

**QLDC Council
30 June 2016**

Report for Agenda Item: 1

Department: Property & Infrastructure

Glenorchy Community Sewerage Scheme Report and Procurement Review

Purpose

The purpose of this report is to provide an update to council on the Glenorchy Sewerage Scheme project and recommend a procurement strategy for the delivery of this project.

Executive Summary

- 1 The QLDC Property & Infrastructure team has progressed the Glenorchy Sewerage Scheme (GSS) Project since approval was issued by Council in June 2015. This has included development and submission of the land discharge Resource Consent and commencement of the designation process required for the Peninsula site.
- 2 The original cost estimates have been updated to reflect the current Queenstown market and project considerations. The updated estimates show that there has been an increase in the expected construction cost due to a number of factors, including a surge in growth, inflation and an increase in market activity. The updated estimates also demonstrate that the three reticulation options originally considered are closer in total cost than initially believed whilst the Gravity-Hybrid option remains as the lowest cost.
- 3 A further review of the STEP reticulation option compared to the Gravity-Hybrid option has been undertaken. The options have been evaluated on the basis of overall project cost and their impact on delivering the service outcomes.
- 4 The procurement plan has been developed in line with the option which was recommended in the June 2015 report to Council and involves undertaking a complete design of the Hybrid/Gravity reticulation system and performance based specification for the treatment plant. Once the design is complete and approved by QLDC, the project would be tendered as one package with tenderers pricing the designed reticulation scheme and proposing a treatment plant that meets the proposed specification.
- 5 An alternative procurement process has been proposed which involves approaching the market with a full performance based specification and no preferred reticulation option. This would enable interested tenderers to tender on any reticulation system which meets the requirements of QLDC and the resource consent. QLDC would develop a tender document for both the reticulation system and the treatment plant on a performance based specification, allowing market driven alternative designs. The project would be tendered once resource consent had been issued and the selected contractor would be responsible for completing all design works.

Recommendation

That Council:

1. **Note** the contents of this report;
2. **Approve** the QLDC Property & Infrastructure team to proceed with a Two stage procurement plan as outlined in Option 2 of this report; and
3. **Approve** the QLDC Property & Infrastructure team to facilitate a community vote to determine support for a Sewerage Scheme.
4. **Authorise** the QLDC Property & Infrastructure team to undertake a further review of QLDC land holdings in Glenorchy to reconfirm the preferred location for a Treatment Plant and Disposal Field, and identify any opportunities for land sales.

Prepared by:



Ulrich Glasner
Chief Engineer

16/06/2016

Reviewed and Authorised by:



Peter Hansby
General Manager Property &
Infrastructure

17/06/2016

Background

- 6 At the June 2015 Council Meeting, Council approved the recommendation to proceed with the Glenorchy Sewerage Scheme Project and instructed the QLDC Property & Infrastructure team to undertake the following items of work:
 - Approve Concept Option B – Glenorchy Sewerage Scheme for the Glenorchy Township using a hybrid gravity/pressure sewer system reticulation combined with a package treatment plant and land application area located at the Peninsula Site, provided it is confirmed by re-evaluation of the Septic Tank Effluent Pump ('STEP) option.
 - Authorise Council staff to initiate the redesignation process for the Peninsula Site.
 - Authorise Council staff to initiate the assessment of environmental effects and to prepare and lodge the resource consent application for the discharge of wastewater to land with the Otago Regional Council.
 - Authorise Council staff to undertake the detailed design as required and prepare more detailed costings for the project.
 - Authorise Council staff to continue to consult with the Glenorchy community over the scheme costs and resident cost contributions.
 - Take the final project plan to the community for a vote of support.

- Direct council staff to report back to the Council over the outcome of the redesignation, assessment of environmental effects, resource consent application, community consultation/vote and project costings to get approval to proceed with the tender process.
- 7 Since June 2015 the Assessment of Environmental Effects has been completed and Resource Consent has been lodged. The consent has noted that a Gravity-Hybrid system will be installed as approved in June 2015. The consent applied for is for the discharge and will be sufficient to cover any of the three considered reticulation schemes if an alternative option were to proceed.
 - 8 The designation process has commenced and the application is being developed and prepared for lodgement at a suitable time.
 - 9 The QLDC Property & Infrastructure team has been in consultation with the Glenorchy Community and has arranged for the initial cost estimates to be updated and revised. The initial feedback from the community raised some concerns over the level of review that had been undertaken on the options presented in the June 2015 report.
 - 10 A document was developed outlining the non-price attributes that have been taken into consideration when reviewing the options for a reticulation scheme. This included consideration of ongoing operational and maintenance requirements for each of the options.
 - 11 Based on the updated costings and community consultation an alternative procurement strategy has been developed which still recognises the option which was approved in June 2015, being to develop the design for Concept Option B (Hybrid gravity/pressure sewer system reticulation combined with a package treatment plant), but which provides a more open and competitive procurement process.

