

PROVIDING SEWERAGE TO THREE SMALL RURAL TOWNSHIPS - A JOURNEY OVER EIGHT YEARS

Philippe du Plessis – Managing Director
South Gippsland Water

ABSTRACT

Providing sewerage services to the rural communities of Poowong, Loch and Nyora has, for South Gippsland Water (SGW), been a journey of challenges, consultation, and adjustment over an eight year period. 2015/16 will see the end of the journey resulting in a scheme that would never have been predicted at the outset.

INTRODUCTION

In 2007 the Corporation was mandated by the Victorian Government of the day under the Country Towns Water Supply and Sewerage Program to provide reticulated sewerage to the Victorian townships of Poowong, Loch and Nyora.

Under the program, the directive of providing sewerage services was to improve the health and amenity of the townships. Property owner's contributions for the schemes were capped at \$800.

Poowong, Loch, Nyora are situated in the rolling hills of South Gippsland with populations of 322,194 and 713 respectively (1,070 total). The townships are located approximately eight kilometres apart with Nyora the closest to Melbourne (97 km's) and classed as peri urban.

BACKGROUND

Poowong, Loch and Nyora already share a water supply system and the initial sewerage scheme designs focussed on one conventional gravity system, a series of rising mains and centralised

lagoon treatment with provision for reuse via irrigation.

This solution was costed at around \$15M and the concept presented to local communities and stakeholders through a series of forums.

Following general consensus, planning processes and design works for the scheme commenced.

Treatment

The Corporation undertook a site evaluation process to determine the most appropriate location for the centralised lagoon treatment plant and irrigation area.

A short list of seven potential sites resulted in only two feasible waste water treatment plant locations;

1. Unwilling seller as the site was part of a larger farming enterprise.
2. Willing seller.

Campaigns of objections for each site were undertaken by adjoining properties, citing the devaluation of their properties and pollution of the rural environment as cause to investigate alternate sites.

South Gippsland Water strategically purchased Site 2 in 2011 as the preferred location and began the process of planning approvals, design and consultation.

The preferred treatment site attracted a well-connected and highly structured campaign of protest from a neighbouring rural lifestyle community.

The not in my back yard protest campaign ran through a combination of;

- social media including youtube and web presence
- grass roots community engagement, letter box drops, petitions , templates for letters of complaint, community meetings
- Disruption, FOI requests, meetings, presence at community information sessions
- High level political lobbying.

The group was well connected, highly motivated and resource rich. They were in constant contact with the organisation, even providing South Gippsland Water with technical advice and a range of alternate scenarios and options.

THE PROJECT 2012

The design and approvals process for the Poowong, Loch, Nyora Sewerage scheme had been complex and protracted but continued to progress.

The ongoing protest campaign was significant in the delays.

Three key factors emerged;

1. As design continued, cost estimates for the project escalated to an estimated \$29M. South Gippsland Water Board of Directors were understandably concerned with the rising cost and the resultant debt and pricing impacts to the wider South Gippsland Water customer base (22,000 properties).

The Board approved investigations with South East Water for a joint treatment arrangement. This had the potential to obviate the need of a central treatment plant and provide significant project cost savings.

2. The Essential Services Commission (ESC) consultation process was undertaken for Water Plan 3.

At the conclusion of the process and as part of their draft pricing determination, the ESC determined the scheme” to be costly” and that they had “received a submission expressing community concern at the proposal”. In their Draft Decision (March 2013), the ESC did not allow the Capital Expenditure and supported “...further examination of potentially more cost effective options”.

3. The State Government initiated the Office of Living Victoria. The Whole of Water Cycle Management principles outlined in the OLV’s initial strategies were to become a significant discussion point in the future of the scheme.

Challenges

The announcement of the Essential Services Commission decision with respect to the Poowong, Loch, Nyora Sewerage Scheme sparked wide community outcry and wide media exposure in the belief that the scheme would never go ahead.

Yet another protest campaign was played out through social media, local news outlets and Local and State Government representation. The key focus being the scheme must go ahead due to extreme public health impacts and environment degradation.

South Gippsland Water brokered a way forward with the Essential Services Commission, the Community, and Local and State Government representatives.

Details included;

- A review of the scheme would be undertaken over a six to nine month period.
- The Essential Service Commission would allow for nominal pricing relief in Water Plan 3 of \$20M (any cost variation would be dealt with in Water Plan 4)
- Construction of the scheme would be completed within the Water Plan 3 regulatory period (2013/14 to 2017/18)

This scenario was accepted in the Essential Services Commission's Final Pricing Determination.

Challenges (cont)

However, much of the community saw yet another delay after years of protracted planning and approval processes.

In fact, a significant element of the community firmly believed that the review process was a vehicle for removing the scheme entirely.

The Office of Living Victoria were developing the key strategy paper "Melbourne's Water Future" and were keen to see affordable alternative treatment disposal options and Whole of Water Cycle Management (WoWCM) principles embedded into the Poowong, Loch, Nyora Sewerage Scheme project.

THE REVIEW

South Gippsland Water returned to first principles when undertaking the review process and with the assistance of a high level of engagement with key community representatives and broader stakeholders agreed the guideline principles;

- Protection of public health
- Provides for environmental protection
- Consistency with the regional water cycle context
- An efficient scheme which is affordable and ensures equity for South Gippsland customers
- To meet current regulatory and policy requirements
- Alignment with government direction.
- Provides sufficient flexibility to enable future development

Alignment with the State Government's "Victoria's Water Future" introduced further challenges, including the assessment of alternative technology solutions, affordability concerns and Whole of Water Cycle Management principles.

