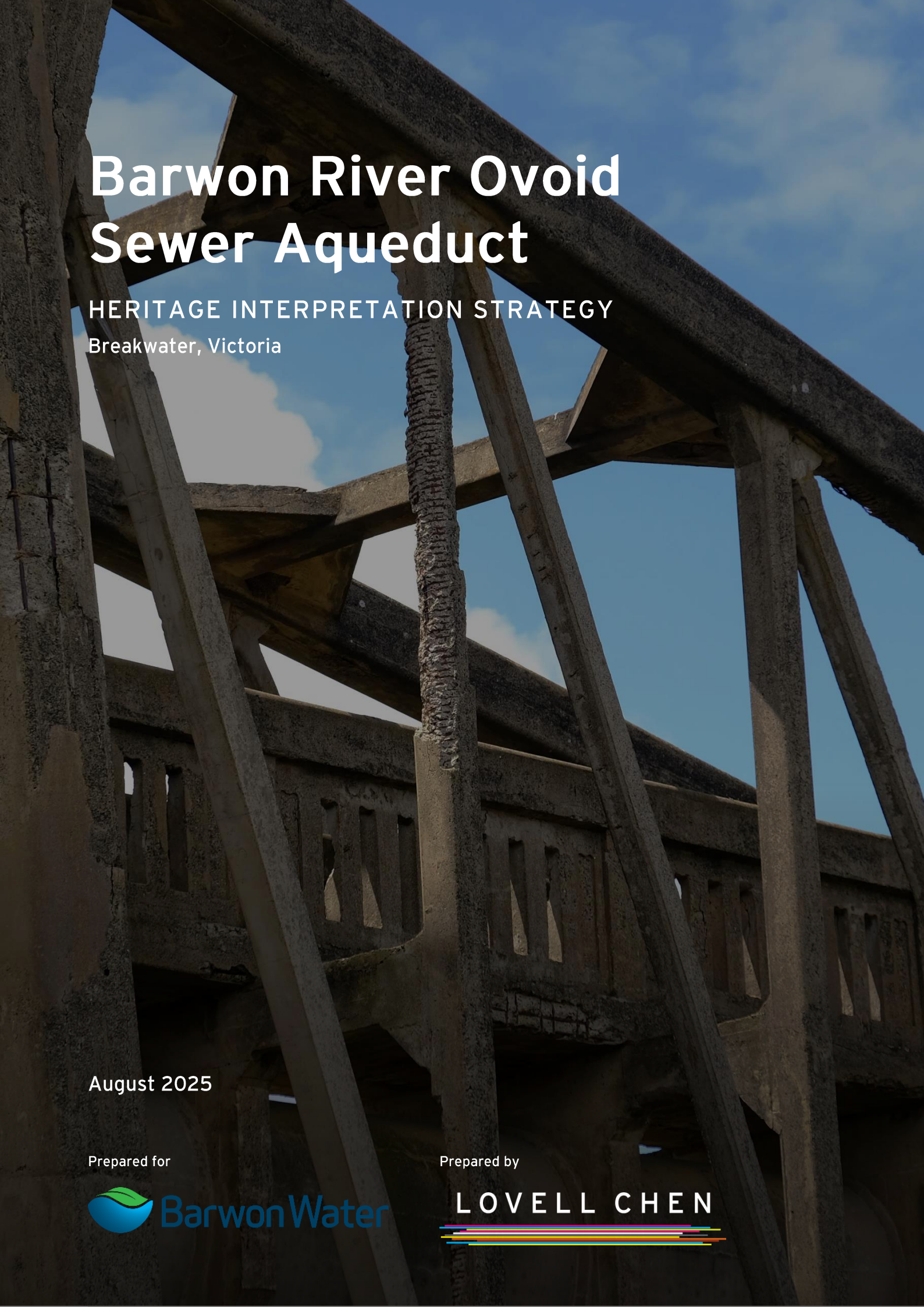

Barwon River Ovoid Sewer Aqueduct

HERITAGE INTERPRETATION STRATEGY

Breakwater, Victoria

August 2025

Prepared for

Barwon Water

Prepared by

LOVELL CHEN

ACKNOWLEDGEMENT OF COUNTRY

The Barwon River Ovoid Sewer Aqueduct stands on the lands and over the waters of the Wadawurrung people, who for thousands of years have been custodians of Country on lands extending from Ballarat to the Barwon Heads and beyond, via the Barre Warre Yulluk (Barwon River), the great river that runs from the mountains to the ocean.

We acknowledge Wadawurrung stories and connections to land, water and Culture which are embedded in Country. We pay our respects to their Elders past and present and acknowledge that this report includes a post-contact history that forms only a small part of the ongoing story.

This report was prepared on Wurundjeri Woi-wurrung Country. We acknowledge the traditions and cultures of all Aboriginal and Torres Strait Islander people, and that sovereignty and stewardship of Country has never been ceded.

Quality Assurance Register

The following register documents the development and issue of this report prepared by Lovell Chen Pty Ltd in accordance with our certified quality management system.

Project no.	Issue no.	Description	Issue date	Approval
8000.06		Heritage Interpretation Strategy for Heritage Victoria application	26/08/2025	KG

Referencing

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Cover — Truss 07 (west elevation), Ovoid Sewer Aqueduct
Source: Lovell Chen Archives, 2019

Figure 1 — (previous page) North bank of Barre Warre Yulluk in flood, 2021
Source: Glasshouse Creative Media, courtesy Barwon Water

Figure 2 — (next page) Ovoid Sewer Aqueduct, Trusses 10 and 11 over river channels and island (c. 1915)
Source: Barwon Water archives

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Figure 3 (next page) View south through Aqueduct trusses and walkway from behind North Landing (2019)
Source: Lovell Chen archives


DANGER
BRIDGE CLOSED

1.0 INTRODUCTION

This Heritage Interpretation Strategy has been prepared on behalf of Barwon Water to accompany an application for demolition of the Barwon River Ovoid Sewer Aqueduct, a state-registered heritage place (VHR H0895) located on Wadawurrung Country.

1.1 Location

The Ovoid Sewer Aqueduct is a fourteen-span reinforced concrete bridge that was built to carry Geelong's main gravity sewer over the floodplain of Barre Warre Yulluk (Barwon River) at Breakwater, south of Geelong.

The structure now stands on land with three discrete owners/managers: the Porronggitj Karrong cultural precinct (Barwon Water in partnership with Wadawurrung Traditional Owners), Crown Land on the north side of the river (managed by the Corrangamite Catchment Management Authority with Barwon Water) and on Goat Island (managed by Department of Environment, Energy and Climate Action (DEECA)), and land in private ownership south of the river.

A portion of the land beneath and in the immediate vicinity of the Aqueduct is included in the VHR registration for the Aqueduct (Section 1.2), while the Crown land and privately owned land is currently unregistered (Figure 5).

Short, decommissioned sections of the Geelong Outfall Sewer are found at and below the ground surface beyond either end of the bridge structure. Much of the floodplain vegetation is currently dominated by native Tangled Lignum (*Muehlenbeckia florulenta*), although this is not considered to reflect the pre-European invasion condition and is instead the result of disruption of Wadawurrung traditional stewardship activities after 1835, damage from cattle grazing and recolonisation of the damaged ground by the vigorous Lignum after grazing was discontinued in c. 1980s.

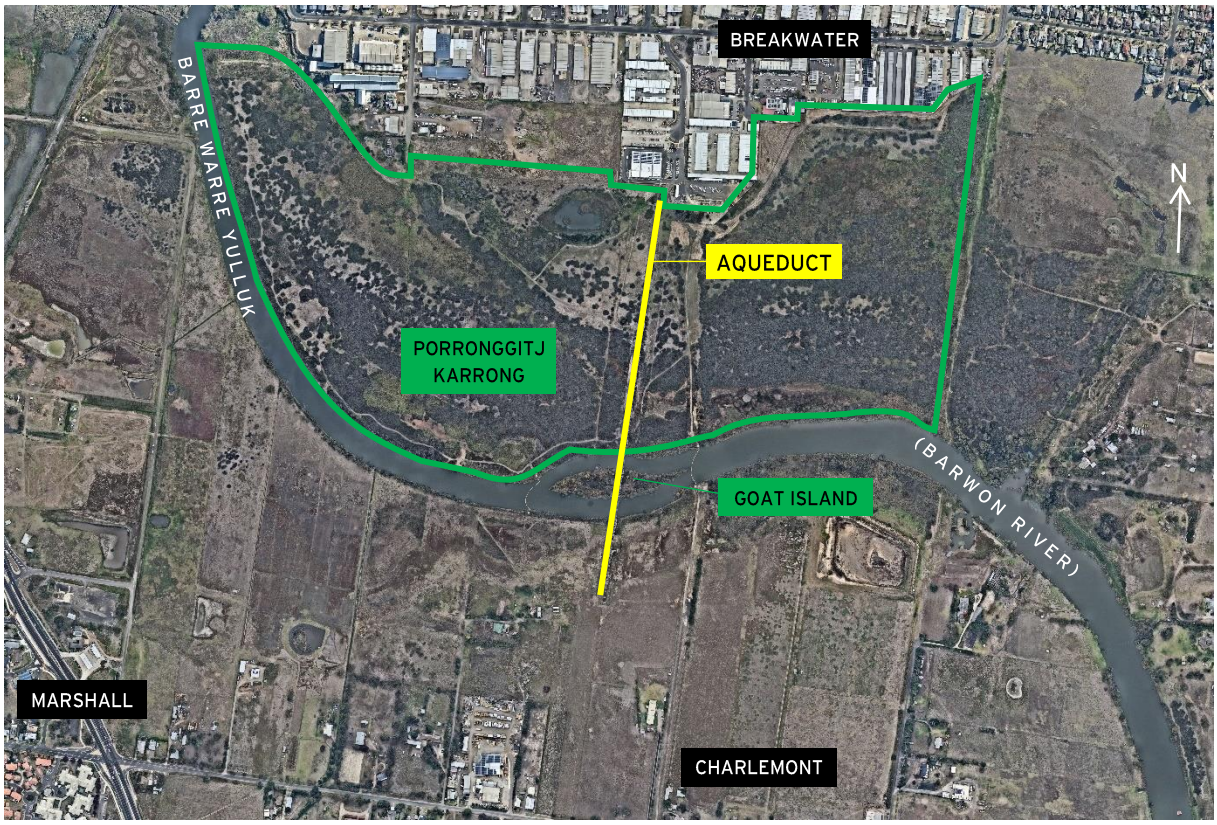


Figure 4 Location plan showing the location of the Aqueduct, Porronggitj Karrong cultural precinct and surrounding suburbs
Source: (base map) Nearmap, 16 April 2025 capture date

1.2 Victorian Heritage Register

The Ovoid Sewer Aqueduct over Barwon River is included in the Victorian Heritage Register as place number H0895.

Extent of heritage registration

The extent of registration is described as follows and is shown in the graphic at Figure 5:

> AMENDMENT OF REGISTER OF HISTORIC BUILDINGS
>
> Historic Building No. 895.
>
> The Barwon River Ovoid Sewer Aqueduct Barwon River near Breakwater, Geelong.
>
> To the extent of-
>
> 1. the whole of the structure known as the ovoid sewer aqueduct, marked B-1 on Plan 6023910 endorsed by the Chairperson, HBC and held by the Director, HBC and
>
> 2. the land 10 metres either side of the structure and 10 metres to the Northern end of the structure, marked L-1 on Plan 6023910 endorsed by the Chairperson, HBC and held by the Director, HBC being located on land described as Crown Allotment 5 and Part Crown Allotment 4, Section 12A, City of Geelong, Parish of Corio.
>
> [Victoria Government Gazette No. G41 23 October 1991 p.2938].

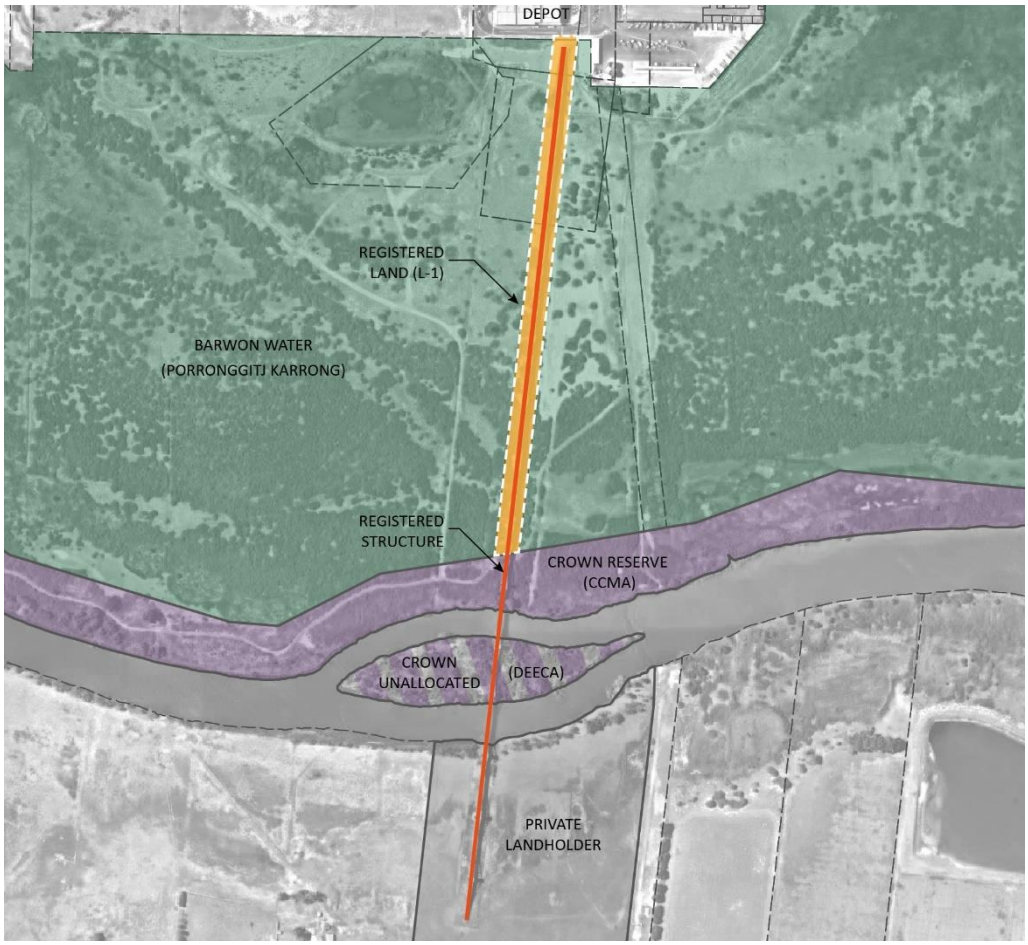


Figure 5 Barwon Ovoid Sewer Aqueduct, VHR registered extent (orange) and land ownership
Source: Base imagery from Nearmap

Statement of significance

Heritage Victoria's Statement of Significance describes the (European) heritage significance of the Aqueduct:

What is significant?

The Ovoid Sewer Aqueduct, designed and constructed by the Tasmanian engineers Edward Giles Stone and Ernest J. Siddeley, and constructed in 1913-15 for the Geelong Waterworks and Sewerage Trust. Objects integral to the manufacture of the concrete sewer pipes, including various moulds and gantries, are still in place at the former factory site nearby, adjacent to Marshall Station.

How is it significant?

The Ovoid Sewer Aqueduct is of historical, architectural, aesthetic, and scientific (technical) significance to the State of Victoria. It satisfies the following criteria for inclusion in the Victorian Heritage Register:

Criterion A
Importance to the course, or pattern, of Victoria's cultural history

Criterion D
Importance in demonstrating the principal characteristics of a class of cultural places and objects

Criterion E
Importance in exhibiting particular aesthetic characteristics

Criterion F
Importance in demonstrating a high degree of creative or technical achievement at a particular period

Why is it significant?

The Ovoid Sewer Aqueduct is of historical significance for its association with the inaugural work of the Geelong sewerage scheme in 1912-15. Geelong was one of the first regional Victorian cities to implement plans for the construction of a sewerage system. [Criterion A]

The Ovoid Sewer Aqueduct is of architectural significance for its association with the engineers Edward Giles Stone and Ernest J Siddeley, who undertook a number of marine projects in southern and eastern Australia, including reinforced concrete ships and pontoons. Stone was a highly innovative and creative engineer whose daring structural systems challenged the limits of construction technology in the early twentieth century. His advanced work in reinforced concrete, the Considere system in particular, is of great importance and his design derivation from the steel Firth of Forth Bridge in Scotland is of particular note. [Criterion D]

The Ovoid Sewer Aqueduct is of aesthetic significance as a major landscape feature. Its dramatic setting in the Barwon River floodplain near Breakwater, Geelong is of great importance. [Criterion E]

The Ovoid Sewer Aqueduct is of scientific (technical) significance as an example of pioneering concrete work of structural ingenuity and monumental scale. The early and innovative use of reinforced concrete in the Considere system, which was the most innovative form of reinforcement used in Victoria, is of great significance. The aqueduct remains as a rare example of this type of concrete construction. Its method of construction is demonstrated by the associated objects located at the former factory site. It is also of scientific (technical) significance for its overall length and the maximum span length, both of which appear to be in excess of that of any other Victorian reinforced concrete structure at the time of construction. [Criterion F]

1.3 Project background

A state-registered heritage place since 1991, the Ovoid Sewer Aqueduct was decommissioned operationally in 1992 after the completion of a siphon which now carries the Geelong Outfall Sewer under the Barre Warre Yulluk (Barwon River). The replacement project by the then-Geelong and District Water Board had been necessitated by the deteriorating condition of the structure (Figure 6 and Figure 7), which suffered material and structural faults almost immediately after its 1915 opening, and which since the 1950s had required increasingly challenging and risky overhauls to maintain its operation. Structural props had been installed to the southernmost truss in c. 1991 to avert a collapse of that truss's failing elements. In 1995, further engineering assessments of the Aqueduct's hazardous condition forced the closure of this section of the river to recreational water users.

After an application to demolish the structure was first turned aside, a 1996 Panel of Inquiry examined the matter on behalf of the Victorian government. The Panel recommended that responsibility and costs for restoring the structure be shared with other government entities, and expressed optimism that new technologies would allow the structure's corrosion and failure to be stopped and reversed. Subsequent investigations and feasibility studies undertaken in 2007-2009, 2016, 2017 and 2019 did not resolve a practical method for stabilising, repairing and maintaining the Aqueduct, which remains with its public owner, Barwon Water.

During this period, Barwon Water has undertaken a deepening engagement with the site's Traditional Owners, represented by the Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC), aimed at achieving reconciliation and partnership in taking care of the Barre Warre Yulluk waterway and other parts of Wadawurrung Country which are presently managed by the water corporation. An approximately 66 hectare property north of the river at Breakwater includes the eight northernmost spans of the Aqueduct and is owned by Barwon Water; this property is a key work site for the partners and has been named Porronggitj Karrong (The Place of the Brolga). As a cultural precinct which includes adjoining crown lands, Porronggitj Karrong brings western science and Traditional Custodian knowledge together to reestablish traditional practices of care for Country, improve the health of the floodplain, and incorporate Wadawurrung Living Cultural Values and self-determined goals and aspirations. This work will also provide benefits to the broader community, who will enjoy improved access to the site and waterway; this has given further impetus to resolve the safety of the Aqueduct structure and reopen the land and river.

In 2020, Heritage Victoria issued a heritage permit allowing partial demolition of four spans of the structure where it crosses the river. The approval was conditional on installation of structural propping to partly stabilise the Aqueduct's retained spans (mitigating the risk of a catastrophic collapse but not the ongoing failure of discrete elements within it), and on the preparation of long-term plans for management and potential repair of the structure. Following this approval, Barwon Water engaged in an extended design development process and construction risk management, working with structural engineers and contractors to implement the heritage permit.

In the course of this work, additional structural modelling and assessment of the collapse risk provided a much more detailed understanding of the challenges of safe construction in the Aqueduct's vicinity. This evolving risk assessment and the expansive liability that could result from an incident during construction has forced the organisation to recognise both the infeasibility of completing the originally approved project, and the necessity of undertaking to complete the decommissioning and demolition of the structure in a safe and controlled manner. This will shortly be the subject of a heritage permit application.

Barwon Water recognises the European heritage significance of the Aqueduct, both as an important aspect of its own institutional history and to the wider community within Greater Geelong and across Victoria. Accepting the structure's inevitable loss, Barwon Water is seeking to act intentionally to control and remove the risk to public and worker safety and to the environment while also perpetuating the story, public recognition and heritage significance of the Aqueduct. The Heritage Interpretation Strategy outlines how this will be accomplished before, during and after the proposed demolition of the structure.

Figure 6 Extensive loss of concrete cover and exposure of steel reinforcement at Truss 14 (South Landing Site)
Source: Glasshouse Creative Media, courtesy Barwon Water

Figure 7 Severe deterioration of two upper truss chords; this type of failure is likely to trigger a sudden collapse
Source: Glasshouse Creative Media, courtesy Barwon Water

1.4 Heritage interpretation brief

What is heritage interpretation?

Heritage interpretation makes the cultural significance of places, objects and landscapes more accessible for public appreciation, strengthening how people understand and relate to history, culture and other values. In addition to traditional signage, interpretation can make use of a variety of other techniques, media, physical elements and social activities to communicate information, engage public interest, reveal cultural meanings, ask questions and enhance our collective understanding of important places, sites and artefacts.

In Australia, (European) heritage interpretation is typically developed under processes and principles consistent with the Australia ICOMOS Burra Charter for the Conservation of Places of Cultural Significance (Burra Charter, 2013). The Charter establishes a framework of best practice in the management, preservation and activation of heritage places, and a process for understanding, assessing and making decisions about places that is known as the 'Burra Charter process'. At an international level other charters and procedures exist that address specific aspects or considerations within the sphere of cultural heritage conservation.

One such document is the ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites. Adopted in 2008 and referenced in the Australia ICOMOS *Practice Note: Interpretation* (2013), this 'Interpretation Charter' sets out seven key principles designed to guide the development of heritage interpretation for places of significance:

1. Facilitate understanding and appreciation of cultural heritage sites and foster public awareness and engagement in the need for their protection and conservation
2. Communicate the meaning of cultural heritage sites to a range of audiences through careful, documented recognition of significance, through accepted scientific and scholarly methods as well as from living cultural traditions
3. Safeguard the tangible and intangible values of cultural heritage sites in their natural and cultural settings and social contexts
4. Respect the authenticity of cultural heritage sites, by communicating the significance of their historic fabric and cultural values and protecting them from the adverse impact of intrusive interpretive infrastructure, visitor pressure, inaccurate or inappropriate interpretation
5. Contribute to the sustainable conservation of cultural heritage sites, through promoting public understanding of, and participation in, ongoing conservation efforts, ensuring long- term maintenance of the interpretive infrastructure and regular review of its interpretive content
6. Encourage inclusiveness in the interpretation of cultural heritage sites, by facilitating the involvement of stakeholders and associated communities in the development and implementation of interpretive programs
7. Develop technical and professional guidelines for heritage interpretation and presentation, including technologies, research, and training. Such guidelines must be appropriate and sustainable in their social contexts.[1]

The interpretation programme outlined in the Aqueduct Heritage Interpretation Strategy has regard for these principles, noting the fundamental limitation of the Aqueduct's imminent demolition or future loss (if a permit is not granted and a collapse occurs). In this context and in consideration of the limited applicability of Principles 4 and 5 above, the programme recommends two new marker structures of similar height and scale to the piers in order to sustain recognition and appreciation of the historical site following removal of the original bridge trusses.

What can interpretation do after the Aqueduct has been demolition?

In the context of the Australian Burra Charter and Victoria's Heritage Act it is almost always preferred that interpretation supplements a retained, physical heritage place. However, it is recognised that this is not always possible. In cases where a place has already been lost, or where there is no reasonable prospect of its retention, heritage interpretation can substantially enrich the recognition, appreciation and understanding of a historical site so that it can continue to be understood and appreciated by future generations.

This would be the outcome of the proposed demolition of the Aqueduct (if approved). It would also be the outcome of a future uncontrolled collapse of the failing structure; in that alternative event the Aqueduct story would end with a harmful incident that would forever colour the importance and appreciation of the structure and its story.

The current physical structure of the Aqueduct embodies the history of a highly significant public infrastructure project (the Geelong Sewerage Scheme), an innovative but deeply flawed engineered structure, and an important crossing of Barre Warre Yulluk (Barwon River) and its floodplain. It is important for the communities of Greater Geelong and Victoria that the Aqueduct's story continues to be told.

To achieve this requires implementation of measures that **record**, **commemorate** and **translate** the structure's current values into new forms that are accessible, legible and appreciated by a cross-section of the community, and that are sustainable whether on location in the floodplain or in physical or digital media located off-site.

Relationship to conservation and heritage best practices

The proposed strategies and conceptual components of the interpretation programme are consistent with the process and principles described above, and with the Australian Heritage Council's *Ruins: A guide to conservation and management* (2013); the latter recognises the value of record-making and other measures in cases where removal of a ruined structure becomes inevitable. This strategy also builds on the contents and guidance of the previous *Aqueduct Heritage Interpretation Overview* (Lovell Chen, April 2020), which was submitted in the previous application for partial demolition and was then developed to a working draft Heritage Interpretation Plan under the 2020 permit.

The Heritage Interpretation Strategy has been developed at the end of a decades long process of research, assessment, investigations and conservation and management proposals which has culminated in an understanding that there is no reasonable prospect for the Aqueduct's long-term retention in a safe and managed condition. The proposed interpretation programme is not a substitute for scenarios which would have retained part or all of the Aqueduct; it is however an ambitious and best practice response to the exhaustion of all other reasonable options.

Who is the audience for heritage interpretation at the Aqueduct and Porronggitj Karrong?

Previous interpretation planning and engagement identified the following notable audience groups who are likely to interact with the on-site interpretation:

- People with an interest in engineering history
- People with an interest in local history
- Recreational boaters (and in future, walkers, joggers and cyclists)
- People visiting parks and natural areas
- Employees of local businesses and public authorities
- Wadawurrung and broader First Nations people visiting Country at Porronggitj Karrong

The community of Greater Geelong more broadly is an additional audience for many of the off-site components identified in the current strategy. Engagement with off-site interpretation may bring the site itself to the attention and interest of a broader demographic, as would development of planned regional parkland infrastructure and shared use trails that would connect to this section of the lower Barre Warre Yulluk (Barwon River) waterway.

As WTOAC develops educational and public access programming (e.g. tours and on-country sessions) at Porronggitj Karrong, this will also bring visitation by people not expecting to interact with a (European) heritage place.

What should be the brief for heritage interpretation at the Aqueduct?

The overall aim of the Aqueduct Heritage Interpretation Strategy is to perpetuate the story and (European) historical significance of the Aqueduct, both at its Breakwater site and through other media and venues accessible to the Geelong and Victorian communities. The programme outlined in this document will support continued understanding of the historical significance of the former crossing and of a sequence of remnant footprint structures proposed to be retained at Breakwater. It will also extend the Aqueduct's story and the larger history and current operation of the Geelong Sewerage System to other sites across Greater Geelong.

The Aqueduct Heritage Interpretation Strategy has regard for Wadawurrung living cultural values and for long-term planning and restoration of Porronggitj Karrong (Section 3.0); in so doing, integration of the place's two cultural stories is considered essential to how it will be cared for and understood into the future. The programme identified in this document has been informed through processes of consultation and engagement, both with Wadawurrung people and with the broader community (Section 1.6).

The Aqueduct Heritage Interpretation Strategy has also been informed by pre-application engagement and input received from Heritage Victoria. At an early stage, Heritage Victoria identified that there would be a requirement in considering a demolition proposal for the preparation of a Heritage Interpretation Strategy as a first step towards implementation of a 'significant, meaningful and creative interpretation outcome' consisting of:

> …a creative and cross-disciplinary approach… which should have a relationship to the proposed adjoining public parkland. Any interpretation should include consideration of:
>
> - three-dimensional archival recording using aerial and ground-based LiDAR scanning and aerial and ground-based photogrammetry where appropriate;
> - reconstruction of a span in a manner that communicates the scientific (technical) significance of the Aqueduct in structural and material terms;
> - retention of pier bases;
> - a program of recording, reporting and conserving artefacts collected from the Aqueduct, and a program to retain, display and interpret these;
> - consider the use of the objects integral to the manufacture of the concrete sewer pipes, including various moulds and gantries and how they may be located or interpreted on site;
> - physical interpretation of the length and scale of the structure through an architectural intervention that demonstrates the aesthetic and technical significance of the Aqueduct as a major landscape feature;
> - didactic signage;
> - any other creative approach.

The programme outlined in this document addresses that brief and provides a concept for the integration of many of the measures identified both at the heritage place and in other appropriate venues (off-site and online). The programme seek to deliver a 'significant, meaningful and creative interpretation outcome' at the Aqueduct site under the proposed heritage permit, and with a programme of complementary actions implemented in parallel through Barwon Water's broader operations and facilities.

