The USACE Role in the Texas State Water Plan

Elston D. Eckhardt, P.E.
Fort Worth District

15th Annual S.A.M.E. Infrastructure Forum
December 4, 2014

US Army Corps of Engineers
BUILDING STRONG®

USACE and Water Supply

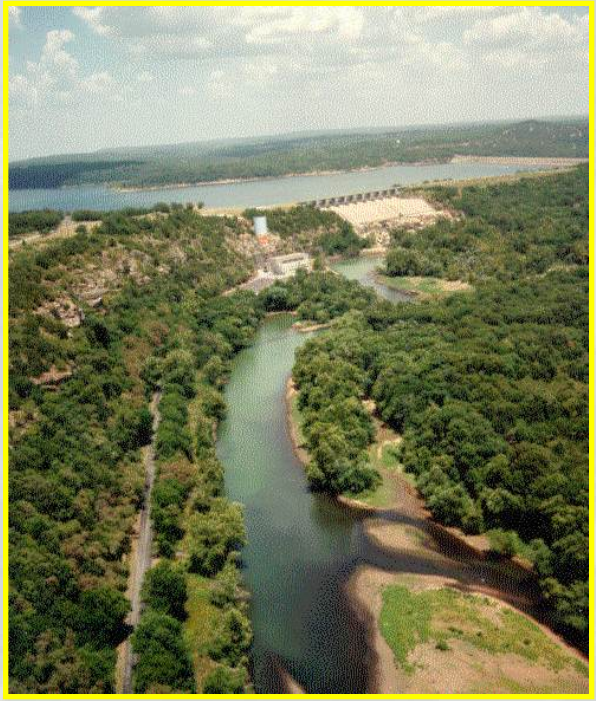
- The Corps has a role in two distinctly different areas.
  - Evaluate permit applications and make permit decisions from a Regulatory perspective.
  - Leasing storage within Corps owned and operated lakes to water providers.
- It must be recognized that the Corps is not a proponent nor an opponent of future State Water projects.

USACE Regulatory Program

Section 404, Clean Water Act (CWA) - USACE permit for discharge of dredged or fill material into Waters of the United States (WOUS).

Section 10, Rivers and Harbors Act (RHA) – USACE permit for work or structures in or affecting the course, location, condition, or capacity of a navigable WOUS.

Section 103 of the Marine Protection, Research and Sanctuaries Act – USACE permit for transportation of dredged material for disposal in ocean waters.



Types of Permits

[33 CFR 325.5]

- General (GP)
  - Nationwide Permits (NWPs) [33 CFR 331]
  - Regional General Permits (RGPs)
  - Programmatic General Permits
- Individual (IP)
  - Standard Permits (SPs)
  - Letters of Permission (LOPs)
- Review timeframes for permit decisions*
  - NWPs = relatively short; some self reporting
  - RGPs = relatively short
  - IPs = longer; projects w/EIS's significantly longer

*** From time USACE receives completed permit application**

Water Supply Projects Authorized by Section 404 General Permits

Types of Water Supply Projects that have been permitted without lengthy permit review times

- Water pipelines
- Dredging at water intake structures
- Construction of intake structures
- Construction of outfall structures
- Floating pumps
- Stormwater catchment basins
- Sewer collection systems
- Maintenance of existing structures

Permitting – State vs. Federal

- The State of Texas owns the water
  - Issue Water Rights Permits to withdraw raw water from lakes and streams.
- The Corps is responsible for administering provisions of Section 404 of the Clean Water Act.

Permit Review Process

Basic Information Needed for 404 Permit Evaluation:

- Basic project description / location
- Description of proposed actions in Waters of the United States (WOUS)
- Dimensions / quantity of fill in WOUS
- Location of fill
- Identification of WOUS on the project site [waters and wetland delineation]
- How impacts to WOUS were avoided / minimized
- Tribal / Cultural Resources affected by the project
- Federally listed Endangered Species affected
- Additional info. in 33 CFR 325.1(d);33 CFR 325.3(a)
- Greater impact to aquatic resources/controversy requires more information & analysis

