



Hydropower services – gate and intake structural engineering

Harnessing the power of water

WSP USA has years of experience addressing the challenges of hydropower dam and water infrastructure projects. We have built our reputation on our expertise, experience, ingenuity and commitment, as well as our proven ability to exceed client requirements.

Our technical expertise and experience enable us to plan, engineer, design, inspect, assess, monitor, repair, rehabilitate and otherwise support gate and intake structures.

STRUCTURES

- Gates – tainter, slide, roller, fixed-wheel, stoney and crest
- Sluice gates
- Intakes and outlets
- Trash racks
- Penstocks, pipelines and tunnels
- Waterways and canals
- Stoplogs
- Bulkheads – fixed and floating
- Cofferdams
- Boat barriers



OUR SERVICES

- Design and engineering of gate modifications
- Owner's engineer services
- Inspections and condition assessments
- Trash rack design
- Engineering field investigations
- Inspection/modification/replacement of intakes including concrete, gates and hoists
- Preparation of performance specifications for new gates and hoists
- Structural, mechanical and electrical design
- Engineering support during construction
- Construction bid management and evaluation
- Constructibility reviews
- Vendor shop inspections
- Underwater inspection and repair support
- Reliability assessments
- Static and dynamic analysis
- 3D finite element model analysis
- Seismic evaluations



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

For more information about how we can help you deliver your next project, contact:

Matthew Chan, PhD
Business Development Manager

Matthew.Chan@wsp.com
+1 971 346 5726

[wsp.com](https://www.wsp.com)