Forrest Wastewater Project

Community update - March 2021

Barwon Water

Colac Otway SHIRE

Background

- In December 2016, Forrest and District Community Group wrote to the Water Minister requesting provision of reticulated sewerage in Forrest.
- Since 2017, Barwon Water and Colac Otway Shire Council have been working with the Forrest community to investigate opportunities for wastewater improvements in the township.
- In late 2018, Barwon Water, the Colac Otway Shire and the community identified a preferred solution. This solution was also supported by technical experts.
- In 2019, Barwon Water and Colac Otway Shire Council completed the preliminary business case and supporting technical report for the Forrest wastewater investigation.
- In 2020, Barwon Water engaged Marsden Jacob Associates to undertake a detailed economic cost benefit analysis to further support project.

Completed steps

Barwon Water, Colac Otway Shire Council and community have worked together over the past three years to complete the following:

- Technical report and preferred solution for Forrest wastewater
  - $10.4M – Hybrid system with both on and offsite assets

- Preliminary Business Case and Economic Assessment
  - A secure and safe wastewater system for the Forrest township would assist local businesses and the township to grow their economy, by attracting more tourism, economic activity and residential development. The benefit cost ratio is 3.05.

The case for improved wastewater management

System not up to standard

- Wastewater system in the town is below standard, with many septics considered to be failing and / or impacting on public health and the environment

Potential for economic growth and development

- Improvements to the wastewater system will make Forrest a more desirable place to live, visit and invest in which will have flow on effects on the visitor economy

Great Ocean Road 'at capacity'

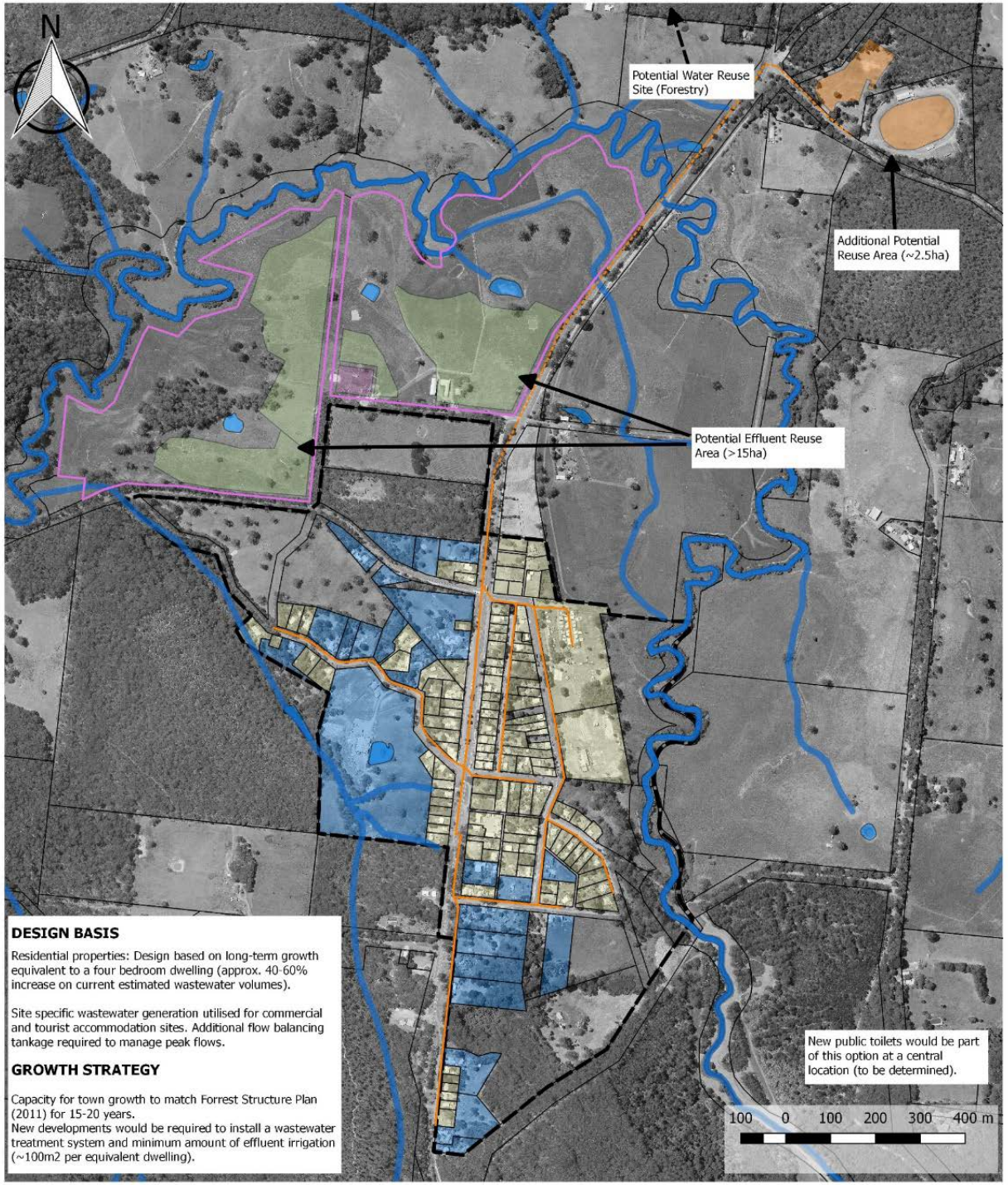
- North-South routes (i.e. Forrest) needed to ease traffic volumes on GOR
  - But…no public toilets and wastewater systems already unable to handle 'peak load' demand