REVIEW RESULTS

The review resulted in a complete shift in thinking.

1. South Gippsland Water introduced Mandatory and Voluntary Service areas for the scheme including differential pricing. The areas were based on the location of lots to the central township and the property size and the capacity to treat waste on site. Public land and community facilities were included in the Mandatory Area.

Generally, allotments with an area less than 2,000m² were assessed as not having the capacity to treat and contain effluent within the property boundary. These properties

were included within the mandatory sewerage scheme area, and were subject to the \$800 capped scheme contribution amount.

Allotments larger than 2,000m² were assessed as able to treat and contain their effluent on site. These properties would be given the opportunity to connect to the scheme on a voluntary basis at a higher (yet still subsidised) rate.

South Gippsland Water would provide reticulation infrastructure throughout the Voluntary Area to enable connection subject to a \$5,000 scheme contribution.

2. A pressure reticulation system was adopted as opposed to the originally envisaged conventional gravity system.

An extended reticulation network was only possible due to the change to a pressure sewer system (lower cost reticulation) to be delivered via a partnership with South East Water.

3. Waste Water Treatment would be undertaken at South East Water's Lang Lang Waste Water Treatment Plant, approximately 12 kilometres from Nyora.
4. The incorporation of Whole of Water Cycle Management Principles, primarily in the form of rebates for water efficient products which would reduce infrastructure sizing, treatment costs and provide for a delayed water supply system augmentation.

5. A partnership developed with South East Water.

The South East Water partnership has been pivotal in the affordability of the scheme and has resulted in economic benefit for both organisations.

Efficiency of combined schemes has included;

- Cost savings on infrastructure
- Increased revenue from viable productive recycled water schemes
- More resilient and flexible systems

In addition, the partnership has allowed South Gippsland Water to leverage South East Water capabilities (in terms of cost inputs and organisational expertise and capacity)

This has included South East Water's;

- Advanced backlog sewerage planning, design delivery system
- Leading edge pressure sewer system technology
- Experience with Whole of Water Cycle Management planning
- Economies of scale from ongoing competitive delivery contracts
- Access to an established recycled water treatment plant.

PARTNERSHIP OUTCOMES

Outcomes from the partnership with South East Water included;

- Cost savings for both organisations in excess of 20% (\$12M) of a \$60M combined program
- A robust high technology urban sewerage solution
- Delivery of Whole of Water Cycle Management plans for the townships

- Transformation of a divided aggravated community into strong whole of community support
- A viable productive high quality effluent scheme for the region
- Growth in South Gippsland Water personnel knowledge and expertise
- Strong relationships between organisations, at all levels
- Environmental spin offs, eg Gippsland Giant Earth Worm Study

LEARNINGS

Beware of the potential for incremental decision making. The Board decided to fully review the delivery of the scheme due to escalating costs and problematic progress.

The review encompassed an extensive assessment of options and engagement with stakeholder and community representatives. The process did not discount any opportunity and encouraged a continuous scanning of further opportunities.

Be brave and bold, the decision of stepping back to review in order to move forward can be a difficult one, especially for those who have invested considerable resources and time, as well as for the wider community.

Clearly establish guiding principles and agree them with stakeholders. These guiding principles must be clear and able to be backed up through;

- Science; and/or
- Economics; and/or
- The Value proposition
 - Local and wider community
 - Government policy

In terms of identifying the Service Areas, South Gippsland Water relied on Environment Protection

Authority and local government regulations together with localised Land Capability Assessments.

The economics were self-evident in the cost/benefit analysis.

While the value proposition manifests itself in a myriad of ways including;

- Community liveability
- Customer affordability
- Regulatory compliance
- Alignment with Government Policy Imperatives
- Organisational capacity

Managing Engagement

Stakeholder and Community engagement for a project that extends over a long period of time has the potential to lose the interest and trust of the community and stakeholders.

A key component to success is to ensure that the community and stakeholders remain engaged and informed through the various stages of the project. Project guiding principles and demonstrating value of the outcome are key components.

For a project that is subject to a major shift, such as the Poowong, Loch, Nyora Sewerage Scheme it is vital to establish and agree the Guiding Principles and put in place communication channels to promote information exchange.

Alliances/ Partnerships

South East Water (SEW) has provided access to its technologies and expertise to plan and deliver the system. The SEW partnership extended to transfer and treatment of waste at SEW's Lang Lang treatment facility, eliminating the need for SGW to construct a Waste Water Treatment Plant. This agreement brings scalable benefits to the project and savings for both water corporations with treated

wastewater being beneficially re-used within South East Water's recycled water network.

A key focus for the Office of Living Victoria was alignment with the State Government's "Victoria's Water Future". Whole of Water Cycle Management Principles will be implemented via a Pilot Rebate Program that promotes alternate water sources, water saving initiatives and waste water reduction.

CONCLUSION

For a long term project that has provided the Corporation a range of challenges the Poowong, Loch, Nyora Sewerage Scheme has resulted in a number of highlights

- Challenges have provided opportunities
- Improved planning and review processes have been implemented
- Key partnerships have been developed and embedded
- Highly engaged community and stakeholders
- Innovative technical solution with cross border synergies
- Innovative project delivery incorporating alliances/partnerships
- Pricing impacts have been reduced for the wider customer base
- Regulatory outcomes have been achieved for the ESC and EPA
- Effective implementation of government policy imperatives - WoWC