Comment

- 12 This paper does not discuss in detail the different types of reticulation or treatment plant options available. These were discussed and assessed in the item to council in June 2015. This paper will provide further analysis of the ability of the STEP and Gravity-Hybrid reticulation systems to meet the identified service outcomes for the GSS project.
- 13 The procurement options for delivery of a GSS based on the approval in June 2015 have been reviewed and a recommended procurement plan produced. An alternative procurement plan has been developed based on feedback from the community, and the revised estimates based on current market conditions. These options for procurement are reviewed and compared in this document and it is requested Council provide approval to proceed based on one of these plans.
- 14 For clarity the options which have previously been reviewed and considered for the reticulation scheme are:
 - a. Pressure Sewer System (PSS)
 - b. Septic Tank Effluent Pumping (STEP)

c. Gravity-Hybrid System

Further Evaluation of a STEP Reticulation System compared to a Gravity-Hybrid Reticulation System

- 15 It was requested in the June 2015 decision that the recommendation for Gravity-Hybrid was confirmed as the recommended option by a further evaluation and comparison against the STEP system.
- 16 QLDC has identified the service outcomes which the development of a Glenorchy Sewerage Scheme is intended to meet. These have been developed with reference to QLDC Infrastructure objectives, and feedback received from the Glenorchy community and QLDC portfolio councillors. This information has developed a list of criteria which the proposed schemes are to be assessed against.

Addresses Critical Infrastructure Needs and Public Health Concerns

- The system addresses critical issues with the existing infrastructure, and the need for additional services in order to deliver required levels of service.
 - The system will address the health risks associated with the uncontrolled discharge of wastewater.
- 17 It has been identified that there are concerns with the current individual systems installed in Glenorchy for managing wastewater treatment and discharge. The concern relates to compliance of household and commercial systems where land for discharge is limited and installed schemes require upgrading. In order to deliver a suitable wastewater treatment service a communal scheme is recommended for the Glenorchy community to manage and treat wastewater discharge from residential and commercial properties. Both the STEP and Gravity-Hybrid options will provide a reticulation system which is capable of providing this service to the existing community.
- 18 A communal wastewater system will reduce the public health issues resulting from uncontrolled wastewater discharge. By eliminating the requirement for individual property owners to install and manage their own systems it lowers the risk that systems may be improperly installed or managed resulting in uncontrolled discharge of wastewater placing the public's health at risk.
- 19 A STEP system would require a tank to be installed on each individual property which could impact on the future overall minimum section size for residential properties and also restrict the land area available for use by commercial enterprises. The Gravity-Hybrid system would have a minimal impact on the land use abilities of property owners.
- 20 A STEP system would rely on the individual property owner correctly maintaining the septic tank installed on their site. The risks around disposal are significantly reduced as the system will be connected to a council managed treatment plant and disposal field, however some risks still remain to public health should individual tanks fail to be suitably maintained. This risk can be managed through monitoring processes put in place by QLDC and ORC.

21 A Gravity-Hybrid system will remove the risks of uncontrolled wastewater discharge by connecting the communities' individual systems to a centralised scheme. This will also place the majority of maintenance and operational control with QLDC reducing the maintenance requirements of individual property owners. There are still risks of uncontrolled wastewater discharge occurring if the system is not properly maintained and monitored but this risk is reduced by placing responsibility for maintenance with one entity.

Responds to Anticipated Growth

- The proposed solution will be able to meet the anticipated growth in demand for services.
- 22 The GSS is intended to be delivered in stages with an initial scheme installed to cater for the current demand and immediate community growth through to 2020. The ultimate scheme design is intended to cater for projected growth through to 2065.
- 23 The reticulation schemes proposed have been reviewed to determine their ability to expand and cater for the expected growth. Under either option the reticulation system and treatment plant which will be required to be upgraded in the future in order to provide treatment for higher future volumes. The cost and overall scope involved in expansion of the scheme under a STEP reticulation system is greater than under a Gravity-Hybrid option.
- 24 The Gravity-Hybrid system will primarily require upgrade to the treatment plant and the disposal field. There may be some additional expansion required to the installed pipelines but the majority of this will be sized to cater for the ultimate scheme size and installed during the initial scheme. This will provide a relatively easy method for expanding the scheme as and when required.
- 25 The STEP reticulation system will require an upgrade to the treatment plant and disposal field in order to cater for the ultimate scheme size which will be less significant than under the Gravity-Hybrid system. Additionally new septic tanks and connections will be required to be installed on each additional property which connects to the scheme. The level of work involved in these connections is more significant and time consuming than a lateral connection which would be required under a Gravity-Hybrid system.
- 26 Additional pumping stations may also be required to be installed as the scheme grows under both reticulation systems. The number of pump stations required under a STEP system is greater than under the Gravity-Hybrid.