If a permit is issued for the proposal, the programme concepts would be refined and implemented in accordance with the permit's anticipated conditions, through the preparation of a Heritage Interpretation Plan (HIP), approval of detailed or construction-ready designs for on-site elements, and ultimate construction/delivery. The intent and detail of each of these stages is outlined at Figure 8. In each stage, programme objectives, themes and delivery components would be refined through stakeholder input, engagement, feasibility investigations, decision-making by Barwon Water with its project partners, and statutory approvals administered by Heritage Victoria and other authorities.

HERITAGE INTERPRETATION STRATEGY (this document)

What this contains:

- What will interpretation achieve?
- How will Heritage Victoria's interpretation brief be realised?
- What will the approach be, what can be achieved at the Aqueduct heritage place (and elsewhere)?
- Indicative identification of the major on-site and off-site components (subject to further design and approvals)

What informs it:

- Stakeholder and partner engagement (refer Sections 1.5 and 1.6)
- Historical research
- Work previously undertaken towards the P32806 heritage permit's draft HIP
- Provisional design feasibility discussions

What approvals apply:

- Heritage Victoria permit application

HERITAGE INTERPRETATION PLAN (HIP) (2026)

What this would contain:

- Confirmed feasibility of programme components
- Confirmed symbolic and cultural expressions to be realised on-site
- Concept designs for on-site components
- Scope and brief for off-site components (events, exhibits, online / archival / legacy elements)

What would inform this:

- Stakeholder and partner engagement (Section **Error! Reference source not found.**)
- Involvement of key knowledge-holders
- Technical feasibility and cost investigations
- Iterative design activities and confirmation through feasibility, design and cost considerations.

What approvals would apply:

- Barwon Water decisions and considerations as commissioning owner
- Proposed heritage permit conditions
- CHMP compliance requirements
- Planning requirements (TBC)
- Other environmental and waterways consents (TBC)
- WTOAC approval to use Wadawurrung ICIP (refer Sections 1.5 and 3.0)

DETAILED DOCUMENTATION AND DELIVERY (2026-2028)

What this would contain:

On-site components

- Tender-ready/construction-ready documentation, e.g. Architecture / Structural Engineering / Landscape Architecture / Industrial and Signage Design and Finalised texts and media
- Rehabilitation details for Aqueduct footprint elements would be confirmed after demolition
- Selection, conservation and relocation of salvaged artefacts

Off-site components

- Details would be developed and implemented by Barwon Water with partners, stakeholders and collaborators.

Process / approvals:

- Engagement and knowledge-holder involvement would continue as relevant.
- Heritage permit conditions will apply to on-site elements and works; some other statutory approvals may also required detailed documentation.
- Implementation of some programme elements may continue beyond 2028.

Figure 8 Indicative development stages and details for implementation of the Aqueduct heritage interpretation programme

1.5 Wadawurrung custodianship, cultural values and partnership

Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC) is the Registered Aboriginal Party (RAP) for Wadawurrung Country, with statutory authority for the management of Aboriginal heritage values and culture, under the Victorian Aboriginal Heritage Act, 2006.

The Wadawurrung RAP area covers over 10,000 square kilometres on the western side Melbourne and including the major regional cities of Geelong and Ballarat. This area incorporates the activities of 11 separate local councils – including many that are experiencing very high rates of growth in terms of population, infrastructure, commercial and residential development. Wadawurrung Country also incorporates the start of the Great Ocean Road, one of Australia's most iconic and popular tourist destinations.

WTOAC has partnered with Barwon Water on a range of projects across the organisation's service area, including provision of advice on revegetation and rehabilitation, incorporation of Wadawurrung language and history into our business, Cultural Heritage training and integrating Caring for Country principles into water resource management. Porronggitj Karrong (Place of the Brolga) is a key initiative for the partners, returning a 66-hectare floodplain at the Aqueduct site to traditional custodianship, restoration and care through a Country-based approach.

Consultation with Wadawurrung people and WTOAC

Wadawurrung people have established principles in WTOAC's *Paleert Tjaara Dja – Let's make Country good together 2020-2030 Wadawurrung Country Plan* which guide the partnerships WTOAC makes with other land managers and owners. These principles would guide development and implementation of the Aqueduct interpretation programme at Porronggitj Karrong:

1. Respect and Acknowledgement for Wadawurrung Traditional Owners and our cultural, ancestral, spiritual and historical connections to Country.
2. Wadawurrung people's right to access and care for Country as an expression of our cultural obligation, responsibilities, connectedness, our well-being and as our economic basis.
3. Country is interconnected, alive with dreaming and creation stories, imprinted with our cultural values and social history – there is no separation between cultural and natural resources and people.
4. Free, prior and informed consent requires genuine engagement from the beginning of decision-making or project planning in a way that is relevant to us, providing timely information and processes that support cultural governance.
5. We seek partnerships that are genuine, are of benefit to Wadawurrung people, are in the spirit of reconciliation, that address past negative impacts and enable self-determination and real outcomes.
6. Providing appropriate and equitable resourcing for Wadawurrung people to participate in their obligation of care and management of Country.
7. Open and honest relationships that sustain effective working partnerships.
8. Wadawurrung Traditional Owners are the holders of cultural knowledge.
9. Respect for and appropriate protection of our intellectual and cultural property rights in sharing information.[2]

Consultation and engagement with Wadawurrung people has occurred throughout the development of management proposals for the Ovoid Sewer Aqueduct. Barwon Water has undertaken direct consultation and partnership-building

with WTOAC, employs Wadawurrung people in coordination and operational roles within the organisation, and has supported technical discussions, workshops, meetings and on-Country sessions with Wadawurrung Elders and WTOAC staff. To date this engagement has been valuable in testing and challenging assumptions of the project team, identifying additional opportunities to support and care for the living bio-cultural values of the floodplain, and confirming a general programme that would be refined through ongoing dialogue and collaboration during implementation.

As an outcome of the engagement, it has been identified that wherever possible and purposeful, retained and interpretive elements installed at the Aqueduct site should be designed to integrate with and support the ongoing restoration and appreciation of Wadawurrung Country and cultural values at Porronggitj Karrong. This would include a commitment to shared, contextual storytelling on most interpretation sites and features, design of dual-purpose infrastructure and markers, and incorporation of elements (e.g. bird roosts, nesting boxes and ground treatments) which support the living ecology of the place. All on-site interpretation should be developed in a manner which is consistent with the Aqueduct Works Cultural Heritage Management Plan (CHMP #17737, April 2024 amended).

The opportunities for integration of the Aqueduct's European heritage story with Wadawurrung Cultural values, ecological restoration and future Wadawurrung and public experiences at the Porronggitj Karrong cultural precinct are reviewed in later sections of the current document. Subject to permit approval, ongoing consultation, engagement and (where suitable) co-design would continue through development and implementation of the Aqueduct interpretation programme. Elements which are designed to share both the European and Wadawurrung stories/values of the place would be developed in close collaboration with WTOAC, and the presentation and use of Wadawurrung stories, Culture, knowledge and symbology would be subject to WTOAC approval.

1.6 Stakeholder and public engagement

This Aqueduct Heritage Interpretation Strategy has been developed and refined through ongoing stakeholder consultation and engagement. Some of these activities began prior to the 2019 heritage permit application, and were substantially advanced in 2021-2023 through work to develop a draft Heritage Interpretation Plan under the previous permit's conditions. These engagement activities have been substantively reviewed, reactivated and extended over the course of 2025. Together, engagement and input from the following stakeholders and activities have informed the proposed strategy:

- Internal stakeholder engagement with Barwon Water personnel to confirm and refine the interpretation objectives and principles, stories/themes, and feasibility, suitability and purpose of concept elements
- Briefings, workshops and direct input from members of the Aqueduct and Porronggitj Karrong Community Reference Group (CRG) addressed to the interpretation scope, objectives and content
- Community surveys (online format) undertaken in 2023 and 2025
- Meetings, interviews and inquiries with subject matter experts and potential community partners and collaborators
- Consultation and engagement with Wadawurrung Traditional Owners and representatives of WTOAC
- Engagement with Heritage Victoria as the statutory authority.

This section provides further details on some of these activities.

CRG engagement

The Aqueduct and Porronggitj Karrong Community Reference Group (CRG) was established by Barwon Water in 2021 to provide a facilitated forum to engage the views and input of community members and key stakeholders in the implementation of both projects; as of mid-2025 it has met on fifteen occasions. The CRG's membership was

determined following a 2021 EOI issued by Barwon Water, and has been drawn from a cross-section of community interests and stakeholder organisations at the river, including heritage and environmental advocates and enthusiasts and recreational water users. The CRG includes members of Geelong Sustainability, Geelong Field Naturalists Club, Geelong Environment Council, Friends of the Barwon River, Geelong Canoe Club, National Trust of Victoria, National Trust of Victoria – Geelong branch, Friends of the Barwon River Ovoid Sewer Aqueduct and Engineering Heritage Victoria.

In addition to providing periodic updates on heritage interpretation planning, three CRG meetings in November 2023, June 2025 and August 2025 were specifically held as member workshops to inform the development of the Heritage Interpretation Plan (2023, previous permit) / Heritage Interpretation Strategy (2025, current proposal). Members were also encouraged to provide additional input, suggestions and resources to inform the plan/strategy and the development of future interpretation assets and elements. Throughout this process, engagement with the CRG has enabled testing of proposed interpretation themes, directions and assumptions about priorities and resonance with key knowledge-holders and interested parties, many of whom have a long history of personal familiarity, interest and advocacy in respect to the Aqueduct and/or the use and values of the broader river environment. Summaries of the CRG Interpretation Workshop sessions are attached (Appendix A).

It is noted that the CRG was not established as a decision-making body. The format supports an ongoing, two-way engagement between Barwon Water and community members and key stakeholders about the planned projects and issues of public interest. As an organisation, Barwon Water respects the views and opinions shared by all CRG members; members views and inputs have informed and been considered throughout project development and in the organisation's decision-making. CRG members have held and promoted distinctive and sometimes competing views throughout the engagement; some members disagreed strenuously with the originally approved Aqueduct project as well as with Barwon Water's 2025 decision to proceed with the demolition proposal.

CRG members' views and input have informed development of the Heritage Interpretation Strategy. Subject to permit approval, it is anticipated that CRG engagement would continue throughout implementation of the Porronggitj Karrong project and the proposed Aqueduct heritage interpretation programme.

Public engagement

Online surveys were organised by Barwon Water in 2023 and 2025 to understand the interest and sentiments of the Greater Geelong community as related to heritage interpretation. The surveys were hosted on the organisation's 'Your Say' website, and promoted through its e-newsletter and other media; respondents were asked to answer a variety of questions about their personal knowledge and memories of the Aqueduct, and their ideas and priorities for heritage interpretation addressing the Aqueduct's history and heritage values. The 2023 survey was conducted at a time when retention of most of the Aqueduct was anticipated; the 2025 survey was undertaken several months after Barwon Water announced its decision to propose demolition of all 14 spans (refer 2025 summary report, Appendix B). The Heritage Interpretation Strategy has been developed and finalised with consideration for the survey responses.

Heritage Victoria

Heritage Victoria has been consulted throughout the development and implementation of the Aqueduct project. This has included pre- and post-lodgement engagement in respect to the 2020 heritage permit application, ongoing updates, briefings and consultation throughout the 2021-2024 permit implementation efforts, and consultation beginning in early 2024 as the scale of the safe construction challenge and the lack of an effective solution that would enable implementation of the original heritage permit became clear.

The project team engaged with Heritage Victoria on a regular basis in developing the Heritage Interpretation Strategy (Section 1.4) and the proposed interpretation programme described in this document. This engagement reviewed draft directions, gave consideration to suggestions and feedback received throughout these sessions, and has informed the proposal described here.

Figure 9 Erection of truss scaffolding, formwork and concreting gantry (c. 1914-1915)
Source: Barwon Water archives

2.0 THE AQUEDUCT

2.1 Purpose and development

Geelong Sewerage Scheme

Some form of sewer system for Geelong had long been suggested following on the successful construction of the Melbourne Outfall Sewer. However, development and improvement of the Geelong Waterworks and Lower Stony Creek Reservoir eventually brought the public health implications of wastewater in urban and industrial Geelong to the point of crisis, finally forcing action by local leaders and ratepayers in 1907. An expanded Geelong Water & Sewer Trust recruited the NSW-based engineer R.T. McKay as their new Chief Engineer for Sewerage and raised construction loans ultimately totalling £375,000 (roughly $50 million today). Together with McKay, they finalised an ambitious sewerage scheme using gravity sewers to collect local wastewater and convey it from urban Geelong to an ocean outfall, bypassing waterways and the city's Corio Bay waterfront and employing only limited pump infrastructure.

In addition to supply of concrete sewer pipe for installation in trenches along the more than twenty kilometre length of the Main Outfall Sewer (not to mention several additional sub-main sewers), the project design and selected route would require special works at several sites. These included mined sections through bedrock under Bellarine Street and at Challis Hill in the south-west, a complex engineered structure at the ocean outfall at Black Rock to the west of Barwon Heads and, most spectacularly, the Ovoid Sewer Aqueduct, a sewer bridge which would cross the Barwon River floodplain at a point at Breakwater where the distance from one side of the valley to the other was three quarters of a kilometre wide. The project was tendered in stages, with early tenders focused on the outfall sewer pipe and mined sections. In 1912, the Geelong Water & Sewer Trust's supervising engineer called tenders on Contract No. 4, for the design and construction of the Barwon River Sewer Aqueduct.

Ovoid Sewer Aqueduct, project brief, tendering and selected design

The brief for the Aqueduct contract specified the structure's location, multi-span arrangement and minimum span length (30 metres / 100 feet) and height (to accommodate the river's freeboard during flood periods), as well as the dimensions and loading of the outfall sewer, which required that the designed structure must be stable in accommodating the forces of:

- Hurricane [winds] of 100 miles per hour representing a pressure of 50 lbs. per square foot acting directly on the aqueduct.
- A fully loaded footway
- An empty sewer.

In evaluating the tendered designs, McKay reported that he had considered not only these performance requirements and the tendered costs, but also that

> 'Not only must the structure be of a perfectly stable character, but in view of the permanence and importance of the work it should also possess symmetry and attractiveness in design.'[3]

Eight tenderers submitted proposals for the structure's design and construction which would have employed several different materials and structural systems, including steel bridges and various concrete reinforced structures.

The selected Stone & Siddeley design was the only balanced cantilever design proposed, and as the least expensive (tendered at £18,000) of three alternative schemes submitted by the firm was selected ahead of their other schemes for a heavier and more conventionally designed bridge structure. Recommending the selected scheme, the Trust's engineer suggested that

> 'The completed structure would stand out as the best and longest of its kind in Australia, and one of which the district might well be proud.'[4]

McKay also reported that he had also considered and calculated the cost of excavating a siphon below the river, which he concluded was less expensive (estimated at £15,000) than the cost of the Aqueduct but would have operational challenges that would make it ultimately more costly than the Aqueduct, of which he suggested that 'the maintenance would be practically nothing, and no attention need be devoted to it once it is built.'[5]

Stone & Siddeley, engineers

Stone & Siddeley was a short-lived engineering and construction concern established by the NSW-born E.G. Stone (1873-1947) and Melbournian Ernest J. Siddeley (1872-1965). Of the pair, Stone is the more widely celebrated as an adventurous and inventive engineer whose fierce independence, professional energy and risk-taking are key aspects of his enduring interest as well as of the buildings he produced.

Stone studied at the University of Sydney and then worked as a cadet engineer before joining the NSW civil service, working first in the Roads and Bridges Department and then the Sewerage Construction Department, before joining the Sydney Harbour Trust after its establishment in 1900. There he was responsible for a series of successful waterside developments at Circular Quay, Darling Harbour and elsewhere, including wharves, jetties and bridges. Enabled by this experience, Stone left the Trust in 1907 to practice as a consulting engineer specialising in reinforced concrete, and made a series of patent applications addressed to systems of reinforced concrete construction and manufacturing. He was soon engaged in erecting structures across NSW and Victoria, including reinforced concrete storage silos at Kensington in Melbourne and at Moolap for the Cheetham Salt Company and the ambitious Dennys Lascelles Woolstore at Geelong (1912).

In 1912, Stone entered the partnership with Siddeley, also an engineer with experience in construction management. The partnership operated briefly across three states, producing the Ovoid Sewer Aqueduct (1912-1915) and factory buildings in Melbourne, Sydney, Launceston and Hobart, before their failed work on the Glenelg Breakwater in South Australia (1915-1917) led to non-performance claims that bankrupted the company in 1920. Stone based himself in Tasmania for a period where he continued to practice independently, was appointed to the Miena (Great Lake) Hydroelectric Project and involved himself in further concrete manufacturing enterprises. A string of business failures followed and he returned to New South Wales and into relative obscurity in the 1930s, although he remained active both in concrete manufacturing and as an inventor.[6]

Construction

Stone & Siddeley had by this time won several of the Trust's contracts to supply and install concrete sewer pipe along the route of the outfall sewer and in June 1912 had opened a temporary factory at Marshall and a construction tramway to deliver precast pipe along the length of the sewer trenching works. Methods developed by Stone & Siddeley at the pipe factory were at least as innovative as their adventurous design for the Aqueduct; the factory was widely lauded by the press and the process successfully patented in Australia and the United States. In early 1913 the factory produced precast concrete piles which would be driven into the bedrock below the floodplain at Breakwater to anchor the central piers of the Aqueduct's fourteen cantilevered trusses.

The Aqueduct itself would be constructed using cast in place concrete, with steel reinforcing bars and the Considère system binding wire assembled in place within timber formwork. A number of photographs of the construction process exist, showing the large-scale gantries, scaffolding and formwork used to erect the structure. Despite various industrial disputes, the Aqueduct was substantially completed by June 1915 and entered service in July 1916. In June 1917 the sewerage system was finished, and McKay resigned to return to NSW, his job apparently complete.[7]

Figure 10 Trenching for installation of the Geelong Outfall Sewer, c. 1912-1914, with ovoid sewer pipe manufactured by Stone & Siddeley lined up alongside the trench for installation
Source: Barwon Water archives

Figure 11 Geelong Outfall Sewer being laid in trench south of Breakwater, 1914
Source: Barwon Water archives

Figure 12 Manufacturing of Aqueduct's precast concrete piles at Stone & Siddeley's Marshall Pipe Factory, 1913
Source: Barwon Water archives

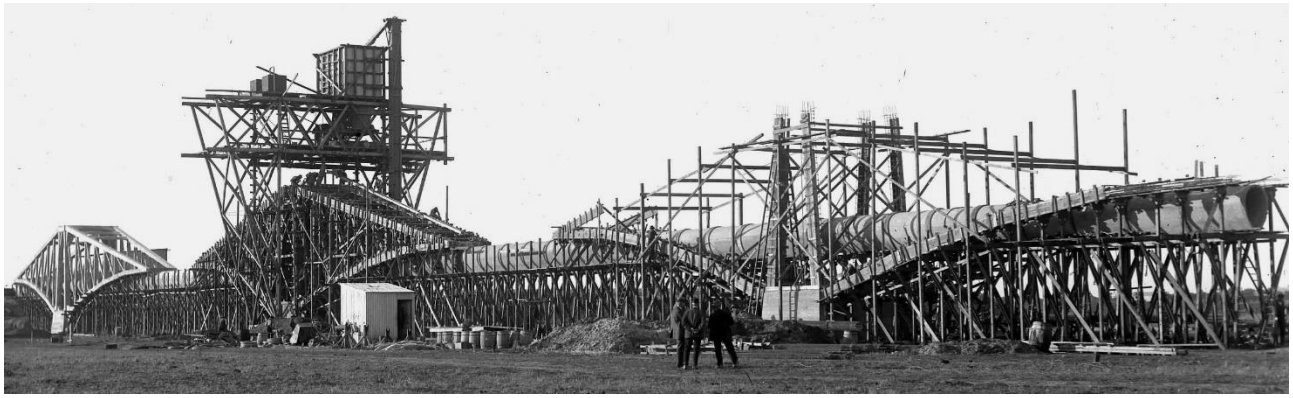


Figure 13 Construction sequence (c.1914) with (right) temporary scaffolding and timber formwork; (centre left) completed truss formwork and concreting gantry; (far left) complete (but uncapped) concrete web truss
Source: Barwon Water archives

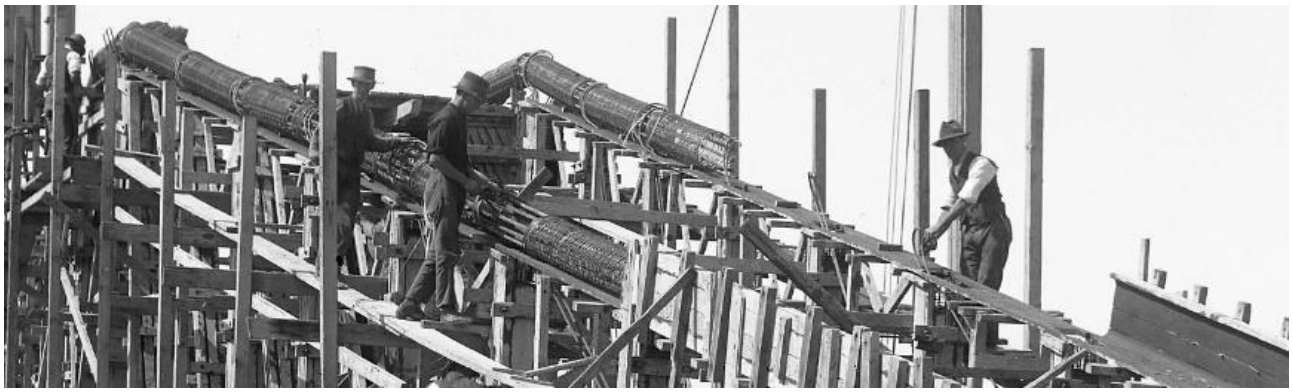


Figure 14 Detail, assembly of steel reinforcement and timber formwork for upper chord of truss (c. 1914-1915)
Source: Barwon Water archives

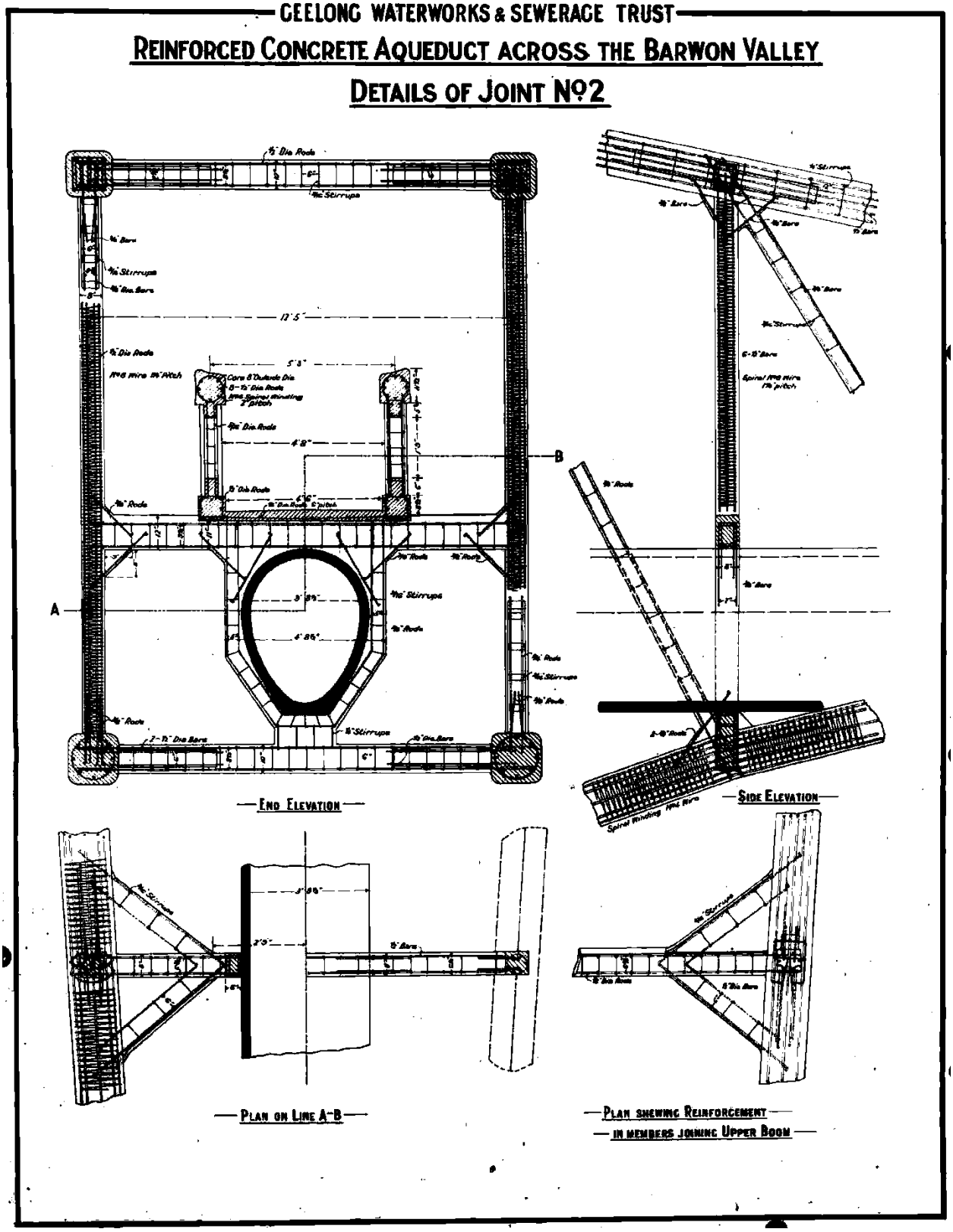


Figure 15 Truss cross-section details, Stone & Siddeley construction documentation, c. 1913
Source: Barwon Water archives

Figure 16 Ovoid Sewer Aqueduct at completion, c. 1915
Source: Barwon Water archives

2.2 Structural design and technical/aesthetic significance

Balanced cantilevered multi-span bridge

As built, the Aqueduct was a reinforced concrete bridge structure, 756-metres in length, consisting of 14 symmetrical pier and truss spans of a balanced cantilever design, each supported from a single central pier founded on reinforced concrete piles. At the time of its construction, it was among the first and longest bridges of its type in Australia.

Together, the fourteen piers and trusses carried the weight and forces of the Geelong Outfall Sewer, with the collected wastewater of Geelong and suburbs north of the river flowing by gravity through an ovoid shaped pipe that was suspended below the bridge's continuous walkway. The walkway handrail formed a continuous girder spanning between each pair of adjoining trusses to support the sewer pipe, which was landed in natural ground to either end of the structure where it met the valley shoulders of the Barre Warre Yulluk floodplain.

Considère system of concrete reinforcement

The method of concrete reinforcement employed within the compression members of the Aqueduct structure was invented by French engineer Armand-Gabriel Considère (1841-1914). A senior civil and military engineer, Considère was an early investigator and inventor of reinforced concrete methods in construction, developing an approach that bound the inner core of a concrete structural element with helical wire to improve its compressive strength. The system required skilled labour in its assembly, but allowed substantial savings in the quantities of steel and concrete required in comparison to less confined reinforcing systems. Considère patented his system, but it is unclear how expensive the license was in Australia when E.G. Stone apparently took it up, or how stringently it was enforced in comparison to the monopoly-licensed Monier system.

From 1910-1915, E.G. Stone used the system on two ambitious new buildings in Greater Geelong – the Dennys Lascelles Wool Store (1912, not extant) and the Ovoid Sewer Aqueduct (1915). The buildings used distinctive structural systems to achieve performance characteristics (span lengths, loading capacities, lightweight assemblies) that were all but unseen in other reinforced concrete structures in Australia at the time. For the Aqueduct, the concrete members Stone & Siddeley produced with the system were extremely slender, enabling their use as elements in a web truss; unfortunately, this method of construction also enabled and encouraged decisions about the material design and detailing of the structure that undermined its longevity (Section 2.3).

Aesthetic appreciation

The 1912 tender report of the Geelong Waterworks & Sewer Trust Chief Engineer documents the importance of aesthetic considerations alongside cost in his selection of Stone & Siddeley's lightweight alternative tender design, and his discounting of a number of the other tender submissions. Following its construction, the aesthetic qualities of the Aqueduct's fourteen symmetrical web trusses continued to be appreciated, and despite the deteriorating condition of its concrete materials these qualities remained an important aspect of the structure's heritage significance as recognised in its 1991 heritage registration.

The aesthetic characteristics which are recognised in Heritage Victoria's statement of significance and in other accounts of the structure's importance can be summarised as follows:

- Symmetry, rhythm and slender proportions of the Aqueduct's fourteen web trusses
- Uniformity and contrast of the concrete structure against the vegetated floodplain (or floodwaters)
- Sublime scale and character of the structure as encountered in the expansive landscape of the floodplain.

Recognition of these aesthetic characteristics has primarily been experiential in nature, as well as in assessments by engineering heritage specialists. The characteristics are comparable to other bridges using repeating span and pier elements, and including both conventional and balanced cantilever designs. These include not only Scotland's Firth of Forth Bridge (a rail bridge constructed of balanced cantilever steel trusses) which has been said to have directly

inspired the Stone & Siddeley's Aqueduct design, but also Victoria's early timber railway and road bridges and to varying extents other nineteenth and early twentieth century bridge structures which used repeating structural elements. Beginning in the 1980s, the Aqueduct's aesthetic and technical significance was widely recognised in specialist histories and heritage assessments; it has also been recognised through Engineers Australia's Historic Engineering Plaquing Programme.

