

Did you know there is habitat for endangered frogs in Rosebery? Did you know there were extensive market gardens in Waterloo? Did you know dugong bones and a submerged forest were found during excavation for the Alexandra Canal? The area we know as Green Square was part of a network of wetlands.

The ***Green Square Atlas of Water Stories*** surfaces some of the wetlands histories, through the narratives of storytellers who have worked with water in this area, and invites residents and visitors to discover objects in the landscape that unfold more water stories.

The Atlas is brought to you by Mapping Edges Research Studio: Alexandra Crosby, Ella Cutler and Ilaria Vanni, University of Technology Sydney and by Shannon Foster at Bangawarra.

GREEN SQUARE ATLAS OF WATER STORIES

GREEN SQUARE ATLAS OF



WATER STORIES



GREEN SQUARE ATLAS OF



WATER
STORIES



PHOTO BY
CLARE BRITTON

Aboriginal custodians have been caring for Country since long before the water stories collected in this Atlas. The Country we call Green Square was and remains part of a system of wetlands and sand dunes, and of culture, songs, kinships, peoples, soil, water, sky, air, plants, animals, laws, ancestors and their interconnections. Sovereignty was never ceded; this is, was and always will be Aboriginal land.

As we walk around Green Square, we remember that before glass, bricks and concrete, there were rich ecologies maintained by traditional owners for millennia. We can see plants from these ecosystems emerging in the midst of urban development in gullies, paperbark and casuarina groves, clumps of kangaroo grass and lomandra, and the regenerated Eastern Suburbs Banksia Scrub. We can imagine the creeks by following stormwater drains.

We want to respectfully acknowledge this ongoing custodianship of Country and pay our respect to the traditional owners on whose lands we have the privilege to live, work and walk. We extend our respect to Elders and Knowledge Holders past, present and emerging; to all Aboriginal peoples who care for this Country; and to all Aboriginal and Torres Strait peoples, the traditional owners of the rich and vital lands across Australia.

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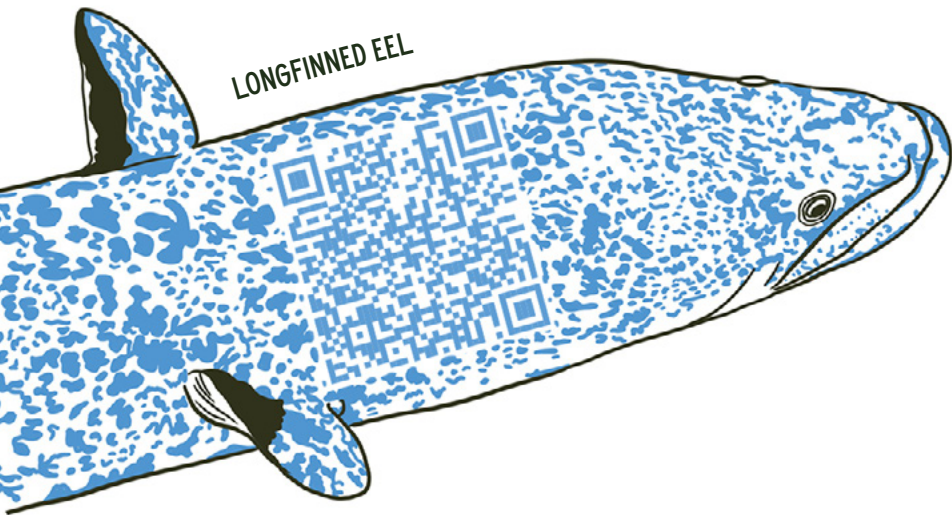
SHEAS CREEK AT MADDOX STREET, ALEXANDRIA.
PHOTO BY ILARIA VANNI.

Welcome to the Green Square Atlas of Water Stories, a project that maps, materialises and activates social and environmental histories and practices of water in the area we now call Green Square.

This atlas is an invitation to explore the water stories of the Green Square precinct, now home to Australia's largest urban renewal project. Green Square spans the Sydney suburbs of Beaconsfield, Rosebery, Zetland, Alexandria and Waterloo; if you're located close by, we recommend you take a walk in the area before, during or after using this resource.

The Atlas of Water Stories is divided into sections, each offering ways to discover water in Green Square. The first section presents profiles and stories by people who contribute to understanding, building and interpreting water stories. The second section invites you to choose a portal through which you can enter the archives and flow through time and space. The Eastern Suburbs Banksia Scrub, a camellia, a pub sign and statues of dugongs are all portals to the water stories of Green Square.

Portals are imaginary and narrative devices that prompt the telling of these stories, but they're also physical places and objects you can see as you walk or cycle around the precinct. For instance, if you stand outside the library in



We researched this project during the 2021-2022 La Niña event. As the Bureau of Meteorology (www.bom.gov.au) explains, most parts of New South Wales received above average rainfall and many parts experienced severe flooding. Australia's temperature and rainfall variability are also influenced by global warming caused by human activities. In Green Square, these and other water stories are waiting to be told.

Explore other stories of Green Square.

This is the second atlas in a series. The first (The Green Square Atlas of Civic Ecologies) can be downloaded from the Mapping Edges website (www.mappingedges.org). Discover the stories that make the neighbourhood you know today or contribute your own stories to these living archives of Green Square by emailing mappingedges@gmail.com.

the town plaza, you will notice three sculptures of dugongs. The dugongs are material reminders that during the dredging of Sheas Creek at the end of 19th century, dugong bones, stone artefacts and a submerged forest were excavated.

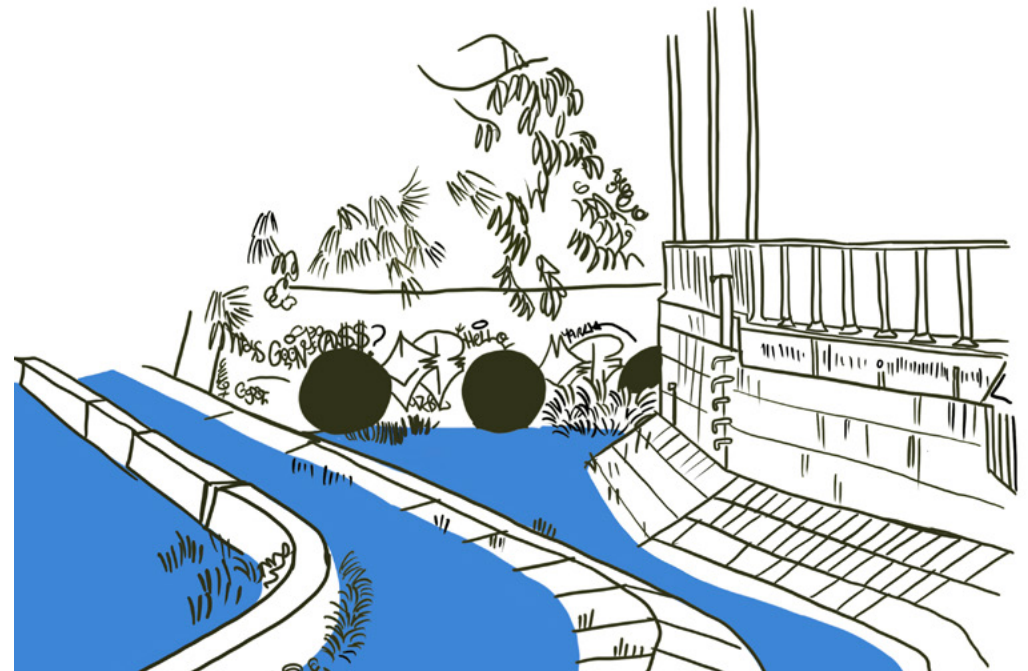
After exploring the portals, you can also head over to the Water Stories website (www.waterstories.info) and explore maps, archival text, expert voices, photos and video, as well as watery words from the D'harawal Dictionary, to reveal a water history of this area.

Don't worry about getting lost when streams diverge, canals are blocked or drains flood.

Don't get confused when water evaporates and fills your nose with the stench of industry or the sweet scent of tea trees.

Watery archives are unruly and ephemeral.

You can always come back to the map and choose a different portal or discover new portals yourself and add them to this growing archive.



PARRA'DOWEE, THE D'HARAWAL SEASON OF THE EEL SPIRIT

Walking Country across what is now known as Green Square, Waterloo and Redfern, there is an ever-present sense of water: from puddles and random rain showers to storms, streams, and even tears. We call this place Gunyama (stinky wind) for the southwest breeze that blows across the wetlands and stagnant ponds, driving smelly winds across the surrounding landscape, a feature of Country that this place was once well known for. Concrete storm water drains weave like blood vessels in and out of every corner, straining to conceal and contain the memories of this ancient flood plain. Those connected to her, though, will always remember as the stories still run through the channels of the streets connecting us to our Country, culture and Ancestors.

Local D’harawal stories here speak of Parra’dowee (the eel spirit) and the lessons to be learned in being resilient, persistent and adaptable. The season of Parra’dowee, Gooray’murrai (warm and wet), is marked by the arrival of the first soft, golden blooms of Kai’arrewan (*Acacia binervia* or coastal myall). This occurs around the months of November and December as a humid, stormy prelude to what will inevitably be a hot, dry summer in now-Sydney.

In the season of Parra’dowee, a storm can erupt at any moment, and I have been taught by my D’harawal family to never sleep close to the rivers or streams during the Parra’dowee as they are bound to flood and even burst their banks with very little warning. This is the season of water, they tell me: humid, warm and wet, with random episodes of flash flooding creating the perfect ephemeral estuaries to carry Parra’dowee from her inland freshwater home back to the salty tides of the ocean. Nothing will stop Parra’dowee on her journey back to saltwater Country. She can ingeniously traverse fresh, salty, watery and even dry environments to make her way back to the sea where she will breed and, eventually, lie down and die.

The children of Parra’dowee will continue the cycle, though, as they catch the warm currents back home to the estuaries and freshwater streams of Gunyama to start life all over again. Parra’dowee reminds us that we are all connected to every aspect of Country and we are all reliant

upon each other for survival in this complex cycle of life and death and everything in between. For Parra’dowee, straddling all of the ecologies of Country requires a complex range of diverse adaptations and an unstoppable will. These hostile, rapidly changing environments create strong, tenacious and resilient communities. Every corner of these streets tells the story of struggle, adaptation and survival. Layers of history have been embedded in the ancient sand dunes here. As we walk the streets today, we lay down our own stories and histories, creating spaces and places for our futures with the knowledge and guidance of the stories from our past.

Ngeeyinne bulima nandiritah

May you always see the beauty of this earth

D'HARAWAL WATER WORDS

[HTTPS://DHARAWALSTORIES.COM/DHARAWAL-DICTIONARY/](https://dharawalstories.com/dharawal-dictionary/)

NGADYUNG	WATER
NADUN	DRINKING WATER
BANGALA	WATER CARRYING VESSEL
DARAGUN	WATER COURSE
DIBUR	DEW OR SMALL DROPS OF WATER
GULIMA	WATER OR FOOD VESSEL
BADOBURRA	WATER RUSHES DOWN
BUBALAMAI	SACRED SPRING WATER
KEDUMBA	WATERFALL
NADYUNG'KAMIRA	POOL, WATERHOLE
BURARA	DRY EARTH, WATERLESS
BALI	WITHERED, WATERLESS, PARCHED
MARRAY	WET
GURBUNI	FOG, THICK MIST
GUNUMAN	DRIZZLE
BURARA	MOISTURELESS
BAMAL	A NATURAL EARTH MATERIAL USED FOR DECORATION
MILUNI	A NATURAL EARTH MATERIAL USED AS MEDICINE
BAMALMARRAY	SWAMP
WALAN	RAIN
BURARA	ARID
DARAGUN	STREAM, WATERCOURSE
BARUK	TO FILL TO OVERFLOWING
GARAGULA	LOW TIDE
GAMI	ESTUARY
NADAN	FRESH WATER
DYIRAL	SHALLOW WATER
GADU	SEA, FROM THE SHORE TO WHERE THE WAVES ARE BREAKING
GARRIGARRANG	SEA, BEYOND THE BREAKING WAVES
NADYUNG'KAMIRA	WATERHOLE

THE FOLLOWING
ARE SOME OF THE
WATER STORIES OF
GREEN SQUARE

MARTIN BRYANT

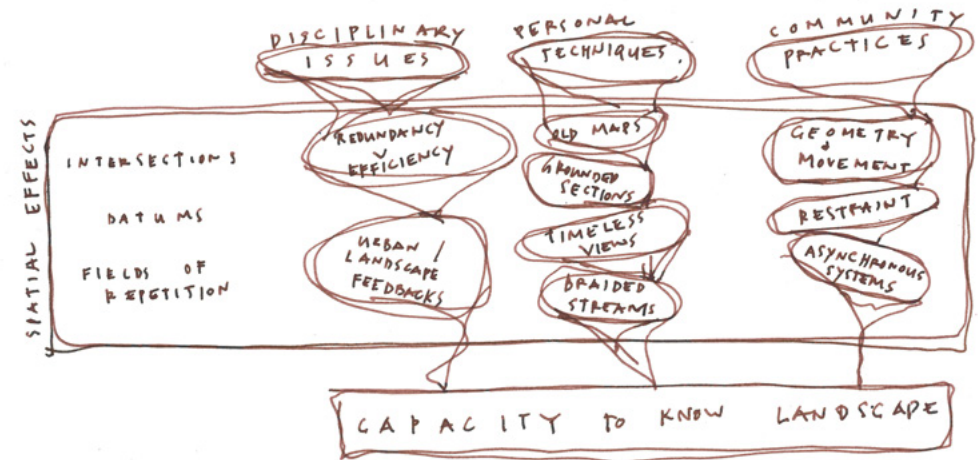
WOOLWASH PARK

Martin Bryant is a professor of landscape architecture at the University of Technology Sydney. In 2000, he led the design of Woolwash Park on Zetland's Joynton Avenue, re-imagining the area's historical wetlands to create a nourishing habitat for native plants and animals. Decades later, Woolwash Park is now a thriving environment for residents and visitors, as well for as turtles, eels and dragonflies.

