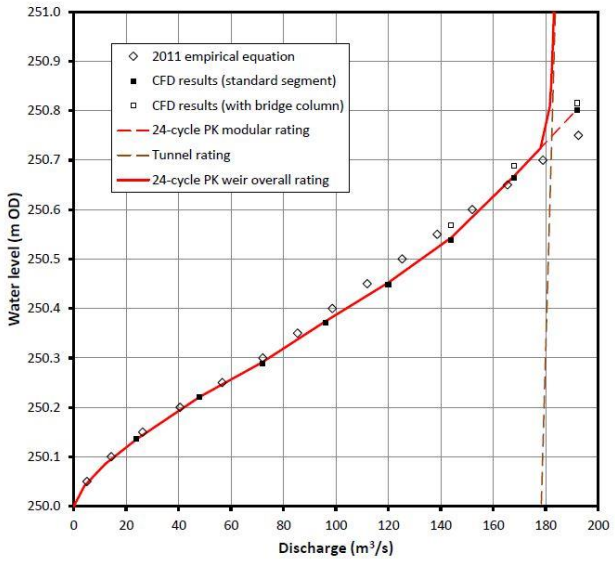
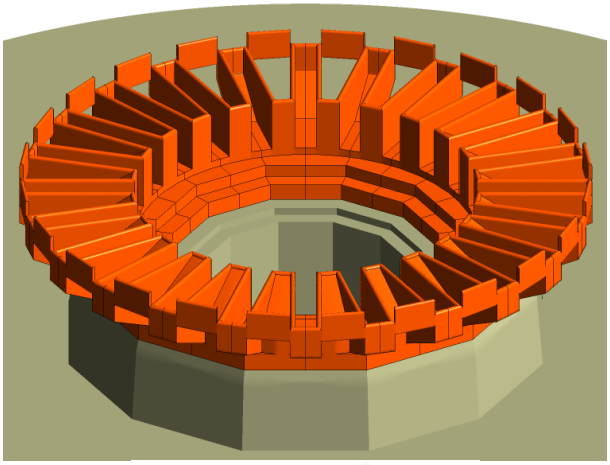
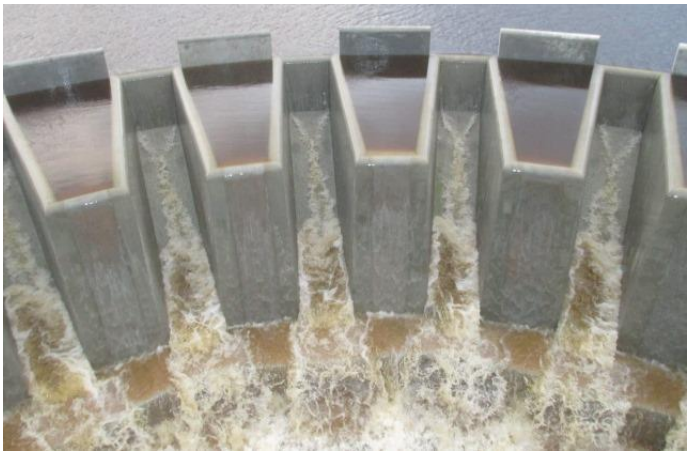
Dam's name: **BLACK ESK** *PKW's year of construction:* 2013

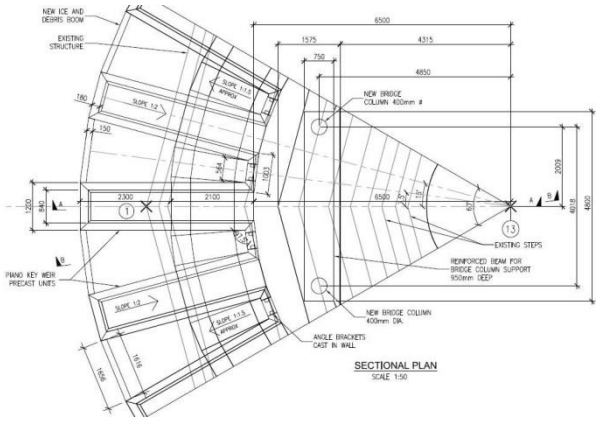




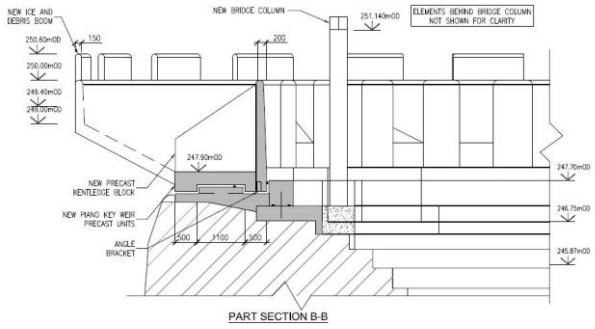


Country: Scotland

Progress of work :	Built
Dam's owner:	Scottish Water
Consultant:	Black & Veatch
Contractor:	Black & Veatch
PKW location:	On top of the rim of the original bellmouth (morning glory) shaft and tunnel spillway
Downstream energy dissipation type:	Original hydraulic jump stilling basin downstream of spillway tunnel
PKW purpose:	Allow increase in storage capacity (overflow level raised by 2.5m) while minimising dam heightening
PKW discharge capacity at MWL (m3/s):	183
Dam design flow (m3/s):	183
Monitoring devices (Presence and type):	No
Aeration (type and diameter of the pipe):	None
Overflowing Frequency:	Several times annually
Number of overflow known:	Routine
Maximum head on PKW experienced (m) and date:	0.08, 03/12/2015
Type and number of other spillway:	None
Material of the PKW:	Mostly precast concrete
B (m):	4.4
P (m):	2.1
W (m):	54.0
L (m):	238
Number of inlet:	24
W_i *(m):*	Tapers 1.6 to 0.5
Number of outlet:	24
W_o *(m):*	0.8
T_s *(m):*	0.20
PKW cost (k€)	600
Total project cost (k€)	3700



Plan view of the PKW



Cross-section view of the PKW

Comment :

Believed to be first UK application of PK weirs and to be the World's first adaptation of a battery of PK weirs around the rim of a bellmouth spillway.