

Department of the Interior Departmental Manual

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Part 155: Bureau of Reclamation

Chapter 4: Director, Technical Resources

Originating Office: Bureau of Reclamation

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4.1 Director, Technical Resources. The Director provides direction, management, and coordination of scientific research, engineering and technical services related to water resources management and development; research programs which develop new information and technologies that respond to and anticipate mission-related needs and provide for innovative management, development, and protection of water and related resources. Oversees design, estimating, and construction activities for Reclamation and is responsible for the quality assurance of the dam safety program; and oversees the coordination of Reclamation's power function with the Corps of Engineers, Western Area Power Administration, Bonneville Power Administration, and the Tennessee Valley Authority. The office is located in Denver, CO. The following offices report to the Director.

A. Senior Advisor, Hydropower. Serves as the liaison on intergovernmental initiatives associated with hydropower delivery. Formulates and coordinates the implementation of corporate partnership efforts involving Reclamation's power functions and activities in support of Departmental goals and interagency objectives in collaboration with the Corps of Engineers and the Tennessee Valley Authority. Represents Reclamation and coordinates with the Western Electricity Coordinating Council (WECC), the North American Electric Reliability Corporation, and the Federal Energy Regulatory Commission. Oversees and is responsible for Reclamation's reliability compliance pertaining to WECC standards. In addition to the above, the Senior Advisor oversees the **Manager, Power Resources** who performs the following:

- (1) Formulates, coordinates, and provides guidance and support associated with Reclamation's power resources.
- (2) Provides program management oversight for the Power Review of Operation and Maintenance program and the Power Operations and Maintenance Incident Evaluation and Reporting program.
- (3) Facilitates development of Reclamation Manual Policy and Directives and Standards for the Reclamation power program with regional power managers.
- (4) Manages the development of technical standards, procedures, and instructions.

(5) Develops power business practices and compiles best practices, collects power program data and prepares benchmarking statistics, conducts special engineering studies, and produces training materials and seminars related to power operation and maintenance work.

B. Senior Advisor, Design, Estimating, and Construction and Dam Safety Officer.
Serves as the senior advisor to the Director, Technical Resources focusing on oversight associated with design, cost estimating, and construction activities and the auditing function of the dam safety program within Reclamation. Responsible for providing advice and increasing awareness of established requirements within Reclamation as studies are being formulated or prepared.

C. Director, Technical Services Center. Responsible for providing scientific, applied research, and engineering services related to water resources projects and programs in support of Reclamation's major functions. Technical support is provided in broad areas of water and power resources development and management; geotechnical, civil, mechanical, and electrical engineering; dam safety; social and environmental science; and laboratory services.

(1) Chief, Civil Engineering Services is responsible for structural and hydraulic analysis of waterways and concrete dams. Provides assistance in selecting sites for structures as well as consultation and technical advice for pumping plants, power plants, fish facilities, wetlands, roads, bridges, pipelines, tunnels, canals, and diversion structures. Provides construction management consultation and engineering services such as cost estimates; planning and technical specifications; and material engineering services, specializing in technologies such as corrosion, coatings, plastics, concrete, soil, and rock. Manages Reclamation's Value Engineering/Value Analysis program.

(2) Chief, Environmental Services is responsible for environmental studies and examination of the interrelationships between the environment and regulated aquatic systems. Provides research and investigative services for water treatment and desalting pilot plants and water quality chemical analyses. Performs development, design, and compilation of tabular and graphic spatial databases, water resource-related economic and financial analysis, as well as social analysis and public involvement on the impact of government actions.

(3) Chief, Geotechnical Services is responsible for geotechnical studies, analyses, and designs of embankment dams, structure foundations, and surface and underground excavations including landslides. Provides geologic services including development and interpretation of exploration and laboratory testing programs; and specialized geological, seismological, and geophysical investigations of regional earthquake hazards, engineering geophysics and paleofloods. Monitors dam performance and safety through the dam safety program.

(4) Chief, Infrastructure Services is responsible for engineering services for mechanical and electrical equipment and systems related to primary hydropower generation and water delivery equipment. Provides complete electrical and mechanical design, inspection, installation, testing analysis, and operation and maintenance services for powerplants, pumping plants, dams, and water conveyance structures. Provides specialized operation and maintenance

services such as diagnostics and repair for generators, power transformers, switch gear, protective relaying, and provides power system studies.

(5) Chief, Water Resources Services is responsible for applied research, planning investigations and water operations support, and special studies related to Reclamation's water management needs. Provides technical support including design, analysis, studies, and reviews in the areas of water supply availability, dependability, requirements, use, and rights; water quality; flood hydrology and hydrometeorology; sedimentation and river hydraulics; emergency management; land suitability; and drainage and groundwater activities. Provides hydraulic analyses of structures and fish protection facilities.

D. Director, Research and Development. Responsible for identifying and projecting needs to determine the direction of Reclamation's research program. Serves as consultant for Reclamation research programs to offices throughout Reclamation and the Department; plans, executes, and reports the results of the Science and Technology and Desalination programs; and ensures interchange of scientific knowledge between researchers and operational programs and compliance with the Federal Technology Transfer Act and related intellectual property protection acts. Provides expert technical, fiscal, legislative, and policy advice and assistance to the Technical Resources Director and the Commissioner on the Science and Technology and Desalination programs. In addition to the above, the Director oversees the **Research Program Coordinator** who performs the following:

(1) Implements and coordinates the day-to-day operations of the Reclamation-wide research and technology transfer programs.

(2) Provides program development and evaluation, budget development, and financial management.

(3) Coordinates with Reclamation offices, including the Technical Service Center, and other government and non-government agencies.