

SHARPE Kirsty

Kawarau Bridge Relocation Group

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Submitters Comment

Please see attached submission

26 April, 2017,

To the Queenstown Lakes District Council

This is a submission to the Annual Plan. We are asking QLDC to assign designation of a second bridge crossing on the Kawarau river east of Boyd Road, from the south to connect to the Eastern Arterial Route. Resources need to be allocated in this plan for this to happen. This has to be a QLDC initiative since state highway is not involved.

The submitters are members of the "Kawarau Bridge Relocation" group which lobbied NZTA and QLDC to change the location of the new Kawarau bridge further down the river from the proposed Falls site. NZTA is proceeding with the new two- laned bridge at the Falls site but has acknowledged that a second bridge will be needed in light of the expected growth of population and tourism in the Wakatipu area.

A second Kawarau bridge crossing needs to be accepted as a necessity. Planning needs to start immediately ie business case, route designation, budgets, schedules to enact this. We request that this happens in this next financial year. The exact location of the bridge and connecting roads to be decided on by QLDC. There are paper roads in the area that need to be protected in the meantime.

1) We propose that the route to the river crossing follow paper roads on the southern side of the Kawarau river then cross on a short piece of Remarkables Park land then linking to the EAR. See attached map.

2) **Reasons for this are –**

- a) A downstream crossing will relieve traffic congestion on the Kawarau road from the BP roundabout corner to the south and vice versa. Congestion will also be relieved at the roundabout itself.
- b) There is demand from the south for a bypass around Frankton and linking to the State highway north.
- c) Population growth and commercial development in the Frankton area and to the south warrant a second and more direct route to the shopping centre.
- d) The proposed gondola link from Remarkables Park to the Remarkables ski field will add further demand on roading infrastructure in the area.

3) **Development Growth**

Spectacular growth of commercial activity and population in the Frankton area, to the south and to the east will increasingly challenge QLDC's capability to plan for this development. A downstream bridge in the proposed location will serve better the expanding traffic flows from at Jack's Point, Hanley Downs(2,300 capacity) and Homestead Bay, when fully developed. Likewise, increased ski field traffic from the

recently expanded Remarkables ski field will benefit also. Development demand is increasing more to the east of Frankton rather than to the west. A new bridge in the proposed location will serve the needs of the district better than the Kawarau Falls bridge.

4) By Pass Demand

Frankton is experiencing increasing numbers of heavy trucks on SH6 from the Falls bridge to the BP roundabout and then routing to the east. The downstream bridge option would provide this traffic with a direct bypass and relieve present and future clogging of both Kawarau Road and McBride Street.

5) Emergency Services – Ambulance, Fire, police etc

The downstream bridge option would provide more direct and faster access for ambulance and other health and emergency services to the south.

6) Disaster Resilience

Two bridges are better than one in case of a disaster.

7) New Wakatipu High School

The school will add considerable traffic when opened. The proposed option removes extra congestion from the Falls bridge and the Kawarau Road leading to and from the BP roundabout.

8) Connectivity to the Eastern Arterial Route

The downstream bridge would link directly to the EAR enabling traffic to flow both east and west on a main road link.

9) Road Width

This needs to be 30 m in width. This would then allow for the option of the new connection to be made into state highway.

10) Sewage

Sewage from the New Hanley Downs development is to be piped under the new bridge to link into the sewerage infrastructure west of Frankton. This infrastructure is already overloaded. If the sewerage pipe could come underneath the new bridge as we propose, it could then be connected more directly to the sewage treatment plant beside the Shotover river. In addition Jack's Point may become connected to the sewerage scheme in future .

11) Support for this bridge location

- a) A face book page set up for the Kawarau Bridge Relocation subject has registered 1365 "likes" to date.
- b) Most people in the Wakatipu preferred a downstream bridge – this was clearly demonstrated in a community opinion survey preliminary results done by Adam Childs of the KBR group.
- c) Todd Barclay, MP, supports the group that a second bridge downstream will be required within 10 years if predicted growth patterns continue.
- d) The NZ Transport Agency accepts there will be demand for a bridge in this location in the future.
- e) Minister of Transport, Simon Bridges, has encouraged those in favour of this bridge location to continue advocating for it. He notes that the Central Otago region is one of the fastest growth areas in NZ and so has a strong claim on NZTA's future resources for further infrastructure investment to help the district cope with the expected traffic flows.
- f) The Frankton Community Association supports a second river crossing.