Supports QLDC's model of service

- The proposed solution is in line with and supports the QLDC model for provision of infrastructure services to the community.
- 27 A STEP reticulation system will involve a significant portion of infrastructure to be decentralised and located on private property. The ultimate responsibility for the ongoing maintenance and performance of these assets will rest with QLDC as the consent holder. This presents a significant risk and additional cost due to the need for ongoing consultation, access to private property and ratepayer interface required for the management of these assets. This is not entirely removed under

a Gravity-Hybrid system but is significantly reduced as the majority of these assets are centralised or located on public property providing increased accessibility.

- 28 STEP systems typically require the supplier to hold a long term maintenance contract to service the systems in order to obtain warranty support. QLDC endeavours to competitively procure significant district wide network maintenance contracts, which would involve Glenorchy. The STEP system may result in a loss of efficiencies and increase in administration costs to the maintenance contracts if multiple contractors are engaged to manage separate portions of the system.
- 29 QLDC aims to respond to critical infrastructure outages quickly and to have appropriate monitoring systems in place to notify the maintenance contractor of outages and issues. The STEP system typically relies on an audible and visual alarm on the property where the pump is located to notify of any pump issues or failures. This places the requirement on the property owner or neighbour to respond to any issues to avoid wastewater overflows. To mitigate this risk QLDC may require remote monitoring to be installed to enable the maintenance contractor to be notified of any failures and to respond accordingly.
- 30 At this stage the model of service does not provide for apportioning operation and maintenance costs on a usage basis. The STEP system would more easily provide for the ability to undertake volumetric charging based on wastewater discharge, if this was to be considered a priority for Council. A volumetric charging model would involve additional costs to install meters and a high level of additional administrative work. The OPEX costs would be recovered from ratepayers based on their discharge volumes, this will result in properties with more individuals living in them and properties which are inhabited for greater periods of the year to pay more than properties which are not.

Represents Value for Money

- Represents a value for money solution which meets service needs at a balanced capital investment.
- 31 High level only financial modelling and analysis has been undertaken for both reticulation systems. These models have been based on providing the same level of service required to meet current and future demand. The capital costs involved in both options are identified in table 1 at paragraph 50.
 - 32 The updated cost estimates indicate that the Gravity-Hybrid option will provide the lowest connection cost for each resident out of the three options proposed. The Gravity-Hybrid option is also at a lower risk of cost escalation for the required future expansions to meet the ultimate scheme size. This is due to the main component of these costs being involved in the expansion to the treatment plant and the ability for the majority of these works to be undertaken as one package. The expansion of the STEP system to the ultimate scheme size involves the purchase and installation of the individual tanks required for each future property connection. It is unlikely that these will be procured in one bulk order so the costs will be subject to market conditions at the time of connection and involve a lower ability to negotiate and encourage competitive pricing.

- 33 A STEP reticulation system would require the installation of a septic tank on individual properties which would reduce the overall area available for buildings. Due to the existing section sizes in Glenorchy this is unlikely to be an issue to existing residential properties but may cause an impact in the future if the minimum section sizes were to be reduced. This is more likely to be an impact on some commercial businesses where larger septic tanks are required and they do not have the land readily available for installation.
- 34 The annual ongoing maintenance costs will vary depending on the reticulation option and type of plant selected. Reticulation based operational costs are expected to be higher with the STEP option due primarily to the large number of pumps that will require regular maintenance. The long term pump replacement costs for STEP and PSS systems are relatively unknown in New Zealand and some initial reports have indicated the need to replace pumps earlier than anticipated. This places more risk on the operational and maintenance costs for a STEP system when compared to a Gravity-Hybrid reticulation system. QLDC is currently determining ownership responsibilities for pump systems installed on private property under a separate paper. It is likely that after the warranty period of a STEP system ends the property owner will be individually responsible for repair and replacement costs.

