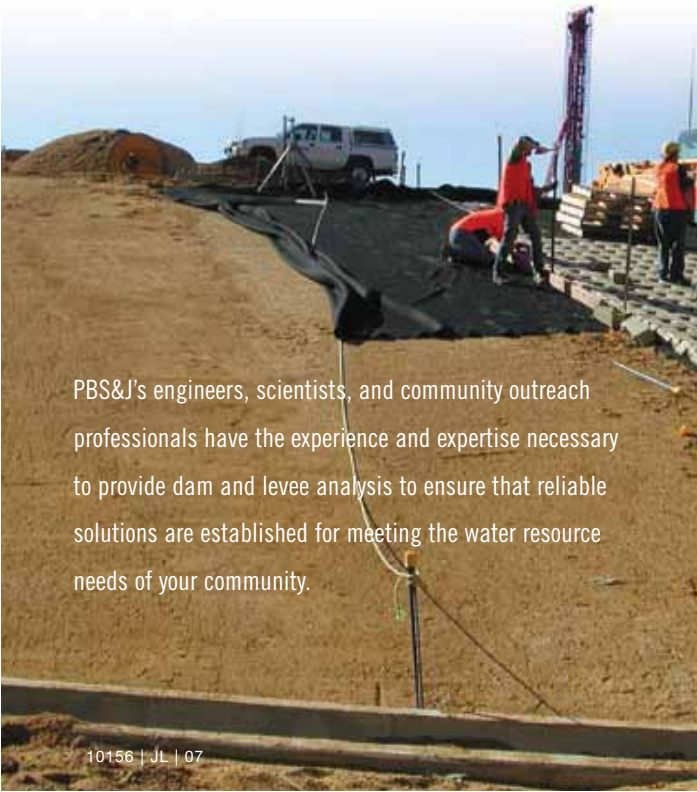


Typical Concerns with Existing Dams or Levee Systems

Many aging dams and levees require rehabilitation because they were designed to lower standards in effect at the time, or without the benefit of the additional years of hydrologic and climatological data we have now. For example, safety concerns could be an issue in an area where a dam or levee was built in a previously isolated or agricultural location that is scheduled for residential or commercial development. In other locations, water demands have become greater than the existing water supply, or new communities have moved into floodplains and require flood control or other needs such as municipal supply, or recreational facilities.



PBS&J's engineers, scientists, and community outreach professionals have the experience and expertise necessary to provide dam and levee analysis to ensure that reliable solutions are established for meeting the water resource needs of your community.

PBS&J Office Network



For more information about PBS&J's comprehensive services, please contact your local PBS&J office or one of the following:

Atlanta, Georgia	770.933.0280
Austin, Texas	800.880.5949
Beltsville, Maryland	800.697.7275
Chantilly, Virginia	703.471.7275
Charlotte, North Carolina	704.522.7275
Dallas, Texas	888.649.7275
Denver, Colorado	303.221.7275
Houston, Texas	888.658.7275
Las Vegas, Nevada	800.483.6244
Miami, Florida	800.597.7275
Missoula, Montana	406.532.7275
Orange, California	800.398.8660
Orlando, Florida	800.284.5182
Phoenix, Arizona	888.620.1003
Pittsburgh, Pennsylvania	412.269.7275
Raleigh, North Carolina	919.876.6888
Riverside, California	800.398.2173
Sacramento, California	916.325.4800
San Antonio, Texas	210.828.9494
San Diego, California	760.753.1120
Tallahassee, Florida	850.575.1800
Tampa, Florida	800.477.7275
West Palm Beach, Florida	561.689.7275

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Dam and Levee Services



PBS&J provides dam and levee safety analysis services and can assist in the following areas:

- Hydraulic design of dams
 - Flood control, municipal water supply, recreation, re-regulation, irrigation and hydropower
 - Reservoir systems in series and/or parallel
 - Design flood hydrographs
 - High volume depth-duration-frequency analysis
 - Probable maximum flood analysis
 - Mixed population analysis
 - Ice effects
 - Coincident flow analysis
 - Low volume depth-duration-frequency (drought analysis)
 - Rule curves for drought conditions
- Safe yield and basin yield analysis
 - Stochastic analysis of gaged data
 - Principal Spillway Design
 - Drop inlet, two-way drop, morning glory
 - Gated, ogee-crested
 - RCC
 - Stilling Basin Design
 - Plunge pool, impact basin, baffled apron, SAF
 - Vegetated, broad-crested emergency spillways
 - Dam face and shoreline protection
 - Wave run-up, berm, protective covering (riprap, articulating block, soil-cement)
 - Levee interior drainage analysis
 - Levee embankment scour and drainage structure protection
- Emergency Action Plans
 - Dam/Levee breach analysis
 - Coordination with federal, state and local officials in generation of flood response plans and potential breach emergency measures
 - Safety evaluation, including periodic and annual inspections
 - Water Supply System
 - Intake and water treatment design
 - Water distribution and supply line design
 - Permitting and Regulatory Requirements
 - Floodplain construction
 - Floodplain remapping
 - Wetland delineation and mitigation
 - Dam/Levee embankment and spillway rehabilitation
 - Hydrologic and hydraulic reanalysis
 - Spillway redesign, including labyrinth, tipping bucket and rubber dams