12) Designation of Bridge

This needs to happen now to preserve road corridors to the south and north as any land purchases would be more cheaper now than years into the future.

Supporting Documents

A Risk Benefit Analysis of Crossing the Kawarau, Adam Childs

Community Opinion Survey – Preliminary Results, Adam Childs

Crossing the Kawarau – March, 2015, Hudson Turnbull

*Traffic Figures – BP roundabout movements, by Kawarau Bridge Relocation Group

* Traffic numbers taken in May and June, 2015, show a majority of traffic turning right at the BP roundabout rather than left into Queenstown. Traffic from the east approaching the roundabout are in the majority turning south. Kelvin Heights turnoff figures show a majority heading south rather than turning into Kelvin Heights and vice versa.

Submitters names

David Hay, Adam Childs, Sir Eion Edgar, Dr Ralph Hanan, Hudson Turnbull, Kevin Conaghan, Simon Hayes, Alan Millar, Bill and Kirsty Sharpe

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We wish to appear at the hearing.

Yours faithfully

Kirsty Sharpe on behalf of Kowarau Bridge Relocation group



A Risk Benefit Analysis of Crossing the Kawarau

Background

A new bridge is to be built across the Kawarau River near its exit from Lake Wakatipu in Frankton, New Zealand (near Queenstown). There has been significant resistance from the local community for NZTA's current plans to build this bridge adjacent to the existing bridge (a historical site that is situated atop an old dam). These dissenters believe that it would be much more beneficial to site the new bridge +/- 3km further downstream (2.5km as the crow flies) to link up with new developments in the area – a route known as the Eastern Arterial Route (EAR).

NZTA have stated that such a bridge would be less economically beneficent than the current plan.¹ Despite multiple requests, NZTA have not released their economic analyses of these two routes (or for a number of other alternative routes that have been proposed), neither will they provide their methodologies for coming to this conclusion.² Furthermore, the NZTA, local politicians and other actors have said that they will not consider alternative routes without “the numbers” which, in the absence of NZTA transparency, is difficult to provide.

Although it would have been preferable to demonstrate the relative cost benefits of the proposed options using NZTA models, it is still possible to independently estimate the cost, benefits and risks of the two main options. Without access to NZTA's model some of the finer details may not match but overall, this paper will evaluate the two options – the EAR and the current NZTA – and provide a sufficiently robust quantitative analysis to demonstrate the superiority of one option over the other, whether it be the community proposal or the NZTA plan.

SUMMARY

Details of my calculations can be found in the rest of the report but my (conservative) conclusion is: *Annual costs averaged over the next years expressed in current NZD)*

Cost Factor	Current NZTA Plans	EAR alternative
“Two Bridges”	0	0
Construction costs (annualized over 30 years)	767,000	767,000
Costs and Times of Journeys	\$8,000,000	\$8,000,000
Maintenance	0	35,400
Social Costs	1,000,000	0
Bicycle Commuters	0	0
Legal Liability	50,000	0
Expandability	400,000	0
Disaster Resilience	100,000	0
Aesthetics	100,000	0
TOTAL ANNUALISED COSTS	\$ 10,417,000	\$ 8,802,400

¹ In a letter from Hon. Simon Bridges, Minister of Transport, May 20, 2015, the Minister says that “the current project provides 50 percent more benefits at 70% of the cost of the Boyd Road alternative”. Unfortunately, the details of this claim have not been made publicly available.

² Ibid: NZTA expect that, if a new, 100kph, dual lane EAR bridge was built, it would only carry 300 vehicles per day while the existing, one lane, 70kph bridge unsuitable for heavy traffic would still attract up to 8,000 vehicles per day. This seems incomprehensible and this author remains unconvinced of such numbers in the absence of proof especially as it contradicts NZTA's own figures that “30% of bridge traffic turns East” at the BP roundabout – that is, 2,400 vehicles would be better off taking the EAR bridge so why would only 300 of them use it and 2,100 use the congested, longer, slower route?

