

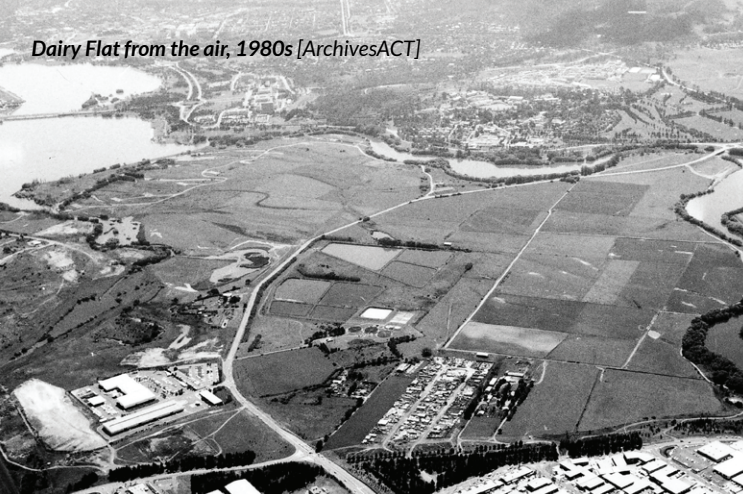
📍 Ngunnawal Country

AUSTRALIAN CAPITAL TERRITORY

Dairy Flat



Dairy Flat from the air, 1980s [ArchivesACT]



Duntroon cadets' suspension bridge c.1917 [ArchivesACT]



[Golden Age - 7 November 1861]

will appear in next issue.

DUNTROON WINDMILL.

JOHN GREGORY



HAS pleasure in announcing that the above Mill has just been put into thorough working order, and that he is now prepared to turn out Flour in any quantities, and upon the shortest notice.

Flour exchanged for wheat, if required, in quantity and quality such as shall afford the utmost satisfaction.

Grinding 1/6 ³/₄ bushel.

HORSES

Dairy Flat

DAIRY ROAD, FYSHWICK, ACT

Dairy Road crosses a broad floodplain at the meeting of the Molonglo River and Jerrabomberra Creek, with sand, gravel and silt up to 25 metres deep, deposited over many thousands of years. The floodplain has been known as Dairy Flat since the 1960s, and previously as Mill Flat.

The road connects stories across two centuries of European history, 25,000 years of Aboriginal history, and 420 million years of geological history.

Water is a common factor in all these stories – from ancient seas to massive rivers to a fossil lake to created wetland habitats; alluvial sediments shaping pastoral, agricultural and military uses; rivers and floods confounding movement and development in a rural setting and later in the Federal Capital; and ultimately protection of inland waterways and wetlands.



Although numbered from south to north, this walk can start from your choice of 1 Dairy Road (south), or Molonglo Reach District Park (north) or the Jerrabomberra Wetlands car park (centre).

The walk connects with loop trails in the Jerrabomberra Wetlands nature reserve. Dogs are not permitted within the nature reserve, except on-leash on the sealed path between Dairy Road and Eyre Street.

For a map see centre spread.

1. Dairy Road

The Dairy Road neighbourhood at No.1 Dairy Road has brought new life to the former Commonwealth car depot site, which was built in the late 1960s. Previously the road across Mill Flat continued through the centre of the site, linking 'Duntroon' homestead with the Uriarra Road, and further south to the 'Mugga Mugga' and 'Woden' properties.

Work on site has revealed more of the rich heritage of the area: in 2020 foundation drilling exposed more than 40 metres of underlying limestone, rich in fossils, laid down in a warm shallow sea at least 420 million years ago. This is a reminder of the district's original colonial identity – the Limestone Plains.

2. Mill Hill

This low hill is part of a ridge capped with coarse gravels deposited by a much larger ancient river at least 2 million years ago. Some of the gravels are exposed on the Fyshwick side of the hill.

In the 1840s Charles Campbell of 'Duntroon' used the slightly elevated ridge for the district's first flour mill. This was a timber windmill with sails and a small stone mill house, operated from the 1850s by John Gregory until very strong winds destroyed it in 1874.

It gave its name to Mill Hill, Mill House Paddock, Mill Flat (now Dairy Flat), and Mill Creek (now Jerrabomberra Creek). Only Mill Creek Oval in Narrabundah retains the name.

Towards Fyshwick, the Monaro Highway covers the site of the first ploughing match in the district, hosted by 'Duntroon' in 1872. These matches were forerunners of annual pastoral and agricultural shows, later showcasing farm and garden produce, and livestock.

Gravel for early Canberra roads was extracted from a quarry on the northern side of the hill from the 1920s.