Historic Challenges for Large Water Supply Projects Nationally

- Purpose and Need – insufficient /incorrect documentation/data to support need
- Alternatives Analysis – less damaging practicable alternative available
- Assessment of Impacts
- Mitigation
- Tribal / Cultural Resources
- NEPA Compliance
- Interbasin Transfer of Invasive Species
- Cost Increases due to additional work
- Lengthy Time to Complete Permit Processes
- Controversy / Opposition
- Litigation

Examples of Large Water Supply Projects Challenges and Results

- **Lake Columbia, TX**, 15+ yrs, $2M+ spent
  - Challenges - Alternatives, impacts, NEPA compliance
  - Result - EPA EU3 rating on EIS, on hold due to funding
- **Newport News, VA, King William Reservoir**, 20+ yrs, $50M+ spent
  - Challenges - Need/purpose, alternatives, impacts, tribal, mitigation
  - Result - EPA vetoed 1st permit; court overturned 2nd permit; no project built
- **Marion, IL, Sugar Creek Lake**, 15+ yrs, $10M+ spent
  - Challenges - Purpose and alternatives
  - Result - Court overturned permit; no project built
- **Denver, CO, Two Forks Reservoir**, 10+ yrs, $40M+ spent
  - Challenges - Need/purpose, alternatives, impacts, mitigation
  - Result - EPA vetoed permit; no project built

Actions Taken by USACE in Texas

- 2007 Interagency Educational Workshops for water resource providers and resource agencies.
- Developed permit process flowchart – multi-agency effort completed 2013. Publication pending.
- Established regional Regulatory team on water supply
  - Includes Albuquerque, Fort Worth, Galveston, Tulsa Districts and Southwestern Division
  - Evaluating current processes & developing recommendations to improve consistency
  - Developing possible improvements/strategies for increased efficiency/predictability
  - Identified data needs for permitting [draft "GAP" Analysis]
- Regional USACE staff training on Regulatory EISs

Actions Taken by USACE in Texas

- Reviewing WAM for shortcomings and possible additional uses in 404 permit process analyses
- USACE Planning, Regulatory and Programs coordinating "Gap" Analysis ideas with TWDB.
- Assessing method(s) to address conservation and unit use rates in permit process
- Implementing regional review of EISs for water supply projects requiring Regulatory permits
- Considering development of internal regional EIS standard operating procedure for 404/10 permit process

Goals of Actions Taken by the USACE Regulatory Staff

- Increased predictability for applicants
- Improved understanding of permit processes
- Reduction in duplicative efforts
- Improved permit applications and documentation
- Improved focus on analyses/data needed
- Time and cost savings