CAVEATS AND FINE TUNING

Note that these figures are conservative – for example, I have used the low end of probability ranges for accidents and disasters – an unlikely situation given that developments south of the bridge are increasing (thus the likelihood of emergency access goes up) and the growth in Queenstown means that access to the town (e.g. the Fat Badgers/World fire drew fire tenders from Invercargill) will also be needed. For disaster resilience, having two options to cross the Kawarau is extremely important.

In the previous table, I have largely discounted the ‘pulse’ nature of traffic which is, in reality, quite pronounced in the area (e.g. when multiple international flights arrive within the same hour and at the start and end of the skiing day). This can compound the disaster scenario as the likelihood of a major traffic accident is directly proportional to the number of vehicles (i.e. congestion).

Furthermore, the largest dollar item (‘costs and times of journeys’) is predicated on a single number – the number of vehicles crossing the Kawarau that eventually turn west into Queenstown - that has not been formally measured or substantiated. The above table uses a 75% ‘west rate’, a figure that is contentious; community observations have the rate anywhere between 40 and 60% and the likelihood is that the ‘west rate’ will fall in the future as more vehicles travel to the increased developments to the east both local (e.g. Five Mile Development, Shotover Country) and national (e.g. Wanaka, Cromwell, Christchurch). The lower number is also commensurate with QLDC’s transport strategy that anticipates – even requires – a lower number of vehicles on SH6A.

Finally, I did not include the ‘human factor’ – even if someone does want to turn west after crossing the bridge, if that route is over a one lane bridge and congested by shoppers, it is likely that they would use the EAR (if it existed) as it would be faster even if longer (they would also have right of way at the BP junction). This is hard to estimate within the short time period available to me but – if we assume a ‘perfect rational market’ it is likely that the cost difference will be negligible.

The table below provides a summary of the impact of less conservative assumptions for the major factors discussed above. Note that the costs are for *differences* in the routes. For example, in the high disaster probability scenario, the figures shown are not the cost of the disaster, just a reflection of the additional costs of responding to the disaster as a consequence of only having one access route.

Scenario	Current NZTA Plans	EAR alternative	Most economically beneficial option
Conservative (table on page 1)	\$ 10,417,000	\$ 8,802,400	EAR by \$ 1,614,600 p.a.
Medium disaster probability ³	11,417,000	8,802,400	EAR by \$ 2,614,600 p.a.
High disaster probability ⁴	14,417,000	8,802,400	EAR by \$ 5,614,600 p.a.
Pulse traffic considerations ⁵	13,349,410	10,561,846	EAR by \$ 2,787,564 p.a.
75% “Turn west” rate	10,558,325	10,647,585	NZTA by \$ 89,220 p.a.
60% “Turn west” rate	10,945,043	8,713,288	EAR by \$ 2,231,755 p.a.
40% “Turn west” rate	11,073,949	8,068,536	EAR by \$ 3,005,413 p.a.
MOST LIKELY SCENARIO: Medium accident rates, pulse traffic and a 60% ‘turn west’ rate	14,877,453	10,472,734	EAR by \$ 4,404,719 p.a.
POSSIBLE SCENARIO: A disaster, pulse traffic and 40% ‘turn west’ rate	18,006,359	9,827,982	EAR by \$ 8,178,377 p.a.

CONCLUSION: The EAR is by far the most economically beneficent route.

³ e.g. 2 fatal accidents, 20 serious over a 10-year period)

⁴ e.g. boat crashes into bridge, earthquake damages bridge, plane crashes on to SH6

⁵ Based on 30 minutes queue times during peak ski and flight periods with no alternate route available based on NZTA ‘heavy traffic’ statistics for 2014, extrapolated for projected increase in usage

Detailed Calculations

In the paragraphs below, I detail the calculations used for the ‘conservative’ table on page one. The figures presented above follow the same methodology but for brevity’s sake I haven’t shown my calculations. However, for the sake of transparency, I can provide these upon request, of course.