The Fyshwick Sewage Treatment Plant was benched into the old quarry in 1967, designed to protect Lake Burley Griffin from pollution.

3. City Farm and the Billabong

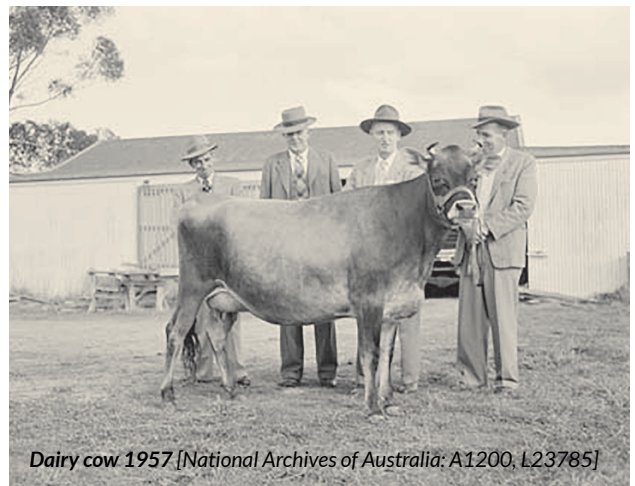
The Canberra City Farm was established in 2015, echoing earlier use of the site for agricultural production. The Kelly family left their former dairy holding here in 1985 to make way for the Dairy Flat Education Centre, established to provide an alternative to traditional school environments. From 1991 the centre offered educational, vocational and personal development programs.

For a couple of years after the 2003 bushfires the centre provided environment education programs as 'Birrigai at Jerrabomberra Wetlands'.

Jerrabomberra Creek runs below the farm, through the old Plantation Paddock of 'Duntroon'. In the 1960s work commenced to reclaim floodplain land for development by dumping spoil to narrow the creek from both sides. This began from the Kingston side with the Causeway Tip, which received industrial waste and old cars up to the early 1970s. It was not completed on the Fyshwick side.

Natural flows from the creek to the Billabong area have recently been renewed to improve water quality in Lake Burley Griffin.

The Billabong Walk in the nature reserve provides access to this revived wetland area.



Dairy cow 1957 [National Archives of Australia: A1200, L23785]

4. Kellys Swamp

The Kellys Swamp Loop trail can be accessed (in the south) from a gap in the fence next to the Jerrabomberra Wetlands office, and (in the north) from the Wetlands car park. Please remain quiet around bird hides and take care near water.

The first part of the Jerrabomberra Wetlands Nature Reserve was gazetted in 1990, shortly after the transition to self-government in the ACT.

Kellys Swamp, named for the family who held the dairy lease here, is a shallow wetland modified from an old flood channel of Jerrabomberra Creek.

It is a popular part of the nature reserve, renowned as a sanctuary for wildlife, including birds that migrate annually from the northern hemisphere and from inland Australia. The reserve is listed on the ACT Heritage Register.

When Lake Burley Griffin filled in 1964 its waters backed up into ancient flood channels, creating permanent 'fingers of water' and new habitats for many birds and other animals, on a flat that had been largely dry except for intermittent floods.

A nature reserve was first recommended in 1975 and work began in the late 1980s to create new habitats, walking trails, and bird-watching locations. Some of the fill used in landscaping was removed from the top of Capital Hill during the construction of the new Parliament House.

Dairy Flat flooded 1922 [National Archives of Australia: A1527, 29]



5. Sand dunes and a Fossil Lake

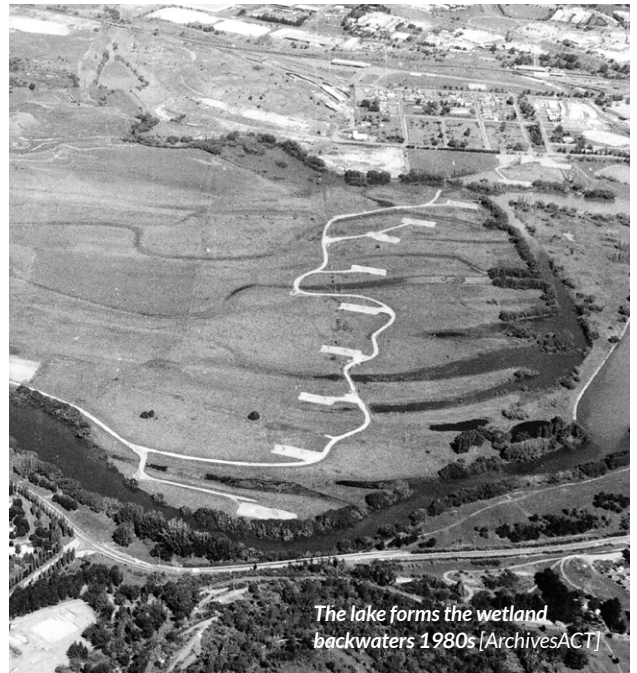
The Wetlands car park provides a broad view over the floodplain, mostly within the old Thistle Paddock of 'Duntroon'. Channels and sandbars in the flood plain area are the result of many thousands of years of shifting river flows and floods.

