

TURRELLA RESERVE TO GOUGH WHITLAM PARK

Overview

The trail from Turrella Reserve to Gough Whitlam Park is approximately two km long and without stops, takes approximately one hour to walk. It's an easy grade all the way.

The trail starts at Turrella Reserve, once a wetland and later an area of pig and poultry farms and Chinese market gardens. Attention is given to the heritage and history of the area, the natural and built features and change over time.

After visiting the Henderson Street weir and bridge over the Wolli Creek, the trail continues through the bushland on the northern side of the valley (Jackson Track). Woodland gives way to open forest and mangroves along the creek.

Built features include an old sandstone quarry and six stone cottages in remarkably good condition, hidden at the end of Jackson Place, Earlwood. There is evidence that the stone was locally quarried.

The trail then passes Wave Rock, our own fossil in Wolli Creek. It's a rock feature that dates back to 237 million years ago when Australia was part of the supercontinent, Gondwana.

There's also evidence of past quarrying and occupation along the rest of the trail until it opens out at Waterworth Park, just beyond the SWOOS pipeline. Waterworth Park is used for passive and active recreation, mainly touch football. The walk concludes at Gough Whitlam Park across the road.

Most of the walk is through the Wolli Creek Regional Park.

Access

Access is from Turrella Railway Station, with a walk along Henderson Street and across the footbridge at Turrella and into Turrella Reserve and the Wolli Creek Regional Park.

If you are coming by car, parking is available at the end of Finlays Avenue, at the base of Nannygoat Hill, Earlwood.

Safety Issues

A ratio of one adult to eight children is strongly recommended.

Teachers and guides need to give clear instructions regarding safety to the children before commencing any walk. Emphasise the importance of keeping to tracks and walking in a group with adults at the front and the end of the line.

Inform the children about care of the bushland and the importance of not removing plants or picking flowers. They should not touch insects, spiders or other animals but inform their teacher. You might like to bring magnifying lenses and perspex boxes for viewing small creatures safely and take a camera to record any discoveries.

Teachers will need:

- a portable first aid kit
- a mobile phone in case of emergency (and written contact details for students)
- a map of the track.

Students should wear hats, sunscreen, comfortable clothes and covered walking shoes with good gripping soles. They will need at least one bottle of water each and morning tea and lunch. They will also need to bring a clipboard, 4 x A4 sheets of paper, pens and coloured pencils or crayons for writing and drawing. A small backpack will allow students to keep hands free and all rubbish carried in must be carried out.

As you'd realise, student groups tend to comprise racers and laggards. The guide at the front will need to slow children down and students who run or push should be warned and/or sent

to the back of the group. The adult at the back will need to keep the laggards moving or send them to the front of the line so that they don't miss out on the guide or teacher's commentary.

Toilets at Turrella Station

To ensure the toilets at Turrella Station are open, phone 9563 7768.

Facilities at Gough Whitlam Park, Earlwood

Gough Whitlam Park has toilets and a children's play area with six tables (2100mm x 670mm) with bench seating, and four gas barbecues.

The toilets may be open, Monday to Friday and weekends, 7:00 am to 4:00 pm.

To confirm this, contact: Warren Smalls, Property Booking Manager, Canterbury Council, on 9789 9444, or phone a week in advance if you want toilets open outside these hours.

He can also be contacted via email: warrens@canterbury.nsw.gov.au

Or try Team Leader, Adam Laws on 9789 9383.

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These notes identify key points that can be discussed during the walk and suggested activities.

Students need:

- the 'Living Things' Checklist
- the 'Natural or Built?' Checklist
- the 'Amazing Mangroves' Activity Sheet
- the 'Making A Journey Map' Activity Sheet.

How far is it?

Teachers might like to take a pedometer with them. A student can report the number of steps at different locations along the walk.