TWO BRIDGES

NZTA acknowledge that two bridges will be needed eventually.⁶ In the long run, then, there isn’t an argument. Two bridges will be needed. The decision becomes more a matter of which one first? The design and construction costs of the two bridges are approximately the same so inflation costs and interest over the period can be discarded as irrelevant. Similarly, the extra costs of land purchase *et al* can be assumed to be roughly similar (i.e. both will grow drastically as routes get developed). That said, it can be assumed that land prices on the EAR side will increase faster than in Frankton as Frankton is already developed whereas land on the EAR side has yet to be fully developed. In this aspect, then, it would be more beneficial to build the EAR bridge first but there are too many variables to assign a cost so this paper will not make a recommendation one way or another on that basis.

Risk-Benefit difference of ‘Two Bridges’: Unknown (too many factors to calculate)

However, what it does point out is that the choice between the two bridges is relatively short-term; which bridge provides the most benefits for the next ten or twenty years?

CONSTRUCTION COSTS

There are various estimates floating around, none of which are fully itemised (unsurprising as tenders have not yet been submitted). That said, there seems to be a general consensus that the total construction cost - including land purchases, road upgrades, assistance from local businesses (e.g. Five Mile), *etc., etc.* – are around the same. For the sake of argument, I have used the figure of \$23m and amortised it over ten years - much faster than would be the real case but irrelevant for our comparison.

Risk-Benefit difference of ‘Construction Costs’: Zero (equal at \$2,300,000 p.a.)

COSTS AND TIMES OF JOURNEYS

In many ways, the discussion of the bridge is a storm in a teacup. The biggest issue Queenstown and NZTA face is the large – and rapidly increasing – volume of traffic coming from the airport and Remarkables Park to the SH6/SH6A junction (the BP roundabout). Bridge traffic constitutes less than a quarter of the traffic along SH6 from the airport roundabout to the BP roundabout and much of it turns off *to* the airport or Remarkables Park.⁷ Still, NZTA expect traffic over the bridge to increase by close to 100% in just one year.⁸

⁶ Ibid: the Minister says this will be in 30 years time.

⁷ NZTA 2014 figures – 17,723 vehicles per day along that stretch with just 4,049 VPD coming over the bridge and; http://www.qldc.govt.nz/assets/OldImages/Files/District_Plan_Changes/Plan_Change_34_downloads/Section_32_Report/09_PC_34_-_Annexure_H_-_Transp...nt_-_Traffic_Design_Group.pdf

⁸ Simon Bridges, May 20, 2015: The bridge will carry up to 8,000 vehicles per day but 2014 volume was 4,049. Presumably, NZTA has taken into account the increased housing south of the bridge (e.g. Jack’s Point) and ‘pulses’ of traffic from the expanded Remarkables Park Ski Field.

So the discussion *should* revolve around getting as many cars as possible to *not* join the existing congestion and bottlenecks. The EAR does this, the current plan does not. The costs of this are reflected in the table below that include lower average speeds on the current plan.

Current NZTA Plans	Distance (m)	Speed (kph)⁹	Time (mins)
From Boyd Rd junction to N. side of bridge	2,350	65	2.2
From N. side of bridge to airport roundabout	695	50	0.8
From airport roundabout to SH6A junction	685	30	1.4
Total distance and time plus average speed	3,730	51.2	4.4

EAR	Distance (m)	Speed (kph)¹⁰	Time (mins)
From Boyd Rd junction to N. side of bridge	2,675	95	1.7
From N. side of bridge to five mile development	515	65	0.5
From five mile development to SH6	1,130	45	1.5
Total distance and time plus average speed	4,320	70.6	3.7

Thus the travel *time* to SH6 is faster but the *distance* is longer.