Environmental Sustainability

- The proposed solution should look to minimise negative environmental impacts and encourage sustainability where appropriate.
- 35 A sewerage scheme will address any current negative environmental impacts occurring from uncontrolled wastewater discharge from individual wastewater systems. A communal system with a designated disposal field will allow for the discharge of wastewater to be suitably treated, managed and monitored. The impact of the disposal system on the environment is addressed during the consenting stage and shifts the responsibility for this from the individual property owners to QLDC who will manage the communal system.
- 36 A STEP system will result in lower inflow and infiltration (I&I) rates due to the reticulation being better sealed than a Gravity-Hybrid system. This issue is less likely to impact on new systems with better materials and tighter construction standards. The Gravity-Hybrid system will include a section of sealed pipes in areas where there is a high groundwater table. The higher levels of I&I will likely result in the Gravity-Hybrid treatment plant being slightly less efficient than a treatment plant for a STEP system due to dealing with the additional flows from the infiltration. QLDC are looking into methods for monitoring and addressing I&I in their wider network and is something that would be managed under this system. The STEP system would provide a level of initial on site treatment prior to arriving at the treatment plant through the initial removal of bio solids. Both of these factors would reduce the level of treatment required at the treatment plant resulting in a smaller plant and disposal field size.
- 37 The Gravity-Hybrid option will provide the opportunity for existing gravity reticulation in some areas of the township to be utilised and would avoid the loss of these already installed pipe materials and pumps. Subject to individual site evaluation, the STEP option could result in the opportunity for some existing septic tanks to be retained, reconfigured and reutilised. Both of these scenarios

reduce the infrastructure requirements and impacts. However, it is noted that Innoflow, one of the largest STEP system provider in the country, has indicated that the proportion of septic tanks suitable for reuse in an existing township situation is typically very low. It is expected that in most circumstances the cost saving to reuse an existing septic tank will be quite small and not provide a significant benefit.

- 38 The options proposed do not directly encourage individual users to look at methods for reducing their overall wastewater discharge. The STEP option may encourage some users to investigate this option but as the annual maintenance cost for the scheme will be the same for each user, independent of overall discharge, there is little incentive. There are some unknowns around the impact of discharging high concentration black water into a STEP system which would be the result if users choose to alternatively treat/discharge their greywater.

Risk Summary

- 39 The further review of the STEP and Gravity-Hybrid reticulation options has identified a number of risks with both options that QLDC will need to accept or mitigate. Some of these risks may result in large costs to manage which are difficult to quantify at this stage. Based on this review a Gravity-Hybrid reticulation system is the preferred option when compared to a STEP system due to the lower risks involved. The following is a summary of the key risks identified with a STEP reticulation system:

- Greater ongoing maintenance and operational costs including potential need for early replacement of pumps.
- Market forces impacting the price of STEP tanks required for future connections creating less cost certainty.
- Additional QLDC resources required to manage future connections and facilitate/monitor maintenance of STEP tanks by ratepayers.
- Decentralised system which places some of the compliance and maintenance responsibilities on the ratepayer.
- Lower level of control and oversight of the entire system held by QLDC.

Revised Cost Estimates

- 40 The previous 2014 cost estimates prepared for the various potential reticulation options that are under consideration for the GSS have been updated. The revised 2016 cost estimates for both the initial and fully developed (ultimate) network are presented in the following table:

Reticulation Option	Initial Scheme	Ultimate Scheme	Individual Connection Charge
Gravity-Hybrid	\$6.57M	\$9.84M	\$18,800
Pressure Sewer System (PSS)	\$6.13M	\$10.23M	\$19,600
Septic Tank Effluent Pumping (STEP)	\$5.93M	\$10.02M	\$19,200

Table 1 - Cost Estimates for Various Reticulation Options Considered

- 41 All costings are in Present Value terms and include allowance for MSQA and contingencies, but exclude GST.
- 42 The cost estimates have included an allowance for a lateral connection from the boundary to the existing private property system. The connection costs for future connectors will need to be paid separately by the future property owner at the time of connection. The costs do not include for the removal or disconnection of any existing wastewater treatment systems on private property.
- 43 The revised 2016 estimates indicate that there has been a significant escalation in construction cost to develop the GSS regardless of the reticulation option selected. Several factors have contributed to this cost escalation as follows;
- A recent surge in growth within the township resulting in more dwellings to be connected to the Initial Scheme,
 - An increase in the number of low lying dwellings to be serviced via the PSS network which increases the number of pump stations required in the Initial Scheme (only significant to Gravity-Hybrid option),
 - A significant increase in general construction costs due to increased market activity and the volume of work available to the contracting market.
- 44 The individual connection charges as shown above have increased since the June 2015 report due to the reasons noted above. The most significant of these relates to the Gravity-Hybrid option which has increased from \$15,750.
- 45 Despite the increase in costs from the updated cost estimates the Gravity-Hybrid option still represents the lowest per dwelling connection charge. However, the cost variance between the Gravity-Hybrid option and the other reticulation options has reduced.
- 46 The primary basis for recommending the Gravity-Hybrid option was on the lower connection cost comparable to the alternative options. As this is now less significant it is worthwhile reviewing if an alternative procurement strategy would provide greater value to council and the community.

