



Cultural Heritage Program NEWSLETTER

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In February the CHP team farewelled Sarah Waight who departed to take up a role with Hobart City Council, and welcomed Greg Jackman into the role of Senior Heritage Consultant. Greg comes to Hydro Tasmania Consulting from the Port Arthur Historic Site Management Authority where he held the position of Archaeology Manager. Greg brings with him 20 years of heritage management experience, and we wish him well picking up where Sarah left off.

Notwithstanding the staff change, the quarter has been quite busy with a number of familiar and new projects being progressed.

Upper Lake Margaret Power Station redevelopment

Following some initial supply problems, construction of the replacement timber pipeline is going well. This has involved construction of a steel substructure and motorised trolleys for conveying material and personnel along the 2.2 km route. The new pipeline, constructed from Alaskan Yellow Cedar supplied by International Tank & Pipe Co. of Portland, Oregon, USA, is being built by well-known Tasmanian firm Hazell Bros.

Sections of the 1938 King Billy pipeline have been stabilised and retained along the route. The remainder of the timber from the demolished pipeline will be removed from the site and, subject to the results of testing for creosote contamination, will be disposed of through a tender process.



The new pipeline under construction at Lake Margaret



A section of the new pipeline constructed from Alaskan Yellow Cedar

New steel outlet pipework and a new regulating valve are about to be installed at the dam outlet. The surge pipe is being refurbished by A.L. & S.M. Richardson's under sub-contract to Hazell Bros.

Refurbishment of the upper station has involved a complete overhaul of the generator sets and associated modifications to enable unattended operation and safe shutdown. Work on the antique governors and turbines by Hydro Tasmania generation staff is proceeding steadily. This has involved the casting of new runner buckets for two turbines, which are being manufactured by Hobart firm APCO Engineering. Repairs have also been completed to the concrete in the tailrace tunnel under the power house. A new transformer has been ordered from Wilson Transformer Co.

The Lake Margaret Power Station redevelopment project is the largest refurbishment of an operating heritage asset in Tasmania. It has brought together a diverse range of personnel and skills in the design and implementation of a solution to power generating infrastructure redundancy that

will guarantee the future of one the State's industrial gems for many years to come. The upper power station is scheduled to return to service on 30 July 2009.

Lower Lake Margaret Power Station redevelopment

As a further development of the Lake Margaret Power Scheme upgrade project, the Lower Lake Margaret station is undergoing a comprehensive revitalisation. Originally completed in 1933 containing a single Boving Francis turbine, the lower station was mothballed in 1995 following acquisition of the scheme by Hydro Tasmania. The



The lower Lake Margaret Power Station

redevelopment of the lower station will involve the replacement of the existing 1.9km wood-stave pipeline with Glass Reinforced Plastic (GRP) and construction of new penstocks into a mini hydro comprising a single Turgo Turbine housed in an extension of the existing station building. Access will be provided by a new road which will be constructed to the site, while the design of the building extension will include a platform affording a complete view of the original station interior including the new extension and turbine.

Work on the lower Lake Margaret scheme is being informed by a Heritage Impact Assessment undertaken by David Parham of Austral Tasmania. The lower station mini hydro scheme is scheduled for completion in mid 2010.

Catagunya Dam refurbishment

Revisions to the design for the Catagunya dam refurbishment are helping retain its cultural heritage values. Built in 1962 as part of the Lower Derwent Power Development, the Catagunya Dam was the first dam in Australia to be designed and built using post tensioned steel cable technology. At a height of 49m it is thought to have been the tallest example of its kind at the time of construction. In 2001 the Catagunya dam was awarded a Historic Engineering Marker by the Institution of Engineers, Australia, in recognition of its technical innovation.

A range of options were considered for the strengthening and upgrade of the structure including gravity block additions, concrete buttressing, and new post tensioned anchors. Cost and efficiency factors resulted in a final design based around a pure post tensioned anchor solution, effectively a restoration and minor adaptation of the existing structure utilising equivalent technology.

