



Study Methodology

- Collect and review existing internal/external data
- Survey design providers and design clients
 - Three questionnaires were developed to gauge experiences, practices, and perceptions of Reclamation engineering standards and processes vs. other standards and processes
 - Reclamation (TSC, region, area & field offices)
 - External (other owners -- Federal & State agencies, large utilities)
 - Customer (water user organizations)
- Conduct face-to-face interviews
- Collect electronic questionnaire responses

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Elements of Good Engineering

- Design data gathering
- Design standards
- Design process
- Close out process

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Team 16 (Standards) Findings/Decisions

- **Design Data Collection**
 - Finalize and implement design data collection guidelines
 - Regional assignment of design data collection responsibilities

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Team 16 (Standards) Findings/Decisions

- **Design Standards (primary role to TSC)**
 - Review of existing standards, manuals, monographs, technical memoranda, and commonly accepted practices
 - RLT to identify sources of funds to perform review
 - Input of Reclamation staff and customers in review process
 - Update/create identified needed internal standards
 - Communication of changes in standards to all offices
 - Posting of standards to website
 - Develop/maintain standards for high hazard/risk facilities in coordination with Dam Safety Office

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Team 16 (Standards) Findings/Decisions

- **Design Process**
 - Communicate role of TSC
 - Communications plan for final design process
 - Engage RDCCT in developing more efficient means of developing designs
 - Collect data for internally and externally prepared designs
 - Determination of who communicates with stakeholders on design and construction projects
 - Ensure programs initiate dialog between producers and receivers of design services

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Team 16 (Standards) Findings/Decisions

- **Closeout Process**
 - Develop/communicate non-discretionary closeout process
 - Web-based closeout questionnaire
 - Regional entry of responses into accessible database

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