Precast concrete pipe factory

At Marshall, Stone & Siddeley developed and opened a temporary factory to supply precast concrete sewer pipe for both the underground sewer and the Aqueduct; the factory would also be employed in manufacturing precast concrete piles driven into the soil of the floodplain as the footings for the Aqueduct's fourteen piers.

At the factory, Stone & Siddeley employed innovative production techniques, particularly in the pipe manufacturing sequence, which utilised a system of reusable, pressurised moulds and compressed air which the firm successfully patented in both Australia and the United States. Historical photographs reveal that fabrication of the Aqueduct piles was accomplished more conventionally, with bespoke, workshop-style production of each pile's wire reinforcement and timber formwork. The factory was disbanded within years of the outfall sewer's completion, and most valuable equipment relocated to the firm's other sites. Various concrete moulds and a few gantry elements were abandoned on land next to the Marshall railway station for a century before being salvaged and inventoried using archaeological techniques as part of the South Geelong to Waurn Ponds Rail Duplication Project, completed in 2024. Salvaged elements and interpretation features have been installed at the upgraded Marshall Station site.

As part of work to develop the heritage interpretation concept, available documentation of the salvaged artefacts was reviewed by the project team in 2023. The Marshall artefacts could not be directly linked to the manufacture of elements of the Ovoid Sewer Aqueduct, and generally appeared to have been used in the manufacture of smaller upstream sections of the Geelong Outfall Sewer's ovoid pipe, as well as round pipe for local collector sewers.

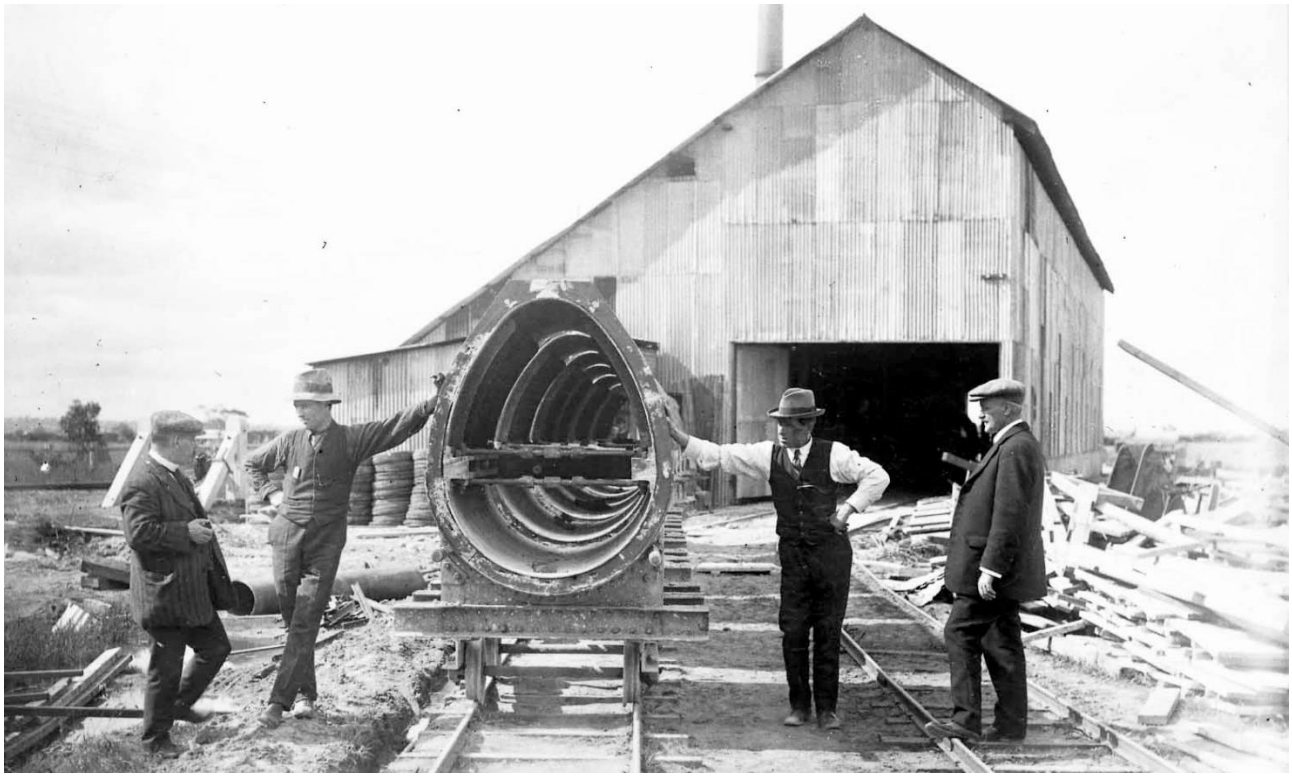


Figure 17 Operations at Marshall Pipe Factory, c. 1913-1914
Source: Barwon Water archives

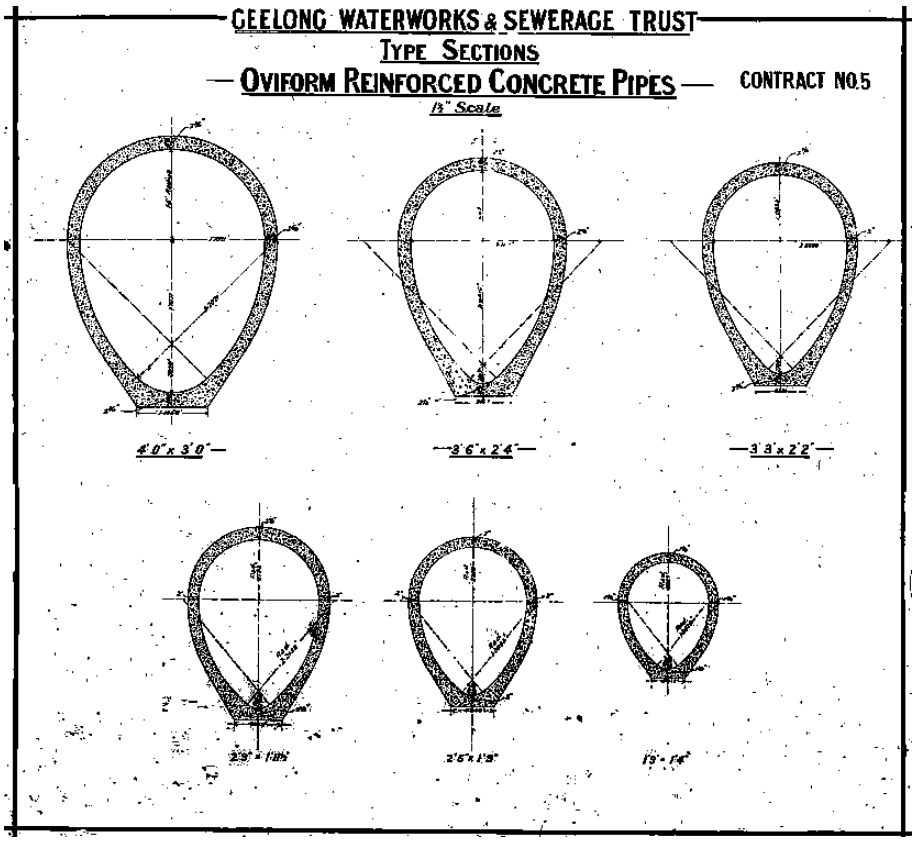


Figure 18 Main Outfall Sewer pipe sizes; the smaller sizes were employed on upstream sections of the main sewer, and on the sub-mains that fed into it
Source: Barwon Water archives

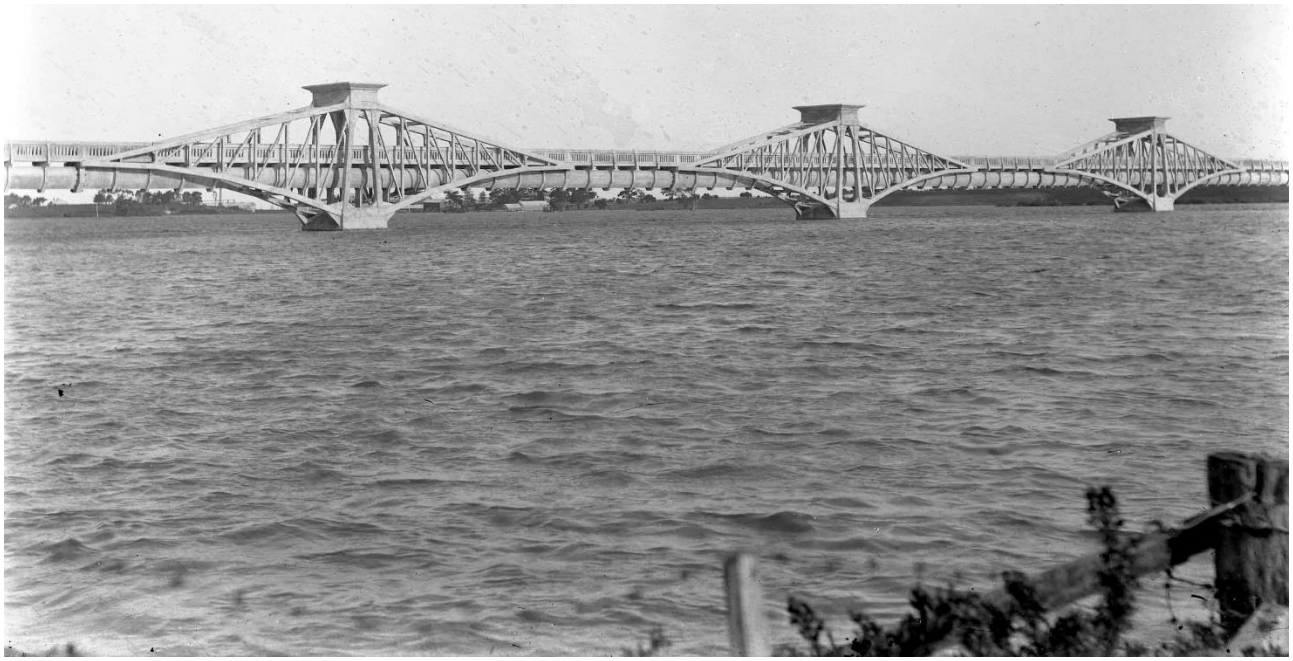


Figure 19 Aqueduct c.1920s-1930s during Barwon River flooding
Source: Barwon Water archives

2.3 Operational history and decommissioning

Material and structural issues emerged on the Aqueduct almost immediately following its completion, with the Trust's staff surveyor Charles Breen reporting in 1922 that concrete was cracking and breaking away and the steel reinforcement was visible and rusting. A detailed account of this episode and a series of further repair programmes has been provided in the Heritage Impact Statement (Lovell Chen, 2025).

Stone was eventually recalled by the Trust to make an inspection and report on what had gone wrong, and eventually to correct the issues (Figure 20). While other experts had recommended that a much greater thickness of concrete should be provided to the truss members, in line with standards even in this early period, Stone disagreed and insisted that the concrete cover could be kept slim while after the repairs 'the condition of the Aqueduct… will be perfectly sound in every way.' [8] By June 1924 the works were considered complete, and the Trust's chief engineer wrote that 'Beyond a little blistering which may appear here and there on the concrete, and which can be attended to from time to time, I do not anticipate that we shall have any further trouble with the structure.'[9]

A 1930 inspection record prepared by Breen recorded 122 newly cracked truss members across the Aqueduct.[10] Major works programmes followed in 1958-1960, 1974-1977 and then almost unceasingly from that point until the Aqueduct's decommissioning in 1992 (Figure 21). In 1991, the Water Board had permanent steel props installed under Truss 14 (Figure 22) in a last desperate attempt to extend the life of a structure that remained for a few more months a critical asset in the sewer system. Until replaced, loss of the Aqueduct would disrupt wastewater treatment and force release of sewage directly into Barre Warre Yulluk (Barwon River) and other waterways. That year, land below the Aqueduct was closed and fenced due to the risks from falling debris; in 1995 the river channels were also closed after Barwon Water received further engineering advice that the deteriorated structure could collapse at any time.

What had gone wrong?

In 1923, Stone had blamed the poor quality of a vendor's supplied concrete for the premature corrosion of the steel reinforcement and cracking and failure of the covering concrete. However, it is evident that intentional design decisions as well the limited knowledge of concrete's long-term physical and chemical behaviour doomed the structure from the very beginning. In the 1980s, engineers at Taywood-Mausell reviewed the Aqueduct's design: 'The main initial flaw as far as durability is concerned is that the structural efficiency of the design required a concrete with a compressive strength of only 14 MPa. As a guide, a 20 MPa concrete will generally have poor durability characteristics, 32 MPa will have acceptable characteristics and 45 MPa will perform well in most circumstances.'[11]

Limited concrete thickness combined with poor materials and preparation produced members that were porous and quickly became saline, carbonated and acidic, triggering rusting and expansion of the reinforcing steel, cracking and spalling of the concrete and eventually the exposure and breakdown of the reinforcement (Figure 23). Thin tension members in the web truss were the first to experience this in part due to the challenge of putting concrete in tension, but mostly because the concrete was so thin that corrosion had begun in these members immediately.

The design's inherent issues with maintenance and other factors were exacerbated by Stone's insistent that thicker concrete was not required, and by McKay's optimism and privileging of aesthetics and cost. Stone & Siddeley's design met McKay's demanding load requirements while being far cheaper to construct than its competitors. Ironically then, it was the cantilevered web truss's success as an inexpensive system for load distribution that led Stone and the Trust's supervising engineer to irreversible decisions in the Aqueduct's material specifications and aesthetic details.

Their decisions produced beautiful, delicate web trusses that accentuated the cantilevered arrangement's inherent order and balance; the Aqueduct was the perfect contrast to the much bulkier, Monier system concrete bridges being built in Melbourne and Sydney. However, its delicate truss members were incautious, impractical and eventually impossible to maintain as corrosive decay set in within the structure. These faults limited the Aqueduct's lifespan and made repairs increasingly impractical in comparison to more conventional structures; by the 1980s this compromised prospects for its continuing operational use and physical retention. A replacement siphon entered service in 1992.

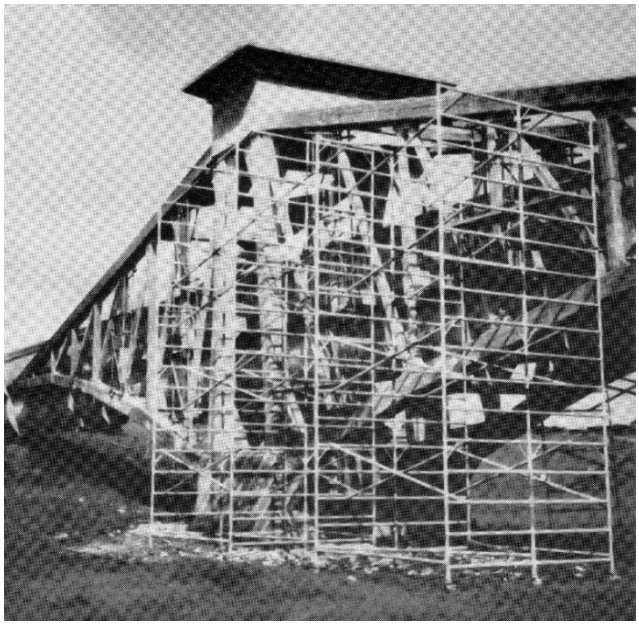


Figure 20 Photograph possibly showing c. 1924 repairs
Source: Barwon Water archives

Figure 21 Replacement siphon under construction below Barwon River, c. 1991
Source: Barwon Water archives

Figure 22 Steel propping installed below Truss #14 at South Landing, c. 1992
Source: Lovell Chen archives

Figure 23 Exemplar deterioration of the concrete cover and underlying steel reinforcement across the Aqueduct
Source: Glasshouse Creative Media (2022), courtesy Barwon Water

Figure 24 (above) River channel closed west of Aqueduct, riparian vegetation in foreground, island at right, 2019

Figure 25 (below) Floodplain vegetation at Porronggitj Karrong including exotic weeds and native Tangled Lignum
Source: Lovell Chen archives

3.0 PORRONGGITJ KARRONG (THE PLACE OF THE BROLGA)

3.1 Wadawurrung custodianship

Porronggitj Karrong, meaning 'Place of the Brolga,' is a large area of river floodplain on the banks of the Barre Warre Yulluk (Barwon River) waterway at Breakwater, Geelong, on Wadawurrung Country. The place has been recognised and established as a cultural precinct through a partnership between Barwon Water and WTOAC. The following statement describes the project's objectives and importance to both partners:

> The Barwon and all its connecting veins are the lifeblood of Wadawurrung Country. It has been the forever beating heart to Wadawurrung people, from the water and the resources in its depths, the life on the banks to everything above in the canopies of the river redgums and the sky beyond.
>
> Since European settlement, Porronggitj Karrong has been used for livestock grazing, and has been the landscape on which the heritage-listed Ovoid Sewer Aqueduct occurs. Grounded in a formal partnership, the shared vision of Wadawurrung Traditional Owners and Barwon Water for the Porronggitj Karrong project is to rehabilitate the 66 hectares of river plain, to create "a balanced ecological system incorporating Wadawurrung Cultural values for the whole community to connect, listen and learn from Country".
>
> The shared project objectives are to:
>
> 1. Provide a healthy landscape for us all to connect with and learn from Country.
> 2. Care for land and water through Traditional Custodian land management practices.
> 3. Incorporate Wadawurrung values through genuine engagement.
> 4. Identify and implement opportunities for employment and capacity building that align with Wadawurrung aspirations and self-determined goals.
>
> Porronggitj Karrong is a project where western science and Traditional Custodian knowledges have come together, following a phased approach of listening deeply to Country and responding appropriately through our actions.
>
> From the outset, Wadawurrung Elders and community have pressed that this project is about process, the journey, letting Country guide us on methods of management and the resulting outcomes – this project is not subject to traditional project timelines, but the knowledge gained from deep listening informs process.
>
> We listened and we heard – Country is sick, and it needs its spirit back, the spirit of Wadawurrung community and Culture.
>
> Barwon Water as an agency have been bold to challenge the status quo in project management by enabling Wadawurrung Traditional Owners to lead the delivery of the Porronggitj Karrong project, paying respect to the appropriate Cultural protocols in building trust and understanding, enabling self-determined direction, building capacity through appropriate processes and exploring different pathways to achieve Traditional Owner community needs. By doing this, both Wadawurrung and Barwon Water have seen profound benefits in the 2-way knowledge sharing as we walk together on this journey.[12]

The Aqueduct Heritage Interpretation Strategy describes a programme that is intended to be consistent with the shared project objectives described above. While the document presents indicative opportunities and a model arrangement for how interpretation can be organised and delivered at the place, the strategy has been drafted to enable a process that directs and shapes the programme through ongoing learning, listening and testing of ideas.

The strategy marks the beginning of a process of listening to and learning from Country, from Wadawurrung people, and from other Aqueduct project's stakeholders. The sequence of interpretation design and development, from strategy to plan to detailed design and construction, is intended to embed Wadawurrung engagement and co-design throughout all stages. As the process unfolds, it is anticipated that new opportunities, revised considerations and updates to the proposed delivered works will be identified. This may include trialling features that share project benefits with the precinct's living entities, generating additional concepts for cultural expressions that effectively convey the spirit of Wadawurrung Living Culture and custodianship within the precinct, and other ideas and actions that have yet to be considered and explored.

Living Bio-Cultural Values within the precinct

The importance of the river is recognised and protected by Wadawurrung people today, and is further acknowledged in the Victorian Government's ACHRIS mapping of areas of the cultural heritage sensitivity, which includes the entirety of the Barre Warre Yulluk (Barwon River) waterway. It is also recognised in a variety of recent strategic planning initiatives, including the Geelong Regional Alliance's Kitjarra-dja-bul bullarto langi-ut (Barwon River Parklands) initiative and the Corangamite Catchment Management Authority's Kitjarra-dja-bul Bullarto langi-ut (Places of many stories) Master Plan for the Lower Moorabool and Lower Barwon Rivers.

As noted above, Porronggitj Karrong means 'Place of the Brolga,' one of several birds and animals whose presence at the site is especially noteworthy and important. The floodplains and riparian environment at Porronggitj Karrong represent a special and distinctive environment formed through wet and dry season variations and periodic flooding that sustain wetlands and a mosaic of other habitats, the plants and animals that inhabit them, and Wadawurrung health, cultural values and traditional practices on country. Before the European invasion, the settlement activities and movement of Wadawurrung people within the watershed of Barre Warre Yulluk were based on seasonal cycles that affect environmental conditions, availability of seasonal resources and the appropriateness of cultural activities.

As the interpretation programme is developed, any and all interpretation of Wadawurrung Living Bio-Cultural Values at the site will be prepared by and in collaboration with WTOAC and Wadawurrung people.

Health Country planning and implementation

WTOAC has published their Paleert Tjarra Dja (Let's Make Country Good Together 2020-2030) Country Plan, which covers the whole of the Barre Warre Yuluk (Barwon River) watershed and adjacent areas across Wadawurrung Country.

Acknowledging the significant modifications of Porronggitj Karrong that have resulted from European activities and impacts, WTOAC, supported by Barwon Water, has commissioned technical specialists to gather a large body of scientific information as part of a Listening to Country phase. The studies conducted to date include paleobotany, a legacy soil contamination study, detailed vegetation and fauna habitat mapping, targeted fauna surveys, aquatic ecology, water quality, ongoing ecological monitoring and a soil core pollen analysis.

Using this foundation of technical information alongside Traditional Owner Cultural knowledge, WTOAC is developing a Place-based Country Plan. Future care and management of the site will be Traditional Owner-led, and supported by statutory approval documents recently developed by Barwon Water and SMEC, including a Conservation Works Exemption, Pest Plant and Animal Management Plan, and a planning permit application. This enables the project to move from the Listening to Country phase to a Reimagining the landscape phase.

While the partners have implemented a variety of initial studies and trial works at Porronggitj Karrong since the partnership agreement, the Aqueduct has remained a barrier to effective visitation and caretaking at the site, blocking safe access across the floodplain and within the river. The contrast between Wadawurrung values and the Caring for Country perspective on the one hand, and on the other the presence of the Aqueduct as a large scale, derelict structure that cannot be cared for, repaired or used is especially stark.

The fundamental imbalance that was at the root of how the river was managed in the past, and the disconnection caused by the Aqueduct has been previously commented on by WTOAC and by Wadawurrung people more broadly. Melinda Kennedy, a Wadawurrung woman who provided advice to the Aqueduct project in 2020 in her then role as WTOAC's Aboriginal Water Officer, described the importance of Porronggitj Karrong and the impact of the Aqueduct as a derelict and unsafe structure:

> Barre Warre Yulluk; mountains to the ocean this living entity has kept thousands of generations alive by providing fresh water and a travelling route for all of us to use. Bundjil created this for us all to enjoy. Devastating knowing we are breaking this law/Lore through this structure is dominating Barre warre health as it is closed off to community, and those whom use this river for travel/enjoyment just as our Ancestors did. Would we do this to a main highway cut it off from public. We have strong connection and creation stories. Our duty to keep Bundjil the wedge tailed Eagle connected to Kunnawarra the Black Swan which is Bundjil, our creator's wife. Tangible history is La Lal Stays connected to lake Connewarre. Aqueduct has threatened and stops all of this, we are breaking ancient law and is detrimental to Wadawurrung Culture.[13]

As an outcome of the Aqueduct project, a key aspect of the historical imbalance between European and Wadawurrung values at the place will be corrected. While the Aqueduct's history will feature prominently in the proposed interpretation programme, it will be brought into conversation with Wadawurrung values and with the Caring for Country approach, and the structure will no longer impact Porronggitj Karrong's Bio-Cultural values and Wadawurrung stewardship and custodianship at the place. In accordance with the principles established in Section 1.5, treatment and design of retained elements of the Aqueduct and of new interpretation features and access facilities must also be consistent with this outcome.

3.2 Precinct planning and development

Long-term planning for restoration activities, cultural use and public access at Porronggitj Karrong will be advanced through the preparation of the site-specific Healthy Country plan. For the Aqueduct project, a preliminary concept (Figure 27) was prepared to show how visitor and maintenance tracks could be organised and interact with the location of the retained footprint elements of the Aqueduct and the proposed on-site interpretation.

The scope and layout of the loop paths and indicative cultural nodes is provisional in nature, and further consideration can be expected to refine path alignments over the course of the Aqueduct project. Key decisions will need to be made about the scope and detail of permanent track infrastructure, maintaining or abandoning existing tracks and retaining construction haul roads or reusing track ballast and other materials from the Aqueduct project to support operations and access within Porronggitj Karrong. These decisions will ultimately inform the final detail of the Heritage Interpretation Plan and implementation of on-site components including the North Landing Site, Learning Trail and Pier Base inscriptions along the trail and at the southern river channel.

Throughout the project a key consideration will remain the relative remoteness of the floodplain, the effect of the wet season and of periodic flooding, the need to avoid new ground disturbances that could impact cultural heritage and Bio-Cultural values, the distance of many parts of the site from public access gates, and the variety of informal ways that the Geelong community may engage with and use the site before and after safe public access is established. These will be explored further through the Healthy Country plan and other collaborative initiatives and operations, and will inform final scope and design decisions within the on-site interpretation programme.

In considering these factors on a preliminary basis, they have helped inform the suggested concentration of permanent historical (European) and Wadawurrung cultural values interpretation infrastructure near the Aqueduct alignment in order to:

- make opportunistic use of the Pier Bases as permanent footings and raised platforms,

- concentrate activity and caretaking on an axis that does have visibility and direct maintenance access from the Barwon Assets Solutions depot site (albeit not a public access point)
- provide a short walking track and learning environment that is suitable to users of different capacities and ages, such as school groups and other event-based and general visitors.

These considerations are explored in further detail in Section 5.3 and Sections 6.1, 6.2 and 6.3. The observations and approaches are preliminary, and would be tested and developed further with WTOAC and the Gobata Dja team.

Figure 26 Birds often seen at Porronggitj Karrong
Source: (left and centre) Wikimedia Commons; (right) Lovell Chen

Figure 27 Base case indicative precinct plan for Porronggitj Karrong after demolition of the Aqueduct
Source: Barwon Water and Lovell Chen

Figure 28 Assembly of Considère system reinforcing bars and bindery wire on upper truss chord (c. 1914-1915)
Source: Barwon Water archives

4.0 INTERPRETATION PURPOSE, OBJECTIVES AND PRINCIPLES

4.1 Purpose / Outcome

The purpose and intended outcome of the interpretation programme to be developed and implemented under this strategy is **to sustain the Aqueduct's historical memory and cultural value** within the communities of Greater Geelong and Victoria during and after the structure's demolition.

To achieve this intended outcome, four specific objectives have been identified which should be enacted across the scope of the works and activities implemented under this plan.

4.2 Objectives

Objective	Approach to implementation
Memorialise and permanently mark the Aqueduct site as a historic place	The programme will commemorate and recognise the Aqueduct as a heritage place. Commemorative events before demolition would be followed with permanent interpretation designed to support public engagement with the site for at least 20 years (refer Section 4.3). This objective will be enacted through the following key measures and actions: • Commemorate the Aqueduct's significance through pre-demolition activities and events • Retention of original footprint elements which show the historical extent of the place • Development of prominent and robust interpretation nodes at the North Landing (within the proposed heritage permit) and at the South Landing (long-term), including new built elements and including interactive and expressive features.
Tell the story of the Geelong water and sewer system	The programme will encourage public engagement with the history of Geelong's water and sewer systems, of which the Aqueduct was an essential and visible element. This objective will be enacted through the following key measures and actions: • Integration of water and sewer system story into on- and off-site interpretation / exhibits • Production of a contemporary history of the Aqueduct and the water and sewer system, including design, social history and legacies (curated exhibit and legacy publication).
Record and preserve information and authentic elements	The programme will ensure that permanent public records are made and preserved about the Aqueduct, including its design, construction and heritage values. This objective will be enacted through the following key measures and actions: • Completion of existing programme of photographic recording on an opportunistic basis during site establishment and demolition activities • Opportunistic salvage, conservation and display of expressive and technical fabric elements of the Aqueduct following demolition. • Curation, accessioning and publication of archival information and oral histories in accessible formats, including public archives and the legacy publication.
Integrate Wadawurrung cultural values and storytelling	Wadawurrung cultural values are essential to ongoing activities at Porronggitj Karrong, and will have pride of place and a substantive, integrated role in delivered interpretation at the Aqueduct. This objective will be enacted through the following key measures and actions: • Integration of Wadawurrung cultural stewardship, values, storytelling and information into on-site interpretation components at Porronggitj Karrong. • Aqueduct interpretation consistent with key development principles identified below • Enable opportunities for inclusion of Wadawurrung cultural values and stories in off-site interpretation, exhibits and events, to suit WTOAC priorities and capacity.