Review of Queenstown Construction Market

- 47 A review of the current Queenstown construction market indicates that materials and construction costs are currently high; this is a reflection of the current shortage of contractors compared with the quantity of work available. Due to this we have seen less competition for recent projects and the ability for contractors to choose which projects they tender for. There is a risk that this may impact the quantity and quality of tender submissions received on this project depending on how and when it is issued to the market.
- 48 An important consideration for this project has been the overall cost impact and the flow on per dwelling connection cost. This has been a driver when reviewing the proposed solutions and the methodology for procuring a solution. In order to achieve a lower overall cost it is important to create a competitive tender environment which will encourage tenderers to be more aggressive with their pricing.
- 49 In order to achieve competitive pricing, a procurement approach could be taken to tender the project on a design, construct and operate tender rather than based on a single complete design package as previously approved. This would create flexibility in the options which tenderers can price on and likely encourage a greater number of responses to an invitation to price.
- 50 QLDC would like to maintain flexibility in the procurement of solutions for the GSS project. However, feedback received from the recently completed tender process for the 'Shotover' project has indicated that there may not be a large appetite in the market for design, construct and operate contracts of a low value such as this project. This is due to the upfront costs involved from the tenderers to develop a design for their tender submission being high compared to the value of the project itself and the number of competing tenders. To overcome and offset this market barrier, QLDC would provide specimen design information for the reticulation component of the project including all electronic data and models for use which will aid any proposal. This is the best way to achieve engagement from the contracting market whilst maintaining procurement flexibility to ensure that different market process components are not excluded or unduly penalised.

Procurement Strategy

- 51 A review of the procurement options available to QLDC has been undertaken to develop a procurement plan to progress the GSS. A procurement plan has been developed to progress the approval granted by Council in June 2015. This option provides for undertaking a traditional procurement approach involving completing the design for the project prior to approaching the market. Due to the structure of the project programme this type of procurement is well suited to this project and the details for this approach are outlined in paragraph 66.
- 52 The QLDC Property & Infrastructure team undertook additional investigation works in order to report back to the community around queries raised in December 2015. This process involved a further review of the cost estimates and market conditions as documented under paragraphs 49 and 57 of this report. This review led to an alternative procurement approach being reviewed and developed. The alternative involves early contractor engagement and follows a design and build procurement philosophy. A summary of the alternative is

included for comparison below. This alternative approach also allowed for the community to put forward a tendered scheme which had been indicated as something they were exploring and believed could be done affordably and meet their expectations.

53 The two procurement plans take separate approaches to manage the overall GSS cost. The traditional plan allows for earlier certainty around the project cost and the ability to manage these costs during the design process to determine if any cost savings or efficiencies are achievable. The alternative procurement plan attempts to create greater cost competition during the tender process and the incentive for tenderers to look at opportunities for cost efficiencies in the project and reflect these in their tender prices.

Outline Procurement Plan for a Traditional Two Stage Procurement

54 In implementing the option approved at the June 2015 meeting QLDC would undertake a two staged procurement process. The first stage would relate to the design of the reticulation system and would be completed in parallel to the resource consenting process. Once the resource consent had been issued and the detailed design complete QLDC would run an open tender to procure a main contractor to deliver the construction works.

55 The design tender would be an invited tender to suitably prequalified Engineering Consultants. The scope would encompass undertaking the detailed design of the reticulation scheme and a performance based specification for the treatment plant. Consultants would be evaluated on both price and non-price attributes and would be evaluated by a QLDC appointed evaluation panel. The scope of work would include:

- Concept and Detailed design of the reticulation system.
- Development of a performance specification for the treatment plant.
- Development of the tender and contract for the main construction contractor.
- Construction issue documentation for the reticulation system.
- MSQA services during the construction phase.

56 This process would allow QLDC to maintain a significant level of control during the design of the reticulation system and remove this design risk and cost from the contractor.

57 Once the detailed design and performance specification were completed the appointed engineering consultant would undertake an engineer's estimate of the overall construction cost. This estimate would provide greater accuracy on costs compared to the estimates completed to date due to more certainty around the final design. This will provide QLDC with greater cost certainty early on and also provides QLDC the ability to review the reticulation design to determine if any cost savings can be realised.