Martin describes Woolwash Park as almost entirely devoted to a fluctuating pond with margins of swamp paperbarks. The idea was inspired by European groves in Centennial Park and offers shade and habitat for the benefit of both humans and non-humans. The pond can be traversed via a wooden boardwalk; a dog's leg configuration mirrors the twists and bends of the nearby streets around local wetlands. The dog's leg slows people down, encouraging them to notice what's happening in the water on one side and on the banks on the other. When it rains, the mud bank is home to sedges and swamp lilies.

Landcom, the NSW Government's land and property development agency, commissioned the park and decided on its name. Like the Drying Green, Woolwash refers to Green Square's industrial past — wool washing was one of the first industries in the area. Landcom had a mandate to provide medium-density housing in the Green Square area; because the area was prone to flooding, they wanted to expand the function of the nearby green spaces to contribute to water management. Local parks were designed not only to control flooding but to filter stormwater before it enters the receiving waters of Gamay (Botany Bay).

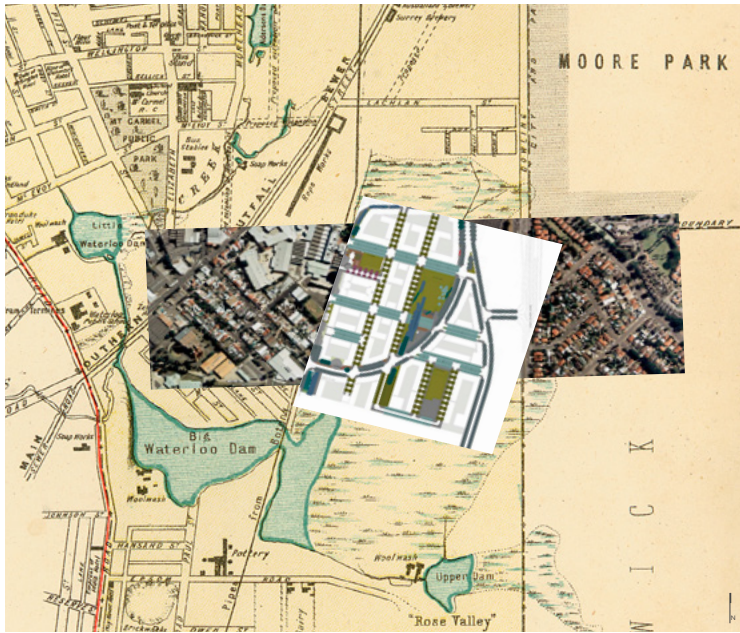
“URBAN PLANNERS LIKE TO DETERMINE SPECIFIC ROLES AND USES TO PARKS—THE BIG PARK, THE LARGE GRASSY AREAS FOR PICNICS, THE DOG PARK, THAT KIND OF THING. IN WOOLWASH, WE MANAGED TO SQUEEZE IN AN INDETERMINANT SWAMP.”



The park's design was chosen through a competition. Other entries involved offshoots to extend the Alexandra Canal, but Martin and his collaborators were more interested in nature-based solutions inspired by the natural system of what once was the Waterloo Swamp. At the time, their proposal was quite experimental. Hydrological issues like flooding were usually prioritised via large-scale engineered infrastructure that removed water from residential sites. The engineers would typically come in first, and then the architects would design the buildings around the infrastructure, and then the landscape architects would arrive to work on the green spaces left over. Instead, Martin and his team envisioned that every single park in the area would be integrated in the water infrastructure, giving primacy to the natural systems that would otherwise have been smothered by roads and buildings.

Green Square is built on a system of sand dunes and wetlands that were formed when windblown sand was deposited in the natural depression of the Botany Basin. In the deep time of the Ice Ages of the last 40,000 years, these would

‘MAKING CAPACITY TO KNOW LANDSCAPE!’
IMAGE BY MARTIN BRYANT.



'VICTORIA PARK ON ZETLAND ON WATERLOO SWAMP'

VICTORIA PARK WAS BUILT OVER AN INDUSTRIAL DEVELOPMENT OF THE SUBURB OF ZETLAND, WHICH WAS BUILT ON THE FRESHWATER WATERLOO SWAMP OF THE BOTANY SANDS. TODAY, REMNANT WETLAND LANDSCAPE SURFACES ONLY IN THE LARGE ACREAGE PARKLANDS OF MOORE PARK, CENTENNIAL PARK AND THE REGION'S GOLF COURSES. FOR THE MOST PART, THE LAYERING HAS SMOTHERED THE WETLAND LANDSCAPE.

IMAGE BY MARTIN BRYANT. SOURCES: GOVERNMENT ARCHITECTS OFFICE OF NSW (TOP); GOOGLE MAPS (BENEATH); 1865 PARISH MAP OF WATERLOO COURTESY CITY OF SYDNEY ARCHIVES (FAR BENEATH).

have been cold and stark places. As temperatures warmed and fresh water flowed, the rivers, creeks, ephemeral ponds and swamps from the Paddington ridge to the Cooks River and Gamay (Botany Bay) became abundant sources of life cared for by Aboriginal people. Woolwash Park's fragment of wetlands, reclaimed as part of Green Square's urban renewal, shows a shift towards the understanding and recognition of Aboriginal ecological practices and the importance of urban ecologies in city planning.

“THAT’S WHAT THIS LANDSCAPE WANTS TO BE. IT WANTS TO BE ALWAYS CHANGING BETWEEN WET AND DRY. IT WANTS TO HAVE TIME IN THE WATER AND OUT OF IT. IT WAS IMPORTANT TO CREATE A FEELING OF WHAT THAT SWAMP WAS LIKE.”



EPSOM RD

CHESTER LN

FUSE ST

LINK RD

SPRING ST

ROSEBERY AVE

DARMENY AVE

SOUTHERN CROSS DR

GALARA ST

ROTHSCHILD AVE

CREWE PL

KIMBERLEY GROVE

DUNNING AVE

MENTMORRE AVE

CRESSY

PRIMROSE AVE



GRAHAM PYKE AND ARTHUR WHITE

“I DISCOVERED
SOMETHING
IN 1994 THAT
EVERYBODY KNOWS
ABOUT THESE DAYS,
AND THAT IS THAT
GREEN AND GOLD
AND BELL FROGS
ARE SERIOUSLY
DANGEROUS –
NOT POISONOUS,
BUT HIGHLY
ADDICTIVE! SO, I
GOT HOOKED, AND I
GOT INCREASINGLY
INVOLVED. ...
AND I’VE NEVER
STOPPED.”

Zoologists Dr Arthur White and Dr Graham Pyke have been working together since the early 90s.

Their stories are entwined by a particular species endemic to Green Square: the now critically endangered green and golden bell frog.

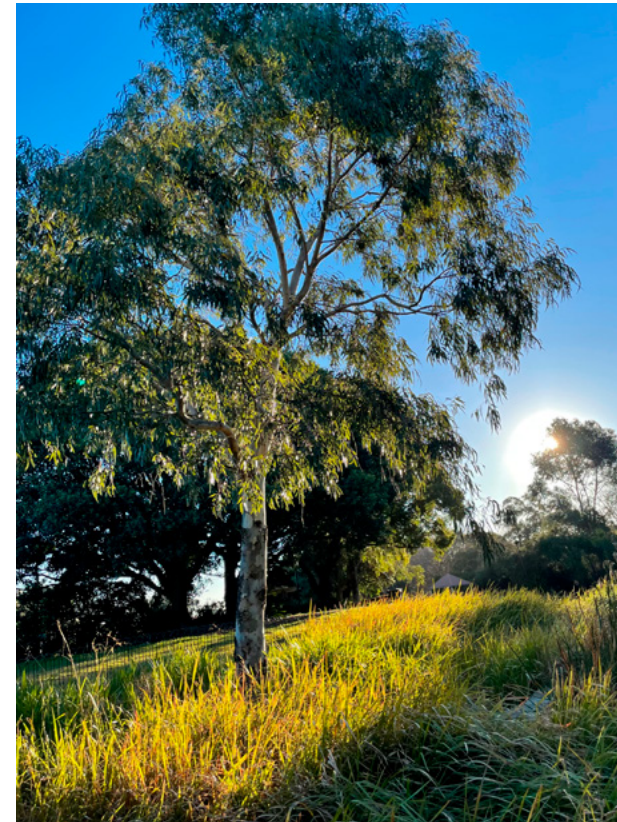
Arthur has loved frogs for as long as he can remember. He grew up in Rosebery and remembers it as a fun and wild place to run amuck. Rosebery used to flood regularly, so Arthur would take his boat and paddle about, finding and observing frogs in the big wet holes left by sandmining processes that were common to the area at the time.

By contrast, Graham was initially more of a self-described “bird man” who had little interest in amphibians. He first got involved with frogs in 1994 when he was commissioned to do an environmental impact statement about green and golden bell frogs at the Sydney Olympic Park site. It was here he met Arthur.

Together, Arthur and Graham began researching Sydney frog colonies and the bell frogs’ declining habitats, which are sometimes found in human-disturbed urban and suburban landscapes and also in natural landscapes where they experience natural disturbance regimes. Arthur and Graham used a water meter to measure temperatures favourable to frogs and tadpoles and a tape measure to record the depth of ponds. When microchips became available, they used them to keep track of individual frogs.

A colony of green and golden bell frogs took up residence in an above-ground backyard swimming pool near Kimberley Grove, a reserve on

THE FROG POND



KIMBERLY GROVE
RESERVE AT SUNSET.
PHOTO BY ILARIA VANNI.

the southeast edge of Green Square. The owner dedicated the pool to their habitat, which in 2016 sparked the City of Sydney to build a frog pond in the nearby Kimberly Grove Reserve as part of their Urban Ecology Strategic Action Plan.

While they were not involved in its design, Arthur and Graham understand the intention of the frog pond at Kimberly Grove. It attempts to mimic the ideal bell frog habitat with a deep-water zone, a shallow-water bank, adjacent terrestrial shelter and hunting zones, plenty of sunshine and no fish.



GOLDEN GREEN BELL FROG

The terrestrial zones are planted with specific native plants such as mat rush (*Lomandra sp*), flax lily (*Dianella sp*) and kangaroo grass (*Themeda sp*) that provide shelter and prey for frogs. The aquatic zones are planted with rushes and sedges.

Graham and Arthur believe that the bell frogs that were around Rosebery were originally part of a much bigger population that extended all the way down to the northern part of Gamay (Botany Bay). At the time of European settlement, the whole area was low-lying, swampy marshland; bell frogs would have inhabited it all. Now, if frogs are in ponds on the nearby golf course grounds, they're only a few jumps from the Kimberly Grove Reserve (although how they might cross the busy road is a mystery to us).

