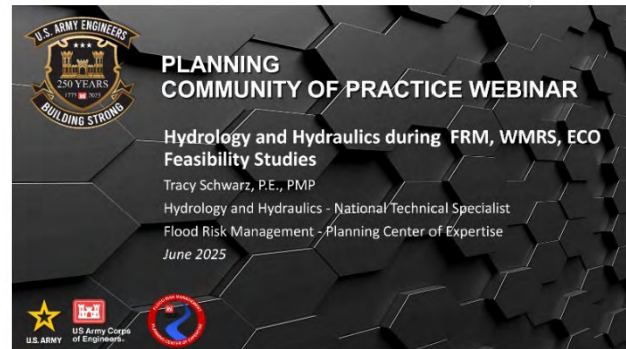



This webinar provided an overview of the Hydrology and Hydraulics (H&H) requirements during Flood Risk Management, Water Management and Reallocation, and Ecosystem Restoration Feasibility Studies. Presented by Tracy Schwarz (Hydrology and Hydraulics National Technical Specialist, Flood Risk Management Planning Center of Expertise), this webinar provided relevant information for planners about the roles and responsibilities of H&H engineers during a feasibility study.



This summary of the Question/Answer session of the webinar is not a transcription; questions and responses have been edited and reordered for clarity.

Relevant Resources:

- [Engineer Regulation 1105-2-101: Risk Assessment for Flood Risk Management Studies](#), which covers policy requirements for risk assessments for FRM projects
- [Risk-Based Analysis for FRM Studies YouTube Channel \(PROSPECT Course #209\)](#)
- [Planning Centers of Expertise Knowledge Management Portal Site](#) 

How far upstream from a flooding point should be included in a watershed model?

The model should extend far enough upstream to capture the entire watershed that drains to the study area. While hydraulic modeling for alternatives analysis may not need to go that far upstream, the hydrology component must include the full upstream watershed.

How can Corps Water Management System (CWMS) modeling be best incorporated between the feasibility cost share agreement and Command Validation Milestone to support data leveraging?

If a CWMS model already exists for the study reach, study teams can leverage the modeling early on. CWMS includes HEC-HMS, ResSim, HEC-RAS, and more, all of which are relevant for use in feasibility studies. However, keep in mind that CWMS models vary in the quality of data used for terrain, bathymetry, structure data, or the level of detail used in their development. Additional coordination with the FRM-PCX or the vertical team may be needed before use.

Is it reasonable to use new terrain data in a Continuing Authorities Program (CAP) study, or is it only feasible for use in a General Investigation study?

Using new terrain data in a CAP project is reasonable if it affects alternative selection. Like General Investigations, often, low- or no-cost LiDAR or bathymetric data is available for use in CAP or CAP-like projects.

For flood risk management feasibility studies, is it best practice for the lead H&H engineer to serve as the Engineer Technical Lead (ETL)?

During the feasibility phase, it's appropriate for an H&H engineer to be the ETL, but this role should be separate from the person performing the modeling to avoid workload bandwidth concerns. In the pre-engineering and design phase, the ETL role should transition to someone in engineering design.

Does the term “hydraulics” still apply when working on a project where the ocean is considered a harbor?

Analysis of the hydraulics of coastal features is referred to as coastal engineering.