General Environmental Duty

- Environment Protection Act (2018) – Potential for new obligation on land owner to manage risks to human health and the environment that their activities create
- Actual implementation details remain uncertain although Act introduced 1 July 2021

The wastewater solution

- The preferred solution involves upgrading onsite systems (where necessary) to contain wastewater on individual properties, with an additional, centralised system to handle excess treated wastewater.
- As each property provides treatment of solids onsite, it eliminates the need for a larger wastewater treatment plant and means the proposed treatment plant can be significantly smaller and complement the Forrest environment.
- This solution can also be staged over time as development within the town progresses.
- While there was a range of views, this solution received the highest level of support from the community and was, therefore, nominated as the preferred solution. This solution was also supported by technical experts.



Total Capex
$10.4M

Figure 5 Forrest Wastewater Investigation: Solutions Package 3 Servicing Layout – Partial On-site Containment with Central Irrigation / Reuse

- Forrest Township
- Watercourse / waterbody
- Effluent Sewer (Indicative)
- Recycled Water Main (Indicative)
- Indicative Cluster Reuse Site
- Indicative Water Recycling Plant Footprint
- Indicative Useable Land (Forrest Recreation Reserve)

On-Property Servicing

- New Partial On-site Management with Excess to Sewer
- New On-Site System (Managed by Single Authority)

DWC
DECENTRALISED WATER CONSULTING

Potential benefits

Overview from independent economic cost benefit analysis, undertaken by Marsden Jacob Associates

PUBLIC HEALTH & AMENITY (B1)

Lower public health and environmental risks, including reduced odours and visible discharge.

MONETISED? ✓

↓

Value of avoided sewer spills

INCREASED TOURISM (B2)

Improved amenities and visitor experiences, that enables Forrest to be a viable alternative entrance to the Great Ocean Road.

MONETISED? ✓

↓

Value Add generated by additional tourist expenditure in Forrest

SOCIO-ECONOMIC (B3)

A thriving and vibrant township within the Otways region.

MONETISED? ✗

↓

Difficult to quantify within constraints of CBA framework

Described in the CBA report

AVOIDED COSTS

Forrest landowners and Colac Otway Shire to avoid costs as compared to the Base Case

MONETISED? ✓

↓

Avoided base costs and costs of sewer overflows and discharges to the street.

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Benefit 1: Lower public health and environmental risks, including reduced odours and visible discharge

- The systematic inability to effectively manage and contain wastewater within property boundaries poses a range of health and environmental risks to Forrest.
- A new system is expected to reduce the risk of contamination to the environment and people.
- By containing the wastewater within property boundaries, in correct systems, we anticipate improved liveability, and amenity to the town that comes from having no foul odours or visible sewerage on private properties and in public areas. The town will be a more desirable place to live and visit, which will have flow on effects to the visitor economy.

Summary provided from MJA's cost benefit analysis

Benefit 2: Improved amenities and visitor experiences, that enable Forrest to be a viable alternative entrance to the Great Ocean Road.

- Tourism is the main aspect of Forrest's economy, generating significant economic benefits not just to the region, but the rest of the Great Ocean Road. Wastewater is an essential service to these businesses that enable tourists to have a safe and enjoyable stay.
- A new wastewater system (including public toilets) is anticipated to allow local businesses to increase their capacity offerings in turn, this is expected to increase the demand of tourist services in the region, in terms of both frequency and duration.

Summary provided from MJA's cost benefit analysis

How value add is generated from tourism spending in Forrest

For every $100 spent by a tourist who stops & spends in Otway Regional Economy…

…$58 is typically spent with businesses in the Accommodation & Food sector…

…which generates $21 in Value Add in that sector.