4.3 Interpretation themes

Preliminary themes and sub-themes for the Aqueduct Interpretation Project have been identified to guide the project:

Theme	Sub-themes
Public health	• History of Geelong Sewerage Scheme, and of water and sewer system development and innovation broadly • Invisible connections – how does the Aqueduct site relate to Geelong and Black Rock, and to sites up and down stream along the Barre Warre Yulluk (Barwon River) waterway? • Waterway health and Wadawurrung perspectives on Healthy Country • How do we make the invisible visible?
Engineering innovation and experimentation	• Aqueduct's designers, innovative technologies and aesthetics • What went wrong? • What does innovation look like today?
Culture and ecology at Porronggitj Karrong	• Celebrating the Place of the Brolga, and Barre Warre Yulluk as a living entity • Restoring and taking care of the floodplain ecology, plants and animals • How do Wadawurrung people use, value and care for Country? • What can the wider community learn and contribute?

Subject to approval of the proposed heritage permit, these themes would be reviewed, confirmed and developed with key messaging and identified archival and media assets, through design and engagement for the HIP.

Figure 29 Aqueduct and floodplain, Spring 2019
Source: Lovell Chen archives

4.4 Principles to guide implementation

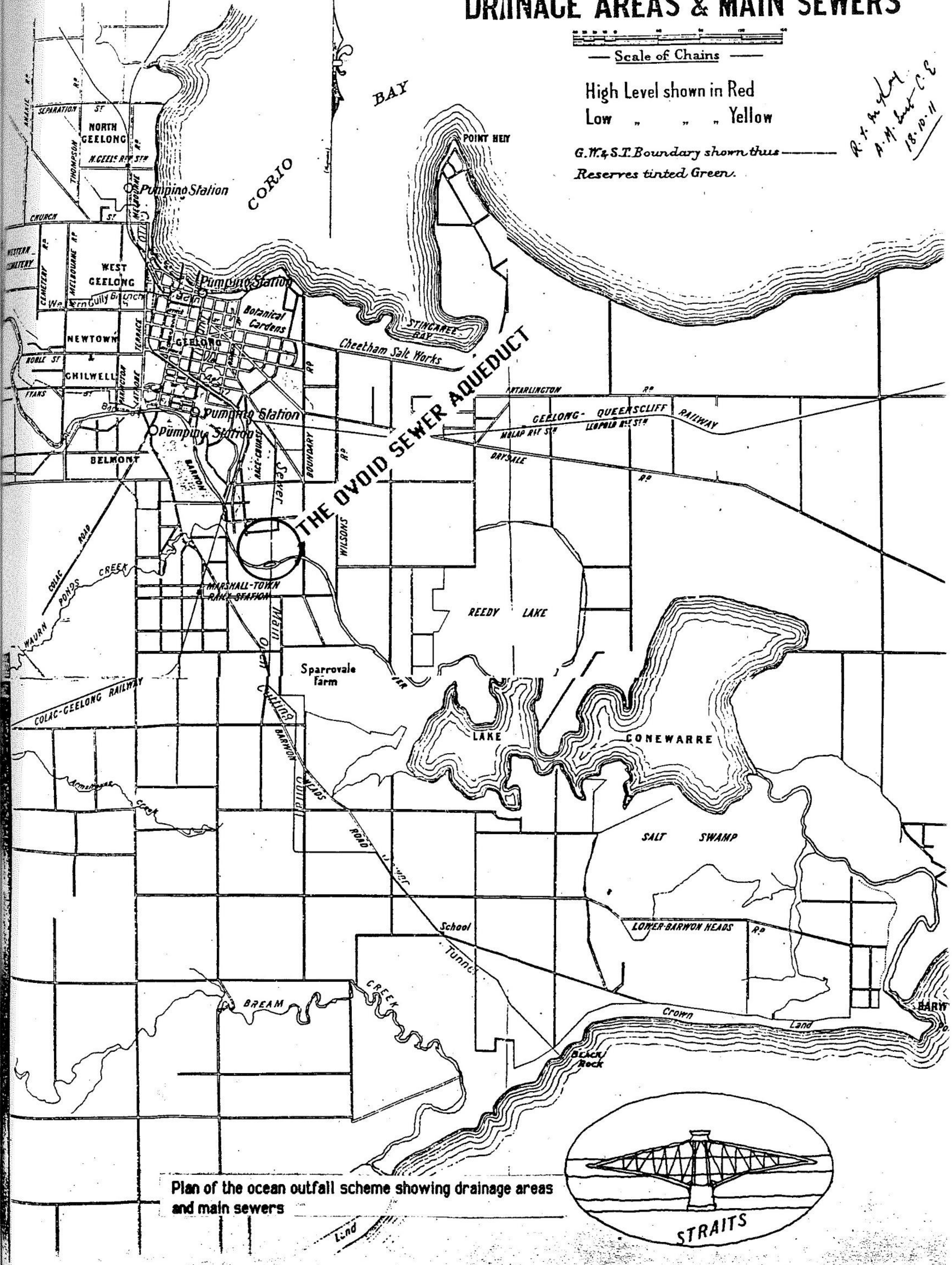
Principle	Key considerations
Creation of long-term public value and engagement	The Aqueduct Heritage Interpretation Strategy and works delivered under a future heritage permit (if granted) offer a unique opportunity to deliver features and resources of long-term public value and significance, and to invest in public engagement with both the heritage place and intersecting contemporary priorities, messaging and objectives for Barwon Water, WTOAC and partner organisations and agencies. To do this, delivered interpretation and programming must be: • inventive, ambitious and sufficiently resourced to have a lasting impact, • future focused in its conception and messaging, and • include robustly considered features and resources that can be maintained and used for an extended period (up to thirty years) (refer **Care and Sustainability**, below)
Primacy of Wadawurrung cultural stewardship and values at Porronggitj Karrong	Wadawurrung Traditional Owners have partnered with Barwon Water to reestablish traditional stewardship and restore the ecological and cultural values at Porronggitj Karrong. While the Aqueduct historical site will be permanently marked and interpreted, its design and messages must engage with the site's cultural values and future and be integrated on a functional level with how Porronggitj Karrong will be visited, cared for and understood by successive generations. In particular: • Integrated interpretation of Wadawurrung values and perspectives alongside the Aqueduct's European history and significance is preferred. • Physical elements (retained and newly built) should provide cultural expression and functional support for both stories and for the shared approach to ecological stewardship and restoration that will define the site's future. • Wadawurrung storytelling and values would desirably be integrated, and at minimum acknowledged, in most temporary and off-site Aqueduct interpretation, subject to WTOAC priorities and capacity. • Wadawurrung people through WTOAC are the owners of Wadawurrung Culture, values, symbols, stories and Indigenous Cultural and Intellectual Property (ICIP). WTOAC must review and approve interpretation which integrates Wadawurrung values and assets, and Wadawurrung people should be engaged throughout interpretation development as custodians of cultural knowledge and collaborators/co-authors/co-designers of the precinct and the storytelling infrastructure that will support it.
Care and sustainability for physical and digital elements	Physical elements retained or reintroduced at Porronggitj Karrong must be able to be cared for and maintained for an extended period in the floodplain environment. Off-site and digital elements (except where explicitly temporary in nature) should be supported with similar long-term stewardship and legacy considerations. Key considerations for physical features and elements include: • Robustness, flood- and graffiti resistance, maintainability in environment. • Appropriateness of feature scale, materials and messaging to the location • Integration with ongoing use and understanding, ability to be actively cared for and used by site caretakers and visitors and to support perception of the precinct as a place that is cared for. Additional considerations for off-site and digital media include: • Long-term hosting, storage and management arrangements, including approach to accessioning/deaccessioning, public access, administration, technological renewal.

Principle	Key considerations
Connection to broader stories and values within the Barre Warre Yulluk (Barwon River) watershed and Greater Geelong	In interpretation workshops, the CRG and other stakeholders have repeatedly emphasised the importance of connecting to broader stories and cultural landscapes extending beyond the place itself. Historically, a number of projects have advanced community awareness of regional histories and environmental values and challenges; there is an opportunity to invest in connecting with or providing resources to renew historical publications, media, walking tours and the like. Delivered interpretation features and programmes should engage with and support public understanding of these broader stories, including: • Basin-scale environmental challenges, opportunities and cultural meanings • European development history on the lower Barwon River, Aqueduct's relationship to other historical sites and to health of the environment • Aqueduct and Geelong Sewerage Scheme as a notable episode in history of public health and well-being for the Greater Geelong community • Broader connection of Porronggitj Karrong to Wadawurrung Country and Cultural Landscapes.
Integration within Barwon Water public education and outreach	With partners, Barwon Water will be the principal commissioner and manager of physical elements, resources and events developed under the Aqueduct Heritage Interpretation Strategy, and the future custodian and maintainer of most of these elements and assets. The project will only be successful if in executing these roles Barwon Water is able to integrate this new programming into its broader planning, messaging and asset management that supports its public education and outreach programmes. This requires: • Interpretation designed and delivered with forms, ideas, assets and messaging consistent with Barwon Water's overall specifications, priorities and duties as a Water Board. • Provision of suitable resources, coordination and management to ensure this integration is successful and to assure the legacy of the project is sustained through future staffing and resource cycles.

Figure 30 (next page) Map of the Geelong Sewerage Scheme, as published in *News of the Week* (c. 1911)
Source: Reproduced in A Willingham (1991)

OCEAN OUTFALL SCHEM

DRAINAGE AREAS & MAIN SEWERS



Plan of the ocean outfall scheme showing drainage areas and main sewers

5.0 PRELIMINARY INTERPRETATION CONCEPT

5.1 Where and how would Aqueduct stories be told?

PRE-DEMOLITION ACTIVITIES

COMMEMORATIVE EVENTS

Public programming to recognise significance of Aqueduct and mark decommissioning with:

- Public talks and storytelling sessions
- Public field days / tours
- Temporary exhibits (e.g. Ryrie Street Lobby or Geelong Heritage Centre)

ORAL HISTORY (FOR LEGACY PROJECT)

Recorded personal accounts of Aqueduct and river from:

- Water Trust / Water Board / Barwon Water employees who maintained Aqueduct (worker / manager memories and stories)
- Community members (social memories of Aqueduct and river)

PUBLIC RECORDS (FOR LEGACY PROJECT)

Cataloguing and curated accession to public archives of Aqueduct- and Geelong Sewerage Scheme-related:

- Plans / drawings
- Reports and correspondence
- Photographs, video and 3-D recordings
- Material samples (demolition salvage)

ON-SITE INTERPRETATION

NORTH LANDING SITE

Central node for Aqueduct appreciation and understanding, including:

- Vertical Marker
- Viewing Platform
- Interactive / experiential features, artworks or cultural expressions
- Didactic signage
- Wayfinding

LEARNING TRAIL

Storytelling and learning facility along sequence of retained pier bases:

- Inscribed pier bases
- Walking track
- Cultural values inscriptions
- Supporting infrastructure for Porronggitj Karrong; e.g. demo plants, bird roosts
- Wayfinding

RIVER CHANNELS

Permanent graphics and signage visible to water users, consisting of:

- Inscribed pier bases
- Wayfinding

OFF-SITE INTERPRETATION AND LEGACY PROJECT

EXHIBITS AND SIGN TRAIL

Storytelling at connected places:

- Black Rock Water Reclamation Plant Education Centre
- Interpretation pillars at other related public sites: e.g. Low-level Pumping Station, sewer junctions)

LEGACY PROJECT

Aqueduct public history and curation project to create accessible permanent record.

ONLINE MEDIA

Online exhibit extensions: website and/or audio tour

ON-SITE (FUTURE STAGE)

SOUTH LANDING SITE

Central node for Aqueduct appreciation and understanding south of river, including

- Vertical Marker
- Viewing Platform
- Interpretation features

Coordinated development with Armstrong Creek PSP

5.2 Commemorating the Aqueduct before demolition

The story and importance of the Aqueduct to the Geelong community would be commemorated in a public event-based format prior to the commencement of demolition works.

The commemoration programme would offer opportunities for collective acknowledgement of the value and importance of the Aqueduct, to express appreciation and loss in a safe, collective environment, and to look ahead to the future of the water system and of Porronggitj Karrong. In this way, the programme would continue work undertaken since 2024 to reach an intentional decision and build collective understanding of the rationale and need for demolition of a failing and hazardous structure, and to emphasise that the issue of a heritage permit (if granted is not the end of the Aqueduct story but the beginning of its next chapter.

A conceptual commemorative programme could include the following event types and opportunities:

Event type	Opportunities
Commemorative event	• Public talks and events • Open day / scheduled (ticketed) tours at Porronggitj Karrong / Kadak Place depot • Additional events with partner organisations and stakeholders
Temporary public exhibit	• Temporary exhibit display at Barwon Water Ryrie Street headquarters, Geelong Heritage Centre, community museum or gallery space or partner facility (e.g. Deakin University)
Online engagements and exhibits	• Community memory portal • Digital exhibit hosted on Barwon Water website

The initial commemorative programme would focus on shared experiences, storytelling and public dialogue, and would desirably include a managed opportunity for public visitation to the vicinity of the Aqueduct at Porronggitj Karrong and / or the Kadak Place depot site, in the form of a scheduled programme of tours and/or an open day.

This public visitation opportunity would be similar in format, scope, logistics and security provisions to public tour and event-based visitation to normally off-limits sites as occurs annually as part of Open House Melbourne and similar public festivals, and which has also been a feature of the Victorian Government's Metro Tunnel Project as it moved towards completion and soft launch of station buildings and other project components over the course of 2024-2025.

Logistically, it may be most straightforward to offer such an experience at Porronggitj Karrong after site establishment works have been substantially advanced, just prior to commencement of the Contractor's demolition works and utilising the Contractor's site works and access arrangements. Alternatively, it may be possible to hold a smaller scale public open day or tour schedule at the Kadak Place depot and perhaps including a limited walking component departing from the depot access gate east of the Aqueduct.

5.3 On-site interpretation concept in overview

The floodplain at Porronggitj Karrong is a vast place exposed to the elements, to periodic flooding, and to a range of human and animal activities, and which even now offers relatively few vantages from which to view and engage with the Aqueduct. After the structure is demolished, it will be important to concentrate storytelling, interpretation and visitor experiences at a few key locations where robust physical infrastructure and a clear concept of the place's enduring meanings can be used to sustain the public appreciation and value of the place.

The Aqueduct's alignment serves as the most effective axis for telling the European heritage story and for building a concentrated and sustainable interpretive system to engage visitors, assist maintenance, and express care and value for installed and retained elements. The approach simplifies accessibility provisions and makes use of existing buried structures to limit new ground disturbance, a key consideration for Wadawurrung people and cultural heritage protection. Less formalised nodes for cultural values education and experiences on Country would be separately established by WTOAC, making use of the extensive floodplain landscape that surrounds the Aqueduct alignment.

Storytelling systems in the landscape

The conceptual on-site interpretation reuses the Aqueduct's north-south alignment as an orientation not only for understanding the European history (Figure 31), but also for engaging with Wadawurrung cultural values and the future of Porronggitj Karrong (Figure 32).

Landing sites

Two 'gathering nodes' would ultimately be developed to tell the story of the Aqueduct and its relationship with present-day activities at Porronggitj Karrong:

- **North Landing Site** (**North Stair Landing** and **Pier Bases 01 and 02**) (Section 6.2)
- **South Landing Site** (**South Stair Landing** and **Pier Bases 13 and 14**) (Section 6.5), long-term delivery.

From the **North Landing Site**, the former extent of the Aqueduct would be visible across the floodplain. Storytelling can encourage the visitor to see and imagine the history of the bridge itself and its relationship to far-flung sites and infrastructure as well as to contemporary environmental ideas now critical to sustainability of the water system. The proposed Vertical Marker would be visible at distances across the floodplain, providing a landmark for visitor orientation, cultural recognition and encouraging visitation to this gathering node.

Learning Trail

South of the North Landing Site, a **Learning Trail** (Section 6.3) is anticipated to weave between the Retained Pier Bases, leading to the river. Descending into the floodplain, the Aqueduct's alignment creates a short path along which visitors can be engaged with how conditions and ecology vary and change and with the cultural dimensions of the living environment.

Some areas have more or less frequent flooding, different ground conditions, and other factors that make them distinctive, promoting establishment of trees, wetland grasses or the currently pervasive Tangled Lignum. Wadawurrung-led restoration and care for these areas will enhance those distinctions, and enable cultural education and demonstrations of Caring for Country activities along an accessible trail facility.

The Pier Bases along the route would be rehabilitated and carry new cultural expressions and even ecological infrastructure (e.g. bird roosts), and would offer areas of respite, higher ground, dry seating during wet periods, and a rhythm and order to help visitors orient within the site. Demonstration plantings and areas of traditional management would animate the trail experience, while it would also provide ongoing access to the pier base locations for visitors interested in exploring how the Aqueduct's historic footprint is represented across the floodplain landscape.

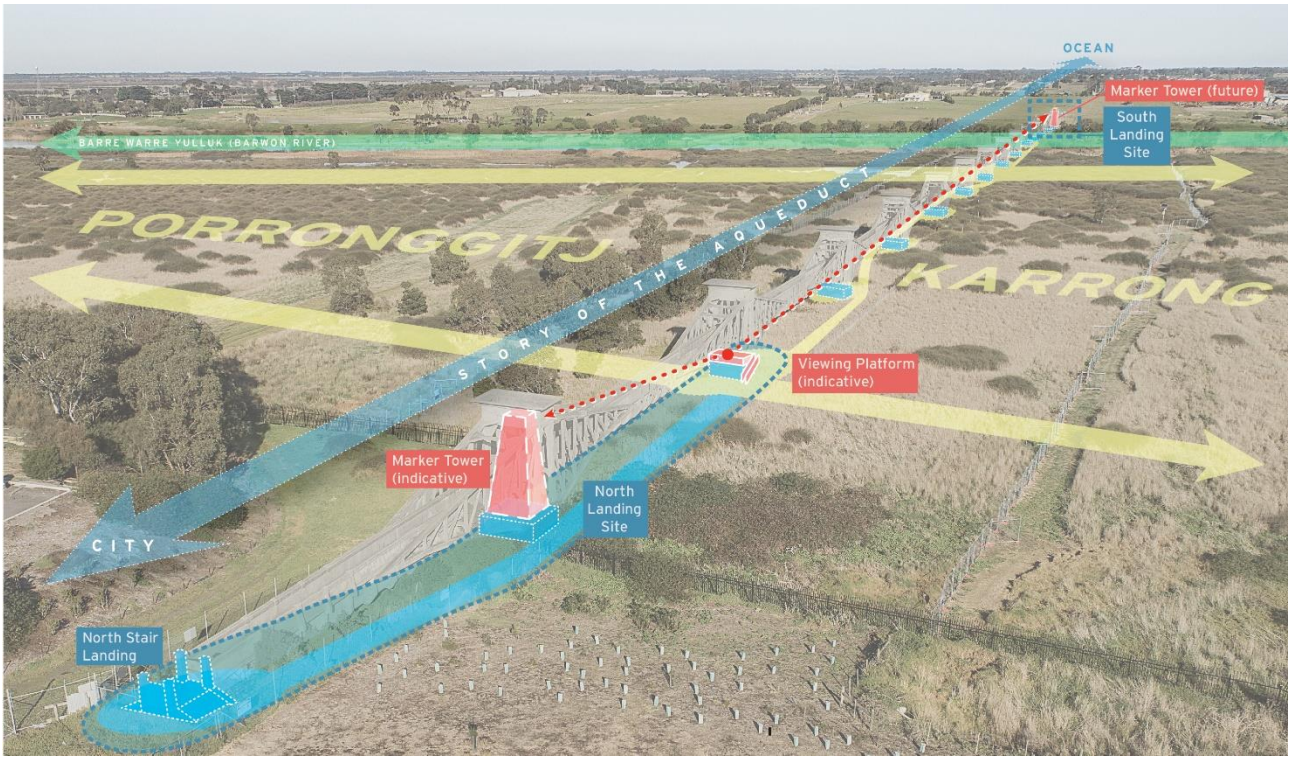


Figure 31 Historical (European) heritage interpretation, on-site storytelling concept

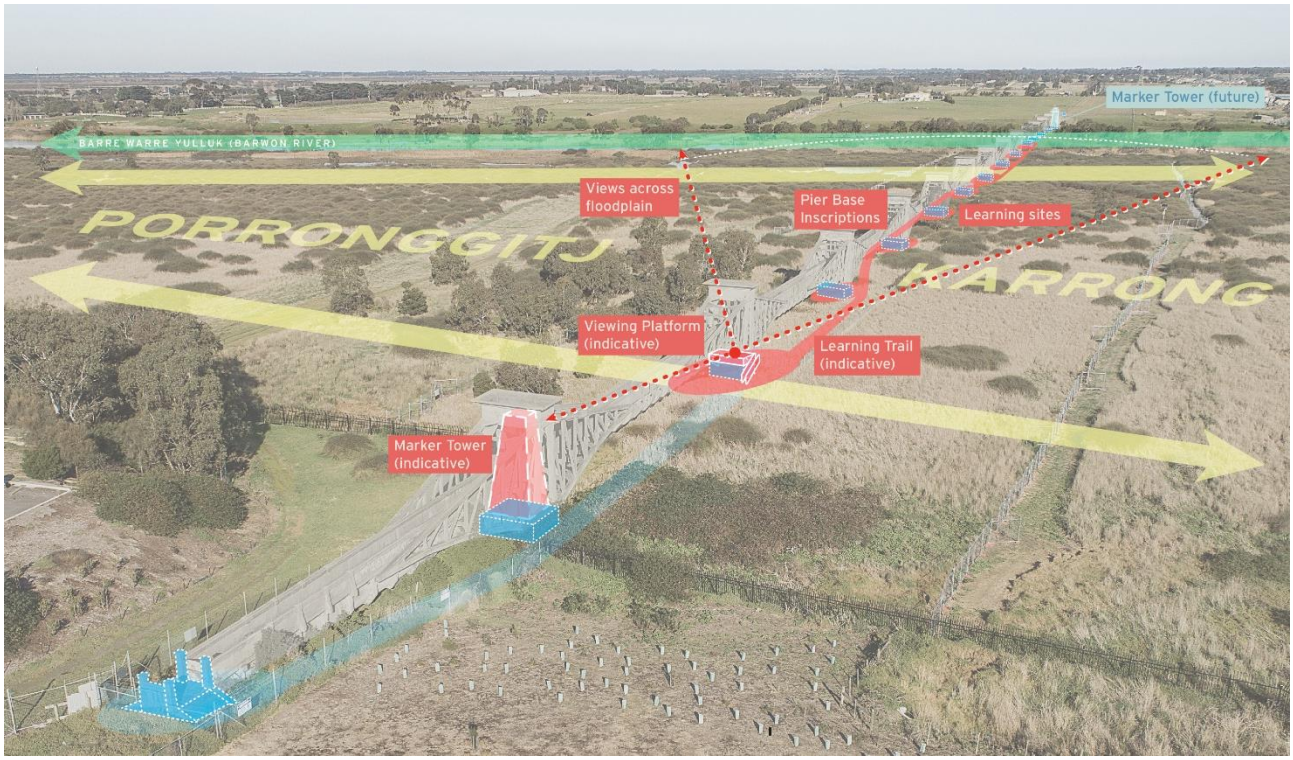


Figure 32 Wadawurrung Living Cultural values interpretation, on-site storytelling concept

Figure 33 Indicative plan, Aqueduct on-site interpretation and Porronggitj Karrong precinct
Source: Barwon Water and Lovell Chen

5.4 Exhibits and legacy project

The scale and the detail of the interpretation programme will deliver a variety of important primary recording, research and curatorial activities to meet anticipated heritage permit conditions and to deliver the key on-site and exhibit-based deliverables described in the current document.

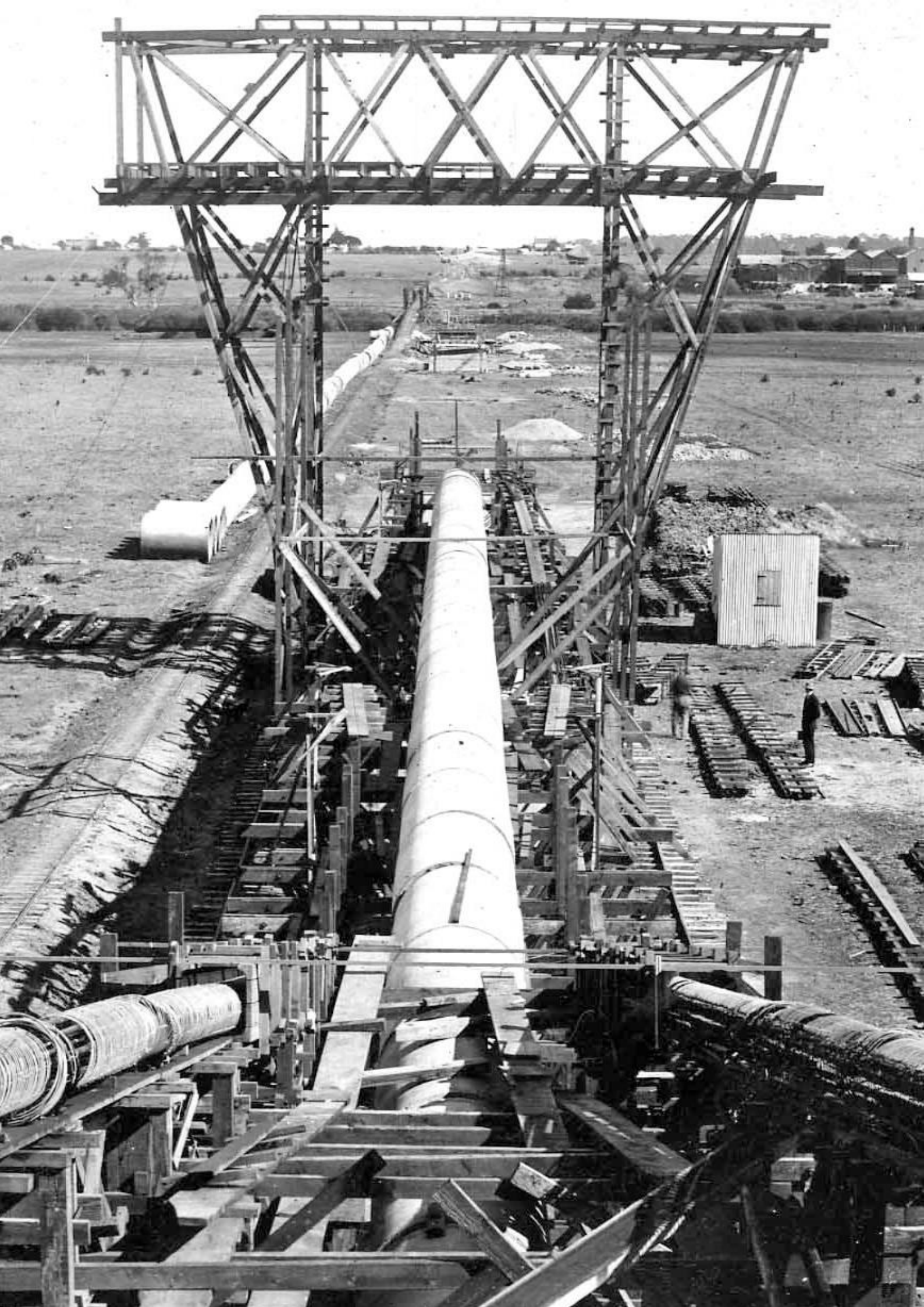
In addition to the permanent on-site interpretation and off-site exhibit components, there is an opportunity to consolidate these activities and the knowledge and assets they produce into a small group of legible, permanent project legacies. This will serve to sustain community and specialist knowledge about the Aqueduct into the future, beyond the life of the current project and project personnel. The purposes of the **Legacy Project** would be to ensure:

- Transfer of institutional and project-based knowledge and recordings of public interest (histories, drawings, photographs, digital models, physical artefacts) to permanent, accessible formats hosted in permanent public collections (e.g. public archives, libraries and museums)
- Curation of archival assets and knowledge to ensure accuracy and relevance, accessibility and compliance with long-term storage and management requirements
- Production of a permanent published account of the Aqueduct's history and significance, based on the work undertaken within the project and in implementing the interpretation production, which can be made permanently accessible in physical and/or digital formats.

These activities should be commenced at an early date, but would be expected to have project methodologies and timeframes that may continue through the on-site works to the project completion. In preference, legacy deliverables would be complete by the time of the physical works project's effective completion.

Information legacy	Project opportunities
Historical and technical recording	• Oral history project (former operations staff, public stakeholders and residents • Digital image and point cloud recording (substantively complete) • Material sampling and opportunistic salvage of artefacts
Public archiving	• Archiving project to facilitate deposit of historical Trust/Board/Barwon Water records and media assets for long-term access in public archive (PROV / Geelong Heritage Centre), including historical documentation, correspondence files and photographs
Legacy publication	A commissioned, contemporary history of the Aqueduct, addressing: • design, operational and social history, • relationship to the water and sewer system and to Barre Warre Yulluk waterway • recognition of Wadawurrung cultural values in the watershed and at Porronggitj Karrong. The legacy publication would build upon the recording, archiving and research work described above and undertaken throughout the project, including the oral history and archival research and curation work that will be required to develop interpretation didactics and physical and online exhibits as part of the overall programme outlined in this strategy. The publication would ensure that accumulated project knowledge and stakeholder relationships developed over many years are not lost at project completion. It can serve to document and recognise knowledge and perspectives in a permanent reference account available as physical volume in local and state library collections, published in a platform-independent digital format, and/or made available to the Victorian and Geelong community.

