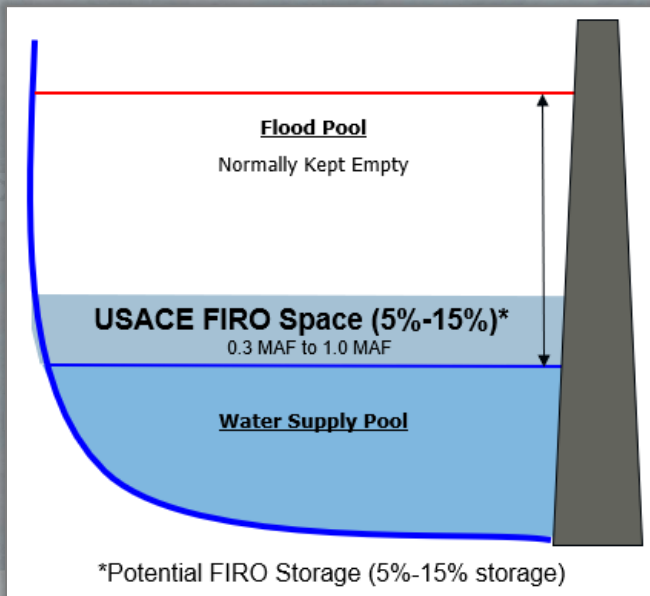


Forecast Informed Reservoir Operations



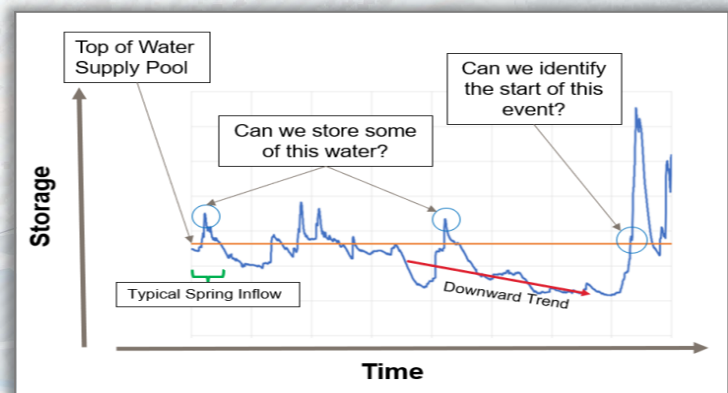
Impact of USACE Reservoirs within Texas

U.S. Army Corps of Engineers (USACE) reservoirs are divided into several internal pools including a conservation pool (e.g., water supply pool), flood pool, and surcharge pool. Water supply, hydropower, environmental, and socio-economic benefits are derived from water stored within the water supply pool. Traditionally, the flood pool storage space was evacuated as quickly as practicable to maximize the opportunity to capture future, potentially damaging runoff and only used to derive flood benefits. Fort Worth District reservoirs within Texas currently store 6.5 million acre-feet (MAF) of Water Supply storage or about 30% of the surface water storage for Texas. These reservoirs also provide 13.4 MAF of flood pool storage which is normally kept empty. Many agricultural, industrial, and other local economies are heavily dependent on water from USACE reservoir pools.



What is FIRO and why implement in Texas?

Recent changes in USACE policy allow for the use of forecasts in reservoir operations. Forecast Informed Reservoir Operations (FIRO) is an adaptive management strategy that would allow use of the lower portions of the flood pool, during certain periods, to retain storage to increase water supply reliability, while still providing flood damage reduction benefits. FIRO efforts within Texas could provide an additional 0.3 to 1.0 MAF of storage to increase water supply reliability.



Future of FIRO:

USACE – Fort Worth staff, along with other Federal and local partners are in the planning stages of the technical analysis and modeling efforts that will accompany this FIRO effort for Texas. A FIRO Technical Advisory Committee (TAC) is also in the beginning stages of forming. Stakeholders within the Neches, Trinity, and Brazos basins have expressed interest in pursuing FIRO for USACE reservoirs within their watersheds. It is anticipated that each basin and will require approximately five years to complete.

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