It's unclear whether green and golden bell frogs live in the Kimberley Grove pond. The challenges of designing, creating and maintaining habitat in the city are immense. The gambusia fish, known to some as mosquitofish and to others as plague minnow, infests waterways and feeds on eggs and tadpoles, especially those of bell frogs. Drought and flood come more frequently with climate breakdown. Diversions, water extraction and flood mitigation works don't always contribute positively to the wetland areas that frogs need. It's fun to imagine the green and golden bell frogs

“THERE ARE NO FROGS IN THE CITY BECAUSE WE JUST DON'T HAVE THE RIGHT HABITATS ANYMORE, SO WE HAVE TO CREATE HABITAT. IN URBAN AREAS, THERE ARE ALL KINDS OF THREATS”.

thriving in the urban wetlands of Green Square, but the sad reality is that their plight is dire at best — at worst, the Rosebery population may no longer exist.

Arthur and Graham have published much research on green and golden bell frogs and this has helped ecologists, politicians, developers, designers, activists and historians understand their plight. They are dedicated members of the Frog and Tadpole Study Group of NSW (FATS) and maintain that the best way to learn about frogs is to chuck on your gum boots and get out into the wetlands. Despite these challenges, Arthur and Graham remain passionate. They're now looking to recruit new generations of frog lovers to support green and golden bell frogs.

Arthur is currently director for his business Biosphere Environmental Consultants while Graham is an honorary professor at Macquarie University.

STRIPED MARSH FROG



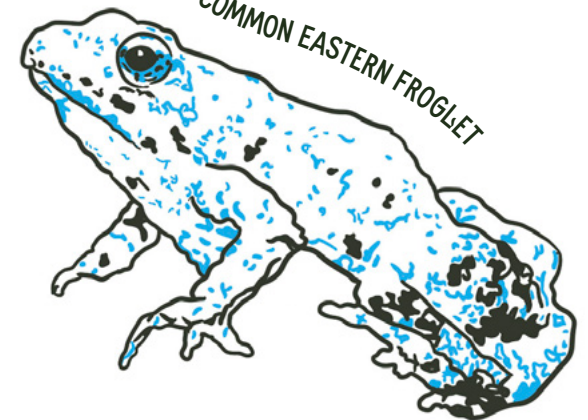
EASTERN SEDGEFROG



PERON'S TREE FROG



COMMON EASTERN FROGLET



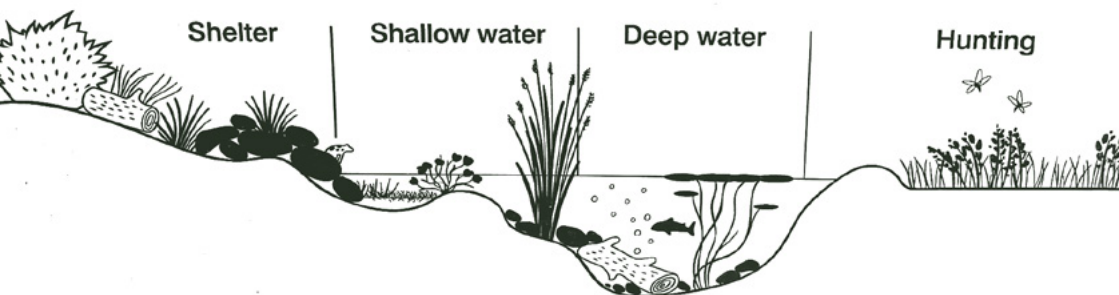
Habitat zones

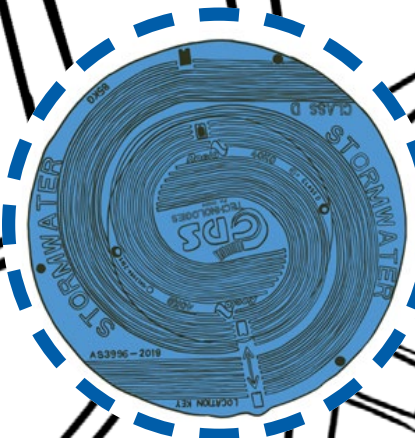
Shelter

Shallow water

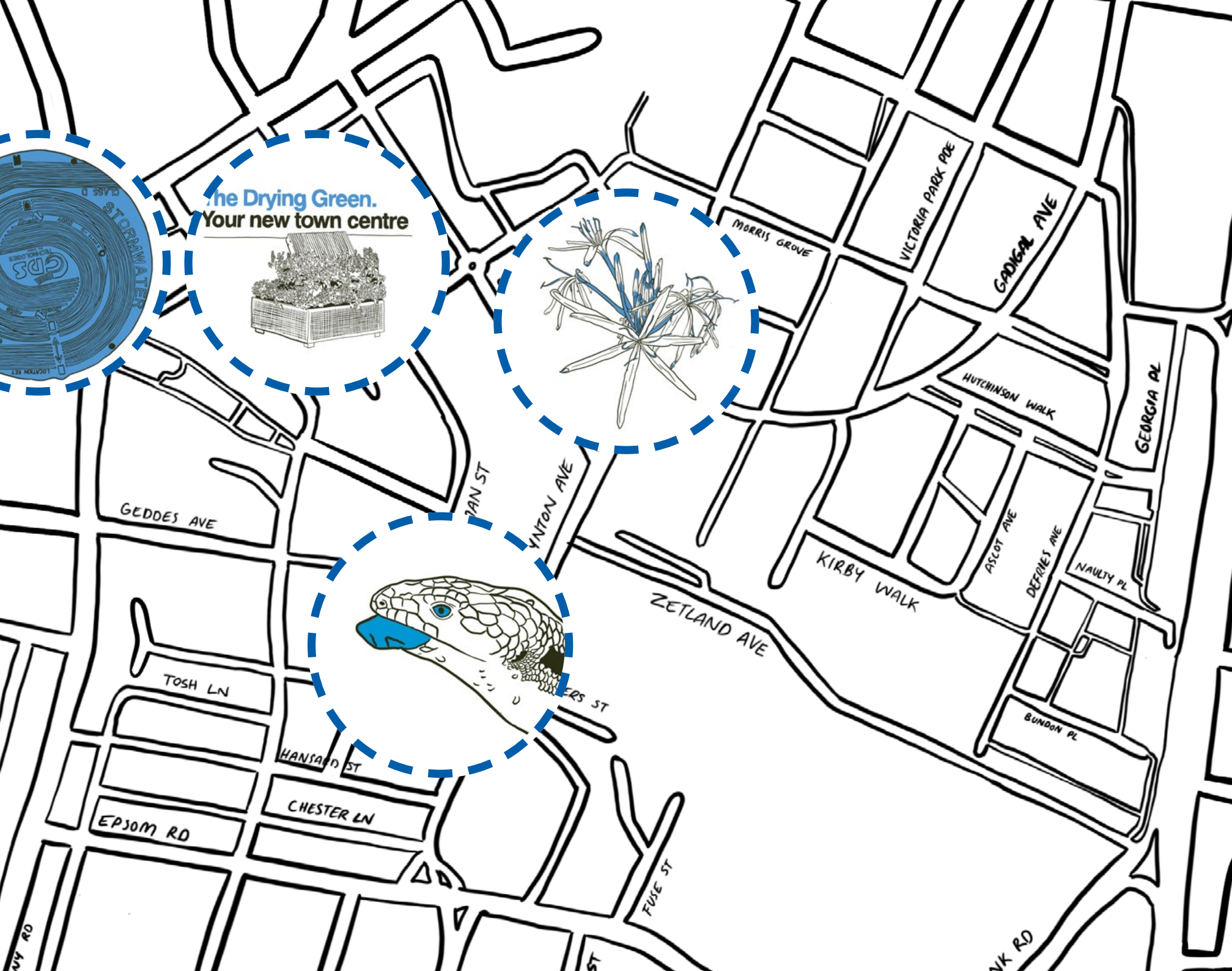
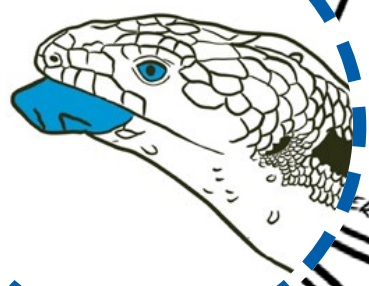
Deep water

Hunting





The Drying Green.
Your new town centre



INDIGO HANLEE AND MICHAEL THOMAS HILL

Indigo Hanlee and Michael Thomas Hill create digital media for public spaces.

If you walk through Green Square Plaza, your eye will be drawn to clouds of watercolours that rise and fall across a tall, stately structure. This is *High Water*, a whimsical, visual interruption of the angular steel, glass and concrete of Green Square.

High Water is a contemporary interpretation of a town clocktower. It forms part of a series of public artworks on water and the water stories of Green Square. Comprised of a nine-metre-high double-sided LED screen tower, the work displays a moving watercolour that changes according to live environmental data.

The artwork is conceptually divided into two sections that represent sea and sky. The lower part of the tower — the sea — tracks data from the Bureau of Meteorology; the resulting images rise and fall slowly with the tides and sea levels. Above this ebb and flow, the tower collects real-time environmental information from local weather sensors in Green Square and transforms it into a digital image created from watercolours hand-drawn by the artists.

The movement of the watercolour translates wind speed and direction while the size of its blooms reflects the level of humidity. Rain is captured as droplets falling down the screens. The colours are a code to read temperatures, starting

HIGH WATER



THIS PAGE AND NEXT:
HIGH WATER, 2018,
BY INDIGO HANLEE,
MICHAEL THOMAS HILL
AND LIGHTWELL, IS A
PERMANENT PUBLIC
ARTWORK AT THE GREEN
SQUARE PLAZA IN SYDNEY.
PHOTO BY ILARIA VANNI.

from a deep aubergine for 1 degree and traversing the colour spectrum into purples, blues and greens through to yellows, oranges, pink and reds, and finally to the dark red of 50 degrees.

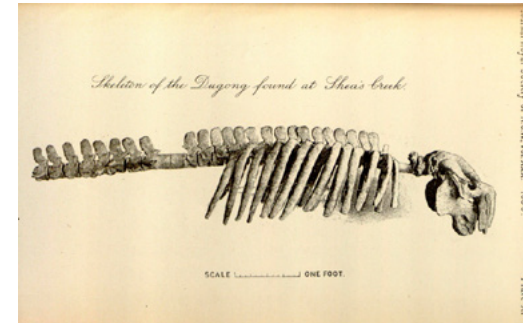
Residents, regular visitors and commuters learn to read the tower's moving imagery and to understand the weather patterns and changing climate it represents. Further information about the work and an archive of hourly snapshots of the display are available online.

“THE SITE OPPOSITE THE LIBRARY HAD BEEN IDENTIFIED BY THE ARCHITECTS AS A SITE FOR A ‘TOWN CLOCK’. WE TOOK THE IDEA OF WHAT A CLOCK IS OR WHAT IT MEASURES TO THE EXTREME AND CONCEIVED OF A SLOW CLOCK AND A SLOW REVEALING OF OUR CHANGING CLIMATE.”

PHIL BENNETT

ENVIRONMENT, HERITAGE, INFRASTRUCTURE

“THE GREAT SHAME OF SYDNEY AND THE GREAT SHAME OF MOST CITIES IS THAT ALL THAT STORM WATER DRAINS INTO THE NATURAL SYSTEMS AND MAKES THEM UNUSABLE ... WE STILL LIVE WITH THAT LEGACY IN SYDNEY. WE CAN'T SEE THE CREEKS.”



SKELETON OF A DUGONG,
JOURNAL AND PROCEEDINGS
OF THE ROYAL SOCIETY OF NEW
SOUTH WALES, VOL. XXX, 1896,
PLATE X1.A

LOWER JAW OF A DUGONG,
JOURNAL AND PROCEEDINGS
OF THE ROYAL SOCIETY OF
NEW SOUTH WALES, VOL.
XXX, 1896, PLATE X.A



Philip Bennet was the lead heritage advisor for Sydney Water, where he worked for over 20 years. An architect with a master's degree in heritage conservation, Phil has researched the connection of the stormwater system from Green Square into Sheas Creek and the Alexandra Canal.