New anchors will be 'invisibly' installed within the spillway. A headbeam to support the new anchors will be constructed atop the abutments, but will be concealed within the existing parapets, resulting in a largely unchanged external appearance of the dam.

The decision to base the dam repair on installation of additional cables is in keeping with the intent of the original dam engineers, who made provision in the design for 'future generations' to replace the cables as required. By continuing with this approach the current works will see the Catagunya dam performing well, and looking good, for many years to come.



Catagunya Dam refurbishment in progress

Aboriginal heritage

Work is continuing on surveys around the shores of Hydro Tasmania storages within the Derwent catchment. A survey of Bronte Lagoon has been completed, and several large artefact scatters have been recorded. Lake Meadowbank will be the final area to be investigated – given the large size of the lake shore environment only selected areas will be surveyed, however, we are expecting some interesting results. All the lake survey data is being used to help us further understand the nature of Aboriginal heritage resources on Hydro Tasmania land so appropriate management programs can be developed.

Clarification

Our December Newsletter stated that the Cultural Heritage Program will continue to work closely with the Tasmanian Aboriginal Land and Sea Council (TALSC) and Aboriginal Heritage Tasmania (AHT) to ensure that Aboriginal heritage values are managed in accordance with legislative requirements, current best practice standards and the wishes of the Aboriginal community. It has been brought to our attention that this statement may have given the impression that TALSC and AHT work together, which is not the case at this time. The Cultural Heritage Program has been working with staff from both organisations, and will continue to do so in order to provide the best outcomes for Aboriginal heritage management.

Archaeology workshop

As mentioned in the last newsletter, CHP staff attended a recent Archaeological data management and GIS Forum hosted by Glenorchy and Hobart City councils. The forum, which was attended by heritage consultants, planners and heritage managers from local and state government agencies, aimed to build awareness of Tasmania's heritage information resources, including local government sensitivity zoning initiatives, the Parks & Wildlife Service IMS and associated

revamping of the Tasmanian Historic Places Index, and use of GIS for cultural landscape mapping and archaeological research.

Conferences and events

Heritage Festival 2009

Hydro Tasmania will once again be taking part in the National Heritage Trust's *Tasmanian Heritage Festival*, which will run through May 2009. For this year's event, Hydro Tasmania has teamed with a theatrical group called *Live History* who are writing and performing a short production depicting events in Hydro Tasmania's history, in line with the 2009 Heritage Festival theme – *Water: Our Island's life force*.

Judith and Chris Cornish are the creative forces behind *Live History*. They will be familiar to many Hobartians and tourists, from their *Louisa's Walk* experience in South Hobart, which runs daily www.livehistoryhobart.com.au.

The Heritage Festival performances will take place in Queenstown, Hobart and Tarraleah during May and the Tarraleah performances will be followed by guided tours of the Tarraleah Power Station. Entry is free and no bookings are required for either the performances or the power station tours. The times and dates are listed below. For more information, please call 6245 4581 or 6245 4246.

Queenstown

Saturday 23rd May at 4pm and 7pm
Paragon Theatre, McNamara St, Queenstown

Hobart

Thursday 14th May at 12 noon and 1pm
Friday 15th May at 12 noon and 1pm
Hands-On Energy Centre – 1st floor Hydro Tasmania building, 4 Elizabeth St, Hobart

Tarraleah

Performances:
Saturday 2nd May at 11 am and 2pm
Tarraleah Hall, Tarraleah

Power Station Tours:
Saturday 2nd May at 12 noon and 3 pm
Tarraleah Power Station

2009 Archaeology Conference

The 2009 national conference of the Australasian Society for Historical Archaeology and Australasian institute for Maritime Archaeology will be held in Launceston from 24-26 September. Entitled 'Globalisation: Australia's archaeological evidence of the globalisation process', the conference will explore significant themes in Australasian cultural and economic development, including technological and industrial innovation and adaptation.

Engineering Australia National Heritage Conference 2011

There has been an amendment to the dates for the Engineering Australia National Heritage Conference 2011, which will be held 14-16 November 2011 in Hobart, Tasmania. More information will be published in this newsletter as the conference approaches.



Would you like to know more about the Program?

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