

# Dam Operations Overview

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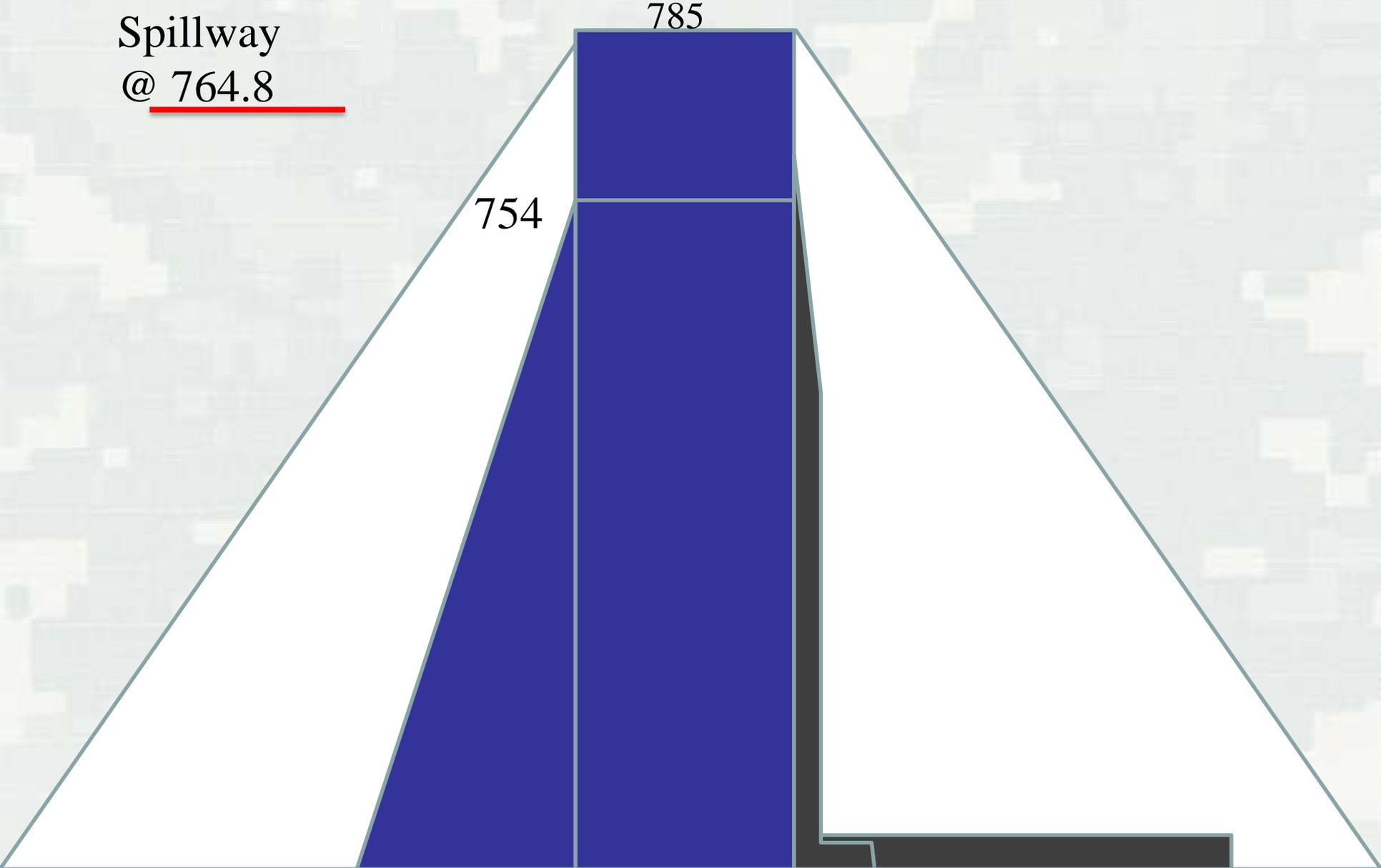