The stormwater systems in Sydney tend to be the creek systems. In the old days, houses were built to drain into the creeks, which were channelised to flush out the sewage. Even after the installation of a more sophisticated system that drained sewage into the ocean at Malabar and Bondi, these channelised creeks remained a problematic feature of the city's stormwater network. To this day, their straight and smooth structure allows oils, rubbish and other waste to be discharged into major waterways.

The NSW Department of Public Works began dredging Sheas Creek for the Alexandra Canal in 1887. While other Sydney waterways like Johnstons Creek and a section of the Cooks River have been adapted to better filter their water sources, Sheas Creek and the Alexandra Canal remain too low lying, too full of sediment and too contaminated, the result of their proximity to decades of heavy industry.

But despite this toxicity, the canal — now a vital part of Green Square’s stormwater infrastructure — has slowly transformed into a wildlife corridor. Bushes grow in the stonework, providing habitat for migratory birds. Oysters filter the water, and as the tide ebbs, pelicans, egrets, cormorants, magpies and seagulls feed and bathe in the shallows. Maintaining this environment is a process of give and take — when Phil and his team completed a restoration project in 2011, they left small gaps in the stone to provide habitat for crabs and other small creatures.

As always, development threatens. Three new bridges have been built over this vital waterway in the last decade alone. The Westconnex and Airport Gateway projects both intersect with the canal, and remediating the site remains a constant point of discussion — to cap it with clay, to dredge and move the contaminated mud, to create floating islands that filter the mud and absorb the heavy metals from the water.

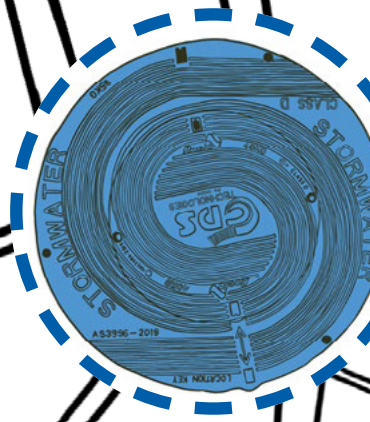
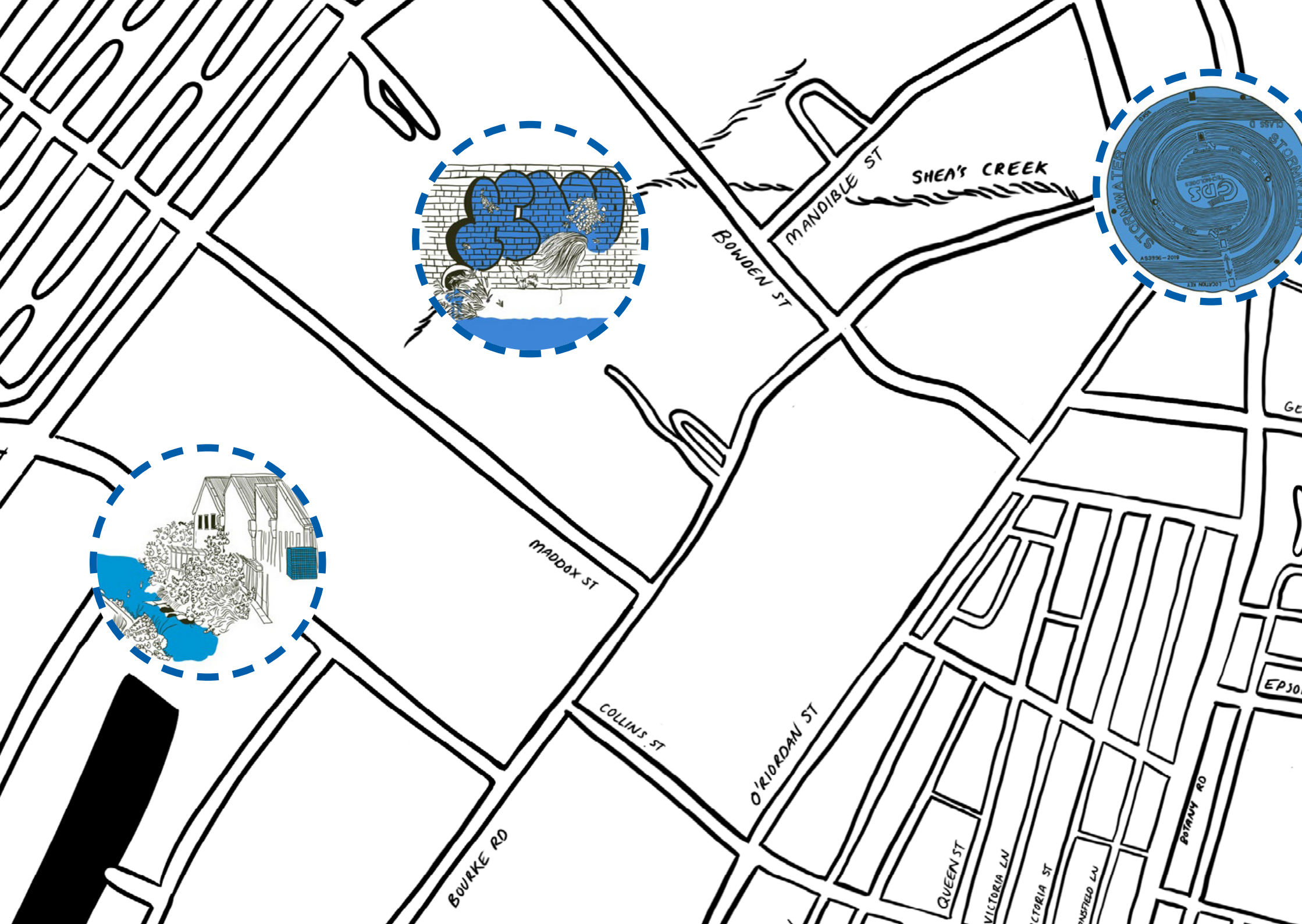
Managing the transformation of a live waterway is complex. When the time comes, Phil knows he’ll need to balance the competing interests of environment, heritage and infrastructure. He’ll have to move slowly, create alternative habitats close by. It’s not impossible; you can do anything if you put your mind to it, says Phil, but it requires an appreciation of how the future of waterways is connected to their past. Designing and maintaining robust human-made infrastructure that considers these challenges is essential to leaving natural systems intact.

“IT’S THE FUNCTIONALITY AND AFFORDANCES OF WATERWAYS THAT’S SO INTERESTING TO ME. OVER TIME, THIS BECOMES THE HERITAGE OF THE CITY.”



EXCAVATION AT SHEAS CREEK IN 1896, AUSTRALIAN MUSEUM.





TAYLOR COYNE

Taylor Coyne is a human geographer, which means he studies the relationships between people and places. He is currently completing a PhD at the University of New South Wales, Sydney on the history and politics of Sydney's urban stormwater infrastructure on unceded Gadigal, Bidjigal, Birrabirragal, Kamaygal, Wangal and Gweagal Country.

Taylor's interest in the political ecologies of water stems from the early days of his research career. As a master's student, his examination of the George's River in Sydney's south spurred a long-term fascination with why and how Sydney's waterscapes came to be the way they are today. How have these spaces have been designed, managed and governed?

These questions led Taylor to radically reconsider what water could be and do if we think about it in different terms — for example, how it's contained by and escapes colonisation, and how it can have more-than-human rights and legal personhood. It was during this period that Taylor also began working towards acknowledging the history of queer water ecologies, reflecting on how we engage with spaces that are often peripheral or neglected. The waters that flow over rocky ridges and into the soft, sandy earth have nurtured queer geographies for time immemorial.

Taylor's mode of research is to “follow the water”, which means walking and feeling the topography, the ridges and the swamps and the creeks. He studies archival material, including historical maps that are available through the NSW State Library and the City of Sydney.

SWAMP CITY

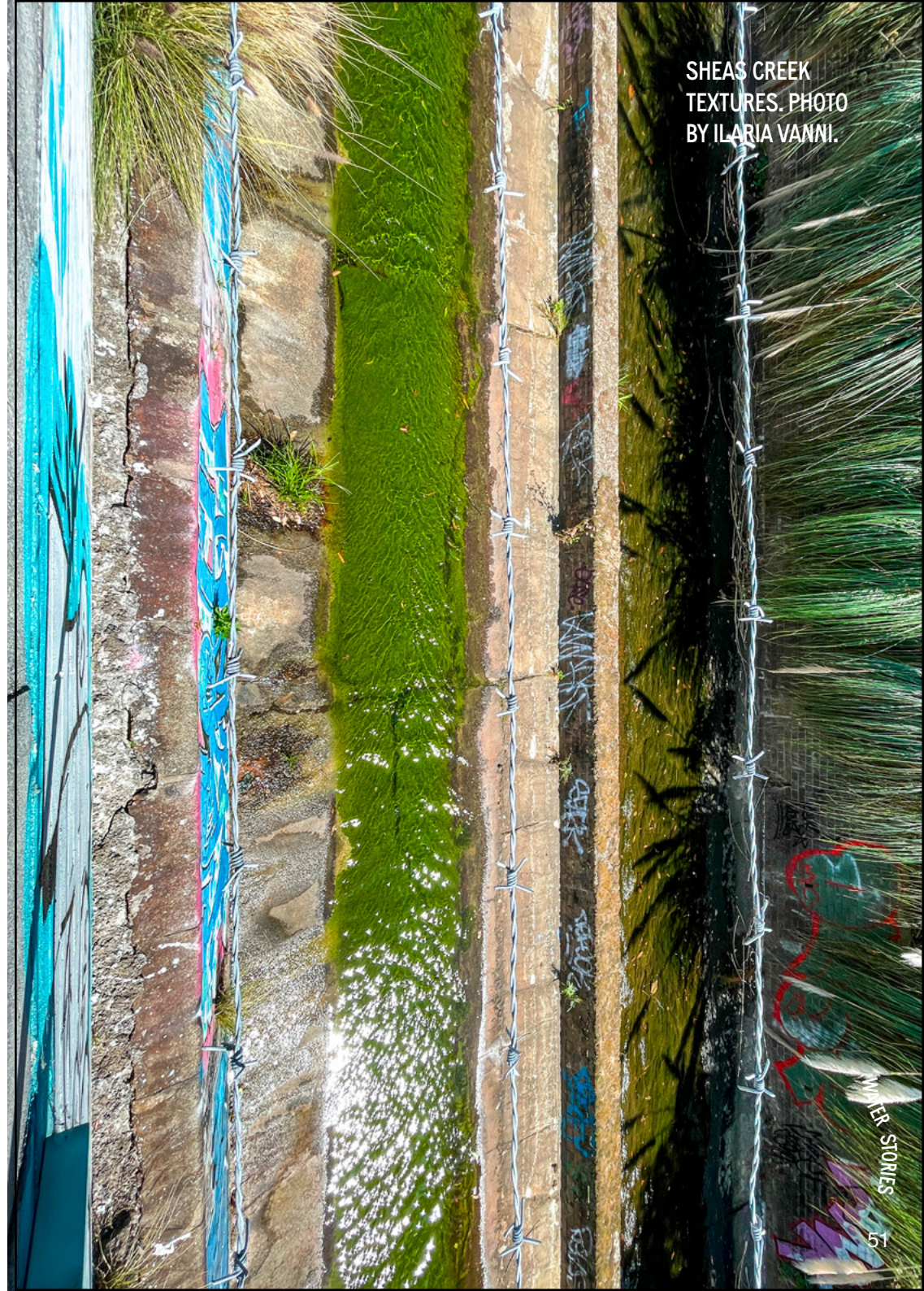
“I THINK THAT CULTURALLY WE DISMISS SWAMPS AS DIRTY AND UNWANTED AND DANGEROUS AND USELESS... BUT THEY'RE REALLY COOL ECOLOGICALLY ... THEY ALSO HAVE THESE AMAZING SUB-CULTURES WHICH EXIST WITHIN THEM AND REPRESENT SO MANY STORIES OF THE CITY.”

He's also an advocate for the agency of water in the design of our cities, an idea that's strongly linked to the language we use when talking about urban water sources. He prefers "swamp" to euphemisms like "lagoon" or "pond". When uncovering water stories we can't see, he chooses to refer to them as "silenced" rather than "lost". He doesn't want to speak on their behalf; instead, he wants to give their voices back. By using more authentic and generative language to describe urban wetlands, Taylor hopes to inspire people to think and talk about the watery landscapes that shape their local neighbourhoods.