Next we have to consider the issue of the ultimate destination of the vehicles crossing the bridge. NZTA have said that 75% of these vehicles turn left (West, towards Queenstown) at the BP roundabout but community members, who have physically counted vehicles at the junction say the figure is closer to 60%. Moreover, this involves extrapolating the behaviour of drivers at the junction back to the bridge. That is, it assumes that drivers crossing the bridge do not turn off to the airport or Remarkables Park something that obviously does not happen. So the question remains: Off the traffic crossing the bridge, how many want to go west to Queenstown when they reach SH6 and how many want to go east to Lake Hayes, Arrowtown and further afield (e.g. Cromwell, Wanaka, Christchurch). Given that there *will* be more development to the east than to the west (locally and nationally), whatever the current ratio, it will shift more and more to the east over the years.

For simplification, I am disregarding the vehicles that cross the bridge go to Remarkables Park or the airport. Using the NZTA figure of 75% turning west to Queenstown and their figure of 8,000 vehicles per day:

Current Plans

8,000 vehicles cross the new bridge and reach the SH6A junction. This takes a total of 4.4 minutes for a productivity cost¹¹ of $4.4 \times \$26.78/60 \times 8,000 = \$15,710$; a fuel and vehicle maintenance cost¹² of $3.73\text{km}/20 \times 8,000 \times \$3 = \$4,476$.

2,000 of these will then turn east. The productivity, fuel and maintenance cost of this extra 1,410m /

⁹ Guidelines for determining speed limits taken from "Speed Limits New Zealand: Schedule 1: Guidelines for setting speed limits and procedures for calculating speed limits" available at <http://www.nzta.govt.nz/resources/speed-limits/speed-limits-nz/docs/speed-limits-nz.pdf>; Congestion factors taken from (among others) "Research Report 489 The costs of congestion reappraised" available at <http://www.nzta.govt.nz/resources/research/reports/489/index.html>

¹⁰ Guidelines for determining speed limits taken from "Speed Limits New Zealand: Schedule 1: Guidelines for setting speed limits and procedures for calculating speed limits" available at <http://www.nzta.govt.nz/resources/speed-limits/speed-limits-nz/docs/speed-limits-nz.pdf>; Congestion factors taken from (among others) "Research Report 489 The costs of congestion reappraised" available at <http://www.nzta.govt.nz/resources/research/reports/489/index.html>

¹¹ NZTA calculate time costs on the basis of average hourly earnings. "If a transport improvement causes a reduction in travel time for in-work travel it is fair to assume the time saved will be put to productive use. The value of one hour saved for a business traveller is therefore the market value of what the workers can produce in that hour."; Average hourly earnings (\$26.78) provided by Statistic NZ http://www.stats.govt.nz/browse_for_stats/income-and-work/Income/NZIncomeSurvey_HOTPJun14qtr.aspx

¹² Based on 2014 Subaru 'City' driving of 20km/L provided by the US Dept. of Energy and \$3.00/L for fuel and maintenance

1.9 minute journey is \$2,119.

A total cost of \$22,305 per day or **\$8,141,325 p.a.**

EAR

2,000 vehicles cross the new bridge and reach SH6A. This takes a total of 3.7 minutes for a productivity cost of $3.7 \times \$26.78/60 \times 2,000 = \$3,303$ and a fuel and vehicle maintenance cost¹³ of $4.32\text{km}/23 \times 2,000 \times \$3 = \$1,127$.

6,000 vehicles go via the old bridge to the SH6A junction. This is the same distance (more or less) as the currently planned bridge but will take 15% longer: $15,710 \times 1.15 + 4,476 = \$22,543$.

A total cost of \$26,973 per day or **\$9,845,145 p.a.**

However, if the more realistic figure of 60% of vehicles are heading west to Queenstown (and note that this will only *decrease* in the future), the net annual amounts are:

- Current Plan: **\$8,528,043**
- EAR: **\$7,910,888**

Given the lack of clear data, the discrepancies that a percentage point or a few seconds here and there make, and the uncertainty of numbers (e.g. if the airport grows as much as it says it will then the average speed on the airport roundabout to the junction will drop even more) and future trends, it is perhaps best to say we cannot say one route is clearly more cost effective than the other.

Risk-Benefit difference of 'Costs and Times of Journeys': Zero – to close to call

MAINTENANCE

Perhaps the easiest calculation. I've used NZTA's highest rate of \$60,000 p.a. per km.¹⁴ The EAR is 590m longer than the proposed route which equates to \$35,400 p.a.

