

Hydropower Execution Process

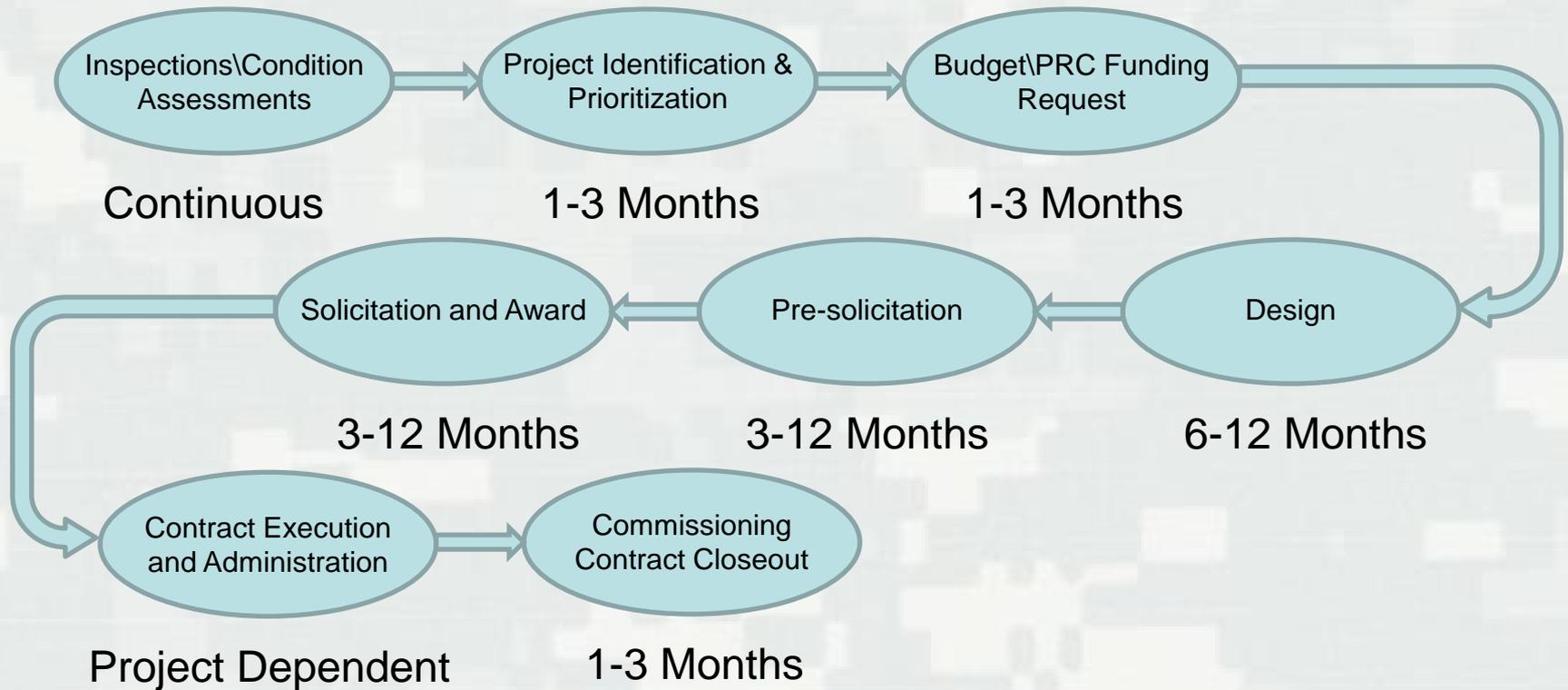
Southeastern Federal Power Alliance

April 2, 2015

Christopher S. Ludwig, P.E.
U.S. Army Corps of Engineers
Mobile District



Life Cycle Overview



Inspections & Condition Assessments

- Description:
 - ▶ Routine maintenance function performed by maintenance staff and HTC engineers.
 - ▶ Common set of equipment specific criteria used to assess equipment condition.
 - ▶ Compiled and reviewed annually and coordinated by HTC engineers.
 - ▶ Combined with consequence of failure criteria to determine relative risk.