STOP 1: TURRELLA RESERVE

Respect for Country

'We acknowledge the traditional owners of the land on which we live and learn. We pay our respects to them for their care of the land over countless generations. We hope they will walk with us on our journey.' They were most likely the **Bidjigal** clan of the **Eora** language group in the **Dharug** nation. Today we will call them Eora, 'people' and their country, '**Ngurra**.' (Try saying 'sing' to get the 'ng' sound).

Take only photographs, leave only footprints

There are many lovely things to see during the walk: leaves and seed pods, funny-shaped sticks and bark, little insects and beetles. Please leave them in the park. *Take only photographs, leave only footprints.*

If you take seeds you can be spreading weeds and when you remove bark, leaves and twigs you are removing **habitat** (animals' homes). Students can probably think of other reasons why they shouldn't take seeds etc from natural areas (they are removing the 'seedbank' that new plants grow from as well as taking the food of ants, some insects and birds.)

STOP 2: WOLLI CREEK

Who knows the name of this creek? (Yes, it's Wollli.)

Wollli may have meant 'camping place'. And for the Eora this valley with the kangaroos, possums and lizards and a plentiful supply of fish and shellfish would have been a good camping place.

When the British settlers first saw this creek, it wasn't like this. It was a, 'chain of ponds' so you probably could have walked where the water is today.

What stops it from being a chain of ponds today? (The **weir** which is a small dam. Also, the extra water that runs off all the hard surfaces such as bitumen and tiles after rain. Formerly most of this water seeped into the land surface and only reached the creek after many days or weeks.)

What do you notice about the bridge? (It's bent.)

What do you think has caused the bridge to bend? (Floodwater that has surged down the creek after heavy rain.)

Find two more pieces of evidence that this creek floods. (The stream height marker and the wire baskets with rocks inside.)

The wire baskets are to stop the surging water from washing away the **creek bank** but some stones are missing, either having been washed away during flood or through people taking them.

If there were no bridge, how would you get to the other side? (Before the bridge was built, young ones used planks and ropes to get across the water to go to school.)

When would it be easier to swim across, low or high tide? Would you swim in the creek? (No, it's too polluted and you could get very sick.)

Do you think the water is fresh or salty? How can you tell? (If the river is tidal then salt water is washing up the river two times each day.)

We call this **brackish** water because salt water is mixed in with fresh. It's brackish below the weir, and fresh above the weir.

Name three living things you can see. (Fish, tadpoles, ducks, spiders, skinks.) Mark these on your 'LIVING THINGS' CHECKLIST.

Would you drink this water? (No! It's smelly and the creek looks dirty.)

Casuarinas next to the creek

What do you notice about the ground under the **Casuarinas**? (There's a 'carpet' of needles and not much else grows underneath.)

A local Aboriginal girl remembers her mother telling her, 'if you get lost, sit under a Casuarina tree. Snakes don't like it there and you will be safe.' The needles are soft to sit on and your mother would be able to see you.

TICK CASUARINA ON THE 'LIVING THINGS' CHECKLIST.

STOP 3: NEAR THE POND

Turrella Reserve

'Turrella' is said to be an Aboriginal word for '**reeds** growing in water'. Can you see any reeds today? (Yes, but only along the creek bank.)

Much of this area was once a **wetland**: a wet area full of reeds. Try to imagine this.

As the British settlers moved south from Sydney, the rich soil (**alluvial**) on both sides of the creek was cleared for farming. 115 years ago (1883), there were **poultry** and pig farms along the creek. Who knows what poultry is? (Chickens mostly, sometimes turkeys.) Who knows what we call the meat from pigs? (Pork.)

With chickens and pigs here, imagine what it smelt like.

Where do you think the rubbish went? (Yes, into the creek.)

Chinese market gardens and dipping pond

Just 80 years ago (in the 1930s), there were Chinese farmers living here. They grew vegetables such as beans, cabbages and tomatoes on the river flats (**floodplain**) and sold these in Sydney. Some records also mention trees with peaches, nectarines, lemons and oranges.

Point out the pond. This may have been a dipping pond (where vegetables were washed) used by the Chinese market gardeners.