Figure 34 (next page) Erection of scaffolding, concreting gantry and ovoid sewer pipe for web truss, c. 1913-1914
Source: Barwon Water archives



6.0 AQUEDUCT SITE COMPONENTS

6.1 Retained Aqueduct footprint elements

Footprint elements of the Aqueduct will be retained as a scaffold for storytelling about the Aqueduct's history, innovative design and presence in the landscape of Porronggitj Karrong and Barre Warre Yulluk (Barwon River). The retained elements will ensure the original location, scale and alignment of the Aqueduct can continue to be understood by future generations.

Retaining footprint elements will also minimise new ground disturbance as a result of the demolition project, assisting restoration of the floodplain ecology after the project is completed and protecting Aboriginal cultural heritage at the place. Subject to engineering investigations, some elements may be reused to provide footings and anchorages for interpretation, and for infrastructure supporting Wadawurrung teaching and stewardship within Porronggitj Karrong.

Landing Stairs

The **Landing Stairs** at the north and south ends of the Aqueduct can be carefully protected and separated from the demolition works. These stairs mark the points where the Geelong Outfall Sewer emerged from underground onto the north end of the bridge (at Kadak Place) and then returned underground at the south end of the Aqueduct (near Tannery Road in Charlemont). They are important markers that will be physically repaired and conserved, and will be given meaning through the development of the **North Landing Site** and future **South Landing Site**.

Pier Bases

The **Pier Bases** are fourteen locations where the Aqueduct 'touched' the ground on its route across the river. Sitting on piles buried deep underground, visually they are heavy blocks of massed concrete. Following the superstructure's demolition, the pier bases would be rehabilitated to provide evidence of the Aqueduct's former scale and alignment.

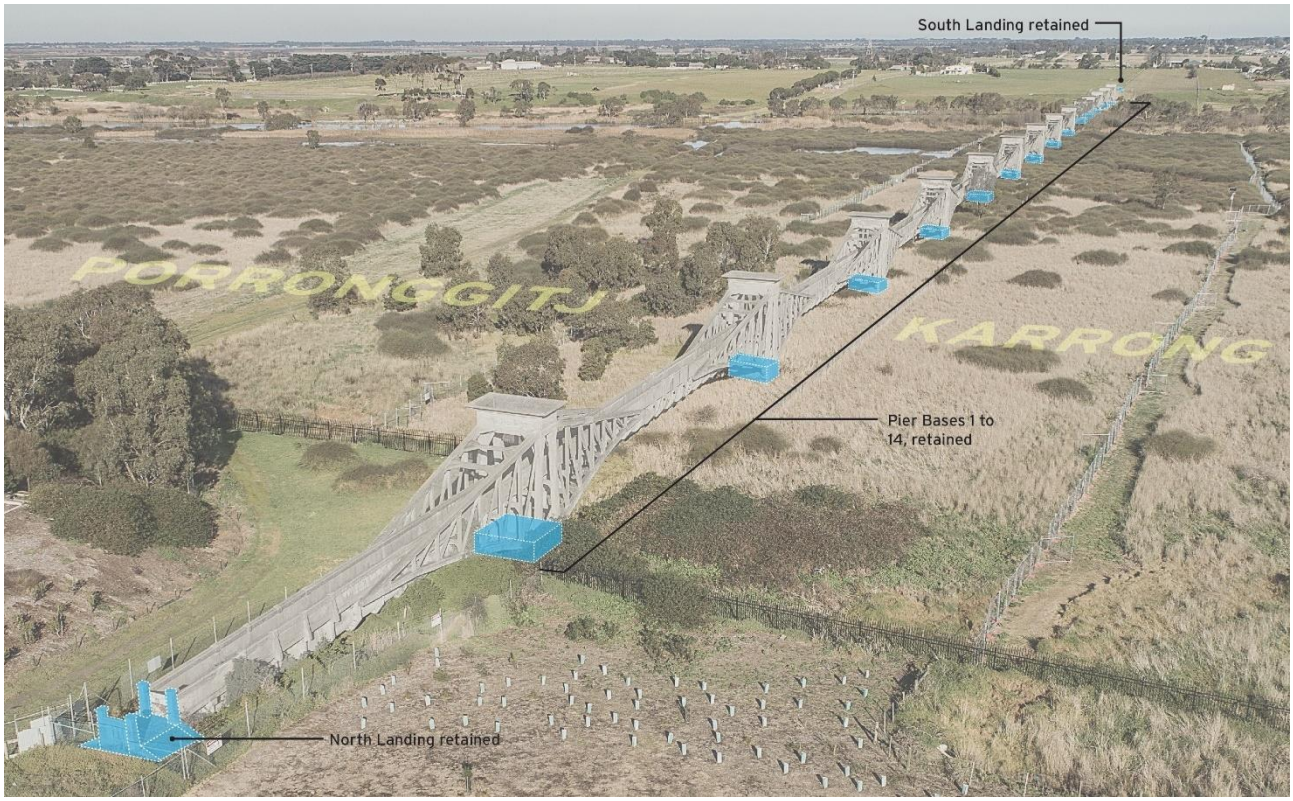


Figure 35 Illustration identifying the proposed retained elements of the structure after demolition

Pier base rehabilitation and interpretation treatments

The Pier Bases are likely to receive superficial damage during the demolition process, and existing gusseting and anchorages will need to be removed and remediated. To avoid fall from heights risks and make the Pier Bases safe so that they do not need to be fenced, it is anticipated that these will be cut down to a height of no more than 1 metre above the ground surface, with a new top slab installed and new concrete encasements installed to the side walls.

The new concreting would be designed to enable **concrete inscriptions** (including letterforms and graphics) to be etched into the surfaces through a stencilled sandblasting process. This would include incorporation of aggregate materials in the concrete which enhance letterform and graphic contrast once revealed through the sandblasting. The inscriptions would be developed to recognise both the European heritage story of the Aqueduct and Wadawurrung cultural values at Porronggitj Karrong.

A consistent **historical inscription** would be applied to all fourteen pier bases, providing a permanent, repeating wayfinding mark that describes the Pier Base's origin and relationship to the former Aqueduct. This wayfinding mark would incorporate information in the form of simple words, numbers and graphic elements to identify the Aqueduct, the date of construction, and the pier number (in sequence nos. 01 to 14 north to south).

Additional graphic inscriptions expressing the Aqueduct's historical themes may be developed for the pier bases at the **North Landing Site** (Pier Bases 01 and 02) and for the bases flanking the south river channel (Pier Bases 11 and 12) to be confirmed in the future HIP). At the future South Landing Site south of the river, Pier Bases 13 and 14 would receive only the historical inscription during the permitted works.

Cultural inscriptions would be developed in collaboration with Wadawurrung people and WTOAC for Pier Bases located along the proposed Learning Trail (Pier Bases 03 to 08) as well as those flanking the north river channel (Pier Bases 09 and 10). As the concept for the North Landing Site is refined through the HIP and ongoing engagement with the Greater Geelong and Wadawurrung communities, cultural inscriptions could be added to Pier Bases 01 and 02.

The HIP would develop an initial graphic concept and standard orientation for the historical inscriptions and work with WTOAC in advancing the concept and design for the cultural inscriptions, including engaging Wadawurrung artists and relevant WTOAC specialist teams.

Opportunistic salvage

After primary demolition has occurred, it is anticipated that salvageable elements of the Aqueduct structure may be identified from the debris and selected for salvage, conservation and display as artefacts (both on- and off-site) in the Aqueduct interpretation. This salvage must be opportunistic in concept, as the unsafe condition of the structure means that there is no prospect for controlled salvage of components prior to the demolition.

Enabling historical recording and interpretation, the following items have been identified as priorities for salvage:

- Ovoid sewer pipe segments
- Considère reinforcement system components: spiral wire and steel bars (lengths and material samples)
- Example vertical or diagonal web member (partial)
- Concrete samples: cores, aggregate screens, other relevant sample treatment

Other elements which may have a more limited degree of interpretive interest and value include:

- Steel/cast iron inspection covers, if any remain
- Builders markings or other unusual details.

Elements and materials for potential salvage would need to be specifically selected ('picked') from ground debris and/or managed piles on an episodic basis during demolition, and safely secured and set aside for follow-up review/selection, transfer to off-site storage and material conservation. Concrete samples and sewer pipe interiors would need to be tested to confirm no hazardous materials are present.

Figure 36 Detail of retained footprint elements from Aqueduct

Figure 37 Concrete inscriptions at Traralgon Railway Station by Gunaikurnai artist Marilyn Fenton
Source: Film still, Rail Projects Victoria video (https://www.youtube.com/watch?v=zAJCrlfEnW0)

Figure 38 Example, interpretive display of historical materials (Niagara Falls Power Plant Museum, Canada)
Source: Lovell Chen archives

Figure 39 Sewer pipe museum display
Source: Science Museum UK (Y1988.65.1)

Figure 40 (next page) Oblique aerial looking south along length of Aqueduct from North Landing Site, 2021
Source: Glasshouse Creative Media, courtesy Barwon Water

6.2 North Landing Site

The North Landing Site (Figure 41 and Figure 42) would be the primary physical site for interpretation of the (European) history of the Aqueduct, offering views across the floodplain and encouraging visitors to engage with ideas of water infrastructure, environment and the health and cultural values of Country.

Conceptually, the North Landing Site would include a **Vertical Marker**, **Viewing Platform** and associated interactive and didactic interpretive features, alongside retained Aqueduct footprint elements (Section 6.1) comprising the North **Landing Stair** and **Pier Bases 01 and 02**. **Salvaged pipe segments** and **material samples** may also be incorporated into the display systems and site planning.

Development of the Landing Site and associated track facilities should include or coordinate with WTAOC-led restoration and revegetation works on the adjoining valley shoulder and low-lying ground area.

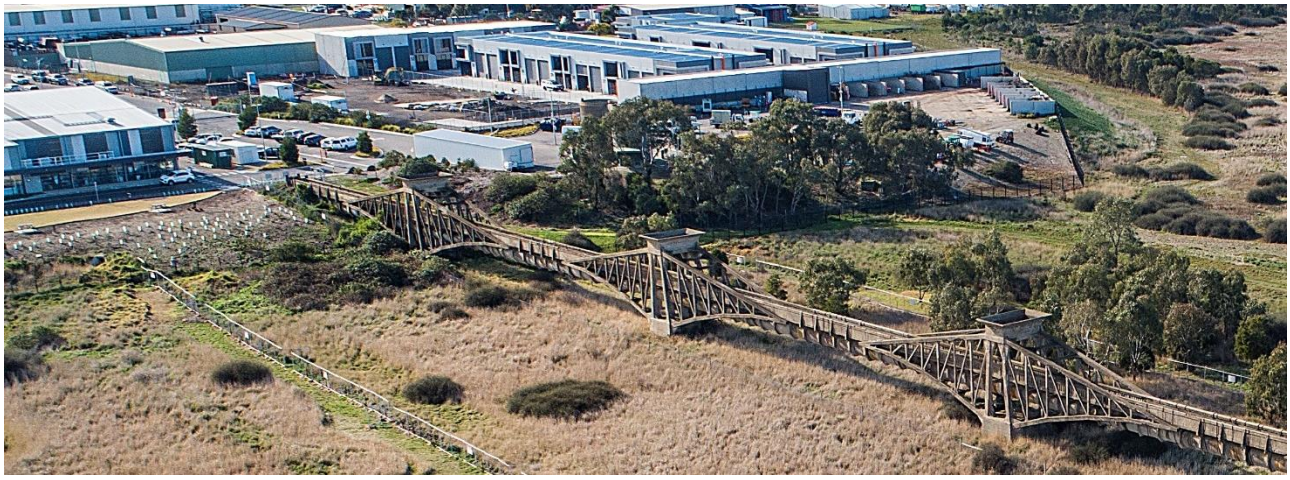


Figure 41 North Landing Site, 2021
Source: Glasshouse Creative Media, courtesy Barwon Water

Figure 42 Current condition of the North Landing Site showing Truss 01 with North Stair Landing behind at far right
Source: Glasshouse Creative Media, courtesy Barwon Water

Vertical Marker

The Vertical Marker would be a landmarking device designed to be seen and understood at distance (Figure 43 and Figure 45), and to incorporate a combination of visible motifs that reference both:

- Aqueduct engineering design, e.g. interpretation of the web truss form or Considère system reinforcement
- Wadawurrung custodianship and cultural values at Porronggitj Karrong.

For instance, the tower form of the Vertical Marker could be designed to reference the place's engineering values, while a graphic or sculptural element carried on the upper structure could make the link to Wadawurrung custodianship and values, through a graphic motif, commissioned artwork or other feature developed with WTOAC. A depiction of the Brolga is one concept that has been identified through early engagement, however others may emerge through ongoing collaboration at the site.

Although not required to be fully integrated into a combined motif, it is also possible to envision a single sculptural marker that incorporates both references. For instance, *Naymil Wings* (Figure 44) is a recently exhibited sculptural work by Naymil artist Gunybi Ganambarr of the Northern Territory which presents an abstract depiction of the wing forms of the Brolga in flight using a contemporary engineered material.

To avoid new ground disturbance, the Vertical Marker would ideally be installed directly on the rehabilitated Pier Base 01 and using its underground footing. The feasibility and capacity of this solution requires further engineering investigations to be undertaken during the demolition project.

Intended characteristics

A detailed specification is subject to further design development, engineering investigation of footing options using the existing Pier Base and stakeholder engagement, as well as cost factors. However, the strategic intent is for a Marker design that responds to the following preliminary brief:

Characteristic	Intent
Height	• Minimum 6 metres, up to 12 metres including Pier Base anchorage.
Colour/Materials	• High contrast colour or material to accentuate visibility against background landscape and built form to north • Options could include a strongly saturated colour, bright white or reflective material (polished metal)
Durability	• The marker structure and incorporated motifs or artwork must be highly robust, weatherproof, non-flammable, resistant to vandalism and enable long-term low cost maintenance within the floodplain environment.
Visual motifs	• As described above, the marker should address both the Aqueduct's engineered values as well as Wadawurrung custodianship, Culture and associations at Porronggitj Karrong.

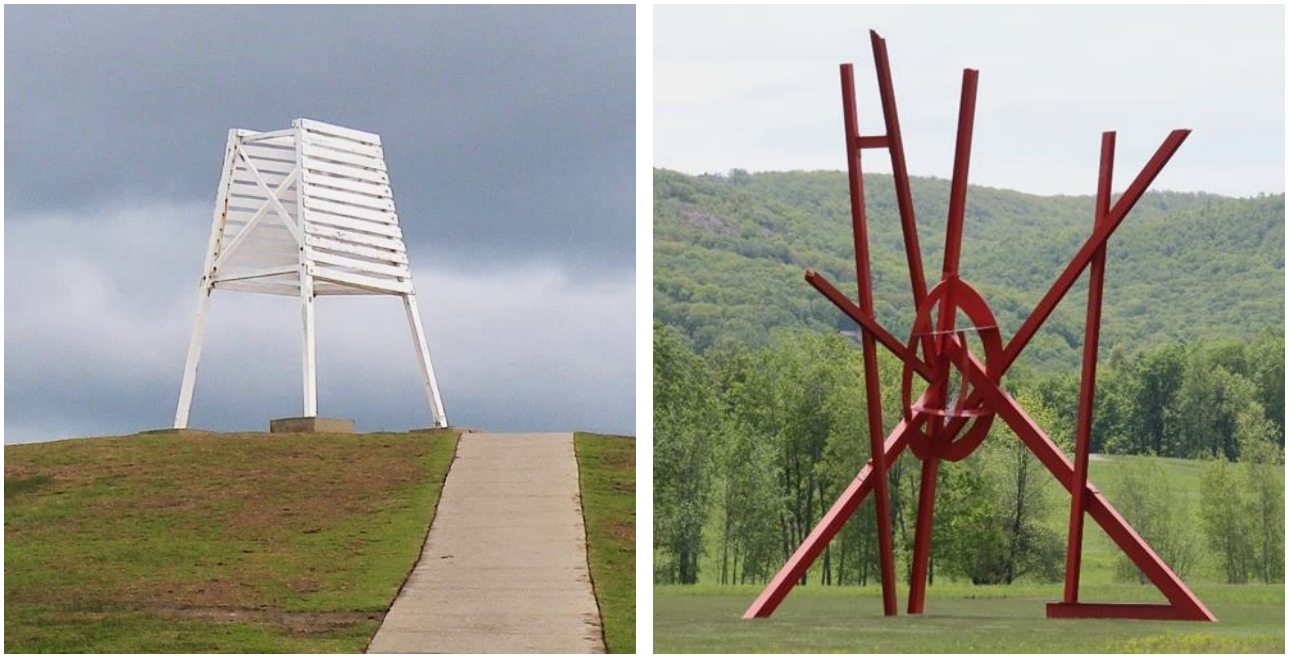


Figure 43 Exemplar vertical markers and sculptures in the landscape: (left) Point Ormond Lookout Beacon, Melbourne; (right) *Jambalaya* (2002-2006) by Mark di Suvero, Storm King Art Centre, New York USA
Source: Lovell Chen archives

Figure 44 (left) Brolgas, in flight and in dance
(right) *Naymil Wings* (2024) by Gunybi Ganambarr (Naymil clan, Northern Territory), as exhibited at Tarrawarra Biennale of Art 2025
Source: (left) Wikimedia Commons; (right) Lovell Chen photograph

Figure 45 *In the Stream* (2012), Kozo Nishino, Australian National Arboretum, Canberra ACT
Source: Lovell Chen Archives

Viewing Platform

The Viewing Platform would enable visitors to enjoy an elevated position over the floodplain at some distance from the contemporary depot site and infrastructure which sit directly behind the North Landing Site.

In concept and subject to further design and engineering investigations, the platform would be constructed above the rehabilitated Pier Base 02 and anchored to its existing footings; it could resemble popular interpretation-based viewpoints located elsewhere in Victoria (Figure 46).

The Viewing Platform is likely to be a steel-framed structure with a mesh panel floor and steel balustrades. Most didactic signage and interactive elements would be fixed to the Viewing Platform, enabling storytelling that directly engages with the views and orientation provided by the former Aqueduct alignment. An elevated, dry environment for signage and other elements, the platform also reduces the need for footings in natural ground. Signage could combine a mix of freestanding pillar-format devices and slender horizontal 'desk' panels mounted to the balustrades.

North Stair Landing

A second cluster of interpretation would be situated in the vicinity of the North Stair Landing.

At this location, **Salvaged Ovoid Pipe Segments** could be remounted below the North Stair Landing on recessive plinths or discrete legs, or a conventional steel frame enclosure. If deemed impractical to relocate to this site, an expression of the former Ovoid pipe could be created through a new interpretive feature below the North Stair Landing. For instance, this could be a length of ovoid 'pipe' manufactured in a lightweight, colourbonded steel and made to 'float' above the ground on a discrete frame.

Didactic signage at the site could include limited use of freestanding pillar signs (subject to existing ground disturbance or CHMP requirements), as well as other forms incorporated into a new balustrade on the south face of the Stair Landing.

Track infrastructure and revegetation

Public track access to the North Landing Site would be from the south and west, utilising a primary visitor and maintenance track on the north side of the Porronggitj Karrong. There is potential secondary (controlled) access for maintenance purposes from Barwon Water's Kadak Place depot, subject to long-term operations and ownership.

Within the North Landing Site, a direct track or loop should connect between Pier Base 02 and the North Stair Landing. For accessibility, this track is likely to require a switchback to reach the North Stair Landing. Ground around the new tracks and along the Aqueduct alignment between the retained footprint features should be restored and revegetated in a manner consistent with work spearheaded by WTOAC's Gobata Dja team in other areas of Porronggitj Karrong. Desirably, this should be led by that team, and include the directly adjoining valley shoulders and floodplain areas to the east and west to ensure a seamless integration of the North Landing Site into the floodplain landscape.

Figure 46 Exemplar viewing platforms: (left) Cheetham Salt Works, Altona (right) Cranbourne Botanic Gardens
Source: Lovell Chen archives

6.3 Learning Trail

The Learning Trail offers a short, accessible walk descending through the floodplain of Porronggitj Karrong – different things can be seen and taught about as trail descends into wetter areas closer to the river, or in reverse, as we ascend from the banks of the river towards the valley shoulder.

The new Wadawurrung Seasonal Calendar for Porronggitj Karrong may provide scaffold to help order and sequence these experiences in relationship to Wadawurrung values, knowledge, harvesting and caretaking activities at the place and along Barre Warre Yulluk. A preliminary illustration and plan for the Learning Trail concept are shown at Figure 32 and Figure 33 above.

The trail serves to activate and promote positive engagement with the retained Pier Bases, gives them a functional and cultural purpose in Porronggitj Karrong, and encourages visitor perceptions that they are cared for and included within the culture of care and stewardship that is applied across the precinct. Inscriptions on the Pier Bases would be robust and designed to sustain graffiti removal and other vandalism abatement measures if this proves to be required.

Learning Trail Pier Base inscriptions

Subject to adoption of the Learning Trail or a similar concept for this area, the strategy anticipates that the Pier Bases would be treated as follows:

Historical inscriptions would be applied to all pier bases as described at Section 6.1.

Wadawurrung cultural inscriptions would be installed on the approximately six to eight pier bases integrated within the Learning Trail. These inscriptions could include graphics, patterns, and large-scale letterforms or simple texts, to provide a robust, graphic depiction of cultural information and values explored on the trail.

A Season Calendar has recently been developed by WTOAC in collaboration with Balyang Consulting for Porronggitj Karrong. During development of the Aqueduct Heritage Interpretation Strategy an opportunity was suggested to depict the calendar in sequence on the Learning Trail Pier Bases. The ultimate use and concept for the central sequence of Pier Bases would be confirmed through ongoing engagement with WTOAC and Wadawurrung community members in preparation of the HIP and subsequent design development.

Learning /demonstration features

Demonstration plantings (Figure 47), burning trial patches, and harvesting techniques could be established and curated along the trail, with the pier bases providing a structure and concentrated experience appropriate to small group tours and teaching sessions and supplementing what is happening at nodes in the broader cultural precinct.

Ecological infrastructure

The Pier Bases and adjoining areas along the Learning Trail may be used to host ecological infrastructure, including elevated bird and bat roosts, nesting boxes and platforms, or other features (Figure 48). Some of these features may stand on or be anchored to the Pier Bases, which provide the only existing large scale footings within most of Porronggitj Karrong and obviate the need for new ground disturbance if there is a desire to erect posts, poles or structures on the site (within the scope of other planning controls which control works within the floodplain).

These opportunities would be confirmed through the HIP as well as engineering investigations to be undertaken after the primary demolition has occurred; this will also confirm the final approach to cutting down the Pier Bases and the design for the new top slabs and reinstated side wall concrete.

Figure 47 Demonstration / interpretation planting in a floodplain, using a dense mix of local plant species in a semi-formal bed that enables it to be seen and understood by a range of visitors
Source: Lovell Chen archives

Figure 48 Examples of artificial bird roosts and hollows
Source: (left) Wikimedia Commons; (centre and right) Lovell Chen archives

6.4 River Crossings

Additional graphic pier base treatments would be developed for application to the paired Pier Bases that flank each river channel (Figure 49). These would be developed in consultation with relevant stakeholders and river users, and would be subject to CCMA and DEECA consents/approvals as the Crown land managers.

Whether these treatments also take the form of concrete inscriptions (Section 6.1) or freestanding signage / artwork elements (Figure 50) would be considered after further review of the Pier Base locations, flood dynamics and bank condition, including after the primary demolition works have occurred. An interim approach should be confirmed in preparation of the HIP. The Strategy anticipates that Pier Bases on the north channel might continue Wadawurrung cultural values motifs and concepts developed for the proposed Learning Trail (Section 6.3), while the south channel Pier Bases might incorporate depictions of the Aqueduct's historical crossing.

Figure 49 Context of River Crossing pier bases, particularly on mid-channel island
Source: Lovell Chen archives

Figure 50 Example of lightweight interpretation signage to that can be read by water users
Source: Lovell Chen Archives

6.5 South Landing Site (after 2035)

Near-term treatment, after demolition

In the near term, footprint elements (Figure 51) at the South Landing Site (Figure 52) would be repaired and conserved pending long-term planning and development of the public open space facility at this location.

The South Landing Stair would be repaired and conserved, while the two terrestrial pier bases south of the river (Nos. 13 and 14) would initially receive only the standardised historical inscription described at Section 6.1. This would serve to ensure that the origins of these elements remains understood regardless of the ultimate timeframe for development of the Armstrong Creek North East Industrial Area PSP.

Future PSP development (not in heritage permit scope)

In future, the South Landing Site could be developed to complement the features at the North Landing Site, including a potential second Vertical Marker to complete the view along the Aqueduct alignment from either direction and didactic interpretation. Other features such as a viewing platform, playspace or amenities could be designed in coordination with the future open space facility and in partnership with the developer / public manager / commissioning authority. Any such developments would be subject to the eventual ownership, partnership and development arrangements that implement the PSP in future decades, however the indicative concepts established in the Aqueduct Heritage Interpretation Strategy should be guide subsequent planning and works at this site.

Figure 51 (left) Pier Base 13
(right) South Landing Stair, exposed crown of in-ground ovoid sewer pipe visible in foreground (2019)
Source: Lovell Chen archives and Glasshouse Creative Media courtesy Barwon Water

Figure 52 Oblique aerial image of South Landing Site, 2021
Source: Glasshouse Creative Media, courtesy Barwon Water

Figure 53 (next page) Aerial photograph, central Geelong, c. 1915-1920s; the Aqueduct is seen at upper right
Source: Barwon Water archives

7.0 OFF-SITE AND ONLINE COMPONENTS

7.1 Black Rock Reclamation Plant (permanent or rotating exhibit)

Barwon Water's Black Rock Reclamation Plant is located at the ocean end of the Geelong Outfall Sewer, and regularly hosts guided tours for schools and community groups. New interpretation would be developed at Black Rock which would be incorporated into the tour programme and which would describe the plant's relationship to the historical Geelong Sewerage Scheme and the Aqueduct. This exhibit could include information about the Aqueduct's engineering and the historical development of the sewer system, as well as contemporary approaches to water management; the details of the Black Rock interpretation would be confirmed as part of the future HIP.

Opportunities would also be explored to rotate or offer a satellite exhibit at Barwon Water's Ryrie Street headquarters or at partner venues (refer below).

7.2 Online and partner exhibits

Online historical interpretation would be delivered through Barwon Water's online portal, a digital partner facility, or both. Provisions would be developed to assist visitors to connect from on-site and off-site physical interpretation locations using QR or short code systems. Online didactics would be extended with connections to the legacy archival project and other online media (such as audio tours or walking / boating maps.

Opportunities for temporary or permanent off-site exhibits located at partner venues and institutions would also be explored through the HIP and in subsequent exhibit programme design and curation. Suggested partner opportunities could include: Geelong Heritage Centre, Deakin University, Geelong Gallery, Geelong Wool Museum, City of Greater Geelong-run exhibit spaces, and Scienceworks (Spotswood).

7.3 Geelong Outfall Sewer signage trail

A water and sewer signage trail concept would be investigated with City of Greater Geelong and other partners. This would give visibility and storytelling opportunities to historical and contemporary water and sewer infrastructure, including both visible and invisible assets. Examples of suitable sewer system locations may include:

- Black Rock Vent Stack (Geelong HO1709) (Figure 54)
- North Geelong Pumping Station (Melbourne Road)
- Barwon Slopes Sub-Main junction (Carr/Swanston), or outlet of tunnelled section at Carr/Bellerine
- Connewarre Reserve (Bluestone Hill Road), location of southern tunnelled section of sewer
- Low-level Pumping Station (Eastern Beach)
- Aqueduct North Landing Site (Section 6.2)
- Corio Slopes and Western Gully Branch Sub-Mains junction (Gordon Avenue at Princes Highway)
- Marshall Station Pipe Factory site (updated signage could detail connections to system / signage trail)

In future, the program could be expanded to include water system features of historical interest, including Lower Stoney Creek Reservoir, Upper Stoney Creek Reservoir, Lovely Banks Service Reservoirs, Montpellier Service Basins, former Bell Post Hill Basin Valve Tower (Hamlyn Heights) and public health thematic sites.

Subject to partner collaboration, signage in a vertical pillar format would identify the feature and interpret:

- Historical function of the place / location
- Relationship to key sites (e.g. Black Rock, Aqueduct)
- Where to learn more
- Capsule history of infrastructure development
- Exploration of relevant public health, environment and Healthy Country themes, including ideas for current and future stewardship.

In some circumstances, a building or fence-mounted panel sign may also be suitable. Desirably, signage would adopt a shared graphic style and material design cues with conventional didactic signage installed at the Aqueduct site (i.e. North Stair Landing and Viewing Platform signage), although the signage trail's totem format should be distinctive to other interpretation signage at the Aqueduct site. With a template, signage detail and media assets developed, the system could be implemented on a rolling basis in conjunction with Barwon Water and/or City of Greater Geelong capital works projects.