58 Upon issue of the resource consent QLDC would release the tender for the construction works to the market. QLDC would run an “Open” tender for the GSS, not an Invited Tender. An Open Tender process involves advertising the project and calls for tenders to be submitted from appropriately qualified companies. The tender would be for the construction of the designed reticulation scheme and the design, construction and operation of the treatment plant. As the reticulation scheme would have already been designed the contractor would only be responsible for the provision of the treatment plant design.

59 This approach creates a tender process which is low cost and easy for contractors to respond to, due to it not requiring a tenderer to undertake extensive detailed design work. This will assist in encouraging the number of responses to the tender and reduce the additional cost some tenderers may build in for anticipated risks around design.

60 QLDC would not allow for alternative tenders to be submitted under this approach and only tenders that meet the designed reticulation scheme would be accepted. This would result in only contractors who can meet the specification and provide the designed reticulation system responding to the call for tenders and would exclude suppliers of alternative systems.

61 Tenderers will be required to submit, and will be evaluated on;

- The relevant experience of the Tenderer.
- The track record of the Tenderer in delivering projects of similar scale and complexity.
- The financial stability of the tendering organisation or consortium.
- The relevant skills of the personnel put forward by the Tenderer to deliver the project including the Operation and Transfer teams proposed and the method of operational transfer to Council or their agent.
- The Methodology proposed by the Tenderer to deliver the projects physical works.
- The total price of the tendered solution.
- Net Present Value including ongoing operational and maintenance costs.

62 The received tenders will be evaluated by a Tender Evaluation Team (TET) comprising appropriately qualified Council Staff and Technical Experts. An independent community observer would be invited to be present during the evaluation process (specifically in respect to the treatment plant).

63 The TET will complete their evaluation in accordance with the evaluation criteria to be listed in the Tender Document and will recommend a Tenderer to full Council for approval and contract award.

64 Following contract award, Council will monitor the performance of the successful Tenderer against the provisions of the tender and contract documents.

Outline Procurement Plan for a Design, Construct, and Operate Tender

65 QLDC would run an “Open” tender for the GSS, not an Invited Tender. An Open Tender process involves advertising the project and calls for tenders to be submitted from appropriately qualified companies. This maximises the opportunity for the Glenorchy Community to receive proposals involving best practice solutions from the market and does not exclude any particular party or process.

66 The tender will be a Design, Construct, Operate and Transfer Tender inclusive of performance based specifications for reticulation, treatment, and disposal to land elements. It is envisaged that the documents will include a specimen design for the township reticulation that will assist tenderers to develop their own reticulation designs for their preferred treatment processes.

67 QLDC will engage a suitably qualified engineering consultant to assist in developing the tender documentation, including a performance specification and the specimen design.

68 Tenderers will be required to submit, and will be evaluated on:

- The relevant experience of the Tenderer including both their Design Teams and Construction Teams.
- The track record of the Tenderer in delivering projects of similar scale and complexity.
- The financial stability of the tendering organisation or consortium.
- The relevant skills of the personnel put forward by the Tenderer to deliver the project including the Operation and Transfer teams proposed and the method of operational transfer to Council or their agent.
- The Methodology proposed by the Tenderer to deliver the project physical works.
- The stability and reliability of the treatment process. This evaluation component will specifically examine how robust the proposed treatment process will be and what risks are faced by Council in terms of consent compliance, O&M costs and generation of bio solids. The review of O&M costs will include both the private and public costs associated with the option.
- The ease and implications for managing the maintenance and operation of all the plant required under the proposed option.
- The total price of the tendered solution.
- Net Present Value including ongoing operational and maintenance costs.

69 The received tenders will be evaluated by a Tender Evaluation Team (TET) comprising appropriately qualified Council Staff, Technical Experts. An independent community observer would be invited to be present during the evaluation process.

- 70 To maximise flexibility and competition, Alternative Tenders will be permitted. An Alternative Tender will be one which does not meet or satisfy some aspects of the Performance Based Specification. It will be necessary for any Alternative Tender to identify where departure from the specification occurs and to outline how the risks of departure are managed. Evaluation of any Alternative Tender by the TET will be achieved by utilising the NZTA Price Quality Method.
- 71 The TET will complete their evaluation in accordance with the evaluation criteria to be listed in the Tender Document and will recommend a Tenderer to full Council for approval and contract award.
- 72 Following contract award, Council will monitor the performance of the successful Tenderer against the provisions of the tender and contract documents.

