**NEWS ARTICLE**

AECOM ranked first in Dams and Reservoirs in ENR Top 500 Design Firms for 2023

**30 January 2024:** Globally trusted infrastructure consulting firm [AECOM](http://www.aecom.com) was ranked first in Dams and Reservoirs in the Engineering News-Record (ENR) Top 500 Design Firms list for 2023. It underpins its reputation as the global leader in dam, reservoir and water projects. With over 85 years in the industry, AECOM has worked on literally thousands of dams and water resources projects around the world.

“We offer solutions in every facet of dam engineering, from planning and feasibility through design and construction, commissioning, operation, ongoing dam safety monitoring, maintenance, rehabilitation and decommissioning,” explains **Danie Badenhorst**, Dams and Hydropower Specialist at AECOM.

From homogenous to zoned earthfill, rockfill, Concrete Face Rockfill Dams (CFRD), Asphalt Concrete Rockfill Dams (ACRD), Roller Compacted Concrete Dams (RCC), mass concrete, concrete buttress and concrete arch, AECOM’s dam specialists have achieved success in all design types. Its hydropower experts have designed and constructed all types and sizes of plants, with capacities of up to 12 600 MW and heads from 21 to 2 165 feet.

The team has extensive experience in delivering dam engineering projects for public and private sector clients. “We combine our connected expertise across multiple disciplines to solve our clients’ most complex challenges. This integrated approach allows us to pair local knowledge with global expertise to deliver the best project outcomes,” explains Badenhorst.

AECOM has even developed specialised procedures and computer models to simulate past, present and future water system operations. Its world-class engineers and specialists excel in simulating surface and groundwater supply options, complex reservoir operations and instream flow requirements. It assesses and analyses alternative water resource management strategies and crucially has experience in the complex institutional and regulatory aspects of water rights, environmental permitting and adaptive management programmes.

“We work across the entire project lifecycle,” explains Badenhorst. It ranges from traditional and alternative project delivery options such as design-build, design-build-operate and public-private-partnerships. Projects include Greenfield sites, as well as dam upgrade and augmentation projects. “As a leader in upgrading and rehabilitating major dams, we have completed projects across the globe, which reflects our global reach,” comments Badenhorst.

One of South Africa’s premier dam-design engineers, Badenhorst won Engineer of the Year at the 2016 SAICE-SAFCEC Civil Engineering Awards. He has over 20 years’ experience in major water resource and hydropower development projects, involving master planning, feasibility studies and design, totalling a 40-year career in civil engineering.

Badenhorst has carried out numerous tasks as an approved professional engineer, a requirement in South Africa in terms of the Dam Safety Act. In addition, he has contributed to national and international best practice in dam engineering, including safety designs. Skills development is also a key focus, with Badenhorst mentoring candidate engineers at AECOM to build technical and professional skill sets in dams and hydropower.

In line with creating awareness for dam engineering in South Africa, Badenhorst has represented the country at the annual meetings of the International Congress of Large Dams (ICOLD) and chaired the South African National Committee of Large Dams (SANCOLD).

At AECOM, Badenhorst has been involved in some of Africa’s most prominent dam projects. These include the Itare Dam Water Supply Project in Kenya, the Mooi Mgeni Transfer Scheme for the Spring Grove Dam and Appurtenant Works, and the Umkhomazi Water Supply Project, together with the rehabilitation of 20 large dams for the Department of Water and Sanitation.

Badenhorst was also Project Manager and Study Leader for the engineering investigations for the bilateral Noordoewer/Vioolsdrift Dam Feasibility Study. Here, he trained client and sub-consultant staff on various aspects of dam-design considerations at the feasibility level.

Another major project was managing the repair works at the 145-m-high Mohale Dam during Phase 1B of the Lesotho Highlands Water Project, in addition to his role as Dam Design Engineer. His mentorship on this project saw him win the BKS Prize for Innovative Engineering for the design of a river diversion mechanism using a breaching section for the coffer dam.

Badenhorst comments that his most challenging project to date has been the Corumana Dam on the Sabie River in Mozambique. Accepted by the World Bank, his project proposal resulted in considerable cost and time-savings for the client.

Another key member of the Dams & Hydropower team is Associate Director **Isak Malherbe**, who has over 30 years’ experience. Malherbe has extensive experience in managing and executing projects related to flood mapping, risk management, flood mitigation and hydrological studies.

“AECOM is consistently ranked as the #1 Dams and Reservoirs firm by ENR, and this proves our capability in this sector. Our goal is to ensure that our water clients have access to globally sustainable technologies, locally delivered. We are committed to delivering projects that improve the quality of life for many South African communities by installing infrastructure that protects against flooding and safeguards water supply in times of drought,” concludes Malherbe.

***Ends***

**Notes to the editor**

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**About AECOM**

AECOM is the world’s trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle – from advisory, planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy, and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivalled technical and digital expertise, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a Fortune 500 firm and its Professional Services business had revenue of $14.4 billion in fiscal year 2023. See how we are delivering sustainable legacies for generations to come at aecom.com and @AECOM.

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