During his master's research, Taylor was living in Alexandria and spent countless hours writing his thesis at the Green Square Library. It was here that he first became interested in the water stories of Green Square. He thinks about how the area permeates out so much further than the boundaries — Gardener's Road to the south; the intersection of Green Square, Alexandria, Waterloo and Zetland to the west; the parks and golf courses of South Dowling Street to the east — that we now deal with on the map. This area is home to numerous sites of research interest, such as the Waterloo Pumping Station; the Botany Sands Aquifer; and the Australian (est. 1904) and Lakes (est. 1928) and Moore Park golf courses, which are currently the focus of ongoing debates about the best use of these lands.

Taylor wants to raise awareness of the important water ecologies of Sydney, many of which remain unknown to local residents — the Tank Stream, the Botany Sands Aquifer, the Botany Water Reserves and the wetlands of Green Square. Public storytelling or designing spaces with architecture and infrastructure could help showcase Sydney as Country and shine a light on the significance of water within the city. Making these water ecologies visible at a grand scale could transform the way that city residents interact with and care for them.

"OVER THE LAST 10 YEARS, I'VE THOUGHT A LOT ABOUT THE POLITICS OF URBAN DESIGN — THAT THE WATER WAS JUST SATURATING ALL OF THOSE POLITICS IN EVERY SINGLE WAY."



SHEAS CREEK
TEXTURES. PHOTO
BY ILARIA VANNI.

JENNIFER TURPIN & MICHAELIE CRAWFORD

PICTURE RIGHT:
STORM WATERS, 2002,
JENNIFER TURPIN AND
MICHAELIE CRAWFORD,
JOYNTON PARK, ZETLAND.
PHOTO BY IAN HOBBS MEDIA.

Jennifer Turpin and Michaelie Crawford are award-winning artists. At their Sydney-based turpin crawford studio, they produce site-specific artworks that bring together art, science, nature and the built environment in the public domain.

Green Square residents are familiar with the set of steps on the slopes of Joynton Park, but not many people know these stairs as *Storm Waters*, a 2002 art installation from turpin crawford studio. Despite the absence of signage to give context to this and other artworks around Green Square, *Storm Waters* engages people at a visceral and experiential level. Children run up and down the steps, splashing water; adults stop near the stairs to talk; and the many dogs visiting the park consider it one of the best places to sit on a hot day.

Storm Waters makes the park's water remediation processes visible. Joynton Park is a detention basin on top of the Botany Sands Aquifer, which means it's designed to detain water in case of extreme flood events. Jennifer and Michaelie wanted to reflect this concept by creating an artwork that visually and experientially reinforced the landscape's environmental function and celebrated it as a living, working entity.

To do it, the artists worked with environmental engineers and ecologists, as well as with leading landscape architect Professor Martin Bryant. They listened to the site's histories, from its past as

STORM WATERS

“THE ARTWORK IS
INTRINSICALLY INTEGRATED
INTO THE LANDSCAPE
DESIGN. STORM WATERS IS
ABOUT MAKING THE WHOLE
PLACE MORE LEGIBLE AS A
WORKING LANDSCAPE.”



wetlands to its early 20th-century transformation into a pony racecourse and later into a car manufacturing site. The resulting design is comprised of two sets of stairs that make water visible from around the park. Stormwater from the street is naturally filtered through plants in the swales and then channelled underground. It's then treated in a plant room before being returned up to the park for people to enjoy.

Once on the urban surface, the water moves at a 45-degree angle down the steps. Much thought and experimentation went into how people could interact with water in a poetic way; ultimately, Jennifer and Michaelie decided to slow down the water and train it to flow diagonally rather than in a straight line, introducing a variation to the way water behaves in nature. *Storm Water* encourages people to stop, consider, think and experience the park as a designed landscape that functions as a water treatment system.

www.turpincrawfordstudio.com.au

BELOW: STORM WATERS,
2002, JENNIFER TURPIN
AND MICHAELIE CRAWFORD,
JOYNTON PARK, ZETLAND.
PHOTO PATRICK
BINGHAM HALL.



RIGHT: STORM WATERS,
2002, JENNIFER TURPIN,
MICHAELIE CRAWFORD,
JOYNTON PARK, ZETLAND.
PHOTO BY ILARIA VANNI.



“THERE’S STILL MUCH WORK TO DO TO ACKNOWLEDGE AND MAKE VISIBLE STORMWATER RESTORATION PROJECTS. IN OUR WORK, WE DO A LOT OF LISTENING TO UNDERSTAND THE FUNCTION OF THE WHOLE SITE AS A WORKING LANDSCAPE.”

MUFID NOUFAL

TRANSFORMING GREEN SQUARE'S STORMWATER FUTURES

Mufid works with water systems at the City of Sydney. He has built water treatment plants in more than 16 countries around the world. Everywhere he works, he advocates for water infrastructure that is fit for the future.

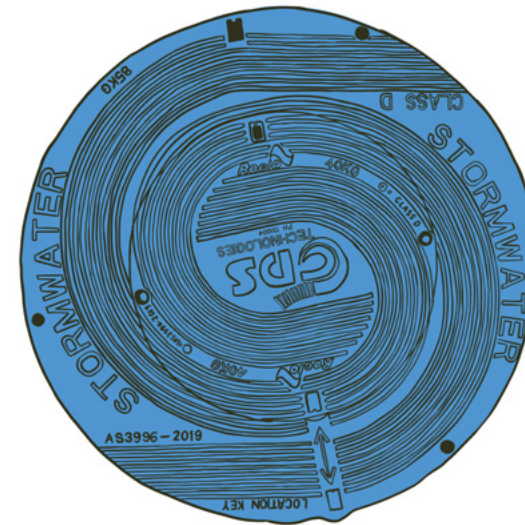
Longstanding residents of Green Square will tell you of water that would flood the neighbourhood during major rain events. During storms in April 2015, floodwaters reached 2.3m in Joynton Avenue.

When the area was slated for further development, there were two choices: build a system that pumps water out to the bay or build a system that recycles water locally. City of Sydney, the local council that governs Green Square, chose the latter.

Mufid became involved in the project as a consultant long before his role as the City of Sydney's Water Systems Manager began in 2012. His experience with membranes meant he had valuable knowledge to share.

Now, a 2.4km underground drain from Epsom Road in Zetland to the Alexandra Canal diverts stormwater to a recycled water treatment plant. Here, it undergoes a five-step purification process to meet the highest Australian standard for recycled water. Mufid's favourite part of the system is the ultrafiltration, which is compact, efficient and removes pathogens so the recycled water is safe.

The resulting purified recycled water is stored in a tank under Matron Ruby Grant Park. It is colourless and odourless. From here, it's pumped into bathrooms, laundries, cooling towers and parks across the town centre, saving significant volumes



of drinking water that were previously lost. The system delivers up to 320 million litres of recycled stormwater each year to buildings and open spaces in Green Square.

When Mufid explains how the recycling system works, it makes perfect sense. For water engineers, potable water, stormwater, sewer water and recycled water are all part of the picture of sustainable water management. But stormwater and recycled water are not included in the outdated regulations that govern this process, making it difficult for councils to build water recycling plants. The system at Green Square is unique because the area has both stormwater and a good base flow of water from the constantly flowing creek system. It shows what can be done in other urban renewal and development areas.

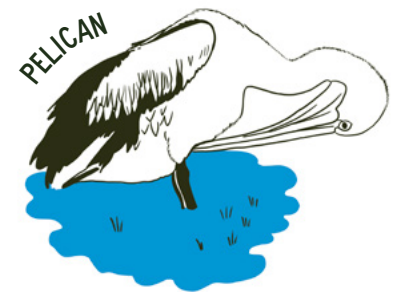
“WE LIVE WITH DECISIONS MADE 100, 200 YEARS AGO, AND WE NEED TO THINK BIG AND MAKE SOMETHING FOR FUTURE GENERATIONS. WE NEED TO PLAN 400 YEARS AHEAD, NOT JUST DO THE BARE MINIMUM.”



STORM WATER CHANNEL,
CORNER OF BOTANY ROAD
AND SHIRLEY STREET,
ALEXANDRIA, 1929.
SYDNEY WATER PHOTOGRAPH
COLLECTION, CITY OF SYDNEY
ARCHIVES



THE WATER REUSE CENTRE,
MATRON RUBY GRANT PARK,
ZETLAND.
PHOTO BY ILARIA VANNI.



Not many people know the water treatment centre is there. Mufid and his colleagues are thinking about creative ways to share this local water story that will help people think about water infrastructures. Mufid would like to see screens in the windows of the Water Reuse Centre (the old South Sydney Hospital) that show an animation of where the water comes from, how it's collected and treated in the plant, and where it goes.



RIGHT: INSIDE THE WATER TREATMENT CENTRE AT GREEN SQUARE, NICOLE EXPLAINS HOW STORM WATER IS STORED IN A TANK UNDER MATRON RUBY GRANT PARK. PHOTO BY ILARIA VANNI.



WATER SIGNS:

1. PLAQUE EXPLAINING RAIN GARDENS, JOYNTON AVENUE. PHOTO BY ALEXANDRA CROSBY.
2. SIGN ABOUT RECYCLED WATER USED TO IRRIGATE THE LOCAL PARK, ILLUSTRATION BY ELLA CUTLER.
3. SIGN INSIDE THE WATER REUSE CENTRE, ZETLAND, PHOTO BY ILARIA VANNI.



“[IN A REGULATORY SENSE], THIS COUNTRY IS NOT READY FOR RECYCLED WATER. IT’S NOT READY TO SUPPORT THE ALLIANCES NEEDED ... IT’S GONNA TAKE A LOT OF TIME TO CHANGE THIS.”

THE FOLLOWING
ARE SNIPPETS OF
WATER STORIES
THAT LIE BENEATH
THE PORTALS OF
THE GREEN SQUARE
LANDSCAPE.

EASTERN SUBURBS BANKSIA SCRUB

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This is a story of water, droughts, accumulation by dispossession, urban development and serendipity.

As the sand hills took over Green Square and the Eastern Suburbs Banksia Scrub and forests slowly disappeared, other plants were introduced to the area. Wetlands, springs and Sheas Creek provided fertile ground for market gardens and a large nursery.

In the second half of the 19th century, Camellia Grove Nursery stretched west of today's Alexandria Park. Mr Robert Henderson Snr, a settler initially from Newcastle-upon-Tyne, acquired an allotment of 10 acres. He established the Camellia Grove Nursery in 1838 on what was once the food bowl for a sizeable Aboriginal camp of 100 people. In the late 1850s, Henderson's sons, Robert and Charles, took over the nursery.

A journalist described this botanical paradise: small beds fringed by box hedges, a propagation house full of cuttings, a hothouse brimming with the variegated leaves of tropical plants, spindly yuccas, begonias of all sorts, swaying hoyas, passionfruit vines, native and imported orchids. Geraniums and pelargoniums bloomed next to beds of ornamental trees and shrubs. Here and there, a burst of orange birds of paradise, the whites of rice paper plants and a rare bougainvillea. Fruit trees, new and rare roses, and a selection of multicolour dracaenas, including the rare and prized *Dracaena hendersonii*. Of the displaced Aboriginal camp, the journalist wrote nothing.

by Mr. Jaggars, not far from the Waterloo Dam. Mr. Geddes sold his woolwash to the Australian Woollen Mill Company, and within 25 years ago Mr. John Haigh had a woolwash in the neighbourhood. The Bell and Lyndon Woolwash, and Mr. O. B. Edwards' sold in 1880 to Mr. Robinson, are among industries that have been removed farther out to Botany. At present in Alexandria alone there are 20 dairies, 15 noxious traders or tallow refineries, two tanneries, two pottery works, two soap factories, two glass works, one calculating works, two varnish factories, six boot factories, one Moulter pipe works, 20 cabinet, one Vinegar works, 15 Chinese and 10 European market gardens. There is a diversity of opinion regarding the advantages of the recently-formed Alexandria Canal, which cost the Government so much; but the fact that Alexandria now is drained, and that it does not, as formerly, lie under sheets of water in severe rainfall, proves that there has resulted much advantage to the district. It is said that a vessel of 200 tons brought coal up the canal from Botany to the "Wholesale Co-operative Society's Works." The portion of Alexandria known as the Beaconfield Estate is amongst the driest parts of the environments of Sydney, since the primitive sandhills still remain. At the top of one are a couple of dairies in almost impossible barren positions.