Community Vote

- 73 It was approved in June 2015 that the project would be presented to the community for a vote of support. It was noted that this would occur once the final design was complete and resource consent had been granted. Alongside approval of a procurement plan it is important to determine how a community vote should be undertaken in conjunction with this strategy.
- 74 A community vote of support could be held prior to the resource consent being issued and the project being tendered. This would call for the community to vote on their support for a sewerage scheme for Glenorchy based solely on support for the implementation of a treatment scheme and would remove any bias which may exist to one type of scheme over another. This option would provide some certainty to contractors during the tender process that the project is likely to proceed. It may be prudent to establish support for the scheme prior to additional costs being incurred during the tendering and resource consenting process.
- 75 Alternatively the community vote could be held once the project has been tendered and is at a point ready for construction. This would enable the final scheme design and contractor to be known, providing the community with full knowledge of what would be installed. This process would also allow the full costs of construction and individual connection costs to be known at the time the vote occurs. A risk for this process is that it may have a negative impact on tenders, as there is a perceived risk that the project may not proceed once it has been awarded depending on the results of this vote.
- 76 It is proposed that a community vote should be based on either a yes or no in support of a sewerage scheme proceeding. Members of the community would be provided with a set number of votes based on dwelling equivalents which would provide votes based on the number of connection charges each ratepayer would have to pay.

77 Peninsula Location

- 78 A meeting was held with representatives of the Glenorchy Community Association and Riding Club on site at the Peninsula. Concerns were further raised by the community around the loss of usable recreational space on the Peninsula if the treatment plant and disposal field were located in this location.

Some alternative options were discussed at this meeting and it was requested that they be further investigated by the QLDC Property and Infrastructure team.

79 It is recommended that the QLDC Property and Infrastructure team undertake a further review of suitable locations for the treatment plant and disposal field. This would involve a review of the sites previously identified including further investigations into any other sites within the surrounding area that could be utilised as an appropriate location. It is recommended that this analysis also includes a review of existing land holdings and identify any opportunities where land could be sold to provide funding toward the GSS.

Options

80 This report identifies and assesses the following reasonably practicable options for assessing the matter as required by section 77 of the Local Government Act 2002.

81 Option 1 - Do nothing. This option maintains the status quo whereby no community sewerage scheme is developed and all Glenorchy residents remain individually responsible for treatment and disposal of wastewater on-site.

Advantages:

- The advantages of this are the lack of CAPEX cost and associated risks to Council due to all property owners continuing to be responsible for their own on-site wastewater disposal.

Disadvantages:

- The primary disadvantages associated with this include the risk of continued degradation of groundwater quality; the lack of resiliency during lake flood events and associated health risks; and the inability of some current property owners to meet current and future regional (ORC) standards for on-site wastewater disposal.
- There is also an ongoing compliance risk and cost for QLDC as they endeavour to respond and rebut regional policy requirements of the ORC.
- This option was previously discounted in the June 2015 report.

82 Option 2 - Proceed with a two stage procurement approach (as outlined in paragraph 67) for a Gravity-Hybrid reticulation system combined with a package treatment plant as approved in June 2015.

Advantages:

- QLDC will retain control of the overall design and selection of plant and equipment.
- Easier for QLDC to manage scope changes and variations.
- Provides a degree of early cost certainty.

- Final reticulation scheme is known and any required easements and agreements can be facilitated during the Resource Consenting process.
- Early integration with the maintenance contractor can be undertaken with regard to the reticulation scheme.
- Construction can commence immediately after tender is awarded.

Disadvantages:

- Targets a small portion of the Wastewater market which may result in less tender submissions.
- Design and programme risk is held by QLDC.

83 Option 3 - Develop and undertake an open tender procurement allowing for alternative designs

Advantages:

- May encourage a larger number of tender bids.
- Will encourage innovative solutions and proposals from the Wastewater market.
- Benefits from contractor engagement in the design which can improve buildability and maintainability.
- Design and programme risk are passed onto the contractor.

Disadvantages:

- Scope changes and variations are likely to be more expensive.
- Will involve a more time consuming tender evaluation process.
- Design will need to be undertaken and finalised once the tender has been awarded. This will result in a delay to the commencement of construction works.
- QLDC has less control over design and plant selection.
- Reliant on the initial scope and performance specification being clearly defined.
- Reticulation scheme is unknown until the tender has been awarded.

84 This report recommends **Option 2** for addressing the matter based on:

- The risk of continuing with the current status quo is too high and this is not a valid option.
- The alternative procurement option was in part developed in response to concerns raised by community members. The message received from

these members in response to the procurement options has since been a preference to approach the market with one preferred option.

- The control and responsibility of the design is held by QLDC and will allow more opportunities to actively pursue efficiencies and cost savings during the design process.
- Proceeding with a Gravity-Hybrid reticulation scheme best meets the current QLDC risk profile due to the greater level of control held by QLDC and lower ongoing administrative costs and requirements.