WALK ACROSS TURRELLA RESERVE TOWARDS THE NORTH, PAST THE STORMWATER CHANNEL AND THEN TOWARDS THE NORTH-EAST.

Which side is north?

What direction does the sun come up in the morning? (East.)

Where does it set (go down?) (West.)

Point to the east. Point to the west.

If it's near midday, face the sun and place one arm towards the left and one towards the right. You are facing north, south is behind you, west is to the left and east is to the right.

Which way is north? (Students should be able to point to the north. If not, explain again.)

The Stack

This is the M5East stack. The M5East tunnel is under the line of high land (**ridge**) to the south and the stack lets out the fumes from the cars. Local residents are campaigning to have air filters fitted to the M5East tunnel so there is less pollution for everyone.

STOP 4: TURRELLA RESERVE

LOOK EAST AND HAVE STUDENTS, 'AIR-DRAW' THE SHAPE OF THE **VALLEY**, INCLUDING THE WALLS (**CLIFFS**) ON EITHER SIDE, THE **SLOPES** FORMING THE VALLEY SIDES, THE **FLOODPLAIN** AND THE **CREEK**. USE GEOGRAPHICAL TERMS AS YOU SPEAK.

STOP 5: BEGINNING OF JACKSON TRACK

Look for the TVT sign to find the entry point for the Jackson Track. How did Aboriginal people find their way without signs?

Who knows what this is? (It's an inspection hole for the sewer pipes that run underground.) These pipes take **sewage** from toilets to the treatment plant at Malabar.

After heavy rain, the lids can pop off.

Steps appear in the **sandstone**. Are they natural or built? (built to improve safety for walkers). What about the pond further up the track? (It was built to collect stormwater from the street and channel it under the walking track)

STOP 6: ALONG THE TRACK

The track first passes through a dry-looking **shrub layer** (low heath) before reaching a small, overgrown **quarry**.

POINT TO AND NAME SOME OF THE PLANTS YOU'LL BE SEEING DURING THE WALK. HAVE STUDENTS TICK THEM OFF THE 'LIVING THINGS' CHECKLIST.

POINT OUT THE **DIFFERENT LAYERS: GROUNDCOVERS, SHRUBS, TREES**.

Matt Rush (*Lomandra*) – a groundcover, we know Aboriginal people in other areas crushed the seed heads to make a flat bread like Pitta so they probably did the same here. The dried leaves were woven to make excellent carry baskets called **Coolamons**.

Paperbark (*Melaleuca*) trees. The soft bark was probably used to wrap newborn babies and to make cloaks to keep warm when it was cold.

Wattle (*Acacia*), shrubs and trees. This had many uses. The seeds were crushed to make a type of flat bread and the leaves and bark could be thrown into the waterways to stun any fish, making them float to the surface where they were easier to catch.

Bracken Fern (*Pteridium esculentum*), a groundcover – juice from the stems was rubbed on mosquito bites. The roots were chewed with fish meals but not swallowed.

Mangrove (*Avicennia*), a tree – where you found **mangroves** you usually found oysters but the British settlers burnt the shells to produce lime mortar. They also burnt the mangrove trees to make potash for the soap-making industry.

She-oak (*Casuarina*) – chew the needle-like leaves to quench thirst

Bulrush (*Typha*) – along the Murray-Darling, the young shoots were eaten raw as a salad and the Bulrush fibres were used to make nets for catching small birds

Privet. Weed.

Lantana. Weed.

Where do the **weeds** come from? (Weeds are just plants in the wrong places so when they spread from gardens, they become weeds in the bushland.)

STOP 7: LOOK OUT FOR THE LIZARD SUNBAKING ON THE DEAD TREE BRANCH.

Jacky Tree Dragon (*Amphibolorus muricatus*). He's about as long as your arm, from your hand to your elbow. If it's a warm day, he likes sunbaking on the dead tree trunk and is so well camouflaged that you'll hardly see him.

Which way are we going?