The days are fast passing when these sandhills will have no commercial value, though at present no charge is made for sand-shifting from this locality. The heavy traffic has cut up the, as yet, unmade roads, and the country aspect still survives. Yellow gorse bushes in flower and hedges of prickly pear are reminiscent of the days when the district was a rural one.

Among the early settlers was Mr. Henderson of Camellia Grove. This gentleman came to Australia from Newcastle-upon-Tyne to take charge of Mr. Ozley's establishment at Cowpasture. He then was overseer for Alex. Macleay, Colonial Secretary, when Elizabeth Bay was made. Marrying Mr. Shepherd's (of the Newtown Nursery) daughter, he went into the business of florist, the original homestead of Camellia Grove standing within a hundred yards of what is now the Eveleigh railway employees' barracks. Mr. "Bob" Henderson's memories would fill a volume of early days, when every Sunday he walked with the rest of the family as a boy to hear Dr. McGarvie preach at St. Andrew's Presbyterian Church, over Gibraltar Hill, as the site of the Sydney Railway Station was called in those days. He has seen over a hundred blacks camped in what now is Darlington Park, and his father was

very fond of the natives, giving them anything they fancied. Johnny Malone, the last of the tribe, died some years ago. Only a few huts were round their garden. "Stuttering Joe" an old man-of-war sailor lived near by; also, in slab huts, lived Wilson, Craven, Blackford, Cornwell. Mr. Booth looked after the Cooper Estate, living where Mitchell-road touches Shea's Creek. The finding by Mr. Henderson of Governor Brisbane's spring is interesting. An old man living in Newtown-road in the days when King's Clear was auctioned, advised Mr. Henderson, sen., to pick the middle 10 acres, which was then pretty heavily timbered with mahogany. The next year water was 28 1/2 a bucket in Sydney; but there were three wells in the 10 acres that kept drought from the nursery. However, one day, in an unexpected moment, the spring itself was opened up, and then the water rushed forth in torrents. No wonder it was called Governor Brisbane's Spring, for in the three years' drought whilst he was Governor it had helped to keep the whole of the town supplied with water, being carried away in barrels as the custom then was, and hawked round the streets at a fancy price per bucket. A Mr. William Powell was one of the first to take up a block for 21 years' lease on the Cooper Estates; Chas. Cairns, Henry Bryant, Chas. Wilkes, William Setchell, and George Rolfe being also leaseholders. As workmen's cottages were needed, they cut up their acre blocks and built; but since every improvement goes back into the estate, the expenditure was not likely to be so great as though the land was absolutely their own. Yet the ten and twenty pounds a year for an acre have made many a man an independence, though of the original lessees, or their families, only a few remain. Mr. Robert Brown (who still lives there) took up ground on the sand on part of Hungry Hill. Now a neat row of cottages and a street stand where his grounds were; whilst Mr. Schimmel (still a resident) and his family have lived where Wellington-street now is since 1850. Many people will have heard of the fine body of men commonly spoken of as "the Canadian Exiles," who, being banished to this country for political offences, benefited it greatly by their skilled and conscientious work. Some of them were builders, and a party lived in the cottage next to a house where for years Barrister Holroyd lived, opposite Macdonaldtown Park. They formed a small community, having a common purse, and it was from an "Exile" that Mr. Bob Henderson and his brother learnt their first lessons. When granted a pardon, they re-

turned home, and Australia lost a valuable type of settler. What a beautiful homestead was Camellia Grove, with its acres of rare plants and flowering shrubs. Seventeen thousand rosecuttings, and over the same number of young trees was an average sale a year—not auctioned, but sold to private buyers. Here Dr. Badham would slip down from the University in his leisure moments to talk grape-cuttings, and Sir William Windyer, Messrs. Saul and L. Samuel never missed a week without a stroll in the garden and a yarn with its owner, who was a notable man in his day among notabilities. "People," said Mr. Robert Henderson, "had leisure then to be sociable." A drink with a new flowerpot out of Sir Thomas Brisbane's spring was a refresher that many a "big" man of those times did not scorn.

The flat near the big dam was the "convincing ground" for early artists in sketches, where George Lane and Black Johnson won their laurels. This was in the days of the Cabbage-tree-hat Mob of Waterloo. A number of old hotels have of late years been rebuilt, and, in many cases, remained, which, if destroying some memories of rowdiness, also remove the historical interest that in years gone by more than now, belonged to the Acacia Inn. The Sportsmen's Arms on one side of Botany-road and the Cricketers' Arms opposite are of respectable years. "The Cauliflower," built by Rolfe in 1861, is still carried on by a George Rolfe, one of the sons. It recalls the prosperous pre-Chinese market gardening days, and has for sign a rake and a spade. There were some bad times for gardeners even in those early days, when a load of cabbages was sold for four shillings at market, and when potatoes and onions could not be given away. Where the "Waterloo Retreat" stood, built in 1844 by Thomas Boston, and afterwards kept by

M'Ehinney, a row of cottages now stands. Charley Keen's "Clifton House" stood at the corner of Cooper and Haglan streets. "Keep Within the Compass" Hotel was in Pitt-street. "The Bugle Horn" was afterwards changed to the Lord Haglan, and was at one time a hostelry on Botany-road. An old picture shows a holiday scene on the road to Botany, with a landau drawn by four horses, in which is seated a lucky digger drinking champagne out of a bottle, and two very gorgeously befeathered ladies in the carriage. A donkey cart and a gig, driven unicorn,

During the Federation Drought (1895–1902), one of the longest recorded in Australia, countless properties ran dry. Camellia Grove Nursery continued to prosper thanks to three wells that kept the plants watered.

Eventually, this fortune flowed outwards: one day, a spring suddenly opened on the nursery grounds, gurgling enough water to keep the business flourishing and supply the whole of Sydney through the drought.

Today, a sign on Henderson Road, Eveleigh, marks the site of Camellia Grove Nursery.

MARY SALMON, THE SUBURBS OF SYDNEY XII WATERLOO AND ALEXANDRIA, EVENING NEWS, SATURDAY 6 AUGUST 1904, P. 3, TROVE, NATIONAL LIBRARY OF AUSTRALIA

CAMELLIA GROVE

Nursery

Camellia Grove

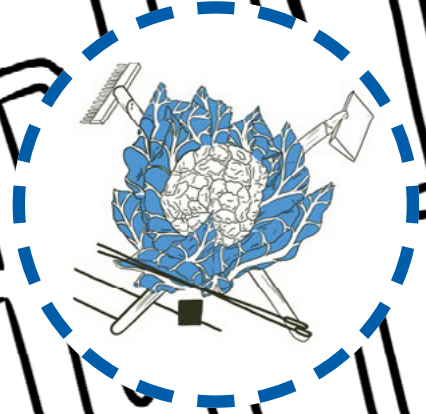
ENGRAVING AT THE ENTRANCE OF SOLANDER PARK, ERSKINVILLE. PHOTO BY ILARIA VANNI.



THE CAMELIA GROVE HOTEL TODAY, PHOTO BY ILARIA VANNI.



READING THE HISTORY OF CAMELLIA GROVE, HENDERSON ROAD, ALEXANDRIA. PHOTO BY ALEXANDRA CROSBY.



ALEXANDRIA
PARK

CAULIFLOWER

This is a story of market gardens, nightsoil and racialised vegetables.

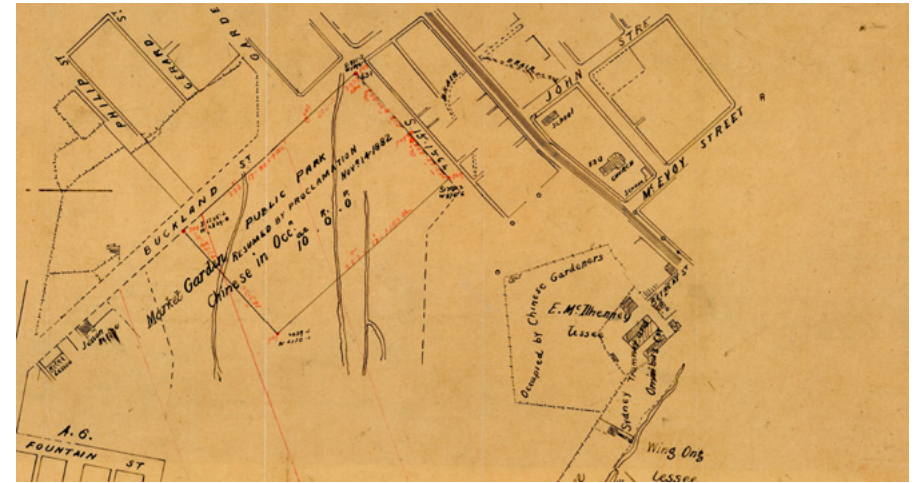
The flat land around Sheas Creek, now the property of a few wealthy settlers and leased out in allotments, was put to work to farm food for Sydney. Farming transformed the landscape: fences, palings, drains, a goods rail, ponds and retaining walls attempted to contain the unruliness of the creek whose banks, a map informs us, “were broken and indefinite” and which escaped to mix with the surrounding wetlands.

Farming also reshaped the local economy and altered the social fabric of what is now Green Square, creating both a prosperous and racialised landscape. Market gardens expanded close to Camellia Grove; George Rolfe, a well-known market gardener, is said to have made enough money selling a bumper crop of cauliflower to open a pub in 1862. He called it the Cauliflower Hotel.

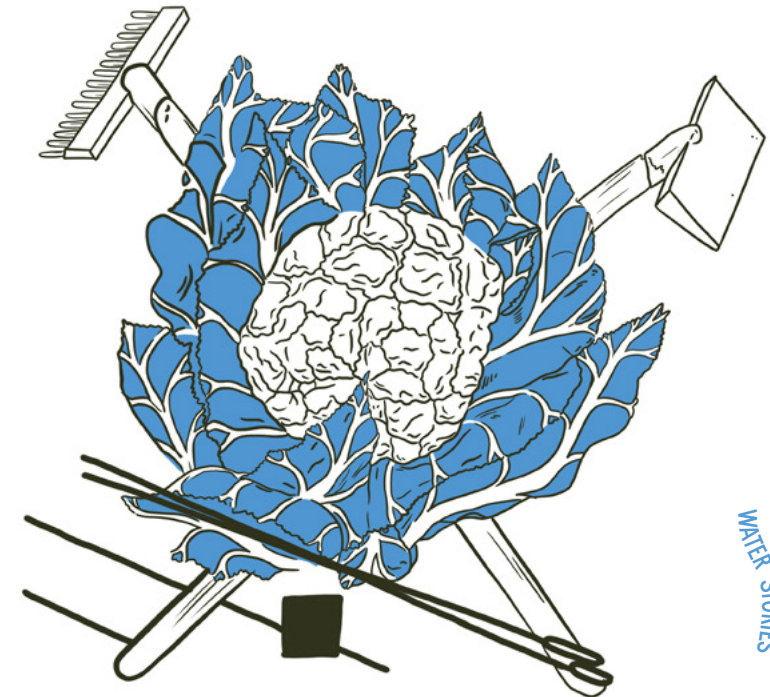
After the gold rush of the 1850s, Chinese migrants came to Sydney as market gardeners. Their gardens were very productive, the result of prolonged labour hours, leaseholds, business organisation and agricultural innovations. One of these innovations was a system of pumps, some small and portable, others powered by horses and steam, that used water from the creek to irrigate plants from above and below. Another was a system of trenches dug between the beds, channelling or pumping water from the creek. A third was the use of nightsoil.