Risk-Benefit difference of 'Maintenance': \$35,400 extra cost for the EAR

HIGHER RISK OF ACCIDENTS AND FATALITIES

This is an area of considerable complexity that cannot be simply distilled in a brief report of this nature. Nevertheless, it is clear (and there are hundreds of studies that could be cited in support of this) that high volumes of traffic (and of heavy vehicles) proximate to primary schools, shopping centres and houses increase the risk of traffic accidents.

Once again, we don't need to analyse the actual numbers, just the difference between the two routes: The current NZTA plan has all traffic from south of the river merging with local shopping, school and airport traffic. The EAR route doesn't. It doesn't matter what the actual number of vehicles avoid these areas, it will certainly be less on the EAR than the existing route.

SH6 through Frankton already accounts for a high number of serious accidents¹⁵. My estimate is that over a ten year period, there will be at least one Preventable Injury Fatality and ten serious crashes more with the current plan than with the EAR. Using current NZTA and ACC figures for the dollar

¹³ Based on 2014 Subaru "Combined" driving of 23km/L provided by the US Dept. of Energy and \$3.00/L for fuel and maintenance

¹⁴ Road maintenance costs of \$60k p.a./km for a grade 2/4 two coat seal from NZTA "Road Asset Management" available at <http://www.nzta.govt.nz/resources/chipsealing-new-zealand-manual/docs/05-road-asset-management.pdf>

¹⁵ http://www.qldc.govt.nz/assets/OldImages/Files/District_Plan_Changes/Plan_Change_34_downloads/Section_32_Report/09_P C34_-_Annexure_H_-_Transp...nt_-_Traffic_Design_Group.pdf

value of these sad events¹⁶, this translates into approximately \$1,000,000 per annum. It may be that people disagree with my estimate but there will definitely be an increased social cost with the current plan: Anything that gets even a few vehicles away from the Kawarau Dam-Airport-SH6A junction will be better than increasing traffic down a known 'black spot'.

Risk-Benefit difference of 'Social Costs': \$1,000,000 extra cost for the existing route

BICYCLE COMMUTERS

Related to the above is the fact that QLDC wish to encourage more cycle commuters.¹⁷ Again, there are numerous studies (including some done by NZTA¹⁸) that demonstrate that people tend not to bicycle to work if there are no safe routes and if they do, they face significantly higher risk of injury or death in the absence of physically separate bicycle tracks.

Although neither proposal currently includes cycle tracks on their routes, the EAR allows for the existing Kawarau Bridge to be made much more bicycle friendly if only due to a reduction of traffic in general and HGV in particular.

Risk-Benefit difference of 'Bicycle Commuters': Included in 'Social Costs'

LEGAL LIABILITY

Given that the current route may present a higher risk to personal safety, there could be legal issues either personally or for the organisations involved, especially given the general trend in increased responsibility being assigned to Directors *et al* both globally and in NZ with the new OS&H legislation being introduced.

I am not a lawyer so cannot comment further but it seems prudent to allow a reserve for higher legal costs for the current route versus the EAR.

Risk-Benefit difference of 'Legal Liability': Cost of \$50,000 per annum for the current plan.

EXPANDABILITY

As noted earlier, demand will increase more to the east of Queenstown than to the west. This does *not* mean that overall traffic west on SH6A will decline, just that vehicles coming from south of the Kawarau will be attracted more to the east than the west: In this respect, the EAR is more suited to meet future demand than the current plan.

In addition, the fact that the proposed route for the EAR is currently undeveloped (but won't stay for long!) means that there could be some scope for planning for the future, such as allowing for a third lane (reversible to deal with traffic peaks), an overtaking lane, parking or on/off ramps, separate bicycle lanes, light rail transit corridor, park and ride, *etc*. The current plan has no such contingencies available – the current discussion of building a park n ride at the expense of a much loved community facility (the Frankton Golf Course) is indicative of that.

