



## Hydropower services – geotechnical and tunnel engineering

### *Harnessing the power of water*

WSP USA is a global leader in geotechnical and tunnel engineering. We build and maintain underground infrastructure for water, utility, transportation and energy storage assets. Our hands-on experience includes all types of tunnels—rock, soft ground, cut-and-cover, immersed, micro/trenchless and the new Austrian tunneling/sequential excavation method.

WSP's geotechnical engineers offer a complete toolbox for undertaking any engineering assignment, including additions or modifications to existing dams, powerhouses, water retaining and conveyance structures; proposed new hydropower projects and building and structure foundations and underpinnings. We provide engineering support during construction, as well as construction oversight and management.

We offer lifecycle geotechnical and tunneling services for earth and rockfill embankments, levees and canals, foundations, overtopping and spillway slope protection, anchors, sinkholes, grouting, subsurface investigations and instrumentation.

#### **EXPERTISE**

- Geotechnical and tunneling services for earth and rockfill embankments
- Levees and canals
- Foundations
- Overtopping and spillway slope protection
- Sinkholes
- Grouting
- Subsurface investigation and instrumentation

## OUR SERVICES

- Develop and oversee exploratory drilling, test pits and lab testing programs
- Design/install instrumentation
- Assess the stability of soil and rock slopes and develop mitigation designs
- Evaluate seismic conditions
- Create project-specific seismic design criteria
- Investigate and remediate soft-soil foundations and sinkholes
- Conduct regional assessments of geologic hazards
- Perform surface/subsurface geophysics to understand stratigraphy and underground structures
- Perform geologic mapping
- Interpret remotely obtained data such as LIDAR imagery and aerial photography
- Investigate and remediate Karst formations
- Perform dye tests and evaluate seepage
- Perform multi-dimensional ground response analyses
- Develop design bedrock ground motions
- Conduct liquefaction analyses and develop mitigation designs



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## ABOUT WSP

WSP USA is the U.S. operating company of WSP, one of the world's leading engineering, environment and professional services firms. Recognized on [Fast Company's Brands that Matter List for 2022](#) as a top Community-Minded Business, WSP USA brings together engineers, planners, technical experts, strategic advisors and construction management professionals who are dedicated to collaborate in the best interests of serving local communities. WSP USA designs lasting solutions in the buildings, transportation, energy, water and environment markets. With more than 15,500 employees in 300 offices across the U.S., WSP partners with its clients to help communities prosper.



## CONTACT US

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