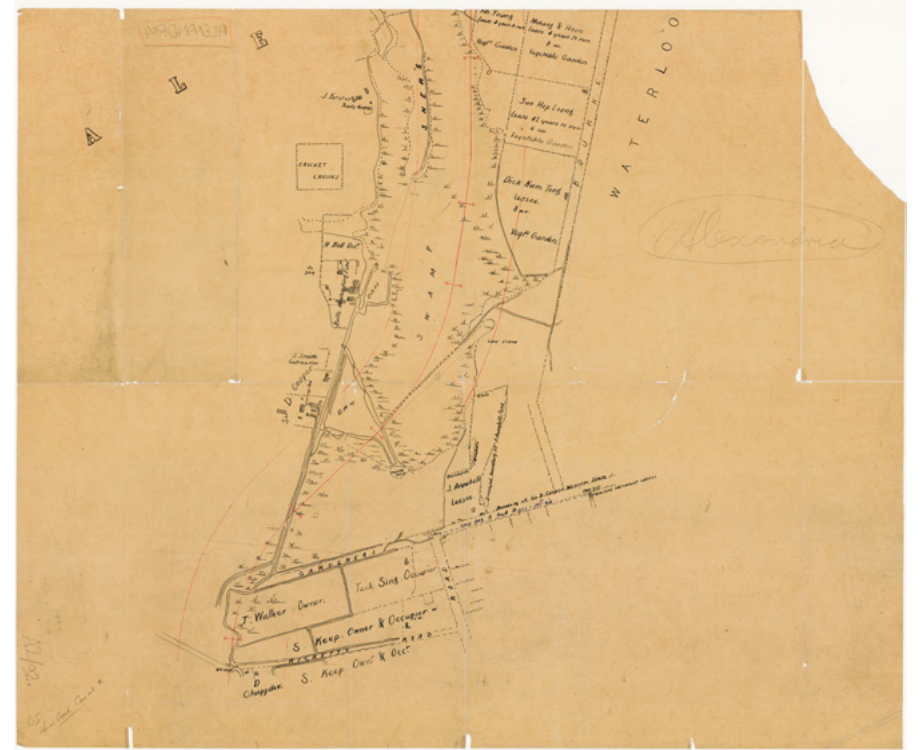
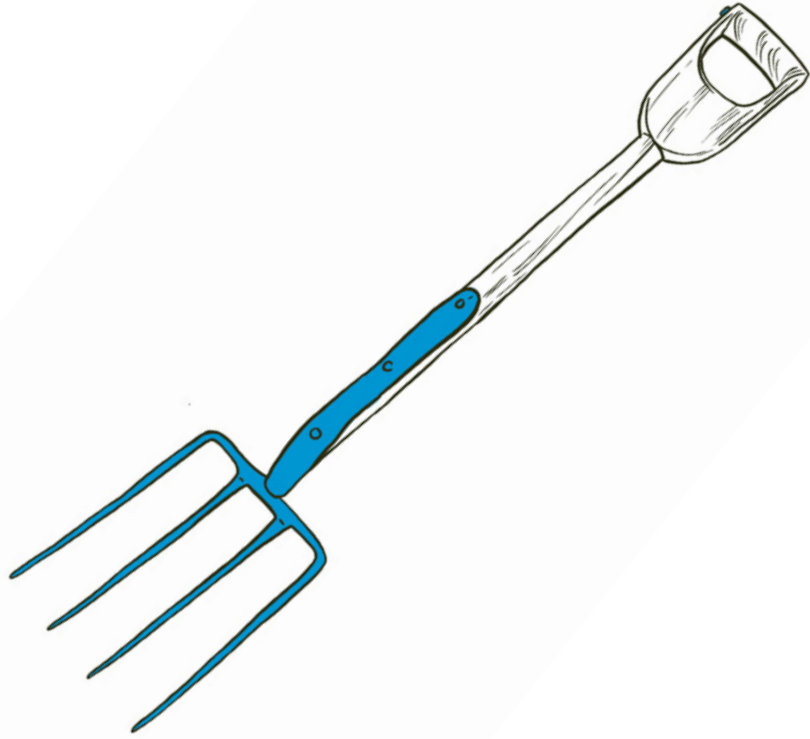
These innovations were admired but also perceived as a threat. They became the subject of racist campaigns aimed at smearing the gardeners and their vegetables.

The Cauliflower Hotel is still operating today on Botany Road.

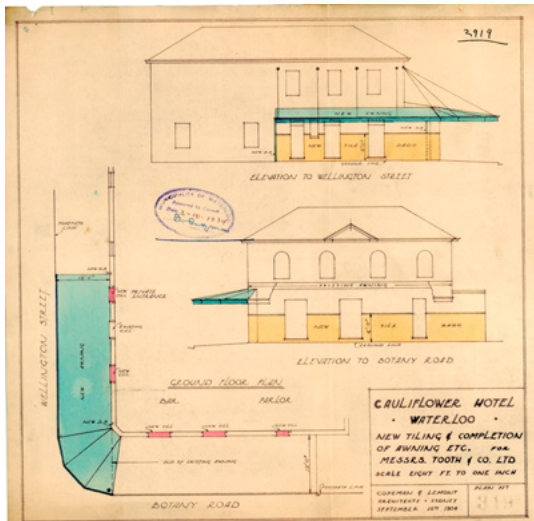


MAP DETAILING THE WETLANDS IN TODAY'S ALEXANDRIA PARK AND SHEAS CREEK COMPILED FROM PLANS IN THE SURVEY DEPARTMENT MITCHELL ST, JESSON ST, MADDOX ST, HARLEY ST, EUSTON RD, 1889, ALEXANDRIA SUBDIVISION PLANS, 1832-1964, STATE LIBRARY OF NEW SOUTH WALES.





MAP DETAILING THE WETLAND AROUND BOURKE RD AND SHEAS CREEK, ALEXANDRIA SUBDIVISION PLANS, 1832-1964, STATE LIBRARY OF NEW SOUTH WALES.



PLAN FOR THE CAULIFLOWER HOTEL RENOVATIONS IN 1934, NEW TILING AND COMPLETION OF AWNING, CITY OF SYDNEY ARCHIVES.

DUGONGS

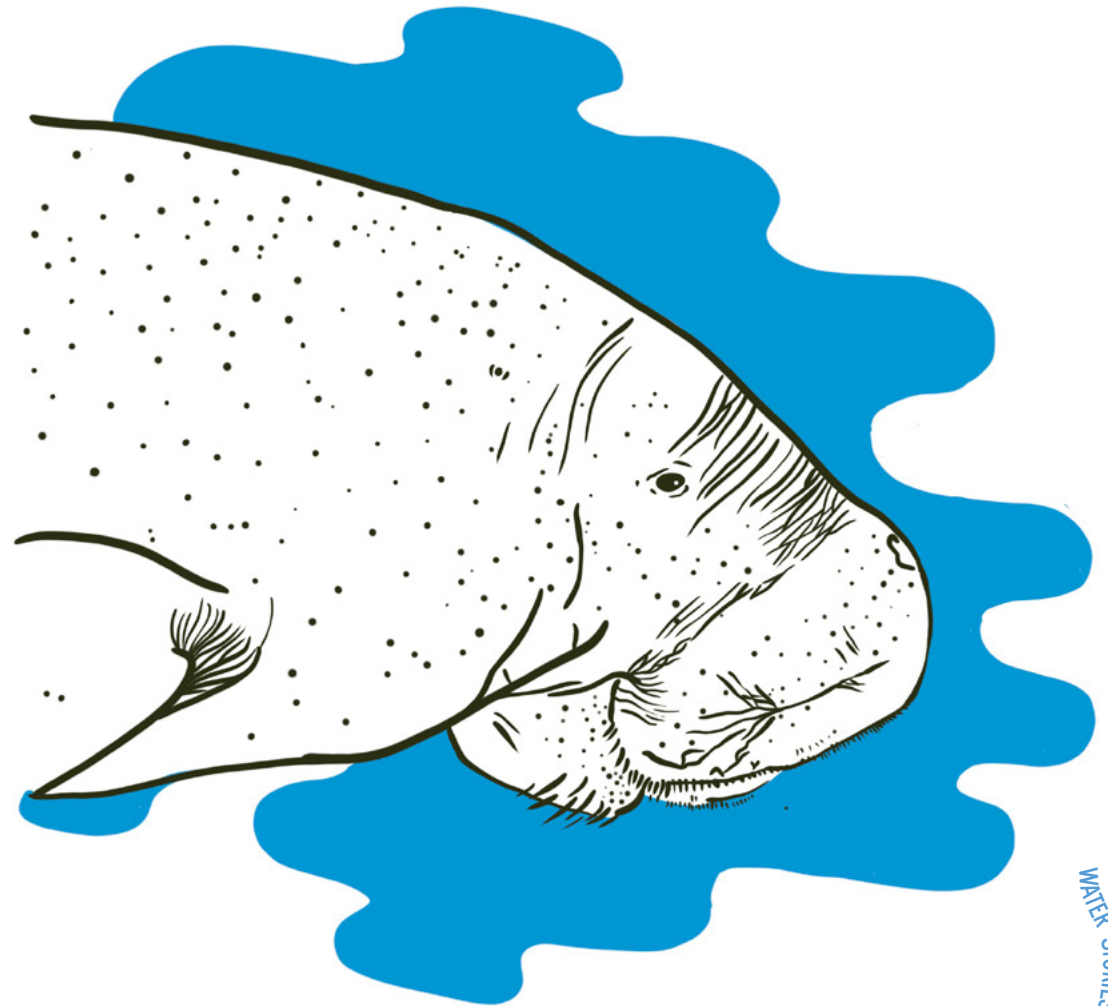
This is a story of water and modernisation.

In 1887, the New South Wales Department of Public Works began dredging Sheas Creek for what would become the Alexandra Canal. The work was propelled by industrial and commercial interests and the fantasy of a navigable commercial waterway connecting Gamay (Botany Bay) to War'ran (Sydney Cove). The canal itself was modelled on the canals of Birmingham, part of a public project to transform the Parish of Alexandria from a mid-18th century noxious trade site into “the Birmingham of Australia”.

For efficient transportation, the creek was terraformed into a straight canal. Its banks were enclosed in sandstone blocks, hand cut by labourers given relief work during Australia’s first economic depression. During this terraforming, the creek revealed an extraordinary archive: bones of a dugong, three ground-edge stone hatchets and a submerged forest of *Eucalyptus resinifera* turned the canal into a site of scientific interest.

These bones from a tropical mammal that lived in open bays revealed that the climate and sea level had changed in Sydney and that the coastline and landscape ebbed and flowed with the water levels. The skeleton was later radiocarbon dated to 6,000 years ago. Next to the bones were tools and fishhooks.

At one point, Green Square town centre was Sydney’s industrial heartland, a settler colonial town where developing industries erased Indigenous presence absenting Indigenous ecological, cultural and spatial knowledges; and treating land as *terra nullius*, an empty space belonging to nobody. Sydney’s industrial history begins in this imagined ‘empty’ space, connected by road to the city. It was rich with water to power steam engines and with sand and clay that was ready to be extracted.



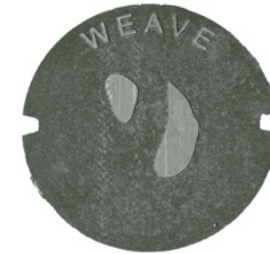


THE DESIGN STUDIO COLLIDER WAS ENGAGED BY GREEN SQUARE LIBRARY ARCHITECTS STEWART HOLLENSTEIN AND THE CITY OF SYDNEY TO PROVIDE WAYFINDING, SIGNAGE AND INTERPRETATION OF LOCAL HISTORY, INCLUDING DUGONGS. GREEN SQUARE PLAZA. PHOTO BY ILARIA VANNI.

The first wheat mill in Green Square, The Lachlan and Waterloo Mills, was built in the 1820s. By 1827, it had been converted into a woollen mill as wool became the driving resource in the colony. Dams were built to harness wetlands and creeks. Woolwashing industries were built around the dams in Waterloo, Sheas Creek and the wetlands down to Botany.

Woolwashing was a noxious trade, one of many that soon multiplied in the area. By the end of the 19th century, tanneries, boiling down and tallow, glue and soap manufacturing had polluted creeks and drenched the soil in a foul 'soup', creating a misty miasma that rose over the landscape.

The pungent smell drew so many complaints from local residents — mostly working class and living in Redfern, Waterloo and Alexandria — that in 1883 there was a Royal Commission into noxious trades. This revealed that sewage and the refuse from multiple factories clumped together from dam to dam until they were discharged into Sheas Creek and, finally, into Botany Bay.



SIGNAGE ON THE BIKE PATH ALONG THE ALEXANDRA CANAL MARKING THE SITE WHERE DUGONG BONES WERE FOUND, TEMPE. PHOTO BY ILARIA VANNI.

These trades continued well into the 1900s, but by mid-century, the conditions they created had been sanitised and the damage of noxious industry was less visible. The 1950s also marked the beginning of the decline of industry in Sydney.

