



STORMWATER

OUR SERVICES

- ▶ Hydrologic & Hydraulic Report Preparation
- ▶ Safety & Compliance Evaluations
- ▶ Size & Hazard Classification
- ▶ Construction Plans & Design Services for Proposed, Repaired, or Removed Dams
- ▶ Emergency Action Plan Compliance
- ▶ Operation & Maintenance Manual Development
- ▶ Stream, Wetlands, Buffer & Endangered Species Assessment & Permitting
- ▶ FEMA Studies & Permitting
- ▶ Flood Hazard Assessment
- ▶ Cost Estimates
- ▶ Construction Administration & Observation

REACH OUT

www.withersravenel.com

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115 MacKenan Drive
Cary, NC 27511

comprehensive DAM DESIGN & rehabilitation

The majority of dams in North Carolina are in excess of 50 years old and were constructed for agricultural purposes when the state was predominately rural. As populations have grown, dams have been surrounded by and often included within developing lands. The impact of the upstream development may mean spillways are no longer adequate to handle the increase in runoff. As a result, dam overtopping failures are the leading cause of dam failure in North Carolina. With more and more people living downstream of existing dams, the risks and potential liabilities borne by dam owners are also on the rise.

WithersRavenel helps dam owners understand their dams and how to take care of them. We lead them through the complex combination of state and federal regulations that govern dam safety, educating and advising on the requirements, options, and time and cost implications of compliance. Working with geotechnical and structural engineers, we design dam rehabilitation measures, including slope stabilization, new outlet structures, and spillways. With our help, dam owners are able to repair or remove their dams in accordance with North Carolina Department of Environmental Quality Land Resources guidelines to make communities safer.