Which way are we going? (Towards the east.) Remember, if it's near midday, face the sun and place one arm to the left and one towards the right. North is in front, south to your back, west to the left and east to the right.

STOP 8: ROCK OUTCROPS

Run your hand over a rock along the track. What does it feel like? Rough or smooth? Does it feel gritty like sand? (It's **sandstone**.)

STOP 9: JACKSON'S **QUARRY** (1905-1908)

How do we know this is a quarry? There are three pieces of evidence. What do you think they are? (The walls are high and rough while natural cliff faces in this area tend to be smoother, there are vertical drill lines, and there are piles of bits of rocks in the middle of the hole. This was waste left after the stone was cut into blocks.)

The first stage in quarrying was to separate the blocks of stone from the main mass. This was done by drilling into the rock. The large blocks were then cut into smaller blocks and 'dressed'.

What was the rock used for? (The foundations of many homes in Earlwood and Undercliffe and many of the public buildings in the centre of Sydney were made of sandstone. Some recounts suggest that some of Jackson's stone was used in St Mary's Cathedral and the Mitchell Library in Macquarie Street, Sydney.)

The quarry was here about 100 years ago before cars and before the sort of machinery we have today. How do you think the stone was moved? (By horse and wagon.)

Jackson's market gardens

William Jackson and his family lived beside Wolli Creek just below the quarry. They were market gardeners growing vegetables and fruits such as apples, pears and mulberries before Jackson started his quarry. Some mulberry trees in the bush may have survived from the farm.

STOP 10: THE JACKSON PLACE COTTAGES WOW!

Are we there yet?

How far have we walked? Pedometer reading.

The cottages

Who has seen these cottages before?

How can we tell they're very old? (Their size, style and materials.)

How old do you think they are? Less than 100 years though it took ten years to build them all. No. 6 was built in 1912 and the last, No. 12, in 1918.

Where do you think the stone has come from? (Most will probably say the quarry but it wasn't.)

What evidence is there that the stone was cut from the cliffs behind the houses? (Behind No. 12 there are vertical drill marks in the rocks.)

The cottages are old. Should we knock them down? Why not?

SKETCH ONE OF THE COTTAGES. INCLUDE LABELS THAT SAY WHAT MATERIALS WERE USED. LABEL THE DRAWING, 'HERITAGE COTTAGE' AND STUDENTS CAN COMPLETE THE 'HERITAGE – WORTH PROTECTING!' ACTIVITY SHEET BACK AT SCHOOL.

STOP 11: WAVE ROCK WOW!

This rock's over 237 million years old, from the time when Australia was still connected to Antarctica and India and Africa in the supercontinent, Gondwana.

Imagine a sudden wall of water half as high as this hill (20m) and as wide as from here to the other side of the Blue Mountains, carrying tonnes of fine sand and dumping this on the Sydney basin. It came from north of Newcastle when a massive natural ice-dam broke, releasing huge amounts of water. Then as the floodwaters went down, this wave pattern was left in the rock. It's a fossilised wave. (A **fossil** is the remains of an animal or plant from a very long time ago.)

Feel how cool it is because you are standing beneath a dense **exotic** rainforest. (Introduced species such as Privets.)

Next to Wave Rock is a **rock shelter** which has been used throughout history. Can you see the evidence of cooking fires? (Blackened ceiling). Aboriginal people used bark huts for shelter but also **rock caves** like these. During the Depression in the 1930s these shelters were used by homeless people.

Today the cave is full of broken glass and asbestos and it is not recommended that students enter the cave.

BRAINSTORM THE ADJECTIVES / NOUNS / NOUN GROUPS TO DESCRIBE WHAT YOU CAN HEAR / SMELL / SEE. RECORD THIS BANK OF WORDS TO USE BACK AT SCHOOL.

STOP 12: WITH A VIEW OF MANGROVES
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REFER TO THE 'AMAZING MANGROVES' ACTIVITY SHEET.