Source: REMPLAN analysis of Otway Regional Economy

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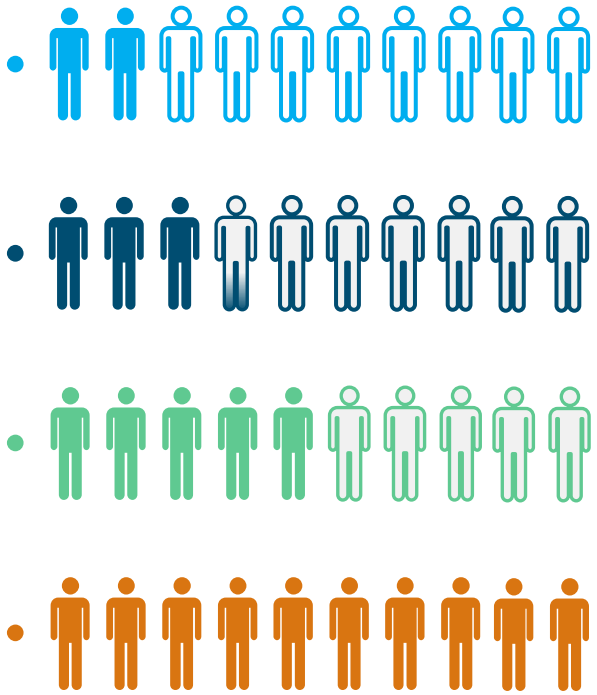
Summary provided from MJA's cost benefit analysis

What percentage of 2019 trips on GOR would need to stop and spend in Forrest to generate $1m in value add?



If 1 in 5 additional trips via Forrest stop to spend... → 22%

If 1 in 3 additional trips via Forrest stop to spend... → 13%

If 1 in 2 additional trips via Forrest stop to spend... → 9%

If all additional trips via Forrest stop to spend... → 4%

% of 2019 GOR trips needed to stop and spend $25 per person to generate $1m in Value Add

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Summary provided from MJA's cost benefit analysis

Benefit 3: A thriving and vibrant township within the Otways region

- The Forrest wastewater project, aims to deliver compliant and effective wastewater systems, making Forrest a thriving and vibrant township to live and visit. Managing over capacity flows, and properly treating wastewater within site boundaries provides improved amenities to the people living, and people visiting Forrest. Local residents and businesses will be more likely to expand their tourism offering if the wastewater systems allowed them to.
- At present the wastewater systems are negatively affecting local residents. By improving the amenity offering in Forrest, it is anticipated that the town will retain more population, increase economic opportunity, and provide functional and working base infrastructure to allow the town to grow and thrive.
- A functional wastewater system improves the wellbeing of the town.

Summary provided from MJA's cost benefit analysis

Benefit 4: Avoided costs of managing existing on-site wastewater systems

- No ongoing cost to residents to operate, maintain and upgrade their onsite wastewater systems
- No ongoing costs to Colac Otway Shire Council for domestic wastewater management in Forrest

Summary provided from MJA's cost benefit analysis

Economic cost benefit analysis results ($m)

25 year analysis period, 7% Discount Rate	Preferred Option ($M)
COSTS	
PV Capital costs	9.029
PV Opex costs	1.377
PV Total costs	**10.407**
BENEFITS	
PV avoided cost - Public Health and Amenity (Benefit 1)	10.26
PV increased tourism related benefits (Benefit 2)	11.66
PV avoided base cost (Benefit 4)	9.86
PV Total benefits	**31.78**
RESULTS	
Net present value	21.37
Benefit cost ratio	**3.05**

Summary provided from MJA's cost benefit analysis

Potential funding model

- Barwon Water is continuing to work with our regulatory stakeholders to explore potential funding models.
- We understand that costs are an extremely important consideration for all residents, and the community vision is clear that the solution must be equitable and affordable for all residents.
- Due to the small population and size of local businesses in Forrest, economies of scale limit the likelihood of the scheme being solely funded by the Forrest community (e.g. $70k per property on average).
- A larger proportion of the costs for the project will likely need to come from outside funding, such as Local Government, Government, or Barwon Water's wider customer base (subject to regulatory and customer approval / support).
- Economic flow-on benefits from the project are likely to accrue to the local and regional area should the project proceed.

Next steps

- Seek direction from Barwon Water Board and Colac Otway Shire Council on proposed approach, including:
  - Step 1 – Engage with Forrest community on potential funding models including costs to residents (2021).
  - Step 2 – Continue to explore funding avenues / opportunities, including the potential for the project to be included within Barwon Water's next pricing period (2023-2028).