Accounting for Future Value of this nature is always difficult yet the sums are generally large. For example, the lack of expandability and flexibility with the current route may mean that the second bridge will be needed ten years earlier than if the first bridge was the EAR. A second bridge (at, say,

¹⁶ <http://www.transport.govt.nz/research/roadcrashstatistics/thesocialcostofroadcrashesandinjuries/report-overview/> and http://nzae.org.nz/wp-content/uploads/2011/Session4/46_Wren.pdf

¹⁷ Queenstown Town Centre Transport Strategy, draft, January 2015

¹⁸ E.g. <http://www.nzta.govt.nz/resources/research/reports/389/docs/389.pdf>

\$25m) would incur an extra \$1m per annum in interest costs alone if it had to be built ten years earlier or about the same in lost productivity if built later.

Risk-Benefit difference of 'Legal Liability': Cost of \$10m over 25 years or \$400,000 per annum for the current plan.

DISASTER RESILIENCE

Disaster resilience is always difficult to quantify, but having an alternative route in the event of a disaster is invaluable if the 'wrong' disaster hits. With NZTA's current plan, the new bridge across the Kawarau will cut across the current access road to the existing bridge. It is unknown whether facilities will be made for *vehicles* to still use the old bridge but anecdotal evidence from QLDC and NZTA is that the plan is to make it a pedestrian / bicycle way only. There are even concerns that QLDC will find the cost of maintaining this bridge to be bothersome and eventually close it to *all* traffic.

The net result is that, under the current plans, there will only be *one* vehicular crossing over the Kawarau. The EAR proposal, on the other hand, is to keep the existing bridge open for local, light traffic and as a visually appealing gateway to the town. In an emergency, this route will be available for emergency responders. Similarly, even a few extra vehicles on the existing SH6 will make it that much more difficult for the hospital, fire service and St. John ambulance service that all need access to SH6 – with the EAR, in an emergency, traffic could re-routed over the downstream bridge allowing free access to SH6 for emergency responders.

In summary, there will be two bridges over the Kawarau with the EAR but only one with NZTA.

Risk-Benefit difference of 'Disaster Resilience': Cost of \$100,000 for the current plan.

AESTHETICS

Another very difficult issue to quantify. Suffice to say that an EAR would reduce – even if just a little – the congestion that tourists would get as their first impression to Queenstown. Furthermore, the current plan essentially destroys a historic site - the existing bridge will continue to exist but it will no longer be a tourist attraction given the presence of a multilane highway right next to it.

For the sake of argument, I have included a *very* conservative negative 'hit' to tourism equating to just 30 visitors¹⁹ per year deciding to not come due to traffic congestion. I haven't attempted to quantify factors such as negative factors on investment (e.g. high-tech employers often cite traffic congestion as a major factor when deciding to locate their businesses).

Risk-Benefit difference of 'Aesthetics': Cost of \$100,000 for the current plan.

Adam Childs
MSc. Risk, Crisis and Disaster Management

June 1, 2015

¹⁹ Based on Destination Queenstown's average spend-per-visitor

The Kawarau River Bridge, 2015:

A Community Opinion Survey – *Preliminary Results*

SURVEY

A poll was conducted for two weeks in July that asked people for their opinions on the location of a new bridge to be built across the Kawarau River. The poll was conducted on line and was open to everyone. Advertisements were taken out in a variety of local media to ensure a representative cross section of responses. By the time the survey closed, there had been 447 valid responses. This meets the standard criteria for surveys of being accurate 19 times out of 20 with an error margin of $\pm 5\%$.

95.6% of responses were from NZ voters and 86.2% paid rates to Queenstown-Lakes District Council.

The survey reliably reflects the opinion of **all** ratepayers and taxpayers in the Queenstown-Lakes District.

HOW SHOULD A DECISION BE MADE?

Respondents were asked five questions concerning the decision making process and decision criteria. They were asked if they agreed or disagreed with the five statements:

DECISION MAKING PROCESS

- Cost-benefits should include social factors such as safety, noise in residential areas and emissions
- The location of the bridge must be based on a full economic analysis of all alternatives

Both of these statements reflect NZTA's own Economic Evaluation Model (EEM) procedures, something that has **not** been done with current data in the case of the Kawarau Bridge.

