow management needs in the Delaware River Basin.

Objectives: Identify, inventory and evaluate the feasibility of options that could provide the following additional usable storage:

- * A minimum of 1 billion gallons (BG),
- * A minimum of 5 BG,
- * A minimum of 10 BG
- * A minimum of 20 BG

(The storage volumes can be met by a combination of projects/sources.)



The DRBC has not made a determination of the need for additional storage within the basin. The study is a planning level inventory of potential options that would be available if the DRBC determines that additional storage is needed in the future.

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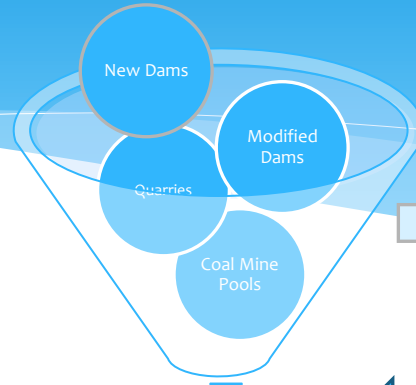
- * Mott MacDonald contract executed on April 9, 2021 (\$649,000, ends June 30, 2022)
- * In early June 2022 – DRBC & MM extended the contract to December 31, 2022
- * DRBC webpage for the project went live in July 2021:
<https://www.nj.gov/drbc/programs/flow/reservoir-storage-study.html>
- * Initial Screening Workshop – July 21, 2021
- * Second Screening Workshop – November 18, 2021

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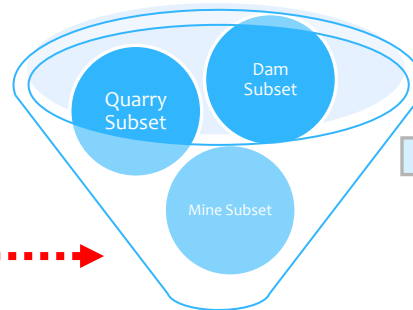
Supplemental Screening

**GATE 1A:
MANDATORY CRITERIA
Culling by Size
Screening with Limited Data**



OPTIONS DISCARDED
BASED ON CULLING AND
TECHNICAL ISSUES

**GATE 1B:
SUPPLEMENTARY CRITERIA
SEMI-QUANTITATIVE
ASSESSMENT**



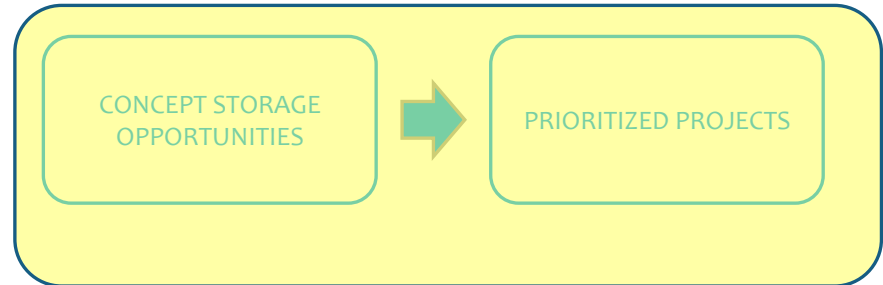
Additional Staff Input on
Workshop #1 Details (Additional
Screening)

OPTIONS DISCARDED
BASED ON SEMI-
QUANTITATIVE SCREEN
AND TECHNICAL ISSUES

- Storage Opportunity Research
- Specific storage details
 - Owner/Operator Interface
 - Further details from cross referenced databases
 - Early concept development

Additional Staff Input

REDUCED DATASET FOR
DETAILED EVALUATION



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Results of Initial Screen of Potential Storage



1. New dams

- DATA IN
 - 21 Previously Studied Dams
 - Various Team identified
- DATA OUT (Screened)
 - Based on semi-quantitative criteria
 - 5 high potential new dams
 - 2 “New” identified sites

2. Modification to existing dams/ reservoirs:

- DATA IN
 - 24 Candidate Sites
- DATA OUT (Screened)
 - Based on semi-quantitative criteria
 - 16 high potential sites

3. Quarries:

- DATA IN
 - >1300 Quarries in 3 states
- DATA OUT (Screened)
 - Based semi-quantitative criteria
 - 24 potential sites
 - Reassessed for “Abandoned Quarries” – 33 potential sites

4. Deep Mines:

- DATA IN
 - 31 Mine Pools in DRB
- DATA OUT (Screened)
 - Based on semi-quantitative criteria
 - 5 high potential sites

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Current Activities

- * Overcoming significant delays obtaining technical information on some sites
- * MM & DRBC finalizing evaluation criteria
- * MM completing Storage Project Summaries (SPS) for ~40 projects and associated scoring sheets

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* Evaluation Criteria

- * Water Quantity & Quality
 - * Infrastructure Design, Construction & Operation
 - * Environmental Impacts
 - * Social and Economic Impacts
 - * Project Cost & Schedule
 - * Ancillary Benefits
- * Each major Criteria section is weighted
 - * Each major Criteria section consists of sub-criteria

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Next Steps

- * July 15 – MM finalize SPS reports (includes “scoring”)
- * July 30 – Draft report to DRBC
- * August 15 – Comments from DRBC to MM
- * August 30 – Revised draft report from MM
- * September 15 – Draft report to external reviewers
- * Mid October – Final Report