Figure 54 Ocean Outfall vent stack, c. 1915
Source: Barwon Water archives

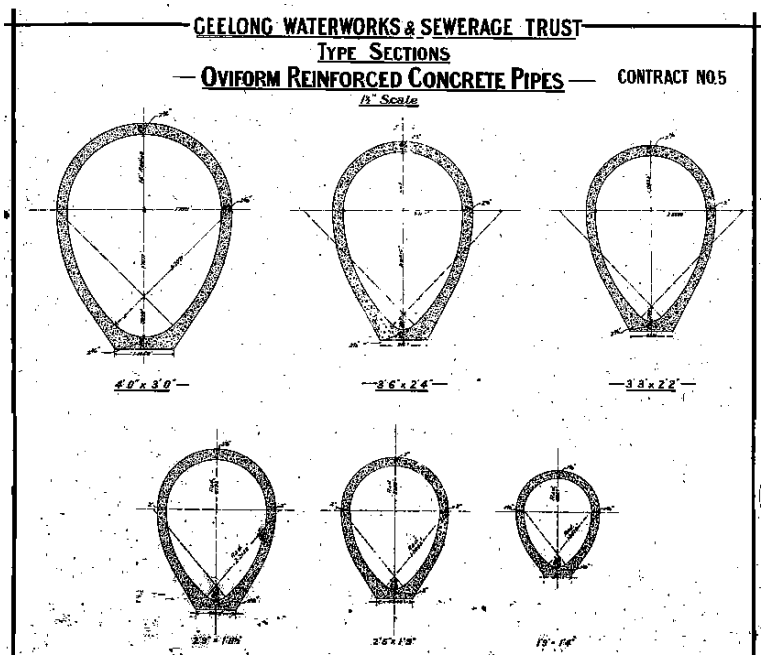


Figure 55 Ovoid sewer pipe contract sizes for Geelong Outfall Sewer, c. 1912
Source: Barwon Water archives

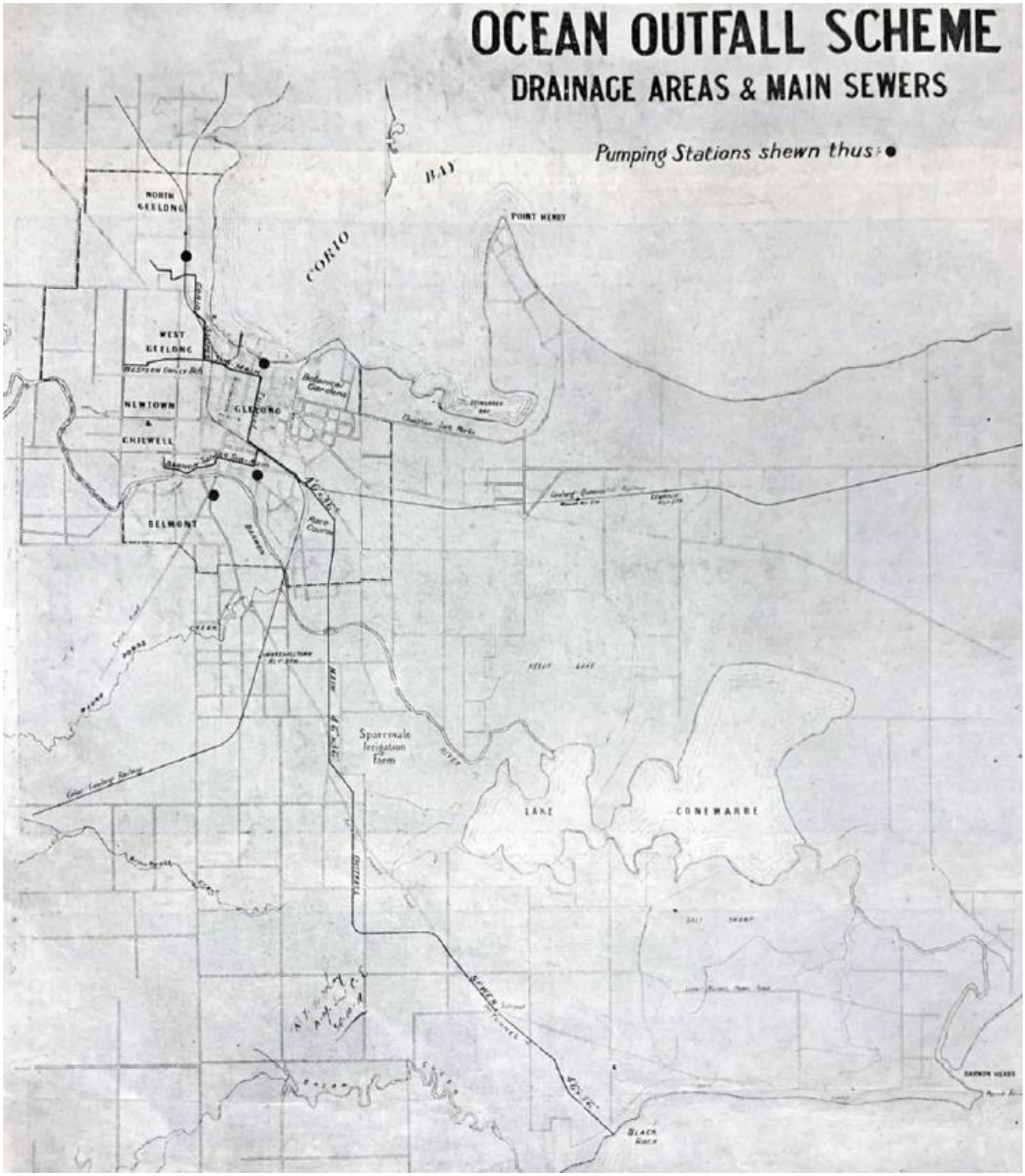
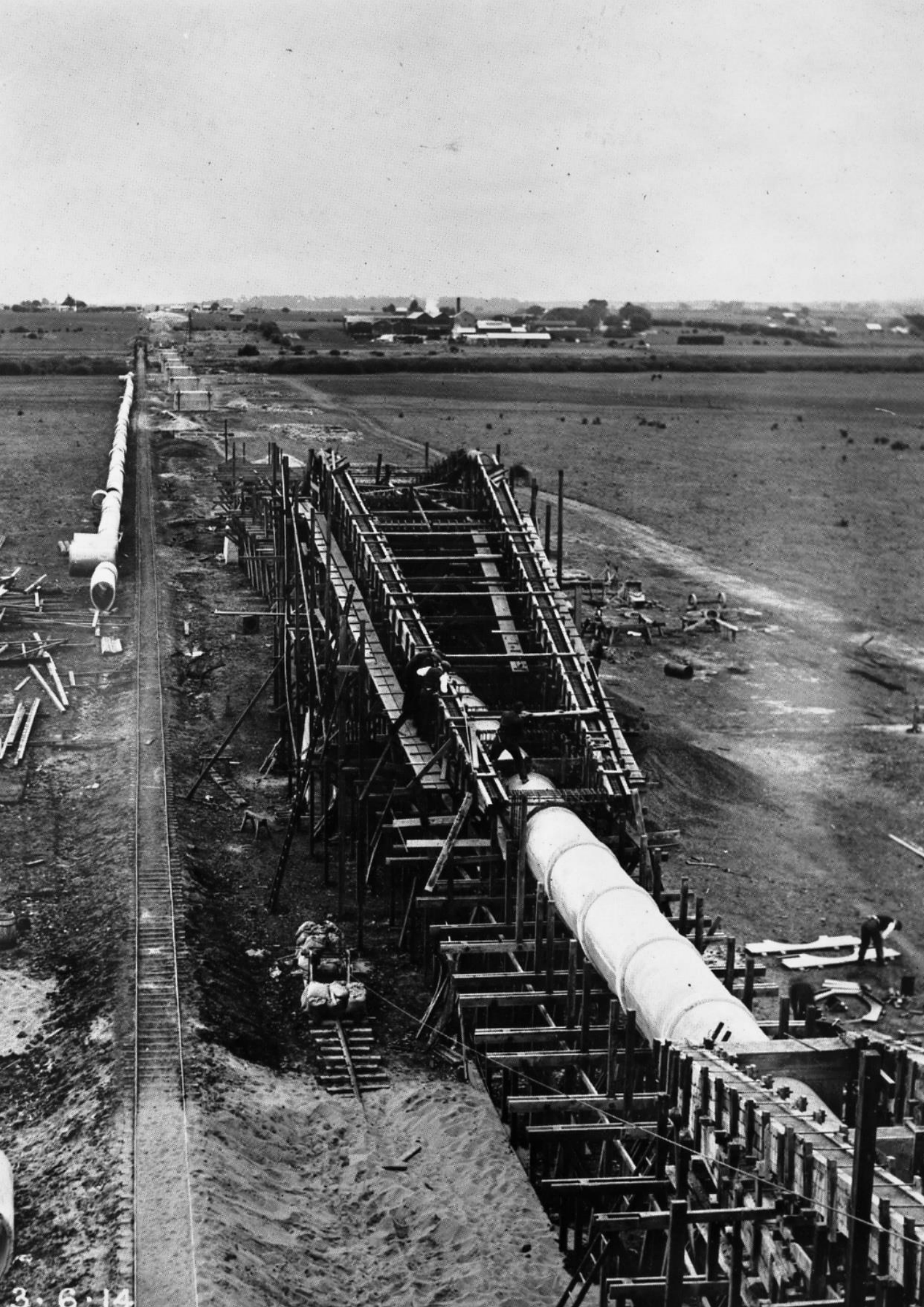


Figure 56 R.T. McKay, Plan of proposed Ocean Outfall Scheme Drainage Areas & Main Sewers, 1911
Source: GRS 2121/3, Geelong Heritage Centre Collection (as reproduced in *Corayo* 2023)

Figure 57 (next page) View of Aqueduct truss formwork in assembly around ovoid pipe, with construction tramway and row of delivered pipe segments alongside (c. 1913-1914)
Source: Barwon Water archives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8.0 STRATEGY IMPLEMENTATION

8.1 Provisional deliverables, timeframes and responsibilities

Strategy component	Enabling actions / pre-requisites	Collaborators and specialists	Responsibility and oversight
Before demolition (e.g. 2026)			
Heritage Interpretation Plan (HIP)	• Heritage permit approval (anticipated pre-start or early works condition) • Confirm interpretation project and programme leadership, curatorial structure • Coordination with design development, confirmed contracting arrangement, end dates and site establishment / disestablishment	• Heritage Consultant or appointed Interpretation Lead • Interpretation design specialist (potential to involve at HIP stage) • Public Art specialist (potential to involve at HIP stage) • Project design team / Contractor (coordination)	• Barwon Water • WTOAC • Heritage Victoria
Commemorative events programme	• Appoint Events Programme Organiser / Curator • Confirm scheduling and partner festivals / venues / sponsors / in-kind contributors • Temporary infrastructure and safe access measures (if managed site tours are provided)	• Community and specialist knowledge holders / storytellers • Venues and partners • Event staging/security specialists • WTOAC as collaborator / partner for event convening and any on-site programming	• Barwon Water • Heritage Consultant • WTOAC (dependent on final scope)
Oral history records	• Appoint project lead and local historian	• Project Lead and Local Historian • GHC, GHS • CRG members and affiliated organisations • Engineering Heritage Australia; other groups • Barwon Water retirees	• Barwon Water • Heritage Consultant • WTOAC (dependent on final scope)
Archival and legacy projects	• Appoint project lead (researcher / archivist)	• Project lead (researcher / archivist) • Specialist knowledge holders and BW information manager • Destination public archives (GHC / PROV)	• Barwon Water • Heritage Consultant • WTOAC (dependent on final scope)

Strategy component	Enabling actions / pre-requisites	Collaborators and specialists	Responsibility and oversight
During demolition (e.g. 2027)			
Design and documentation (on-site elements)	• Heritage Interpretation Plan confirms final briefed scope • Appoint Interpretation design team and subconsultants • Structural investigation to confirm footing strategy for permanent built elements	• Specialist knowledge holders • WTOAC teams • WTOAC appointed / approved artist(s) • Wadawurrung community members • History/Archival lead(s)	• Barwon Water • Heritage Consultant • WTOAC • Heritage Victoria
Retention and rehabilitation of footprint elements	• Protective works / preliminary separation of Stair Landings • Assess condition of Pier Bases after primary demolition • Design and document conservation / rehabilitation works and coordination with interpretation design (concrete inscriptions and other elements)	• Conservation specialist • Interpretation design lead • Head contractor • Concreting and specialty trades • WTOAC teams • WTOAC appointed / approved artist (inscriptions) • Wadawurrung community	• Barwon Water • Heritage Consultant • WTOAC • Heritage Victoria
Opportunistic salvage of Aqueduct artefacts / material samples	• HIP details priorities / picking criteria / materials handling specifications • Develop demolition debris assessment and picking protocol / schedule with Contractor • Identify interim storage locations for conservation assessments and final selection of artefacts for retention	• Head contractor, safety and haul staff • Barwon Water storage coordinator • Heritage Consultant or Programme Curator • Conservation specialist • Interpretation design lead / team • Archival / Legacy Project lead(s)	• Barwon Water • Heritage Consultant • WTOAC (dependent on final scope of on-site artefact display) • Heritage Victoria
Development of off-site exhibits and educational programming	• HIP confirms exhibit scope and location(s) • HIP confirms scope for off-site interpretation signage	• Heritage Consultant or Programme Curator • Barwon Water Education / Outreach Lead • Interpretation and/or Exhibit Design Leads • Venue partners (exhibits), City of Greater Geelong (public realm)	• Barwon Water • Heritage Consultant • WTOAC • Heritage Victoria (if artefacts to be permanently located off-site
Archival and legacy projects	• Continuing with incorporation of demolition salvage and photographic recording	• Head Contractor • Project leads	• Barwon Water • Heritage Consultant • Programme Curator

Strategy component	Enabling actions / pre-requisites	Collaborators and specialists	Responsibility and oversight
Following demolition (within project staging / permit, e.g. 2027-2028)			
On-site interpretation	• Fabrication contracts for specialty elements / artworks once designs confirmed • Completion of primary demolition and local debris removal makes available North Landing and Pier Bases / Learning Trail area for interpretation installation and permanent track works	• Head Contractor • Specialist sub-contractors / trades • Interpretation Design team • Heritage Consultant or Programme Curator	• Barwon Water • Heritage Consultant • WTOAC • Heritage Victoria
Project completion event / open day	• Completion of on-site interpretation features and infrastructure	• Community and specialist knowledge holders / storytellers • Venues and partners • Event staging/security specialists • WTOAC as collaborator / partner for event convening and any on-site programming • Historical and current project team, stakeholders and engagement partners	• Barwon Water • WTOAC • Heritage Victoria
Future works (outside heritage permit scope, i.e. after 2030)			
South Landing development (c. 2035-2045)	• Armstrong Creek North East PSP implementation • Provision of resources to complete Aqueduct on-site interpretation system	• Barwon Water • COGG/DTP Strategic Planning • Collaborating agencies • Commissioning owner/manager of open space site	• Barwon Water • Responsible authority (COGG/DTP) • Heritage Victoria • WTOAC
Continuing the legacy: Reassess outcomes and requirements (c. 2040)	• Consequential changes in the environment, condition or operation of the precinct / heritage place • Evaluation of long-term experience and effectiveness of interpretation system • Reassessment of heritage significance and management requirements	• Heritage consultant and/or interpretation specialist • WTOAC teams • Barwon Water ops and education teams • External stakeholders and community members	• Barwon Water • WTOAC • Heritage Victoria

8.2 Existing information and resources

Archival recordings

2020 project recordings

Historical photography

Barwon Water archives

Archival collections

Barwon Water archives

Geelong Heritage Centre collections

NLA / Trove digitised newspaper collections (e.g. *Geelong Advertiser*)

Books

David Rowe *About Corayo: A Thematic History of Greater Geelong*, 2021

Leigh Edmonds, *Living by Water: A history of Barwon Water and its predecessors*, 2005

Miles Lewis, *200 Years of Concrete in Australia*, 1988

Journal articles and conference papers

David Beauchamp, 'From finest reinforced concrete construction to historic ruin in 100 years – the Barwon Ovoid Sewer Aqueduct,' *19th Australasian Engineering Heritage Conference*, Mildura, October 2017

Reports

Wadawurrung Country / Porronggitj Karrong

Wadawurrung Traditional Owners Aboriginal Corporation, Palleert Tjaara Dja, Let's Make Good Country together 2020-2030, Wadawurrung Country Plan, 2020

Aqueduct project (2019—)

Lovell Chen, *Barwon River Ovoid Sewer Aqueduct demolition: Heritage Impact Statement*, August 2025

Lovell Chen and Arup, *Barwon River Ovoid Sewer Aqueduct: Heritage Infrastructure Management Plan (Part 1),* May 2022

StructexAu, *Barwon Ovoid Sewer Aqueduct (Engineering Peer Review),* March 2025

Other reports produced to inform implementation of the 2020 project may also contain relevant information and analysis, however some assumptions no longer apply. These include:

- Arup, *Barwon Sewer Aqueduct Demolition Recording Specification*, 31 May 2022
- Lovell Chen, *Memorandum, Ovoid Sewer Aqueduct, Heritage Interpretation of Structural Details and Components*, 5 November 2021
- Lovell Chen, *Memorandum, Former Cement Pipe Factory, Marshall: Assessment of opportunities for artefact salvage and interpretation*, 2023

Past study reports

Allan Willingham*, The Ovoid Sewer Aqueduct at Breakwater Geelong Victoria: Assessment of Cultural Significance Preparation of a Conservation Plan* for the Geelong District Water Board, June 1991

8.3 Stakeholder and specialist engagement

Barwon Water with its project teams would continue existing stakeholder engagement programmes during the planning and delivery of the Aqueduct Interpretation programmes. Key knowledge-holders would be engaged with through these existing venues, as well as through direct one-to-one engagement, interviews and collaboration arrangements (where appropriate), to ensure that existing knowledge and expertise is integrated into the programme and deliverables, including archival records, oral histories and interpretation elements, signage and digital assets.

A similar process would occur with Wadawurrung community members and WTOAC, in accordance with the project partnership agreements, WTOAC protocols and other requirements. As noted, WTOAC would remain the owner and custodian of Wadawurrung cultural knowledge and assets throughout the project, alongside any artists or other technical collaborators engaged through the project.

8.4 Assuring and measuring success

Criteria	Considerations
Project structure, team and leadership	A concept project structure for administration, oversight and leadership of the interpretation programme should be identified as early as possible to establish centralised coordination and curatorship. This structure should identify the approach to: • Overall direction and curation of the interpretation programme • Coordination between divisions and employing internal capacity, skills and resources wherever feasible • Assignment of some components of the strategy to subsidiary design or research leads • Engaging appropriate professional disciplines and experiences for project components.
Heritage Interpretation Plan (HIP) Scope	The HIP would be a condition of the heritage permit (if granted), and likely to be required either pre-commencement or by the conclusion of an early works stage. Building on the detailed opportunities presented in the Heritage Interpretation Strategy, the purpose of the HIP should be to undertake the further concept design work, feasibility investigations and internal and external engagement required to confirm the final scope of the interpretation programme and the briefs for all major deliverable components. Due to project timeframes, some programme activities could be required to commence prior to completion and approval of the HIP, such as organising of the commemorative events programme, identification or appointment of certain key internal and external program leads and consultants and moving forward with early stages of the Legacy Project (namely the archival curation and oral history components)
Project funding and grants opportunities	External funding and grants opportunities would be explored to augment specific funding directed to site-based interpretation, particularly where this would support integration with Porronggitj Karrong and delivery of the Learning Trail component. Opportunities may also exist to apply for external grants to deliver some of the non-site-based interpretation, recording and events components. Appointing a central programme director or curator role at an early date can assist in identifying funding opportunities and making the requisite applications. Grant-based funding cannot serve as a substitute for Barwon Water's core funding commitment to the Aqueduct interpretation programme. However, specialised grants may assist in extending some of the programme's off-site, event-based and Living Bio-Cultural Heritage components.

Criteria	Considerations
Integration in generalised public education and outreach	There are opportunities to extend the site-specific interpretation programme for the Aqueduct through integration into Barwon Water's overall public engagement, outreach and education programme, including assets and programming delivered to groups of various ages and interests across the service area. The Aqueduct is an unusual and visually interesting place, history and aspect of the organisation's and community's identity. It's specific story can add authenticity to other education programmes, and cut through rote learning by offering a direct connection to elements of historical interest, geography and public relationship to place Assets and texts developed through the interpretation programme should be made available to Barwon Water's other initiatives, although some assets may have specific sensitivities or use provisions that should be recorded and tracked. In developing the interpretation programme, Barwon Water's internal and partner educators, communicators and storytellers should be consulted to ensure fit for purpose of site-based and online interpretation features, exhibit content and assets intended for ongoing use.
Programme evaluation	Consistency of delivered programme with the Interpretation Strategy's objectives and principles, with conditions of a heritage permit (if granted) and with other key benchmarks or requirements from Barwon Water should be evaluated at key milestones during the project. This applies for critical deliverables under the permit (the Heritage Interpretation Plan, on site works and activities before and during demolition, and the installation of permanent on-site components at the end of the demolition works), as well as for subsidiary projects that enable and broaden the overall programme. Following completion, a final programme report would recommended to be prepared within Barwon Water which summarises the key project outcomes, challenges and learnings / innovations, in order to inform future programme and policy development. Key stakeholders and collaborators could be consulted or interviewed to inform the review.
Continuing the legacy	The outcomes of the programme should be reviewed approximately 8-10 years after completion, assessing the effectiveness, long-term experience and maintenance / replacement / extension requirements for major physical and information assets delivered through the interpretation project. This review could be combined with a reassessment of the heritage significance and management requirements for the Aqueduct site. It could also be timed to initiate planning and design work on the South Landing site interpretation, subject to advancement of the Armstrong Creek NE Industrial Area PSP.

ENDNOTES

1 ICOMOS Australia, *Practice Note: Interpretation*, Version 1: November 2013, pp 2-3.

2 WTAOC, *Paleert Tjaara Dja – Let's make Country good together 2020-2030 Wadawurrung Country Plan*, 2020, p.5

3 Contract No. 4, Report & recommendations on tenders received for the manufacture and erection of an aqueduct across Barwon River, Geelong,' 23 September 2012, p. 2

4 Contract No. 4, Report & recommendations on tenders received for the manufacture and erection of an aqueduct across Barwon River, Geelong,' 23 September 2012, p. 6-8

5 Contract No. 4, Report & recommendations on tenders received for the manufacture and erection of an aqueduct across Barwon River, Geelong,' 23 September 2012, p. 10

6 Summarised from Willingham 1991, pp.91-93

7 *Living by Water,* pp. 377-378

8 E.G. Stone correspondence 10 September 23, in 'Repairs to Barwon River Aqueduct 1922-1924,' Barwon Water Archives 45/001/A0031, Box 1

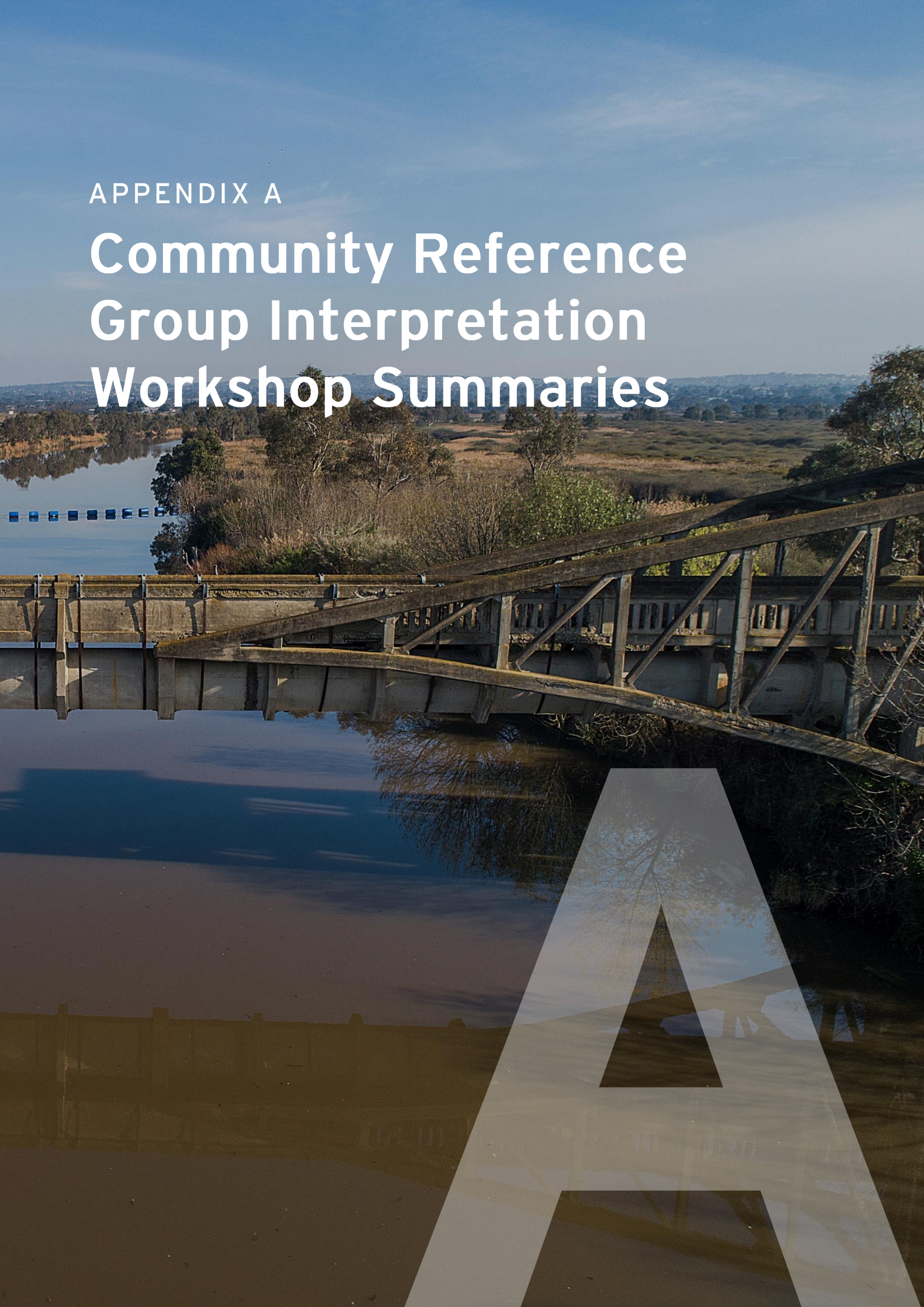
9 Sharland letter, 28 May 1924, in 'Repairs to Barwon River Aqueduct 1922-1924,' Barwon Water Archives 45/001/A0031, Box 1

10 C.C. Breen, 9 April 1930, in 'Repairs to Barwon River Aqueduct 1922-1924,' Barwon Water Archives 45/001/A0031, Box 1

11 Taywood-Maunsell, Structural Integrity Assessment of Barwon River Ovoid Sewer Aqueduct, April 1991, p.20

12 Barwon Water and WTAOC provided statement, July 2025

13 Statement from Melinda Kennedy, provided by Barwon Water, 5 February 2020



APPENDIX A

Community Reference Group Interpretation Workshop Summaries

Summary, interpretation brainstorming session
Aqueduct and Porronggitj Karrong Community Reference Group meeting #5 (November 2022)

Themes discussed:

- Social and industrial history
- Geelong sewer system and public health
- Engineering and technical significance
- Landmark nature of structure

Interpretation methods and key subject matter discussed:

Feature / method	CRG brainstorming discussion (November 2022 workshop)
Recordings and archives	• Public call for oral histories / storytelling (social media, webpage, ads on water bills) • Art / photography competition • Historical photography / history of operation – memories of staff inspecting / repairing pipe in frogman's suit • How to bridge digital divide, turn recordings into living heritage?
Aqueduct components	• Re-use material from demolished spans • Ovoid shape of pipe as a possible graphic motif • Web truss looks like the skeleton of a puffer fish
Signage and exhibits (didactics)	• Photos / holograms of Stone & Siddeley (designers/contractors) and workers • How was concrete made, why was the structure innovative (Considère method, Firth of Forth steel bridge, pipe factory and construction logistics), what undermined its longevity? (i.e. a novel structure plagued with defects) • Contrast – 'In its day it was the finest concrete structure in Australia' vs. 'It shouldn't have been designed this way' • Detail construction methodology and equipment (Science Works style learning) • Scale and size of project (Aqueduct + Geelong Sewerage Scheme) • Public health importance of the waterworks and sewer system (engineering and public health connected)—what these meant for Geelong, what effect (positive and negative) these had on Barwon River environment • Show where and how the sewer flowed/flows, how it worked (gravity system, no pumps) and how it works now [and how it might work in future?] • What was the river / surrounding area / transport infrastructure like when the Aqueduct was constructed? • Engineering Heritage Award • Viewing points • Interpretive boards/signage • Online / augmented reality app / website • Guided audio walks • Off-site exhibits: Woolstore / Museum / Council site

Feature / method	CRG brainstorming discussion (November 2022 workshop)
Artistic and interactive features	• How are we going to encourage people to see, learn about and value the history of the Aqueduct? • Create a new generation of appreciation, encourage visitation, play, picnics • Help people picture the entire structure following spans removal • Explore Aqueduct with play periscopes, tunnels with Perspex images, show where spans used to be • Perspex viewers could also include photographs of construction • Aqueduct model or web truss climbing frame in children's playground • Lego / Meccano toy demonstrations of bridge construction • Silhouettes of children jumping off and climbing the Aqueduct, workers reportedly crossing bridge to factories
Events	• Arts/cultural festival (light shows, music, concert, festival) • Public open days / demo days / fun days (like at heritage steam centres) • School excursions (ensure interpretation supports primary/secondary/tertiary education objectives) • River / tidal journey, canoe tour or walking tour • Subject-based interactive activities: engineering, history, innovation, health • Historical reenactment of construction history • Video / audio-visual projections
Other considerations and priorities	• Wadawurrung management, care and use of site is critical • Desire for Wadawurrung values and storytelling to be expressed on-site; e.g. creation story • Environmental restoration (native vegetation) • Brolga and other animals return to the site • Connection between how water is managed (infrastructure etc.) and health of river / plants / animals --- what has gone missing? • Respect the site and wildlife • Control noise (power boats) • Public accessibility and amenities at and overlooking the site • Interaction between public infrastructure, interpretation systems and flooding • Multiple access points desirable • Interaction with surrounding uses important to consider • Consult youth – what will be relevant to young people at the site, how will they be encouraged to learn/think/feel

Summary, Aqueduct heritage interpretation workshop [preliminary, requires BW minutes] Community Reference Group meeting #14 (June 2025)

Context of workshop:

The workshop took place roughly two months after an extensive meeting in which the CRG received presentations from the project's engineering and heritage consultants on the assessments and considerations that led to Barwon Water's decision to proceed with planning to demolish the Aqueduct. The purpose of the workshop was to relaunch engagement on Aqueduct heritage interpretation to address the revised demolition brief.