About 25,000 years ago – in a cold, dry and inhospitable period – the First People walked into this area.

At that time the valley floor probably held an extensive 'fossil lake'. Winds whipped sediments from the lakebed into sand dunes up to 2 metres high. In the Pialligo area, dunes along the Molonglo River have yielded many stone tools from thousands of years of Aboriginal occupation.

These aeolian (wind-blown) dunes were later mined for 'red sand' to help build Canberra. A palaeodune near the car park is one of the few remaining today.

West of the car park the Kellys Swamp Loop and the cycleway link with the Woodland Loop along Jerrabomberra Reach to Eyre Street.



Dairy Flat

Dairy Road, Fyshwick, ACT

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6. Water Axis and East Lake

To the north of the Wetlands car park the road is crossed by the Water Axis of Walter and Marion Mahony Griffins' design for Canberra, which connects the summit of Black Mountain to a point at the edge of Fyshwick but in their plan at the edge of a massive East Lake. The lake was to be retained by a high embankment across the floodplain, giving its name to the Causeway Axis, next to today's East Basin.

The Causeway was to carry the City Railway. A lower, temporary embankment carried a construction railway across the floodplain to Civic until it was destroyed by the 1922 and 1925 floods, and never rebuilt. If the Griffins' East Lake had not been abandoned, all of Dairy Flat north of the Wetlands Office would have been under water.

The old railway embankment diverted Jerrabomberra Creek into a channel running north to the Molonglo River. This later fed backwaters from Lake Burley Griffin into old flood channels on the flat, forming the heart of the Jerrabomberra Wetlands.

7. Soldier settlers

At the end of World War I, the Commonwealth Government needed to bring home and rehabilitate 350,000 servicemen.

In 1920 Mill Flat was divided into 36 blocks of 10-14 hectares each for intensive fodder-growing on the alluvial soils. These comprised the 'Mill Flats Soldier Settlement Area'.

Allocations were made to eight returned soldiers, mostly fronting the Molonglo River. All held other leases in the district, so were not totally reliant on these small holdings on a floodplain for their livelihood or residence.

Some blocks changed hands, and one was leased in 1922 to Ernie Murray who owned 'Kurrumbene' dairy on the Uriarra Road.

Most of the soldier settlers handed in their leases after the 1922 flood swept away their stock, fences and fodder.

8. Model dairies

In 1925 the floodplain was divided into four commercial dairying blocks, each about 80-110 hectares. This was part of a strategy to boost production of food for the growing federal capital.

Each dairy block included both alluvial land bordering the Molonglo River, and higher ground above the 1925 flood level, with a residence, outbuildings and milking yard.

They included the Big Gun Dairy (later Cargills Dairy) and Kellys Farm, separated by the line of Dairy Road from Murrays Model Dairy (later Mill Hill Farm), and Goldenholm Dairy.

Over nearly a century the dairying families included Clutton, Sellar, Cargill, Kelly, Murray, Frederiksen, Nielsen, O'Neill, Keith and Stuart. The dairies provided employment for local people, including those from the nearby Causeway worker settlement.

These dairies were model operations, and won numerous prizes for stock, produce and pasture condition, founded on the deep soils of the floodplain. They also contributed to research and education.

Most ceased operating in the 1960s, with Goldenholm the last dairy to close, in 2002. Only the Cargills and Goldenholm dairy cottages remain today.



Jersey Stud dairy cow 1964 [National Archives of Australia: A1200, L47882]

9. Floods over the flat

The Molonglo River has followed many different courses across millions of years. Some of the preserved channels have carried countless floods across the flat when the river has overflowed its banks.

A story from colonial times describes a large number of Aboriginal people in a long river stretch near the Duntroon Dairy, with one group driving fish towards a second group who would spear the catch.

In 1825 James Ainslie brought 700 sheep here for Sydney merchant Robert Campbell, being guided to the location by Aboriginal people. The property was originally called 'Pialligo', from the local Aboriginal name biyaligee. The next generation of Campbells renamed it 'Duntroon' after the family's ancestral Scottish estate.

