

# **BOWRAVILLE OFF RIVER STORAGE**

## **PROJECT FACT SHEET**

### **BACKGROUND**

The Nambucca District water supply is drawn from bores located adjacent to the Nambucca River just upstream of Bowraville. The bores have been drilled into a shallow aquifer and the standing water level correlates closely with surface water flow in the river.

As a result of the limited storage capacity of the aquifer the Shire water supply is susceptible to drought. This was most recently demonstrated in the 2002 drought when flow in the Nambucca River ceased, a number of the bores dried out and it was estimated that only 30 to 60 days water supply remained.

The 2002 drought was the catalyst for commencing the Off River Storage Project to provide a means of providing water supply security for the Nambucca Shire. Initial feasibility reviews were completed in 2005 with the community and Council resolving to proceed with the option of constructing an off river storage on the head of the Bowra Creek catchment near Bowraville.

### **PRE CONSTRUCTION**

In 2007 Council engaged NSW Public Works (Coffs Harbour) to project manage the pre-construction works for the project. This involved procuring and managing the following consultants and engagements.

KJA - Community Consultation

Hydroilex – Borefield investigation

GHD – Environmental Impact Statement (EIS), Concept Design and Detailed Design.

The EIS was placed on public exhibition for comment from October 2009 to January 2010. Following a review of submissions Council approved the DA for the proposed Bowraville Off River Storage and Associated Works under Part 5 of the Environment Planning and Assessment Act on 21 October 2010.

### **CONSTRUCTION**

NSW Public Works (Coffs Harbour) were subsequently engaged to project manage the construction phase of the project. This involved the procurement and management of contractors and contracts for the construction of all works required for the project. Following an extensive Expression of Interest and selection process Council resolved to award the following separate contracts for the construction work.

Package A - Construction of the dam proper including foundation and embankment earthworks, intake tower, spillway and valve house as well as the access road.

Awarded to Haslin Construction Pty Ltd for \$35,789,746.22

Package B - Construction of transfer pipeline and pump station, raw water collection tank, valve cluster and two new bores.

Awarded to Ledonne Construction Pty Ltd for \$5,005,786.00

### **FUNDING**

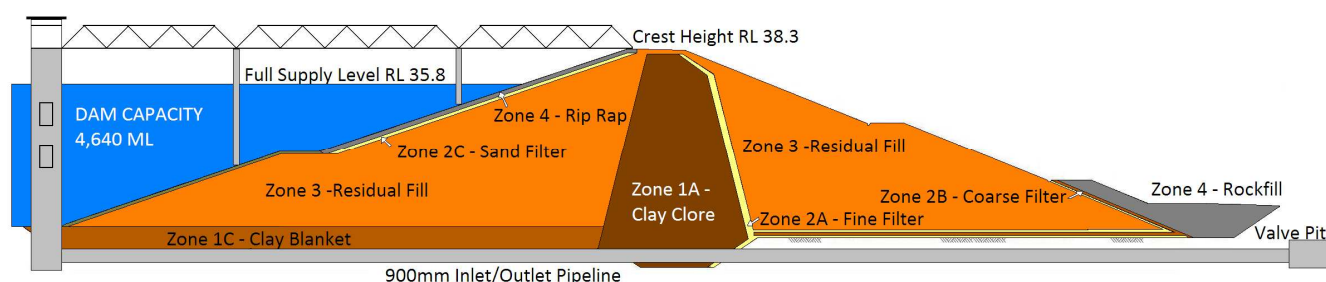
The project is being funded jointly by Nambucca Shire Council, the NSW State Government and the Federal Government. Council has secured funding of \$14.8 M from the NSW Office of Water through the Country Towns Water Supply and Sewerage Program and as well as \$10 M from the Federal Government.

### **COMPLETION**

Construction work on the Package A contract will be completed in early 2014 and the Package B contract is expected to be completed in September 2013. Filling and operation of the dam may take a further 12 months.

# BOWRAVILLE OFF RIVER STORAGE

## DAM FACTS



Dam Capacity	4,640 Megalitres
Embankment Crest Level	RL 38.3
Full Supply Level (FSL)	RL 35.8
Maximum Height Depth at Wall	22.5 metres
Embankment Crest Length	464 metres
Embankment Crest Width	7.7 metres
Core Trench Width of Base	20 metres
Embankment Batter Slope:	
Upstream	1.0V:3.0H with 1 intermediate berm
Downstream	1.0V:2.5H with 1 intermediate berm
Embankment Volume:	
Zone 1 Clay Core	88,250 m <sup>3</sup>
Zone 2A Fine Filter	17,700 m <sup>3</sup>
Zone 2B Coarse Filter	3,050 m <sup>3</sup>
Zone 2C Sand Filter	6,350 m <sup>3</sup>
Zone 3 Residual Fill	245,000 m <sup>3</sup>
Zone 4 Rip Rap/Rockfill	13,350 m <sup>3</sup>
Total	373,700 m <sup>3</sup>
Spillway:	
Length	31.45 metres
Floor Width	16 - 21 metres
Capacity	70.65 m <sup>3</sup> /s
Water Supply Inlet / Outlet	900 mm diameter
Environmental Flow Release	3.0 m <sup>3</sup> /s
Intake Tower Height	21.4 metres
Access Bridge Length	58 metres (3 x ~19 metre spans)
Inundation Area at FSL	54 Hectares
Catchment Area	238 Hectares