85 This report also recommends that a community vote is held to determine support for a Sewerage Scheme. It is recommended that a vote is facilitated prior to the project going to tender to determine the level of support as early as possible. The following will form the basis of a community vote:

- The vote would provide ratepayers the option to vote either yes or no in support of a scheme.
- There would be a comment section provided for ratepayers to provide further comment.
- Ratepayers will be allocated a set number of votes based on a dwelling equivalent basis.

Significance and Engagement

86 This matter is of high significance, as determined by reference to the Council's Significance and Engagement Policy because:

- **Importance:** the matter is of medium importance to the District.
- **Community interest:** the matter is of high interest to the community.
- **The impact on the Council's capability and capacity:** This project is budgeted for on Council's Ten Year Plan for 2016/17.

Risk

87 This matter relates to the strategic risk SR1, Current and future development needs of the community (including environmental protection) as documented in the Council's risk register. The risk is classed as high. This is because of economic, social, environmental and reputational risks.

88 A key element of this risk is meeting the current and future needs of the community. There is a strong element of environmental protection to this risk. The risk relates as well to the economic and social consequences of not meeting affordability issues for the community. The matter therefore can be considered to mitigate the risk of not meeting these needs.

Financial Implications

89 This matter is included in the Ten Year Plan.

Council Policies, Strategies and Bylaws

90 The following Council policies, strategies and bylaws were considered:

- QLDC Water Metering Policy
- QLDC Water Supply Bylaw
- QLDC Land Development and Subdivision Code of Practice
- QLDC Extension and Connection Costs for Water and Sewerage Policy
- QLDC Policy for the Provision of New Water Supply and Sanitary Sewer Connections
- QLDC Three Waters Asset Management Plan 2015

91 The recommended option is consistent with the principles set out in the named policy/policies.

92 This matter is included in the 10-Year Plan/Annual Plan

- Project number 4028 Glenorchy New Wastewater Scheme
- Budget 2015/16 \$261,750.00
- Budget 2016/17 \$5,929,048.00

Local Government Act 2002 Purpose Provisions

93 The recommended option:

- Will help meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses by providing a community wastewater treatment system;
- Is implemented through current funding under the 10-Year Plan and Annual Plan;
- Is consistent with the Council's plans and policies; and
- Would not alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the Council, or transfer the ownership or control of a strategic asset to or from the Council.

Consultation: Community Views and Preferences

94 A summary of previous consultation undertaken was commented on in the June 2015 report and will not be repeated in this report. The below will focus on consultation relating to the alternative procurement strategy and revised cost estimates.

95 The persons who are affected by or interested in this matter are the Glenorchy Community, Neighbouring property owners, and Otago Regional Council.

96 The Council has met with the Glenorchy community on a number of occasions to discuss this project. Concerns were raised by the community on the previous recommendation to proceed with a Gravity-Hybrid reticulation scheme as to how this decision was made. The alternative procurement strategy was presented to the community in a paper released on 18 April 2016 which commented on the non-price attributes that had been taken into consideration. Further details of the review between a STEP and Gravity-Hybrid reticulation system have been included in this report.

- 97 The alternative procurement strategy addresses a number of the concerns raised by the community and allows for tenders to be assessed against both cost and non-price attributes. The connection cost for community residents is a key concern and options for encouraging competitive pricing should be investigated to address this concern.
- 98 The QLDC Property & Infrastructure team has been in ongoing discussion with the Sustainable Glenorchy community group around their concerns. This group is in support of a STEP reticulation system and has some concerns around the process undertaken by QLDC in previously assessing options. They have indicated a preference for QLDC to approach the market with a preferred option rather than the open tender alternative approach.
- 99 Councillors and the QLDC Property & Infrastructure team have met with the Glenorchy community to discuss the contents of this agenda item and the recommendations put forward prior to the Full Council meeting.
- 100 A meeting was held with representatives of the Glenorchy Community Association and Riding Club on site at the Peninsula. Concerns were further raised by the community around the loss of usable recreational space on the Peninsula if the treatment plant and disposal field were located in this location. The discussion was in support, in general, of a treatment plant and disposal field provided an appropriate location could be agreed that minimised the impact on existing and proposed recreational areas.
- 101 The Otago Regional Council has not expressed a preference on the specific solution to be implemented in Glenorchy. They have expressed their support in a scheme being implemented as it will address a number of ongoing resource consent issues that require resolution, and are eager to see progress on this project.

Attachments

- A Glenorchy Sewerage Scheme – Assessment Update