The estate was based primarily on sheep, but also bred horses and cattle, supported by farming of grain and fodder. 'Duntroon' benefited from having deep alluvial soils on the floodplain, and higher (drier) ground that was safe for grazing stock.

The major Molonglo River flood of 1922 rose to just under the previous record level of 1891. This flood destroyed the College cadets' suspension bridge and the Griffins' City railway bridge, and seriously damaged Commonwealth Avenue bridge and all low-level crossings over the river.

Just three years later, another record flood again destroyed bridges and crossings.

There has been no flooding across the flat since the 1979 completion of Googong Dam, which regulates the Queanbeyan River – previously the source of about 60% of floodwaters reaching Canberra.

Looking to the east, across the old Mill House paddocks of 'Duntroon', the Monaro Highway was constructed on a causeway across the flat in the 1990s. Concrete Bebo arches mark the path of major flood channels of the past, allowing any future floodwaters to flow through.

10. Duntroon Instructional Trench System

In 1916, during World War I, a national Officers Training School was established at the Royal Military College, and included a specialised Trench Warfare & Bombing School.

A bombing paddock with a complex of trenches and underground tunnels, was dug in deep alluvial soils in a former lucerne paddock next to the Molonglo River.

Here officers could learn to attack and defend, using state-of-the-art trench design, tactics and weaponry, in a complex of trenches and underground tunnels.

The trench system was used regularly for training in 1916 and 1917, but after the war was largely forgotten.

The old road next to the trench system once led to the



Catapult for bomb throwing - Trench Warfare and Bombing School - 1916 [Army Museum-Duntroon]

Duntroon Ford, which was used for more than a century until replaced by a road bridge in 1936. The road cut across the system, and the trenches were filled in shortly after.

Most of the system underlies the nature reserve, and is interpreted through a loop 'Trench Trail' and 'mock trench', with marker posts and signs.

11. Market gardens and turf

From 1917 Reuben Hill tended the vegetable garden at the Royal Military College, becoming the first commercial vegetable grower in the Federal Capital Territory.

After the 1922 flood he expanded across the river to a former soldier settler block, where he again suffered flood damage in 1925.

In 1927 Reuben Hill opened a shop in Kennedy Street, Kingston, but he closed it during the Great Depression.

In 1930 he took up a much larger irrigated block in Pialligo, and continued growing produce until the 1980s, through three generations.

In 1949 his son Max Hill and dairyman David Cargill were instrumental in establishing the District Producers Co-operative Society. This enabled local primary producers to control their own marketing and to purchase more economically through group buying. They later sold hardware and farm supplies to the public.

In 1985 Sandy Stuart of Goldenholm dairy began trials of turf growing. This operation was acquired by Canturf in 2002 – a new type of production supported by the alluvial soils of the floodplain.

Below: Max Hill in his Pialligo market garden [Hill family]

Upper right: Timber railway bridge c.1919 [National Archives of Australia: A3560, 230]



12. Pontoon Bend and The Bridges

From the river bank area along Dairy Road there are views downstream towards the city and upstream to the Dairy Flat Bridge. Further upstream is Pontoon Bend, a conspicuous bend in the river and the crossing point for the Malcolm Fraser Bridge and Sylvia Curley Bridge.

Pontoon Bend is named for a timber pontoon built by James Ainslie to wash sheep before they were shorn.

Just across the river from the homestead were the Pontoon Bend Paddock and two lucerne paddocks, all reliant on deep alluvial soils deposited by floodwaters.

Pontoon Bend was the crossing point for the first road bridge in this part of the river dating from 1936, Duntroon Bridge, later the original Dairy Flat Bridge.

Before any of the road bridges, in 1916 a suspension bridge 45 metres long was built by Royal Military College cadets at a narrow point between high banks. It was destroyed in the 1922 floods.

Today's Dairy Flat Bridge marks the approximate site of this crossing point. Set into the bridge abutments are rocks from the local area. Limestone recalls the identity of Limestone Plains, while volcanic rocks of the type forming Mounts Pleasant, Ainslie and Majura were used in Canberra's earliest stone buildings.

From the end of Dairy Road, the cycleway continues across Dairy Flat Bridge, with a link towards the airport. An informal track leaves the cycleway at the southern end of the bridge, providing foot access to Pontoon Bend. This unsealed track can be muddy and rutted, and there are no barriers at the river bank. Care needs to be taken and children need to be supervised closely.

Dairy Flat flooded 1922 [Army Museum-Duntroon] Cover photo © Molonglo, photo by U-P.

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Dairy Flat

2024



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