Prior to commencing the interpretation workshop, two group members made statements disagreeing with the decision reached by Barwon Water and indicating that they could not continue to participate. Following these statements the two members departed the meeting.

Workshop format:

The workshop format consisted of two structured discussion periods informed by a series of technical slides. Due to the smaller number of attendees who remained for the meeting's workshop component, the discussions were held in a roundtable format, with structuring questions as follows:

- Discussion #1 (2022 Workshop recap, other engagement, what should interpretation now seek to achieve, where can it happen, what themes?)
    - Do we have the right objectives?
    - Do the themes still resonate? (are they the right stories to tell?)
    - Where will the themes fit (on- and off-site)
- Discussion #2 (Tools and techniques)
    - What tools sound most effective or exciting?
    - Are there specific projects or themes that should be prioritised?
    - What is the ideal public experience that we should be aiming to deliver?

Discussion summary

Item / idea	Details of discussion
Priorities for recognition	• Pattern and physical presence of structure • Balance with other values (ecology, Wadawurrung cultural heritage)
Objectives	• Suggestion that Barwon Water should celebrate the success of the sewer system and the operations it manages – other aspects of the system design have been enduring success, e.g. gravity sewer with little emissions [note that upstream catchments do rely on pumping to join the outfall sewer] • Capitalise on new technologies, information access • People-centric heritage, what people feel about heritage is important too, not just the technical place • Opportunity to update the Aqueduct's innovation story – give people chance to understand what it was, how it was innovative, look at what we learned
Other landmarks within sewer / water system	• Low-level pumping station near Yacht Club / Eastern Beach • (later) sewer bridges at Barwon Grange and Macintyre Bridge (singing bridge)

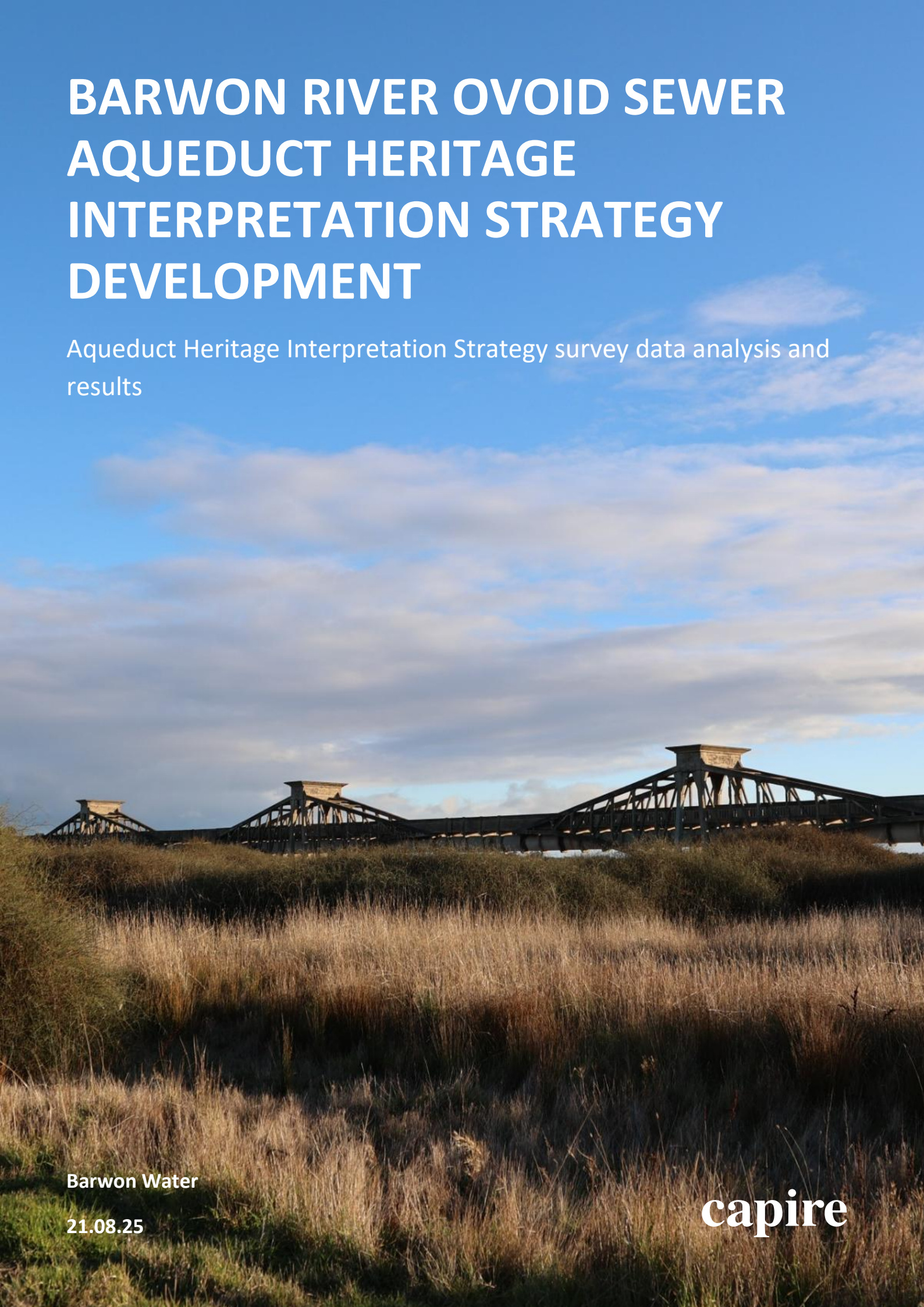
Item / idea	Details of discussion
	• Direct tie to story of water system development, e.g. Breakwater as original water supply source, then later Stony Creek and Lovely Banks developments
European river history	• Story of the river still important to tell, with Aqueduct as one of a number of places (e.g. Sunnyside wool scour) along the river. • Is there a role for the interpretation programme to support renewed recognition of places along the river?
On-site response	• Seeing where the Aqueduct crossed the river is valuable • 'Something should be done to give people a sense of the Aqueduct's scale' • 'Can we have something that shows the scale of the tower?' • Pier bases identified as a site for art / sculpture • Example of recent work at Sparrowvale
Physical collateral	• Salvage of spiral reinforcement desirable • Scale models?
Events	• Connect with Australian Heritage Festival, Nature Forum
Recordings	• Desire for oral history collection about Aqueduct before it is demolished.

APPENDIX B

Community survey summary report (2025)

BARWON RIVER OVOID SEWER AQUEDUCT HERITAGE INTERPRETATION STRATEGY DEVELOPMENT

Aqueduct Heritage Interpretation Strategy survey data analysis and results



Barwon Water

21.08.25

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Comments recorded during any consultation activities are faithfully transcribed however not attributed to individuals. Diligence is taken to ensure that any comments or sensitive information does not become personally identifiable in our reporting, or at any stage of the program.

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Consultation

Unless otherwise stated, all feedback documented by Capire Consulting Group and any person(s) acting on our behalf is written and/or recorded during our program/consultation activities.

Capire staff and associates take great care while transcribing participant feedback but unfortunately cannot guarantee the accuracy of all notes. We are however confident that we capture the full range of ideas, concerns and views expressed during our consultation activities.

Unless otherwise noted, the views expressed in our work represent those of the participants and not necessarily those of our consultants or our clients.

VERSION	AUTHOR	AUTHORISED	DATE
1.0	Triada Papadimitriou, Milly Woodgrove	Sarah Roberts	30/07/2025
2.0	Triada Papadimitriou	Athalia Zwartz	21/08/2025

Contents

1. Executive Summary

Barwon Water is preparing to lodge a new permit application to Heritage Victoria to safely demolish the 110-year-old Barwon River Ovoid Sewer Aqueduct and significantly recognise its heritage values. After considering a host of potential options over several years, Barwon Water has determined that the requirements of the existing Heritage Victoria permit cannot be met safely. As part of its application to Heritage Victoria, Barwon Water is developing a Heritage Interpretation Strategy that will guide how the site's history is recorded, recognised, and commemorated.

To support the development of the Heritage Interpretation Strategy, community members and stakeholders across Barwon Water's service region were invited to share their feedback and gather their input on the heritage values of the Aqueduct and how they could be interpreted and shared. Feedback and ideas were captured via a dedicated online survey which was open from 1 to 28 July 2025.

The survey was promoted via the June edition of the "Barwon Water E-News", website, a dedicated "Have Your Say Barwon Water" webpage, as well as shared with the project's Community Reference Group members, other community groups and key stakeholders. A total of 114 responses to the survey were received. Barwon Water also advertised the survey with posters, held meetings in-person, conducted phone calls, and sent the survey to participants via post on request.

Survey participants were primarily older residents (78% aged 50 and above). Most participants live in the City of Greater Geelong with the highest rate of participation coming from the Belmont, Grovedale East, Highton, Marshall, Wandana Heights and Warun Ponds area. The majority, 71%, identified as local residents, and 80% had visited the Aqueduct, with many expressing deep personal and historical connections to the site.

KEY FINDINGS INCLUDE:

- High familiarity with the Aqueduct's history: 86% of participants were familiar or very familiar with its heritage.
- Strong themes of historical, engineering and architectural significance, with the aqueduct viewed as a unique and irreplaceable structure.
- A significant number of participants voiced opposition to dismantling, with calls to preserve or reuse parts of the Aqueduct for tourism, education, or public use.
- Participants supported a variety of on-site interpretation options (e.g. signage, artifacts, viewing platforms) and off-site strategies such as walking tours, published histories, and educational exhibits.
- There was strong interest in commemorating the site through community events, with storytelling, cultural celebrations, and heritage talks among the suggestions.
- Many expressed a desire for the site to enable future recreation, including walking, cycling, and kayaking, with historical recognition incorporated into the design of open space or public infrastructure.
- Participants also emphasised the importance of acknowledging Wadawurrung cultural values and integrating both European and First Nations histories in interpretation and design.

The survey results highlighted a community that is deeply invested in the future of the Aqueduct and its legacy. This feedback will inform Barwon Water's Heritage Interpretation Strategy and be included in the permit application to Heritage Victoria, ensuring community values are reflected in how the site's history is recorded and remembered.

2. Introduction

This report provides an analysis and presentation of the survey results collected for the Barwon River Ovoid Sewer Aqueduct Heritage Interpretation Strategy.

2.1. Background and context

Barwon Water is preparing to lodge a new permit application to Heritage Victoria to safely demolish the 110-year-old Barwon River Ovoid Sewer Aqueduct (the Aqueduct).

After considering a host of potential options over several years, Barwon Water has determined that the requirements of the existing Heritage Victoria permit cannot be safely met. That permit, issued in November 2020, allows for four spans of the Aqueduct to be removed, with the remaining 10 spans to be retained and conserved. However, investigations have found that the Aqueduct cannot be safely maintained - and its eventual failure is unavoidable - even if structural propping was installed.

Barwon Water is committed to acknowledging and recognising the European heritage of the Aqueduct and is developing a Heritage Interpretation Strategy to support its application to Heritage Victoria. This strategy will highlight the historic, scientific, aesthetic, and architectural significance of the aqueduct. The strategy will also guide decision-making and future planning including a Heritage Interpretation Plan (subject to Heritage Victoria's decision).

The permit application may include the retention of parts at either end of the structure and pier bases (if safe to do so), new installations (such as markers and viewing platforms) significant documentation, history recording (including three-dimensional archival recording) and other creative approaches such as off-site exhibitions, online media and public events.

Barwon Water plans to lodge the new application to Heritage Victoria in September 2025.

As part of this process, community members and interested stakeholders will have an opportunity to review the application and make submissions as part of Heritage Victoria's submissions process.

2.2. Current engagement phase

Community members and other interested stakeholders were invited to share their feedback and ideas on heritage interpretation via an online survey. The survey was open from Tuesday 1 July 2025 and closed on Monday 28 July 2025. Feedback from the survey will be used to inform the development of the Heritage Interpretation Strategy and will be included in Barwon Water's submission to Heritage Victoria.

The survey asked participants to provide their views on what they value about the Aqueduct's history and heritage and how they think the history should be experienced in the future.

2.3. Engagement approach

The project's "Your Say" webpage on the Have Your Say Barwon Water website had 1,254 page views between 1 to 28 July 2025. The survey included 10 questions about the Aqueduct, it's history and heritage, followed by demographic questions. In total there were 114 responses to the survey.

Barwon Water shared and promoted the survey via the June edition of the "Barwon Water E-News" which was sent to 141,362 email subscribers. Of the 141,362 recipients, 79,284 subscribers opened the E-News and the Heritage Interpretation Strategy online survey article was the fifth most viewed article.

In addition, Barwon Water shared the survey with the project's dedicated Community Reference Group members, contacted all people and organisations who made submissions to the Heritage Victoria 2020 application process, and displayed a poster in the Geelong Library and Heritage Centre inviting people to complete the survey. A briefing with the Geelong Historical Society was hosted, and correspondence with Osborne Park Association, with details of the survey shared with both stakeholders.

2.3.1. Engagement and reporting limitations

A limitation to this engagement is that the survey and communications were conducted online. To circumvent this, Barwon Water advertised the survey with a poster at the Geelong Library and Heritage Centre, held meetings in-person, conducted phone calls, and sent the survey to participants via post.

Quotations have been amended for spelling and grammar where needed or de-identified but are otherwise unchanged.

Figure 1. Aqueduct Tower 2022

3. Participation

3.1. Participant overview - who we heard from

Barwon Water received 114 completed surveys. This section summarises the demographic information about the participants.

3.1.1. Age group

Most of the participants (78%) were aged 50 and above, with the age group 70-74 years having the highest count (22%), followed by 60-64 years (15%) and 65-69 years (14%).

In addition:

- 22% of the participants are under the age of 49
- 9% of participants are aged 40-49
- 9% aged 25-39, and
- 3% are aged 24 and under.

Figure 2 illustrates the breakdown by age group.

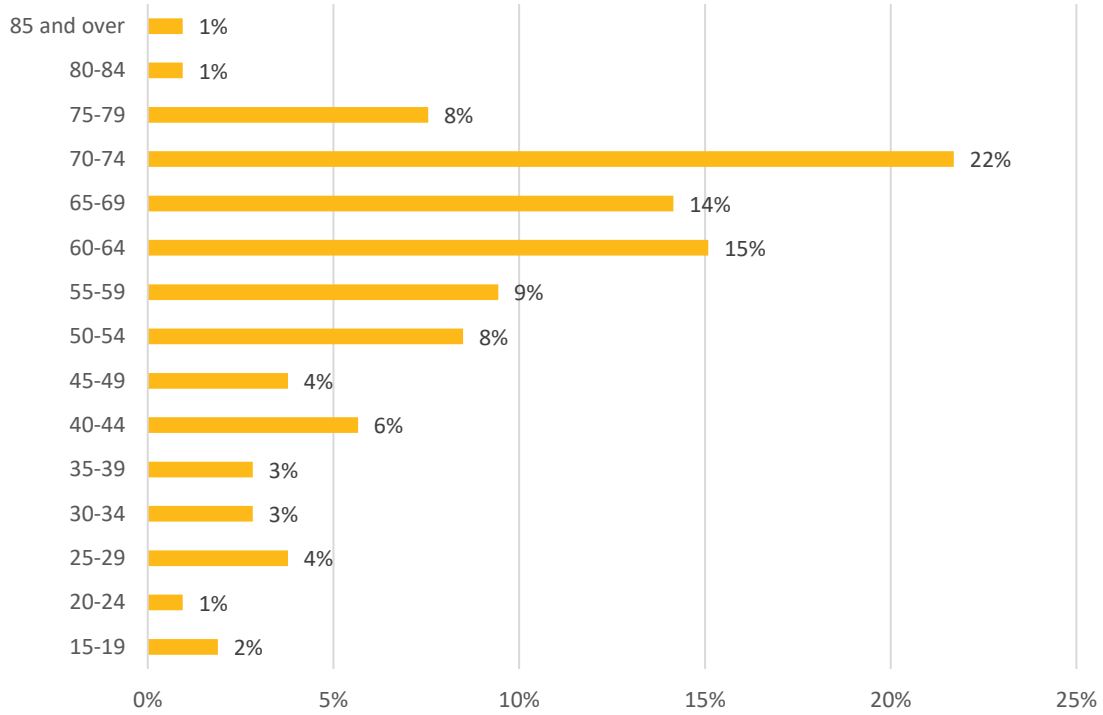

Figure 2. Please select your age group (n=106)

Note: Numbers may add to more than 100% due to rounding

3.1.2. Gender

Of the participants, 61% identified as male, 35% identified as female, 2% identified as non-binary, and 2% preferred not to identify their gender. Figure 3 illustrates the gender breakdown.

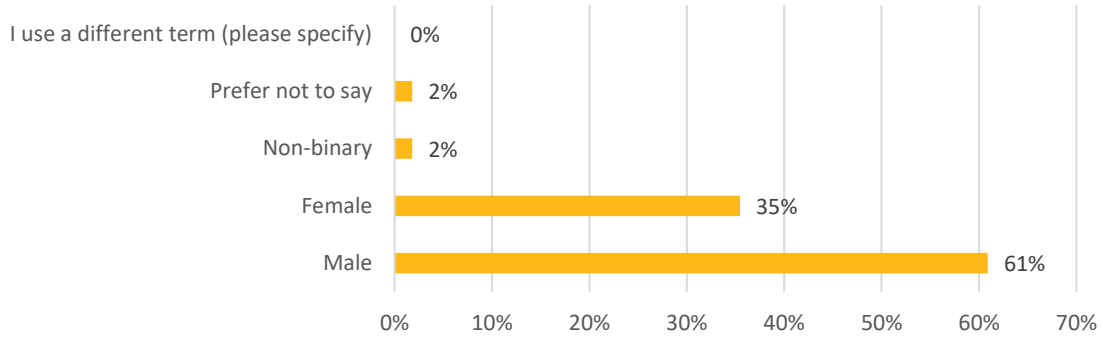

Figure 3. Please indicate which gender you identify most with (n=110)

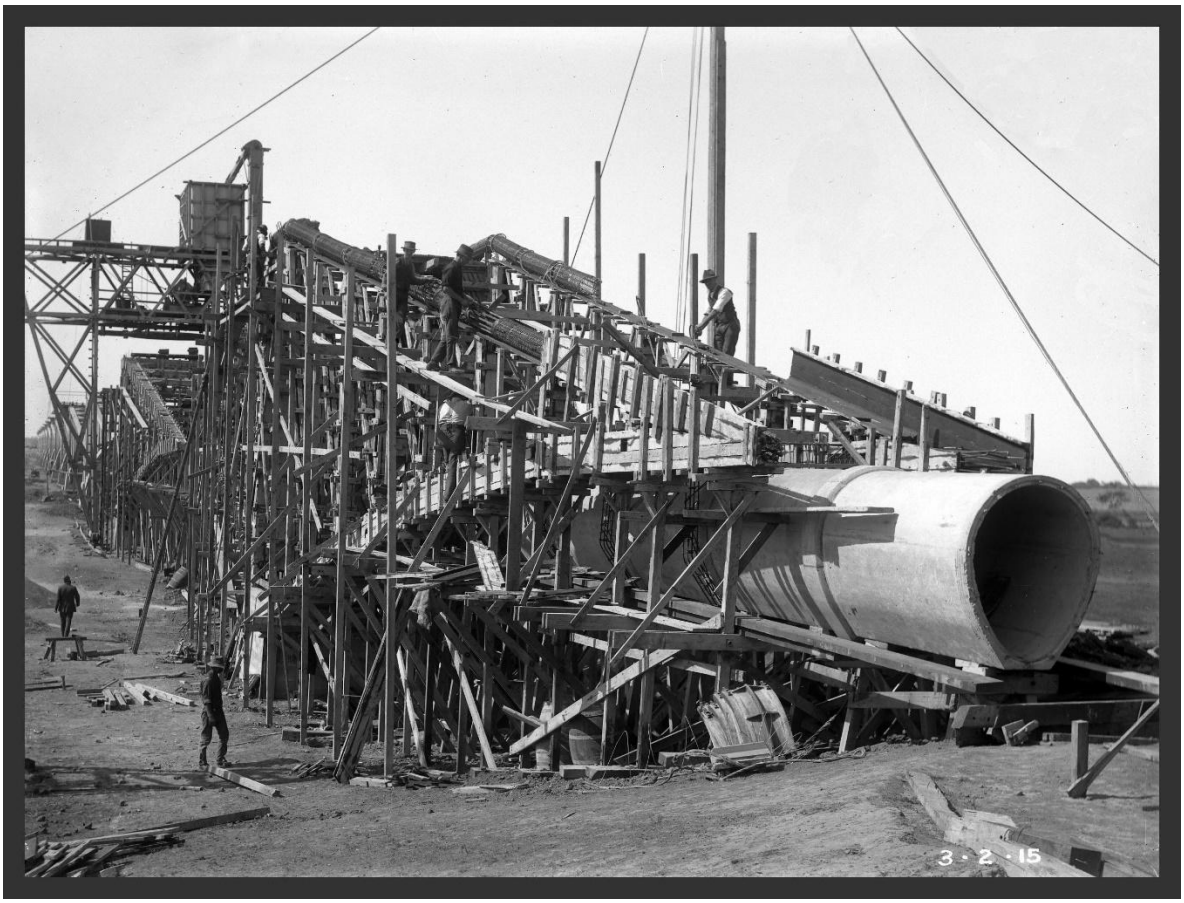

Figure 4. Aqueduct under construction 1915

3.1.3. Postcode

Most participants live in the City of Greater Geelong with the highest rate of participation coming from the Belmont, Grovedale East, Highton, Marshall, Wandana Heights and Warun Ponds areas. Figure 5 below shows the postcodes listed by participants.

2% of participants are in 3232	2% of participants are in 3227	2% of participants are in 3222	1% of participants are in 3225
Lorne	Barwon Heads, Breamlea, Connewarre	Clifton Springs, Curlewis, Drysdale, Mannerim, Marcus Hill, Wallington	Point Lonsdale, Queenscliff, Swan Bay, Swan Island

Figure 5

30% of participants are in 3216	10% of participants are in 3220	10% of participants are in 3219	7% of participants are in 3215
Belmont, Grovedale, Grovedale East, Highton, Marshall, Wandana Heights, Warun Ponds	Bareena, Geelong, Newtown, South Geelong	Breakwater, East Geelong, Newcomb, St Albans Park, Thomson, Whittington	Bell Park, Bell Post Hill, Drumcondra, Geelong North, Hamlyn Heights, North Geelong, Rippleside
6% of participants are in 3224	4% of participants are in 3217	3% of participants are in 3218	3% of participants are in 3228
Leopold, Moolap	Armstrong Creek, Charlemont, Freshwater Creek, Mount Duneed	Fyansford, Geelong West, Herne Hill, Manifold Heights, Murgheboluc, Stonehaven	Bellbrae, Bells Beach, Jan Juc, Torquay
2% of participants are in 3101	2% of participants are in 3214	2% of participants are in 3223	2% of participants are in 3250
Cotham, Kew	Corio, Norlane, North Shore	Bellarine, Indented Head, Portarlington, St Leonards	Colac, Colac East, Colac West, Elliminyt
2% of participants are in 3232	2% of participants are in 3227	2% of participants are in 3222	1% of participants are in 3225
Lorne	Barwon Heads, Breamlea, Connewarre	Clifton Springs, Curlewis, Drysdale, Mannerim, Marcus Hill, Wallington	Point Lonsdale, Queenscliff, Swan Bay, Swan Island

Figure 5. Please share your postal code (n=107)

Other postal codes and their suburb / township listed with one participant (1%) in each post code include:

3226 Ocean Grove 3321 Hesse, Inverleigh, Wingeel 3629 Ardmona, Coomboona, Mooroopna, Mooroopna North, Undera	3051 Hotham Hill 3401 Blackheath 3334 Bungal, Cargerie, Elaine, Morrisons, Mount Doran 3073 Reservoir	6020 Carine, Marmion, North Beach, Sorrento, Waterman's Bay 3231 Aireys Inlet, Big Hill, Eastern View, Fairhaven, Moggs Creek	5112 Elizabeth, Elizabeth East, Elizabeth Grove, Elizabeth South, Elizabeth Vale, Hillbank 3289 Gazette, Gerrigerrup, Penshurst, Purdeet, Tabor	3400 Horsham 3015 Newport, South Kingsville, Spotswood 3020 Albion, Glengala, Sunshine, Sunshine North, Sunshine West

Figure 6: Other postal codes with 1% of participants (n=14)

3.1.4. Connection to the area

Most of the participants cited their connection to the area as a local resident (71%), followed by visitors (9%), representing a local community / environment group (5%), local business (5%), and land developer (1%).

Of the 9% of participants that chose 'other', they have cited the following connection to the area:

- A long-standing regular visitor and surfer in the area with deep connection to Barwon Heads
- Regular holiday camper
- Born in Geelong and visit regularly
- Geocaching
- Bridge enthusiast
- Holiday house
- Attended school in Geelong, lived in Jan Juc
- I have many family members in Geelong
- Former resident

Figure 7 below shows participants connection to the area.

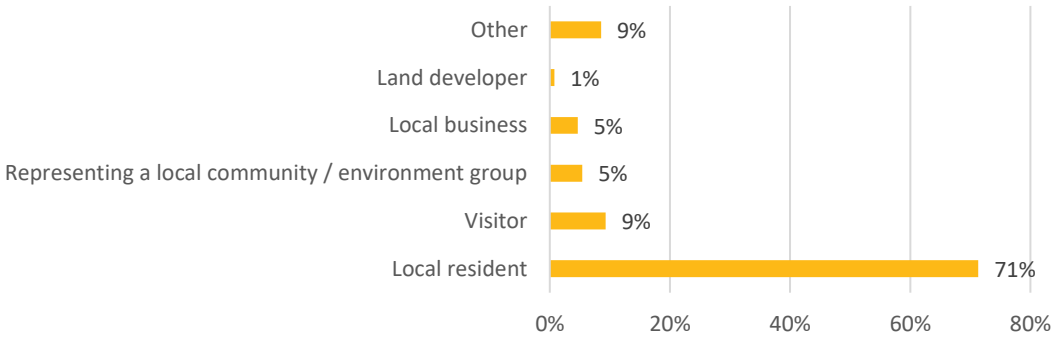

Figure 7. Please share your connection to the area (n=129)

Note: percentage of participants compared to sum may vary due to rounding.

4. Findings

4.1. Familiarity with the history and heritage

The survey asked participants to share how familiar they are with the history and heritage of the Barwon River Ovoid Sewer Aqueduct.

Figure 8 shows overall familiarity participants have with the site. In total, 59% of participants were familiar with the site and 27% were very familiar. Additionally, 12% of participants said they were unfamiliar with the site and 2% reported they were very unfamiliar.