- Challenges:
 - ▶ Historically a lack of common, pertinent, and specific criteria for assessments hindered the Division's ability to accurately prioritize equipment replacement.
 - ▶ Issues have been resolved in recent years through development of necessary criteria and inspection procedures as well as a regional process for evolution and review.



Project Identification and Prioritization

- Description:
 - ▶ Condition assessment data is combined with consequence of failure to develop a relative risk rating.
 - ▶ Assets are ranked across the Division based on relative risk and reviewed Hydropower Program leadership.
 - ▶ Rankings are used to identify highest priority work.

- Challenges:
 - ▶ Much of the Division's hydropower infrastructure went into service in the same period resulting in a higher likelihood of simultaneous failure.
 - ▶ Historically funding for capital improvements has been limited.
 - ▶ Consequently prioritizing becomes difficult – there is no perfect decision



Budget\PRC Funding Request

- Description:
 - ▶ Highest priority projects selected for funding.
 - ▶ Requests are made through O&M appropriation packages or the Section 212 PRC.
 - ▶ Approved requests move into the Design phase once funding is received.

- Challenges:
 - ▶ Appropriations process takes two years to complete. Continuing resolutions make it difficult to execute large major maintenance projects.
 - ▶ Customer funding is extremely fast but still maintains a level of uncertainty until a sub-agreement is executed which limits planning ability.



Design

- Description:
 - ▶ Technical development of plans and specifications for procurement and installation.
 - ▶ Function performed by the Hydroelectric Design Center (HDC) in Portland, OR.
 - ▶ Reviews conducted by HTC at predetermined stages of the process

- Challenges:
 - ▶ Development time varies heavily on HDC work load.
 - ▶ Uncertainty in District\Division planning limits HDC's ability to staff appropriately.



Pre-solicitation

- Description:
 - ▶ Development of contracting package used to solicit proposals from potential vendors\contractors.
 - ▶ Requirements vary based on type of contract and dollar amount; dictated by FAR.
 - ▶ At a minimum requires acquisition strategy, detail cost estimate, evaluation criteria, and selection of appropriate contract clauses.
 - ▶ Multiple stages of coordination and reviews among USACE organizations (Contracting, Office of Counsel, Small Business), as well as postings to the federal register

- Challenges
 - ▶ Increasing requirements placed on both contracting and operations in the past two years.
 - ▶ Number and level of reviews have increased, local authorities have been restricted.
 - ▶ Insufficient personnel with the necessary skills and experience to absorb the additional requirements.



Solicitation and Award

- Description:
 - ▶ Advertisement of solicitation package composed of technical design and pre-solicitation documentation.
 - ▶ Posted for a minimum of 30 days.
 - ▶ Proposals received from bidders and evaluated by source selection panel
 - ▶ May require multiple rounds of evaluation.
 - ▶ Results in selection of best value proposal; selection and justification are thoroughly documented and award is announced.
 - ▶ Thirty day window post award for protest.
 - ▶ If no protests are made work can normally be expected to proceed within thirty days.

- Challenges:
 - ▶ Similar to pre-solicitation.



Contract Execution and Administration

- Description:
 - ▶ Contractor on site performing work defined on contract scope
 - ▶ HTC engineers provide oversight of the contractor ensuring compliance with the specification, coordination of submittal review and approval, and fiscal administration.
 - ▶ HTC coordinates actions with contracting division and HDC as appropriate.

- Challenges:
 - ▶ None with respect to delays in execution.



Commissioning and Contract Closeout

- Description:
 - ▶ Equipment is tested and accepted then placed in service.
 - ▶ Final invoices are processed
 - ▶ Contracting actions performed to close the contract.
- Challenges:
 - ▶ None with respect to delays in execution.