Potential Future Actions

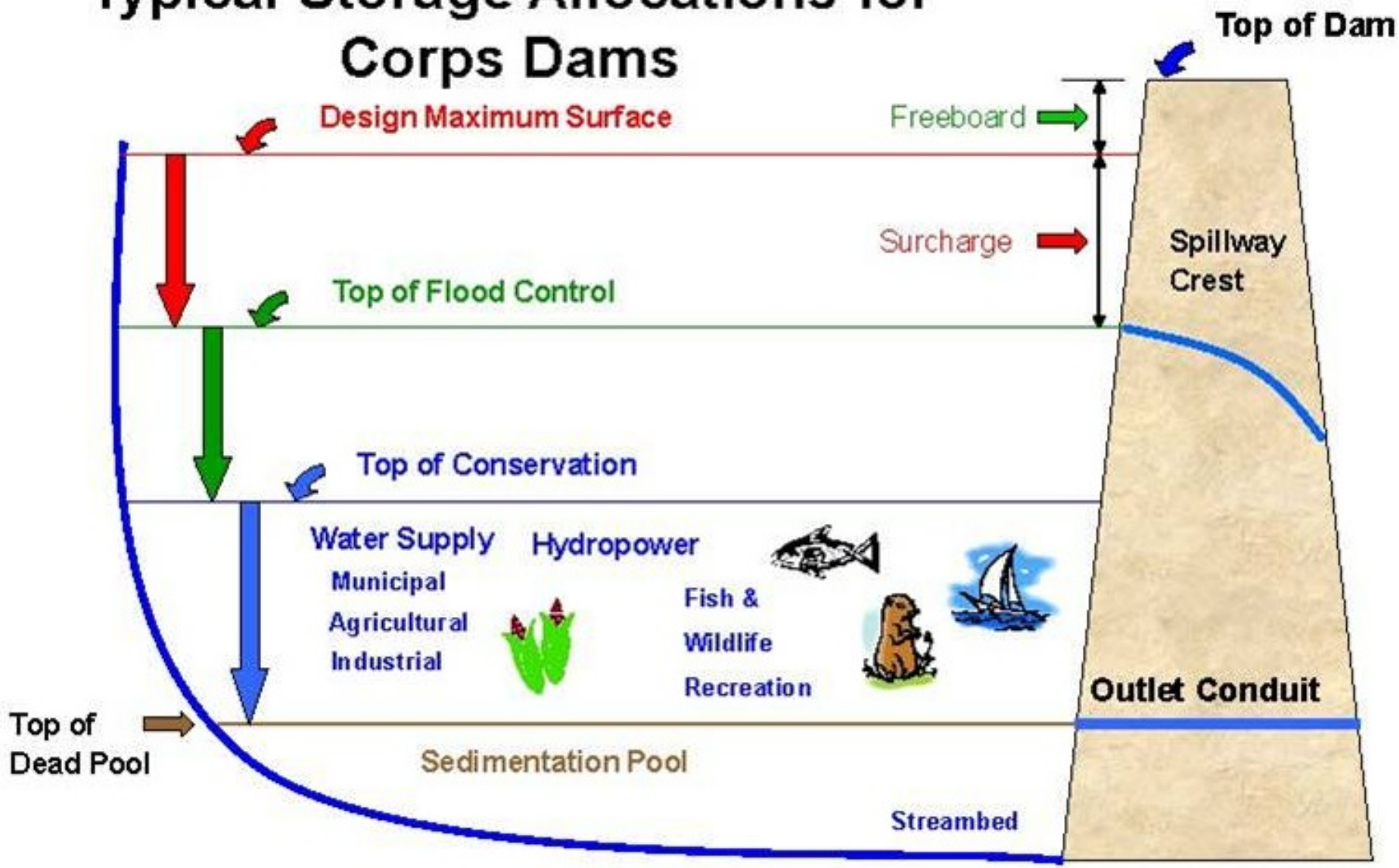
- Develop USACE/TWDB work plan [Gap Analysis]
  - Develop project priorities based on “scalability”
  - Establish interagency cooperation framework & team(s)
  - Coordinate with cooperating agencies to undertake joint staff level interagency training on State Water Plan and permit processes
  - Coordinate with cooperating agencies to undertake joint interagency public outreach to water suppliers to improve understanding of permit review process
- Improve consistency of Assessment Methods/Impact Analysis Assessments
- Share data
- Cultivate financial sources to support these efforts

Increasing Potential Critical Yield from Existing Reservoirs

Section 216, FCA of 1970

- Congress provided the authority to review the operation of completed projects, when found advisable due to changed physical or economic conditions, and to report to Congress with recommendations on the advisability of modifying the structures or their operation, and for improving the quality of the environment in the overall public interest.

Typical Storage Allocations for Corps Dams



Reallocation of Storage

- As the growing population increases demand for M&I water supply, conversion of flood storage to water supply results in increased net economic benefits and return to the U.S. treasury.
- Minor reallocations do not require authorization from Congress.

Active Reallocation Studies within the Fort Worth District

- Aquilla Lake, located west of Hillsboro.
- Wright Patman Lake, on the Sulphur River near Texarkana.
  - Sulphur Basin in northeast Texas has the vast majority of unappropriated water in Texas.
  - May be DFW's best (or only) choice to meet future water needs.

Major Considerations

- Other available supplies
- Loss of flood storage, resulting in increased flood risk downstream
- Dam Safety considerations
- Environmental and cultural impacts from increased permanent pool

Questions???

Contact:

Elston D. Eckhardt, P.E.
Chief, Civil Project Management Branch
Email: elston.d.eckhardt@usace.army.mil
Phone: 817-886-1378