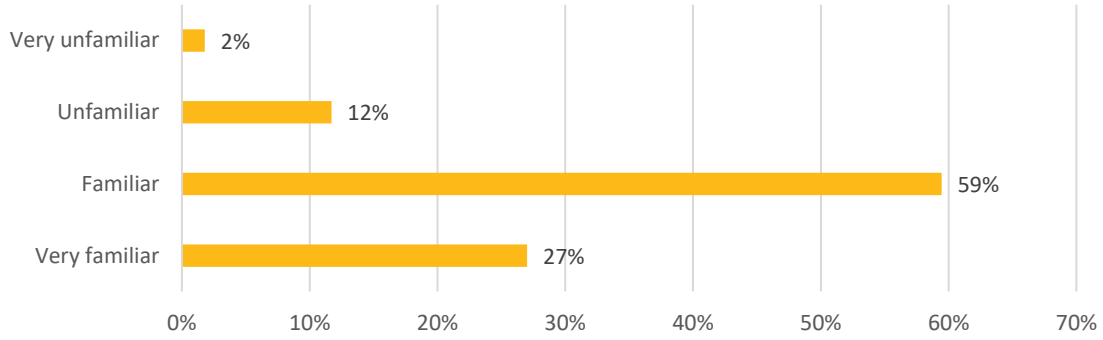

Figure 8. How familiar are you with the history and heritage of the Ovoid Sewer Aqueduct? (n=111)

4.2. Most important aspect of the Aqueduct's history or heritage

Participants were asked an open-ended question about what they believe is the most important aspect of the Aqueduct's history or heritage that should be more widely known within the greater Geelong community.

The responses have been summarised thematically below. Comments in italics are verbatim quotes from survey participants.

4.2.1. Historical and heritage significance - importance to greater Geelong and the community

Participants noted the significant historical and heritage value of the site and its importance to Geelong and the broader community. Many expressed an appreciation for its European history, highlighting that it tells an important story about the establishment of the City of Geelong and the role the Aqueduct played in serving the community, as highlighted by the quotes below.

> *"It has significant historical heritage for Geelong & was a critical piece of Geelong infrastructure."*
>
> *"In a city that is constantly trying to modernise, a lot of Geelong's interesting, complete, and intact heritage sites and buildings have been demolished, or lost. Visible history gives Geelong a unique character, replacing that only serves to conform Geelong in the shadow of Melbourne. The aqueduct is one of the few sites that has maintained to stay in one piece. It would be shame to cut it in half, let alone tear it down."*
>
> *"The Aqueduct is an iconic structure that highlights important elements of Geelong and Australia's industrial heritage. It is also a strikingly beautiful structure that should be a central element of the planned Porronggitj Karrong wetlands precinct."*

4.2.2. Design, architectural significance and engineering

Participants noted that they value the design and engineering aspects of the Aqueduct, including its uniqueness, aesthetic appeal, and the engineering principles behind the structure.

> *"Exhibits the ingenuity and engineering skills of earlier settlers in the region. Represents part of a much larger and, at the time of construction, important project to help keep the Barwon River cleaner"*
>
> *"It's beautiful and not enough people in Geelong know it is there"*
>
> *"It is a product of engineering brilliance of innovative design for its time"*
>
> *"Architecturally it is unique in Victoria"*

Participants also highlighted its architectural significance.

> *"Scottish architects and engineers are renowned across what was the British Empire as being among the most ingenious and adept proponents of their crafts. The Aqueduct's design (setting aside its construction materials for the moment) was ground breaking and exemplified the ingenuity of its designers. Given the Firth of Forth bridge, upon which this aqueduct was based, is still thriving to this day I think it important to retain that factor in our community."*
>
> *"The architecture of the aqueduct, that it's ovoid in shape, that it's based on a similar structure from Scotland. Why it's shape was significant to its function."*

4.2.3. Objections to dismantling the Aqueduct

Although not related to the question, some participants noted in their response that they object to dismantling the Aqueduct and expressed a desire for Barwon Water to maintain and preserve it.

> *"Protect it; do not dismantle it. You can always do something with it down the track when there's budget available - i.e. like Highline park in New York"*

There were a number of reasons cited regarding objections, including the international significance of the site and historical importance.

> *"This structure is of international significance and should be retained and gracefully let fall into a ruin. The ongoing neglect by Barwon Water is a crime against heritage."*
>
> *"Unique structure of great historical importance. It should be maintained, not destroyed!"*

4.2.4. Other responses

Other responses included that the Aqueduct was not that important, that it was an interesting structure but is an impediment for kayaking in the river, and one person suggested that it should be made into a park.

> *"It's a sewer, not that important."*
>
> *"Very interesting bit of junk and very photogenic. But now just an impediment if you want to go for a paddle down the river."*
>
> *"Make it a park - it's good to remember how much work went in to making Barwon Water."*

4.3. Visits to the site

Survey participants were asked to share if they have previously visited the site of the Aqueduct.

Illustrated in Figure 9, the majority of participants (80%) indicated that they have visited the site, while the remaining participants (20%) have not.

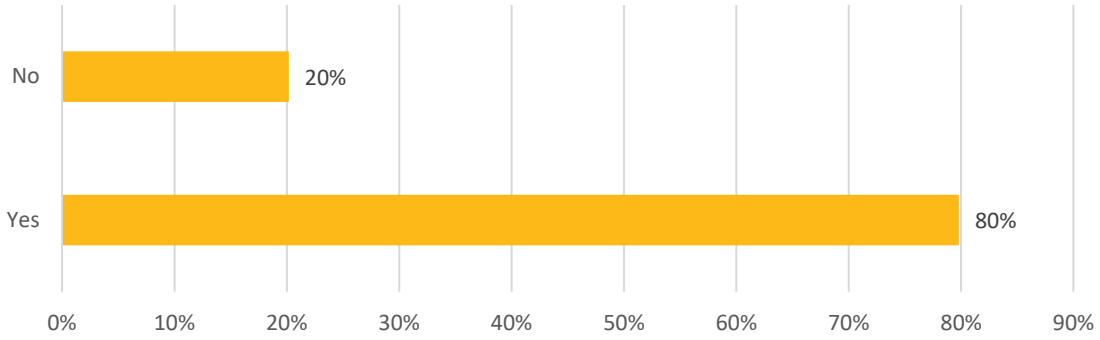

Figure 9. Have you previously visited the site of the Aqueduct? (n=109)

If participants indicated they had visited the site, they were asked to share how often and for what purpose they visited. Participants noted the following responses related to how often they visit site and how often. These responses are summarised by theme below.

4.3.1. Historical significance

Participants noted that they enjoy visiting the site due to its historical significance. Many participants expressed strong attachment to the Aqueduct as a historical symbol of Geelong's development and identity. Some noted it as a rare surviving heritage site amidst increasing urban development and demolition.

> *"Over five times for the specific purpose of viewing the viaduct. Historical and architectural studies, and a private acknowledgement of history."*
>
> *"Seen from nearby out of interest in engineering heritage"*
>
> *"To see and learn about our local history"*

4.3.2. Emotional connection

Some participants indicated that they have an emotional connection to the Aqueduct, and they are connected to the structure from personal memories, with many participants noting that they visited the Aqueduct as children.

> *"Several times in my childhood, including riding my bike over it, and more recently to view and study it."*
>
> *"I used to play on it as a child. We would climb down to the island in the river amongst other things"*

4.3.3. Site seeing, enjoy the design, show visitors / children

Participants noted that they enjoy visiting the Aqueduct for site seeing purposes, to enjoy the design or to show it to their children or to visitors.

> *"To admire it, to show it to my children, to show it to visiting friends."*
>
> *"It is an engineering masterpiece. We show it to our visitors and have shown it to engineers."*
>
> *"Just to have a look, a few years ago while telling my friends young children about it when they asked 'what's that?'"*

4.3.4. Photography and recreational

Participants noted that they enjoy visiting the structure to take photographs. Participants noted that that they would see or visit the Aqueduct while participating in a recreational activity such as walking, waterskiing, or kayaking.

> *"A number of times for photography. To photograph Geelong's history."*
>
> *"Every fortnight, I do photography of this area."*

"I discovered it walking my dog, and it is beautiful. I've been back regularly to photograph the site at different times of day."

"Walking in the area. Adds so much interest to an otherwise pretty boring area in parts"

4.3.5. Academic / research

One participant noted that they have visited the site as part of their research or academic activities.

"The purposes for visiting the Aqueduct have been: to research the story of this outstanding example of engineering techniques for a publication in 1998 called 'Barwon River Buckley Falls to the Aqueduct Industrial Heritage Track'; to introduce a Deakin Master of Architecture student to the structure, who presented a paper at Kodak Place 'Sightlines and Sewerage' about providing public viewing platforms, c. to participate and contribute to the conservation of the Aqueduct by being a member of community groups continuously for at least ten years"

4.3.6. Frequency of visits

Participants had a mixed response to how often they visit the site, with some visiting the Aqueduct once or twice, and some regularly.

"Once, recently, to evaluate the condition and to marvel at the wonderful architecture."

"I have visited the Aqueduct very often for over twenty-five years."

A small number of participants noted that they tried to visit the site but were unable.

"My great great Grandfather worked on it and I've tried to get closer enough to take some photos but there's nowhere on land to do so."

4.4. Future visits and learning opportunities

Following the opening of Porronggitj Karrong (Place of the Brolga), a new 66-hectare cultural and community precinct for public use, participants were asked to select the reasons they visited the Barwon River lands and what they hoped to learn about. The responses are listed as follows:

- would visit the site to learn about the history of the Ovoid Sewer Aqueduct, 41%
- would visit to learn about Barwon River environment and ecology, 31%
- would visit to learn about Wadawurrung cultural values and management of Country, 23%
- do not plan to visit Porronggitj Karrong, 6%

Figure 10 below outlines the responses to future visits and learning opportunities.

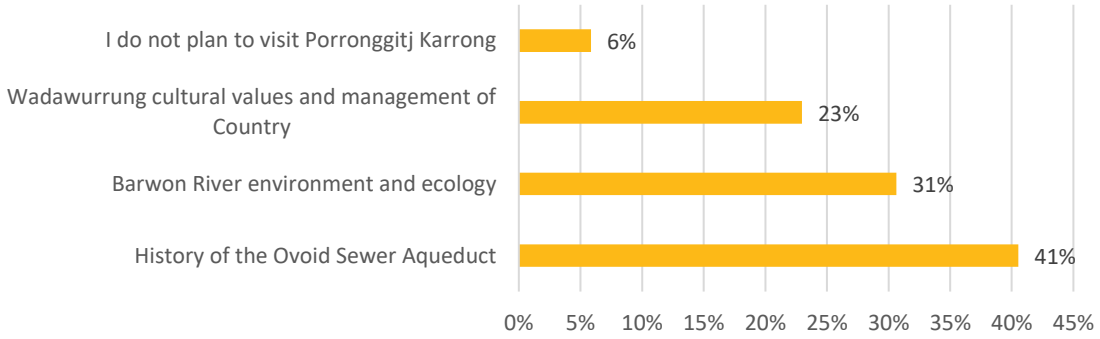

Figure 10. After opening of Porronggitj Karrong, would you visit the Barwon River lands to learn about? (n=222)

Note: Participants could select multiple options

4.5. Recognising history of the site

Participants were asked how the Aqueduct's history should be recognised if dismantled (subject to the outcome of the permit process by Heritage Victoria). Their responses are as follows:

- historical signage, 19%
- historical artifacts, 19%
- viewing platform, 17%
- interactive equipment (e.g. structural models, viewfinders), 15%
- public art or other physical markers, 10%
- no recognition should be installed at the site after dismantling, 2%
- "Other", 17%

Figure 11 illustrates the findings.

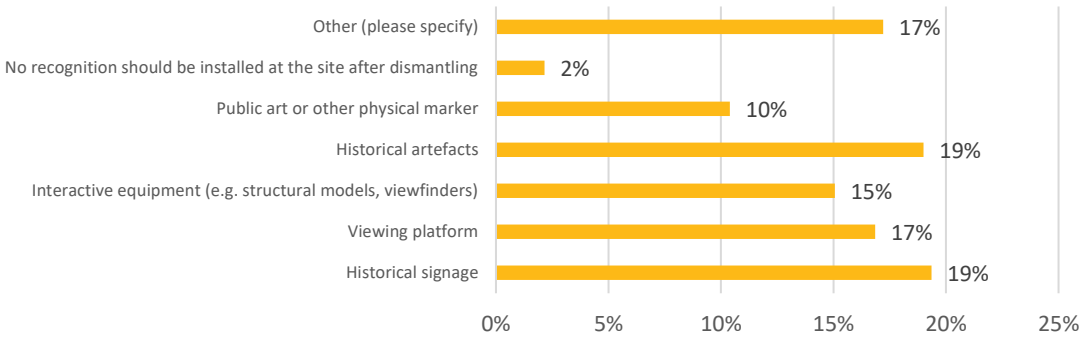

Figure 11. How should its history be recognised at the site? (n=279)

Note: Participants could select multiple options

For participants that selected "Other", they had the option to write a suggestion for how the Aqueduct's history should be recognised. Many participants used the opportunity to reiterate their desire that the Aqueduct should not be dismantled and would like to see it preserved for future generations.

Suggestions for how the Aqueduct's history should be recognised include:

- repairing the Aqueduct and opening as a community space with walking tracks, a picnic area and a visitor centre,
- retain the Aqueduct in some form and to restore at least one span for viewing; and
- a shared pathway should be installed at a near vantage point that is constructed in a form to recognise the shape and presence of the previous aqueduct. This could be a single or dual span part of a longer bridge and part of a cycle path along lake Connewarre to Barwon Heads.

Figure 12. Ovoid Sewer Aqueduct

4.6. Off-site heritage interpretation

Participants were asked to select what off-site heritage interpretation they feel would be valuable to the greater Geelong community, the responses were:

- Barwon River heritage walking tour / canoe trail, 24%
- published history of the Aqueduct / Barwon Water sewerage system, 20%
- educational exhibits at central city sites (e.g. Barwon Water offices, Geelong Library and Heritage Centre), 14%
- historical signage at other Barwon Water sewerage system sites, 12%
- educational exhibit at Black Rock Water Reclamation Plant Visitor Centre, 12%
- online information / mobile phone app, 7%
- audio tour, 5%
- other, 5%

These findings are found in Figure 13 below.

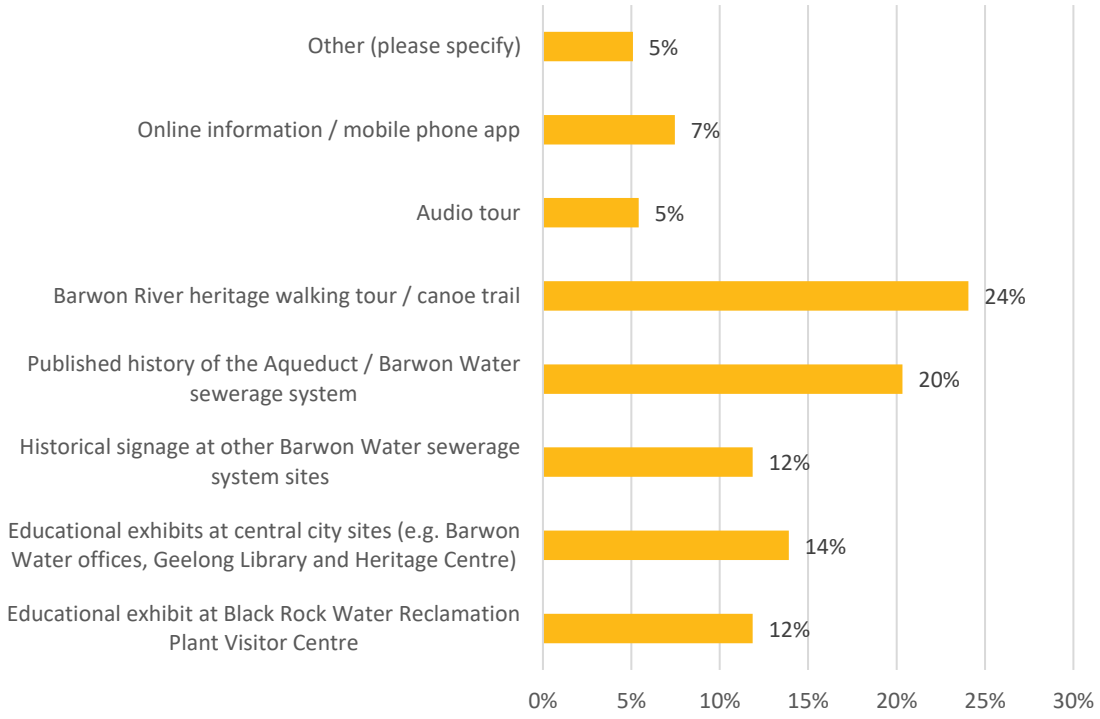

Figure 13. What off-site heritage interpretation do you feel would be valuable to the Geelong community? (n=295)

Note: Participants could select multiple options

For participants that selected "Other", they had the option to write a suggestion for what off-site heritage interpretation do they feel would be valuable to the Geelong community. Again, many participants chose to express their desire for maintaining the existing structure. Other responses include:

- Off-site information should be focused on advising people how to visit the site and enable them to see the structure. This can be for tourism and educational purposes
- Large photo mural of the aqueduct in the city, and

- Exhibition and inclusion in Geelong Museum (currently National Wool Museum) including a video that can be accessed online, making it available for all.

4.7. Commemorating history event

Participants were asked if the Ovoid Sewer Aqueduct is dismantled (subject to the outcome of Heritage Victoria's permit application process), would they attend an event where the history and value of the structure are commemorated?

Figure 14 shows the majority of participants (63%) would like to attend an event, while the remaining (38%) participants would not.

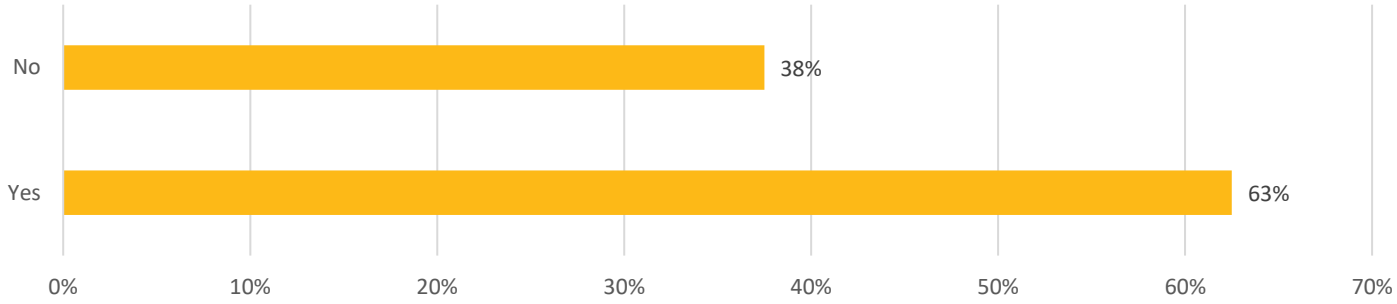

Figure 14. Would you attend an event where the history and value of the structure are commemorated? (n=104)

Participants who indicated they would like to attend an event, were asked to share what kind of events they would be most interested in. Responses include:

- Walking tour
- Story telling event
- Historical talk
- An event that promoted the engineering history of Barwon Water (Geelong Waterworks and Sewerage Trust)
- An on site presentation
- Public information onsite
- Community festival
- A multifaceted cultural historical ceremony combined with a light show
- A presentation which illustrates not only the aqueducts place of Geelong's developmental sewerage history, but other, now retired, components of the network and how they are being preserved for future reference in whatever form that takes.
- A photography walk near the aqueduct.
- Opening of sign/artwork
- Indigenous heritage walk. Eco event celebrating the Barwon River and watrrways (birds, riverine life, landscape).
- A panel event with a combination of heritage experts and Traditional Owners.

4.8. Ideal public experience

Participants were asked on what is their vision of the ideal public experience at the site where the Aqueduct once stood (subject to the outcome of Heritage Victoria's permit application process).

Suggestions as summarised with quotes from participants as follows.

4.8.1. Recreation activities - walking track, kayaking, cycle path

Participants noted that the site presents an opportunity for recreation activities with ideas including: walking trails, cycling path, shared user path, kayaking and canoeing. There is also a desire to be able to acknowledge the history of the Aqueduct and the former structure while engaging in these activities. Facilities such as picnic tables, toilets, car parks would also be valued.

> *"Walking trails, open space and a celebration of European and indigenous history with an intact aqueduct."*
>
> *"A shared pathway should be installed at a near vantage point that is constructed in a form to recognise the shape and presence of the previous aqueduct. This could be a single or dual span part of a longer bridge and part of a cycle path along lake Connewarre to Barwon Heads."*
>
> *"The ability to canoe past the area or walk along the river, and on other walking tracks within the site as developed, to see the biodiversity, look for birds and other fauna, while being able to appreciate the indigenous and European history of the site."*
>
> *"I'd like to see track access connected to the existing track system at the breakwater bridge, and ideally connecting as far downstream as possible (Barwon Heads?), and some sort of marker at the site. Ideally a rebuilt section of the aqueduct, passing over the track."*

4.8.2. Parkland / wetland

Participants cited that they would value the establishment of parkland and wetlands on the site.

> *"A wetland if possible or perhaps a secure habitat for native species as well as planting of native trees and plants for the wildlife."*
>
> *"Development of public parkland with complementary facilities."*

4.8.3. Installation, partial reconstruction or retention

Participants noted that commemorating the Aqueduct could be done through reconstruction, an installation or retention of a part of the bridge.

> *"Needs to be a structure installed to commemorate the construction (when, how) of the aqueduct including details of the unique design"*
>
> *"I'd like to see a concrete sculpture commissioned by a local artist who works in concrete. I think an artist should work with the local people who have been involved with the aqueduct including First Nations."*
>
> *"An actual model of a section of the ovoid Aqueduct."*
>
> *"A sculpture or series of sculptures relating to the Aqueduct and ecology"*

4.8.4. Visitor centre, displays and signage

Participants noted that they would value visitor centre, displays or signage of the Aqueduct that commemorates and celebrates the history, design and uniqueness of the site.

> *"Visitor centre - A visitor centre that details the engineering history of Barwon Water and also a history of the river."*
>
> *"A prominent display telling the history of the structure should be established"*
>
> *"A series of information boards, as one walks around, with history, construction, in time order."*
>
> *"A display centre with artefacts and notes on the site prior to European occupation, then the construction and role of the Aqueduct, with timeline of the Aqueduct's life. Displays and information on the ecology of the area."*

4.8.5. First Nations recognition

Some participants noted an interest in celebrating and recognising the history and culture of First Nations people on the site.

> *"Draw from history the lessons which herald the desires and intentions of both the First Nations and their successors."*

"Interactive interpretative signage that shows the history of the aqueduct and how it integrated with the overall sewage distribution system. Also, how the overall sewage system operates as an educational tool including recognition of the Wadawurrung Traditional Owners"

"Walking track, opportunities to interact with Wadawurrung people to learn the history and use of this land, bird observation hides and to learn how people used the Aqueduct in recent times"

4.9. Memories, stories or photographs

Participants were asked whether they or their family/friends have memories, stories or photographs of the Aqueduct which should be recorded as historical research and social history of the site. 70% of participants said they did have memories or photographs and 16% did not. Figure 15 below shows the responses.

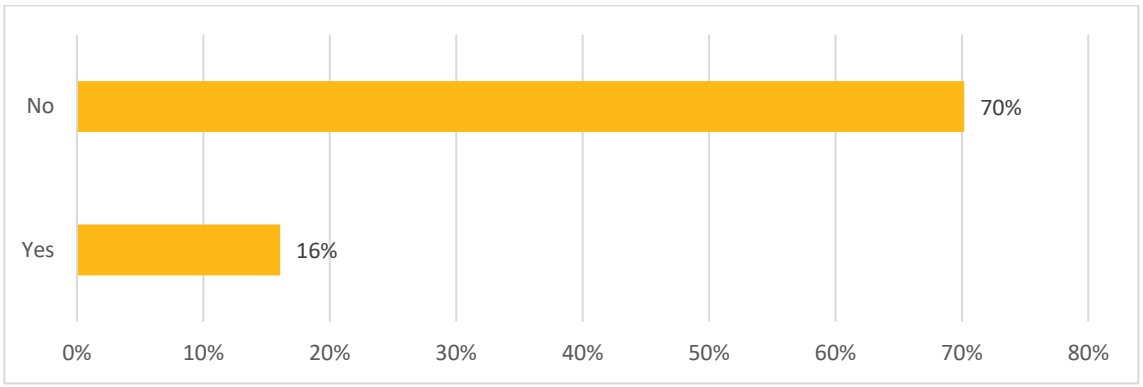

Figure 15. Do you or your family/friends have memories, stories or photographs of the Aqueduct which should be recorded as part of our historical research and social history of the site? (n=87)

If participants responded "Yes", they were provided with the option of leaving a contact phone number or email address at the end of the survey.

4.10. Anything else on how the history and heritage of the Barwon River Ovoid Sewer Aqueduct should be recorded, recognised and commemorated

Participants were asked to share if there was anything else they thought should be recorded, recognised and commemorated about the history and heritage of the Aqueduct. Again, many participants expressed their desire for the Aqueduct to be preserved and not dismantled. Other responses are summarised below.

4.10.1. Childhood memories

Participants noted that they have fond memories of the Aqueduct from their childhood.

"Enjoyed the Aquaduct as a kid!"

4.10.2. Importance to Geelong's history

It's such a unique thing Geelong cannot afford to lose as we have already lost too much of our local history

"I am not from Geelong but can see this structure is very important to the area"

"As an important Geelong Landmark it should remain in place, Barwon Water should be proud of saving a unique Geelong Landmark & not demolish another part of our history. We have lost so much heritage in this city."

"Keep it, advertise its significance and location as a tourist attraction"

4.10.3. Suggestions for future use

Participants provided suggestions for future use, including ensuring that aerial and photography is taken so that 3D models can be produced later, and to collect records and for a collection at the Geelong Library and Heritage Centre.

> *"There should be as much aerial and close up photography as possible while the Aqueduct is still standing so that online 3-D interpretative models can be generated later."*
>
> *"As much collection/collation of historic records as can be made, preferably with the Geelong Library's Heritage Centre holding a special collection."*

4.10.4. Recognising and celebrating history and heritage

As documented in previous sections of the report, participants noted the importance of recognising and celebrating the history and heritage of the Aqueduct.

> *"We should not allow this piece of Important history & heritage be forgotten."*
>
> *"All of above comments ….. for recognition & commemoration of such an historical & rare piece of Architecture - not just locally but nationally & even internationally."*

4.10.5. First Nations connection to the surrounding land

As documented in previous sections of the report, participants noted the opportunity to reflect, celebrate and acknowledge First Nations connection to the site.

> *"I think it is important to recognise and acknowledge history and heritage, however only if it is safe to do so. And also remember that the lands of the Wadawurrung were never ceded, so we also need to recognise, reflect and acknowledge the Wadawurrung and their Country too. I hope this project can achieve this."*
>
> *"I believe there is a powerful opportunity to honour the deep Indigenous history and enduring connection to Country at this site, while also acknowledging and celebrating the industrial legacy represented by the aqueduct. Both narratives — the ancient and the modern — can coexist and be meaningfully expressed through the artwork, enriching the public's understanding of place and time"*

Figure 16. Brolgas at Reedy Lake by Craig Morley

5. Communication preferences and future engagement

5.1.1. How did you hear about this survey

Participants were asked about how they heard about the survey.

- social media, 41%
- email from Barwon Water, 27%
- word of mouth, 16%
- local paper advertising, 7%
- letter from Barwon Water, 4%
- local paper advertising, 1%
- other: (Online search, Geelong Historical Society Meeting Agenda, and Facebook), 4%

Figure 17 shows how participants heard about the survey.

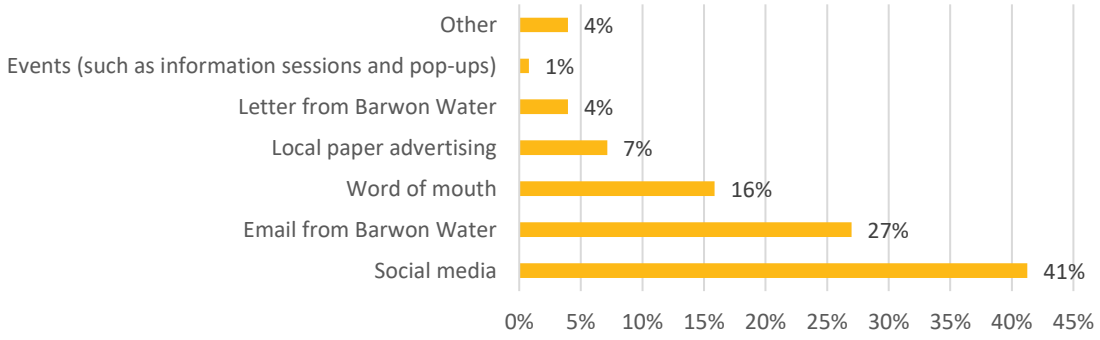

Figure 17. How did you hear about this survey? (n=87)

5.1.2. Future engagement and communication

Lastly, participants were asked if they wanted to stay up to date with the project, join the database and provide contact details, 58% said yes and provided their details.

6. Next steps

Barwon Water will consider the survey results as it develops the Heritage Interpretation Strategy to support its planned lodgement of a new permit application to Heritage Victoria to safely demolish the Aqueduct.

Barwon Water will continue to engage with the project's Community Reference Group to gather insights and views to support the development of any Heritage Interpretation Plan pending the outcome of the Heritage Victoria permit assessment process.

Consultation with Barwon Water customers, communities and stakeholders will continue throughout all project statutory approvals, construction and operational stages of the project.

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Capire acknowledges and deeply respects the Traditional Custodians of Country throughout Australia and their connections to land, sea and community.

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