# Profile of a Dam

Spillway  
@ 764.8

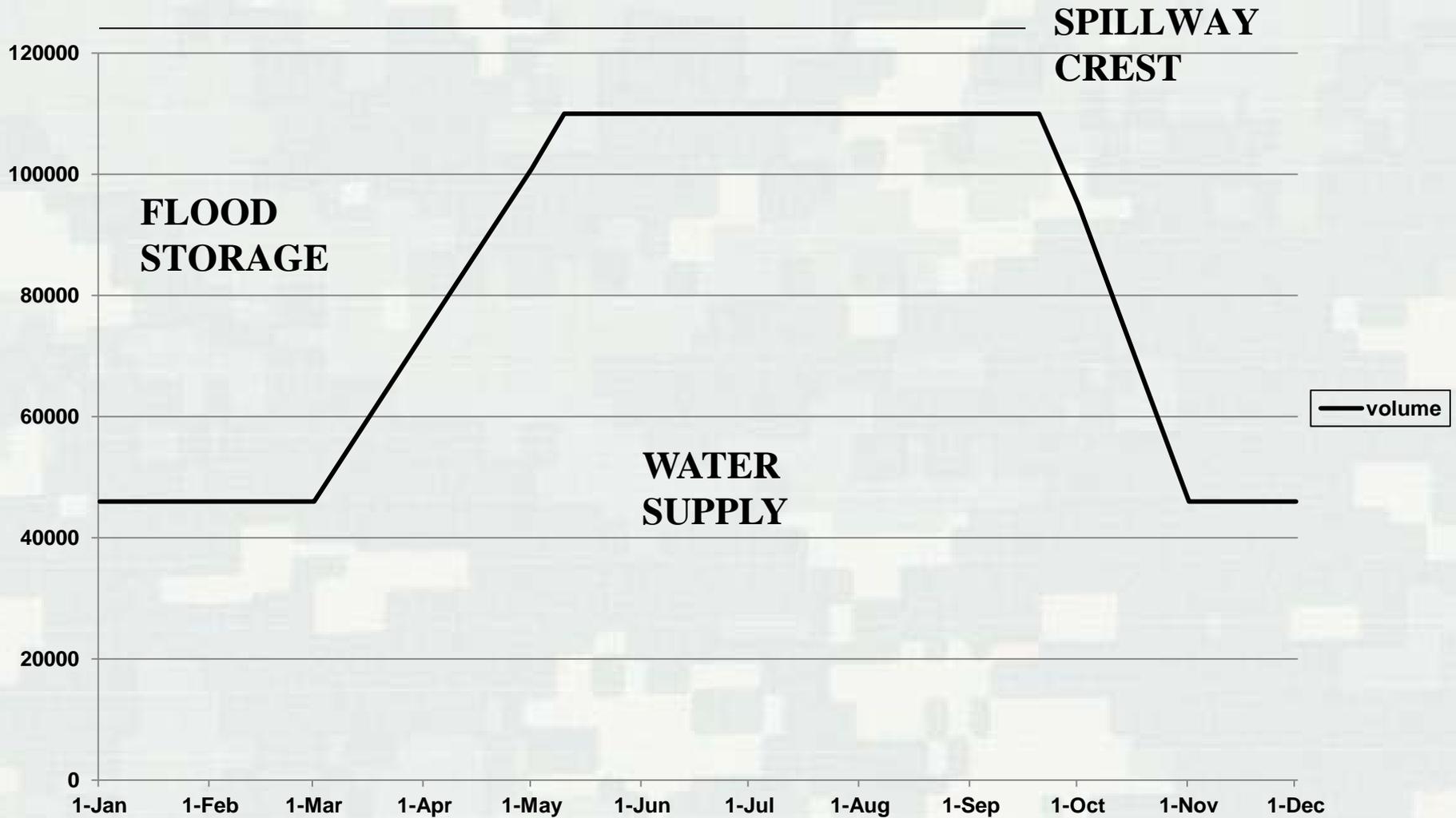


# Water Management

- Water management of a dam is usually based on missions of a dam. Water supply, conservation pools, flood risk management, recreation, environmental.
- Water control manual for that dam can be changed but it requires high level review. ft.
- Seasons influence control and can influence volume of water retained



# EXAMPLE of WATER OPERATIONS - DAM



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# High pool Procedures

If we enter into a high pool we implement the following basic inspections and analysis:

- Instrumentation read 3 times a week vice once weekly
- Face of dam (walking) inspection daily vice weekly
- Measure volumes of water at toe drains 3 times a week vice weekly
- Engineering analysis of all of the above in comparison to past performance



# USACE Dam Safety Program

- Dam safety = continuous study / observation of performance and , budget dependent
  - Short term
    - Visual observation of dam performance
    - Instrumentation readings.
    - Frequent communication District's dam safety team
    - Annual inspections
  - Long term studies
    - Seismic / Hydrology / performance / failure mode analysis studies
    - Geotech historical investigation
  - Impacts of studies range widely.
    - Possible no change to operations, Possible change to Water Control Manual.
    - Installing more instrumentation and additional studies
    - Feasibility studies / Major reconstruction

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# Major Changes - Existing Dam

- If within the original Congressional Authority
  - major re-habilitation is possible if appropriations is provided by Congress.
- If not within original Congressional Authority.
  - Requires new authority & appropriations.
  - In addition the new work must meld Dam Safety studies with Feasibility study.



# Questions ?

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