

LEUMEAH CREEK DAMS

Leumeah Creek between Raymond Avenue & Fitzroy Crescent,
Campbelltown

Four Sandstone Dams, built c. 1820-1830



HISTORY AND DESCRIPTION:

(Abstracted from 1996 Conservation Plan by E Higginbotham & Associates)

A series of four sandstone dams are located on Leumeah Creek (formerly Smith Creek) between Fitzroy Crescent, Campbelltown. The dams were built for agricultural and domestic water supply. They were most likely built by John Warby on his property, named "Leumeah". The dams were built sometime after 1823 and before 1840.

Dams 1-4 on Leumeah Creek form a distinct group of historical water conservation features with two types of construction. Dams 1-3 are single wall dams, made out of large sandstone blocks and may have supported an earthen embankment. Dam 4 is constructed with a front and back stone wall, infilled with puddle clay. Dam 4 therefore compares with the construction of other historical water supply conservation features in the Campbelltown area, including the dam (1823) at Mount Gilead and the Campbelltown Tanks (1838-9) in Hurley Park.

The dressing of the stone by sparrow picking was a common technique of the early 19th century, and compares with the dressing of the stone on the surviving stone barn and stable constructed by John Warby prior to 1826.

CONDITION AND USE:

(Abstracted from 1996 Conservation Plan by E Higginbotham & Associates)

Dam 1

A single course of stonework is visible in the base of the creek. At this point the creek has steeply sloping earthen banks. Local residents indicate that the area has been substantially filled, the original watercourse being wider at least on the southern side.

Each sandstone block measures 700mm by 480mm with a thickness of 300mm. Each stone has been dressed into shape and sparrow picked. Only about 7 or 8 stones are visible at the base of the creek bed, forming a dam wall 700mm thick. The wall is straight, with little or no evidence of a curving face. A second course of stone is visible on the southern bank of the creek.

Although poorly preserved in the existing creek bed, it is possible that it survives in better condition in the backfill of the original watercourse. There is no evidence of a second dam wall. The laying of the stones transversely across the dam wall is a feature of the single wall type of dam, as constructed on Leumeah Creek.

Dam 2

Three courses of stonework are visible in the base of the creek, probably resting on natural sandstone. At this point the creek again has steeply sloping earthen banks. Local residents indicate the area has been substantially filled, the original watercourse being wider.

Each sandstone block measures 700mm by 460mm with a thickness of 300mm. Each stone has been dressed into shape and sparrow picked. About 13 blocks of stone are visible in the base of the creek bed, forming a dam wall, 700mm thick. The wall is slightly curved to hold back water flow. A total of three courses of stone are visible,, while some blocks are located in the creek bed, downstream from the dam.

Although poorly preserved in the existing creek bed it possible that it survives in better condition in the backfill of the original watercourse. There is no evidence of a second dam wall. The laying of the stones transversely across the dam wall is a feature of the single wall type of dam and compares with Dam 1.

Dam 3

The dam is built on the sandstone bed of the creek with two courses of stonework visible in a natural channel cut through the rock. At this point the creek has extensive outcropping of sandstone bedrock on either bank, indicating that the original width of the creek survives in this location.

Each sandstone block measures 700mm by 460mm with a thickness of 300mm. Each stone has been dressed into shape and sparrow picked. Two courses of stone are lodged between rock outcrops in the creek bed, forming a dam wall 700mm thick. Stepped footings for the continuation of the dam wall are visible on the northern bank, cut into sandstone bedrock. Each step in this footing measures about 700 by 800mm, the steps varying in height between 100 and 200mm. A total of four steps are visible. The precise nature of the dam construction may have varied over the stepped footing, since each step is less than the required height of 300mm of each course. The stones may have been laid in a longitudinal or transverse position.

A further three courses of the dam wall survive on the southern bank, with stones laid longitudinally. This dam survives to a greater height than Dams 1 & 2 and indicates that the upper course of the stonework in the single wall dam are laid longitudinally. In other words, the thickness of the dam wall narrowed with height. Some of the joints also have cement mortar repointing, suggesting that the dams still functioned at least into the late 19th century. There is no evidence of a second dam wall, suggesting that Dam 3 is a better-preserved single wall type of dam, and compares with Dams 1 & 2.

Comparison with an historical photograph, taken by A Goodsell in 1961-2, indicates that several stones are now missing from those that survived at that time, but the dam still survives to the same height. The condition of the dam is therefore deteriorating.

Dam 4

Dam 4 is built across the bed of the creek, but has largely been eroded from the line of the channel. At this point the creek has extensive outcropping of sandstone bedrock on either bank, indicating that the original width of the creek survives in this location.

A historical photograph, taken by A Goodsell in 1961-2 shows that the dam then survived in better condition, although it had began to collapse. The dam is different from the other three dams because it was clearly constructed using a front and back stone wall, with puddle clay fill. The dam therefore compares with the one built by Thomas Rose at Mount Gilead in 1823. It also shares features with the construction of the Campbelltown dam erected in 1838-9.

Only a small section of the front dam wall can be seen on the north bank of the creek. The remainder of the dam has collapsed or is buried under dense vegetation of the fill of the watercourse.

Each course of stone in front of the dam measures 300mm in height. The lower courses are laid longitudinally, with a variable length, but about 400mm in width. Some of the joints also have cement mortar repointing, suggesting that the dams still functioned and were maintained at least into the late 19th century. At least four courses of this longitudinal stonework are visible, the top or fifth course being laid transversely and overhanging the inner face of the wall. The stones in the top course measure 440mm by 900mm, with a thickness of 300mm. Each stone has been dressed into shape and sparrow picked.

Comparison with the 1961-2 photograph shows that the back wall also shared this overhanging upper course, the top course or capping stones probably sealing the clay fill from erosion and weathering.

It is clear therefore that the dam still survives in part to its upper course or original height. The back wall of the dam was not observed, but may be present under fill and rubble. Downstream from the dam, there is a large quantity of sandstone rubble and blocks, suggesting that some of the construction materials may be recovered from the creek bed.

HERITAGE SIGNIFICANCE:

- The four Leumeah Creek Dams have rare and representative historical significance at the Local level to Campbelltown and at a Regional level. They also have rare archaeological significance at regional level.
- The dams are significant because
 - They are associated with the early 19th century development of water conservation and supply methods for Campbelltown and for the neighboring landholders (historical, rare, regional)

- They are probably associated with John Warby (1767-1851), a prominent landholder in the area (historical, representative, local)
- They form part of an important group of surviving historical water conservation and supply features in Campbelltown (archaeological, rare and regional)
- They form part of an important group of surviving agricultural improvements on the former farm of John Warby, named 'Leumeah' (dams, barn and stables) (archaeological, rare, regional)

HERITAGE LISTING:

LOCAL: LEP 2002