









Quality By Design.



Dam Services

Clough Harbour & Associates LLP (CHA) has an extensive history of providing dam investigation, analysis and design services. Our wealth of experience ranges from small earth dams to large concrete gravity dams. From initial concept through permitting and construction, CHA is able to provide all the services necessary for most dam engineering and inspection projects by forming an internal team of geotechnical, structural, hydraulic, mechanical and electrical engineers as well as geologists and hydrogeologists who are well equipped to tackle the multi-disciplinary challenges of dam projects. Our dam engineering services include:

-  Feasibility, Siting, Inundation & Hazard Classification Studies
-  Stability Analysis & Design
-  Geotechnical & Geologic Foundation Evaluations
-  Rehabilitation Needs Assessment
-  Forensic Dam Analysis
-  Emergency Action Plans
-  Dam & Reservoir Design
-  Embankment Design
-  Permitting & Compliance
-  Environmental Impact Studies
-  Sediment Contamination Studies
-  Seepage Cut-off & Controls Design
-  Reservoir Capacity, Yield & Sedimentation Analysis & Design
-  River Flow Forecasting
-  Underwater Inspections
-  Topographic, Fathometric & Precision Movement Surveys
-  Hydrologic & Hydraulic Analyses & Computer Modeling
-  Construction Inspection & Contract Administration



Dam Spillway Failure



Dam Spillway After Repairs



CLOUGH HARBOUR & ASSOCIATES LLP
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"Satisfying our Clients with Dedicated People Committed to Total Quality"

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Representative Projects

Emergency Spillway Repair - Stony Creek Reservoir Dam

CHA was responsible for the design, implementation and management of correction measures to repair a failed dam spillway at the Stony Creek Reservoir Dam. Repairs were conducted under emergency authorization granted by the New York State Department of Environmental Conservation.

Martin Brook Dam #3 Rehabilitation

The Martin Brook Dam #3 was constructed in about 1914 and experienced gradual deterioration over the years. The Village of Unadilla, New York retained CHA to design a remediation that maintained the dam's historic appearance. The selected remediation was a reinforced concrete facing anchored to the existing dam structure and bedrock. The project also included repointing of stone masonry spillway walls. Services provided by CHA included remediation alternative analysis, NYSDEC permitting, contract documents and construction inspection.



Edgewood Lake Dams

CHA was retained to prepare a design for the rehabilitation of two dams located on a private land in Sullivan County, New York. The two dams create the North and South Edgewood Lakes that are both approximately 20 acres in size. The dams for the lakes have deteriorated considerably since their construction pre-1940 and did not meet the current New York State Department of Environmental Conservation dam safety guidelines.

Various Dam Safety Repairs – State of Virginia

In order to comply with the findings of the 1997 House Joint Resolution 446, Study of Dams owned by Soil and Water Conservation Districts, the Virginia Department of Conservation and Recreation retained CHA to design repairs to various dam riser structures and outfalls. CHA performed detailed field investigations, construction documents, and full time construction observation services for six locations in Virginia.

For more information
about how CHA can help you,
please contact
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at 800-836-0817