In the 1970s, many industries started to leave Green Square. Because of its proximity to the city and transport corridors, the area became a centre of urban renewal. Water, now out of sight and safely channelled in rain gardens and stormwater drains, resurfaced in public artworks and fountains, referencing the area's past histories of creeks, wetlands and even dugongs.

Today, the skeleton of the dugong excavated in the Alexandra Canal is at the Australian Museum, and statues of three dugongs by the design studio Collider celebrate these animals in the fountain opposite the Green Square library.



ACCESS HOLES AND DRAIN COVERS.
PHOTO BY ALEXANDRA CROSBY.



EASTERN WATER SKINK

SHEAS CREEK SURFACES
AT WYNDHAM STREET,
ALEXANDRIA.
PHOTO BY ILARIA VANNI.





SHEAS CREEK AT BOWDEN STREET, ALEXANDRIA.
PHOTO BY ILARIA VANNI.



SHEAS CREEK AT MCCAULEY STREET, ALEXANDRIA.
PHOTO BY ILARIA VANNI.

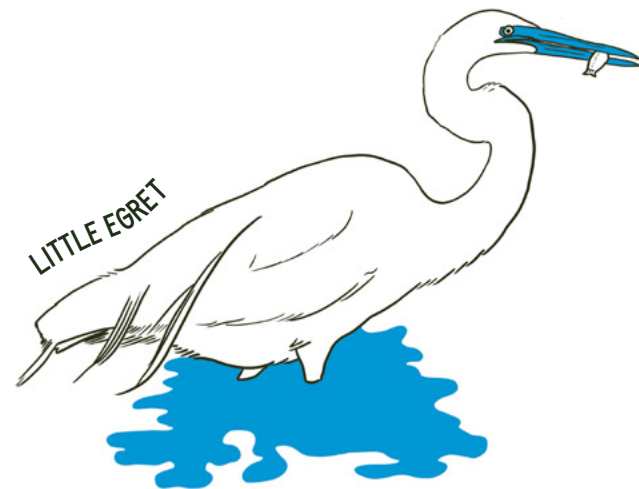




SHEAS CREEK TEXTURES, ALEXANDRIA.
PHOTO BY ILARIA VANNI.



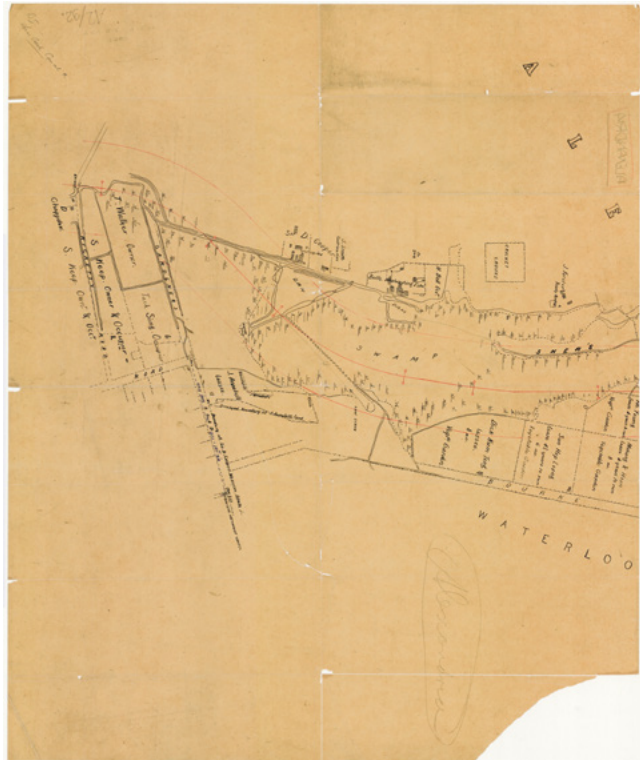
SHEAS CREEK AT BOWDEN STREET, ALEXANDRIA.
PHOTO BY ILARIA VANNI.



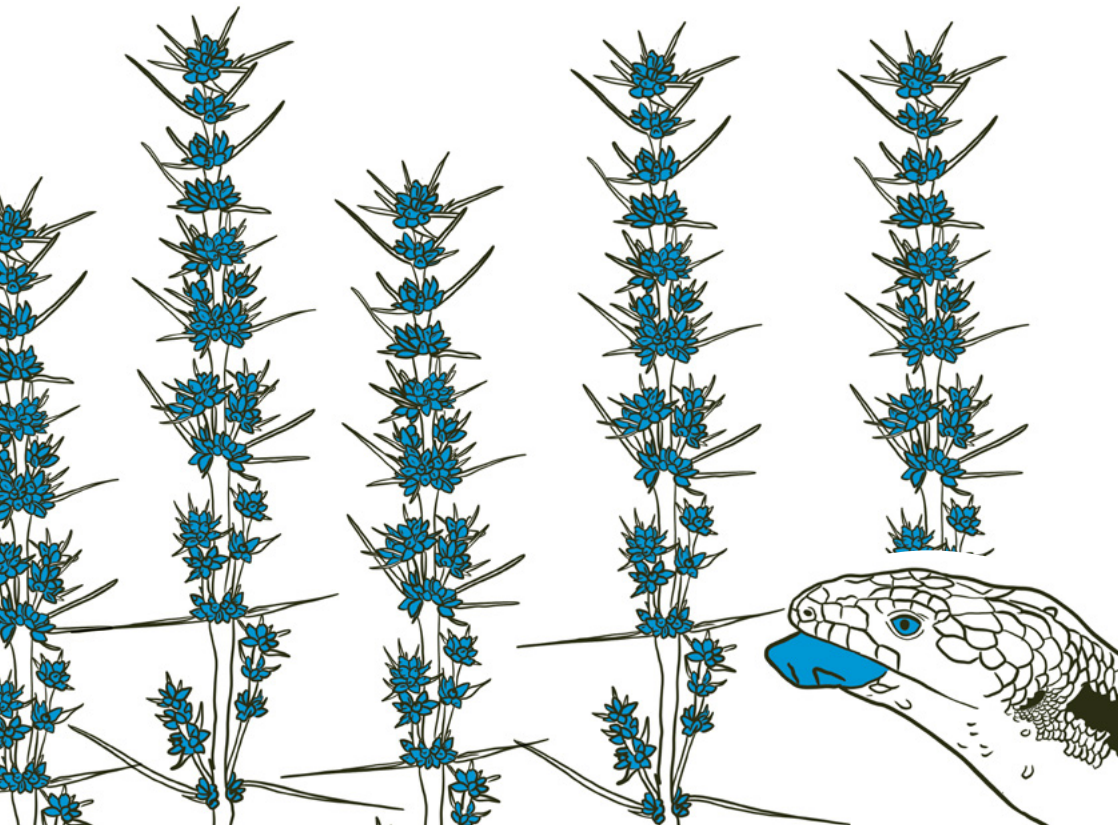


LOOKING THROUGH PORTALS.
PHOTO BY ILARIA VANNI.

RIGHT: SYDNEY PARK
WETLANDS.
PHOTO BY ILARIA VANNI.

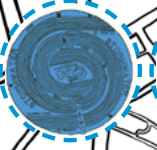
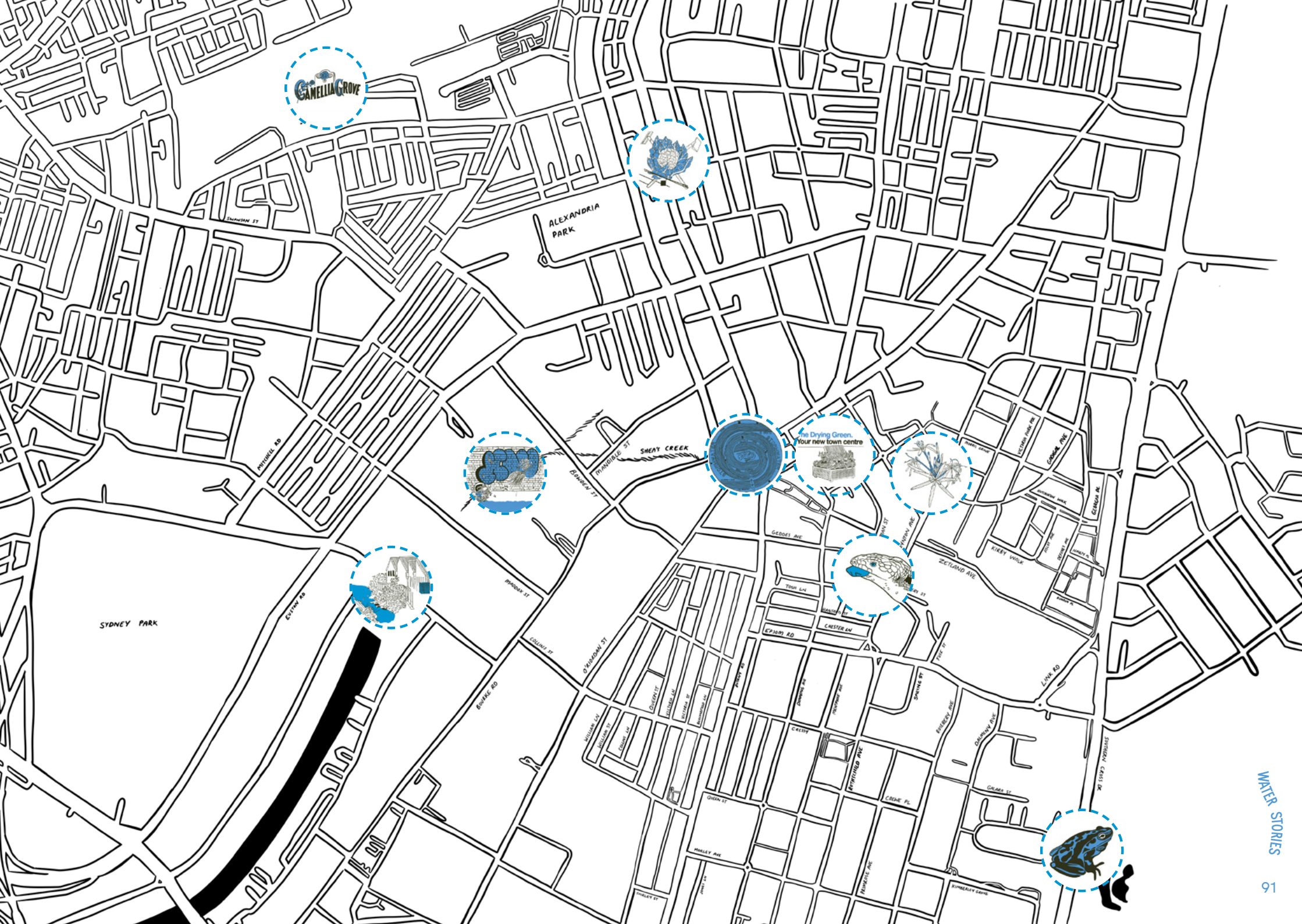


THINGS YOU CAN DO



1. **Find concrete channels, retention basins, ponds and rain gardens in your neighbourhood and notice which animals and plants live there.**
2. **Use the Australian Museum's FrogID app (available wherever you download your apps) to identify frogs in your local area. Join the Frog and Tadpole Study Group of New South Wales (FATS), a community group dedicated to community awareness and the conservation of frogs.**
www.fats.org.au
3. **Go bird watching at the Sheas Creek and Alexandra Canal lookout on Huntley Street.**
4. **Take a Water Stories bike ride by joining Pedal Set Go.**
www.pedalsetgo.com.au
5. **Visit the Atlas of Water stories sister website to explore more watery narratives.**
www.waterstories.info
6. **Take a tour of public art inspired by water in Green Square.**
www.cityartsydney.com.au/tags/water/
7. **Check the tide, humidity, wind and temperature at the High Water installation, opposite the library in Green Square Plaza.**
www.cityartsydney.com.au/artwork/high-water/
8. **Find historical images and maps in the City of Sydney Archives digital collection and at the State Library of New South Wales.**
<https://archives.cityofsydney.nsw.gov.au/>
www.sl.nsw.gov.au/
9. **Visit the wetlands of Sydney Park.**
10. **Contribute to this project by submitting your own water stories to be featured on our website.** mappingedges@gmail.com
www.mappingedges.org





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CREDITS

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