

MARSEILLE
DU 27 MAI
AU 3 JUIN
2022



ICOLD
27TH CONGRESS
90TH ANNUAL
MEETING



CIGB
27^{ÈME} CONGRÈS
90^{ÈME} RÉUNION
ANNUELLE



Committee G Environment

Committee G workshop – 28 may 2022

Case studies involving planning, construction and operation of dams demonstrating environmental and social benefits



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1	Elan Valley Dams	Tracey Williamson	UK	Six dams and a 117.5 km aqueduct built primarily to supply water to the city of Birmingham in the west of England Benefits: now illustrating public education and cultural heritage (over 100 years old)
2	Kaleta hydropower plant (Guinea)	Jean-Luc Pigeon	France	Kaleta dam in Guinea illustrate management of resettlement issues and socio-economic benefits for villages during construction of the hydropower scheme in this isolated area of Guinea
3	Matahina power scheme peaking station	Peter Amos	New Zealand	illustrate successful management of environmental constraints related to the operation of the Matahina Power Scheme in New Zealand. Matahina is an 80MW peaking power station
4	Miyagase	G. Yasuda	Japan	Miyagase Dam is a multipurpose dam and became a sightseeing destination with a role in regional revitalization and comprehensive reservoir area development





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6	Campbell river water use plan (Canada)	Peter Amos	New Zealand	Campbell River Hydroelectric projects (Campbell River System) are a series of reservoirs, dams, power generation structures, and diversion streams. These illustrate operating guidelines, monitoring guidelines, and physical works recommendations to positively affect fisheries, recreation, shoreline and flood mitigation
7	Collaboration on Eels protection	M. LOFQVIST	Sweden	Illustrate practical approach to manage biodiversity issues within a hydropower company and highlights a collaboration between different parties addressing a critically endangered species , the European Eel.
8	Eastmain-1-A and Sarcelle powerhouses and Rupert diversion project	Christine Vadeboncoeur	Canada	Construction of a multispecies fish pass in the Eastmain River completed in 2006 as part of Hydro-Québec’s Eastmain-1 hydroelectric project. Illustrate monitoring of lake sturgeon because of its cultural importance for the Cree Nation. Biodiversity oriented case.



9	Arto-Blanca HPP	Natacha Smolar-Zvanut	Slovenia	The Arto-Blanca run of the river hydroelectric power plant (Arto-Blanca HPP) is situated in the eastern part of Slovenia and it was built in 2009. The fish pass is located on the right bank of HPP and it was constructed in the way of imitation of natural watercourse with defined hydrological characteristics, morphology, sediments and habitats.
10	Banska Stiavnica - historic water management system	Branislav Lipták	Slovakia	Illustrate cultural and historic significance of the dams built in the 18th century : tourism, recreation and water sports, fishing, aesthetic, landscape and environmental values, local economic and social impacts, drinking and industrial water supply, flood protection. Inscription of the water constructions into the UNESCO World Cultural and Natural Heritage List
11	Windy Gap Firming Project – Chimney Hollow Dam and Reservoir	Blaine Dwyer	USA	New Off-Stream Reservoir will Fortify Water Reliability for 12 Colorado Water and Power Agencies and Improve River Health. The environmental mitigation program went significantly beyond just compensating for the direct environmental impacts of the project and included many innovative approaches and solutions.



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12	Gross Dam (Colorado)	Blaine Dwyer	USA	<p>Dam raise and reservoir expansion will enhance water security for 1.5 million people and provide environmental enhancement projects across the region. This paper briefly details the regulatory history and exhaustive negotiation with the state and federal government as well as neighboring jurisdictions to develop environmental benefits and mitigate potential impacts. It also explains the key improvements the reservoir expansion provides to Denver Water, the largest water utility in the Rocky Mountain region, and to its customers.</p>
17	Gurara dam	J. Okeleke	Nigeria	<p>The Gurara dam has functioned as a multipurpose dam by boosting water supply, promoting agriculture through irrigation, improving electric energy supply, promoting tourism, fostering technology transfer, employment generation and stimulating rural transformation.</p>