IF YOU CAN GET UP CLOSE:

What can you see living here? (Generally spiders or spiders' webs and possibly birds flitting through the canopy.)

What evidence is there that crabs might live here? (Holes in the mud, small balls of mud.)

What doesn't belong here? (Plastic bottles, polystyrene etc)

Where did they come from? (Arncliffe, Kingsgrove, Bexley, Bardwell Park, from the gutters and drains in the streets)

Do you think the water is fresh or salty? How can you tell? (Mangroves only grow in salt water. The tide comes in and out from Cooks River and Botany Bay two times each day. That's also why **saltmarsh** grows here.)

Would you drink this water? (No! It could make you sick.)

HAVE STUDENTS COMPLETE THE 'AMAZING MANGROVES' ACTIVITY SHEET.

Clear view of the river

Is it **low or high tide**? How can you tell?

Stormwater on far side of the **creek**

What do you think this is? (Yes it's a pipe that carries water from the streets and homes, down to the creek.)

Is it a **natural** or a **built** feature? ('Built' because people have made it.)

What else is it bringing into the river? (**Litter** and leaves and oil from streets and factories.)

Melaleucas

What's the other name for these trees? (**Paperbarks**.)

And what were they used for? [Huts for shelter, 'blankets' for newborn babies and cloaks for when it was cold. It was also used to make Coolamons (baskets) and strips were rolled to make balls. Sometimes an oval of bark was cut to make a **shield**.]

STOP 13: THE SWOOS

The SWOOS

What do you think this is? (Southern and Western Ocean Outfall Sewer)

It's the main pipe that carries sewage (what you do in the toilet) to the treatment plant at Malabar.

It was 100 years old in 1999. When were you born?

When it was first built, the sewage went to Kyeemagh on Botany Bay.

Once this pipe was built, the sewage didn't have to go in the creek any more. (For many years, 'nightsoil' was dumped on paddocks and after rain, washed into the creek.)

STOP 14: WOLLI BLUFF

This **rocky outcrop** has a view all the way to Botany Bay. It would have been a very useful lookout for Aboriginal people. What is it made of? (sandstone). What grows here (**sandstone heath** plants (mainly bushes and grasses with some shallow-rooted trees).

STOP 15: WATERWORTH PARK

Once upon a time

Once upon a time there were tall palm trees all though the **valley**. From Waterworth Park, look back towards the houses in front of Wolli Bluff. Look at the Cabbage palms.

SHOW HISTORICAL PHOTO.

These were called Cabbage Tree Palms (*Livistona australis*) because the centre of the top of the palm was like a cabbage that could be eaten. Both the Eora and British settlers ate the

growth point. Unfortunately though, once eaten, the palm died. In the early days of the colony, the **fronds** (leaves) from the palms were also used to make Cabbage Tree hats.

Walk along Wolli Creek and find examples of **saltmarsh**. What else grows here (lots of weeds).

What birds can you see at the mouth of Wolli Creek? (Herons, cormorants, masked lapwings, pelicans?) Mark these on your 'LIVING THINGS' CHECKLIST.

STOP 16: NEW WETLAND

Is this wetland natural or built? (built) Councils used to fill in wetlands like Turrella Reserve to make parkland. More recently, they have realised the importance of wetlands to the environment and are helping to re-establish them.

How often does the tide come in? What plants and animals thrive here?

Tell me three good things about the Wolli Creek Valley.

What was the most fun?

STOP 17: GOUGH WHITLAM PARK

How far have we walked?

Pedometer reading.

COMPLETE THE 'MAKING A JOURNEY MAP' ACTIVITY SHEET'.

Rolls of butcher's paper will need to be cut to size in advance. It is also a good idea to reinforce the edges with tape. These are the base for the journey maps.

This can be done as an individual or group activity. Since Gough Whitlam Park has tables (and toilets), group work could be done here.

ARRANGE BUS PICK UP FROM GOUGH WHITLAM PARK, BAYVIEW AVENUE, UNDERCLIFFE (EARLWOOD).