

Hunter Water S170 Register

SHI No.: *Name:*
3630108 Chichester Dam model (in Hydraulics Lab)

Location 164A Tomago Rd, Tomago NSW 2322

Other ID nos IW ID: 126.



Description:

The Chichester Dam Model consists of a 1:48 scale timber and plaster model of the dam wall and section of the upstream and downstream river valley built on a brick base and housed within a corrugated metal shed. The Model is connected to pipework that allows water to flow through the model and allows the observation of water flow and the interaction with the dam and surrounding area.

Significance:

The Chichester Dam model is an important example of engineering practice and design development for a large dam from the early 20th century. The model demonstrates how, prior to the invention of computer modelling, engineers relied on physical models to test and refine the designs for large engineering projects.

Assessed Significance: Local

Endorsed Significance: Local

Historical Notes:

Constructed: 1965-1966

During the year 1965-66 a hydraulic laboratory was constructed at Tomago to allow hydraulic model investigations to be undertaken. Construction commenced 21st October 1965, and was completed by the 30th June 1966. In 1967-68 construction of a 1:48 scale model of Chichester Dam and spillway, as well as 2000 feet of river channel downstream of the dam, was completed at the Hydraulics Laboratory.

The model was built in order to closely study the discharge characteristics of the spillway; obtaining a calibration for the weir and spillway throughout the range of anticipated flows, as well as observing the general flow patterns upstream and downstream of the structure.

Designer/Builder: Hunter District Water Board

Current Use:

Former Uses:

Physical Condition:

Recommended Management:

- This item contributes to local character and should be conserved.
- Original details should be maintained including doors, windows and original signage.
- New materials should be sympathetic to the nature and character of the original building.
- In the event of major proposed changes, prepare a Conservation Management Strategy and undertake an archival recording.
- Wherever possible, changes should be restricted to the interior of the building.
- Routine maintenance of existing fabric is essential.

References:

Clem Lloyd, Patrick Troy and Shelley Schreiner 1992, For the Public Health. The Hunter District Water Board 1892-1992. Publisher: Longman Cheshire Pty Ltd, Melbourne.

Department of Public Works, Annual Reports, 1888 to 1892 and 1893-94 to 1960-61.

Glennie Jones 1967, The Movement for Newcastle's First Water Supply 1875-1885, Newcastle History Monographs No. 2. Publisher: The Council of the City of Newcastle, Newcastle.

Hunter District Water Board, Annual Reports, 1938-39 to 1987-88.

Hunter District Water Supply and Sewerage Board, Annual Reports, 1897-98 to 1937-38.

Hunter Water Board, Annual Reports, 1988-89 to 1990-91.

Hunter Water Corporation, Annual Reports, 1991-92 to 2008-09.

John W Armstrong 1967, Pipelines and People. The History of the Hunter District Water Board Newcastle, New South Wales. Publisher: The Hunter District Water Board, Newcastle.

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Mal Hindley 1983, 'From Weirs, Dams and Sand', in Shaping the Hunter. Publisher: The Newcastle Division of the Institute of Engineers Australia, Newcastle.

Studies:

- 1 Futurepast Heritage Consulting Pty Ltd 2010, 'Hunter Water Conservation and Heritage Register Study'.
Reference: .
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Listings:

- 1 *Heritage Act - s.170 NSW State agency heritage register:*
Listing date: . Reference Number:
-

Data Entry: *Date First Entered:* 26/Apr/2010 *Date Updated:* 10/Sep/2010 *Status:* Partial

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Images



Dam model (in Hydraulics Lab)

File: Dam model.jpg

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Image by: Futurepast Heritage Consulting Pty Ltd

Date: 19/05/2010

Thumbnail: t_Dam model.jpg



Dam model (in Hydraulics Lab)

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Date: 19/05/2010

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**Dam model (in Hydraulics Lab)
location (Courtesy of Google
Earth)**

File: dam model GE.jpg

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Date: 2/08/2010

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