85.2% agree¹ that social factors should be included. 5.1% disagree.
83.2% agree that a full analysis should be conducted. 6.5% disagree.

Over 80% of ratepayers want an analysis done in accordance with NZTA procedures, something that has not happened.

DESIGN

- Views of, and from, the old, historic, 1-lane bridge should be maintained as a tourist attraction
- The look of the bridge and how it affects views in the area is important
- The bridge should include a physically separate bicycle lane

75.8% agree that the old bridge is needed for tourism. 11.1% disagree.

68.9% agree that the appearance of, and views from, the bridge are important. 12.5% disagree.

79.9% agree that a physically separated bicycle lane should be included. 9.4% disagree.

A large majority of ratepayers want a **physically separate** bicycle lane on the new bridge.

¹ "Agree" in this report is the sum of all respondents who said that they 'agree' or 'strongly agree'. Similarly, "Disagree" is the sum of all respondents who said that they 'disagree' or 'strongly disagree'.

ARGUMENTS FOR THE FALLS ROUTE

Proponents of the Falls Route say that the existing bridge is inadequate for future traffic growth and that a new bridge is essential to future-proof the District. Proponents of an alternate route agree with these statements; a new bridge is needed. But neither of these arguments specifically support the Falls Route - any new bridge will increase traffic capacity and help future-proof the District.

Proponents of the Falls Route also argue that funding is available for that route only – “use it or lose it”. After I released a paper demonstrating that this is untrue², the Minister of Transport, Simon Bridges, agreed and said that funding available for the Falls Route could be used for an alternative route so this argument is also not relevant to a discussion on which location is best.

Finally, proponents of the Falls Route argue that this route would be the cheapest. There is no evidence one way or another for that. Nevertheless, the survey asked people how important the cost of a bridge was when deciding where to build it. The results of those questions are given below.

But first, I want to address the two main arguments used to support the Falls Route: One, it is politically viable and two, it can be built faster than any other option.

POLITICALLY VIABLE

The argument is that building a bridge at the Falls is the best *political* option (not necessarily the best *social* or *financial* option³). To see how important this argument was, respondents were asked if they agreed that “An analysis does not need to be done if there is a political window of opportunity that enables a bridge to be built quickly”.

62% of ratepayers don't think political expediency is a good basis for deciding where to build a bridge

23.9% of respondents agreed with this statement. 61.5% disagreed.

FASTEST OPTION

Respondents were asked a variety of questions that asked them to think about how important it is to build whichever bridge can be built quickest.

61.1% of respondents agreed that “the bridge should be built as quickly as possible”. 28.4% disagreed. However, of the 273 people who agreed the bridge should be built as quickly as possible, 184 (67.4%) felt that it was better to “build whatever bridge diverts the most traffic away from the busiest junction in the region” (i.e. **not** the Falls route) than to “choose whichever bridge can be built fastest”. Only 3.6% of all respondents chose “whichever bridge can be built fastest” as their number one priority.

Over three-quarters of respondents would be happy to see the location decision delayed by up to six months to ensure a proper analysis is done.

As noted above, the vast majority (83.2%) want a full analysis of all routes conducted before a decision is made (again, noting that this has **not** been done to date). Obviously, this will take time. Respondents were asked “how long do you think is reasonable to allow for an analysis?”

Just 4% agree that building the fastest bridge is the best option.

² <http://tceti.nz/wp-content/uploads/2015/06/150721-Kawarau-Bridge-briefing-paper.pdf>

³ That the Falls route is actually the least financially and socially beneficial option (i.e. it costs the most in the long run and serves road users' needs the least) was shown in a paper available at: <http://tceti.nz/wp-content/uploads/2015/06/Cost-Benefits-of-different-Kawarau-Bridges.pdf>

76.5% of respondents would be happy to see the decision delayed by six months or more in order to ensure a proper analysis is done; 11.2% think delays of up to two years are acceptable.

86.1% agree that “a delay of 3-6 months to ensure the right decision is made is acceptable” (10.1% disagree).

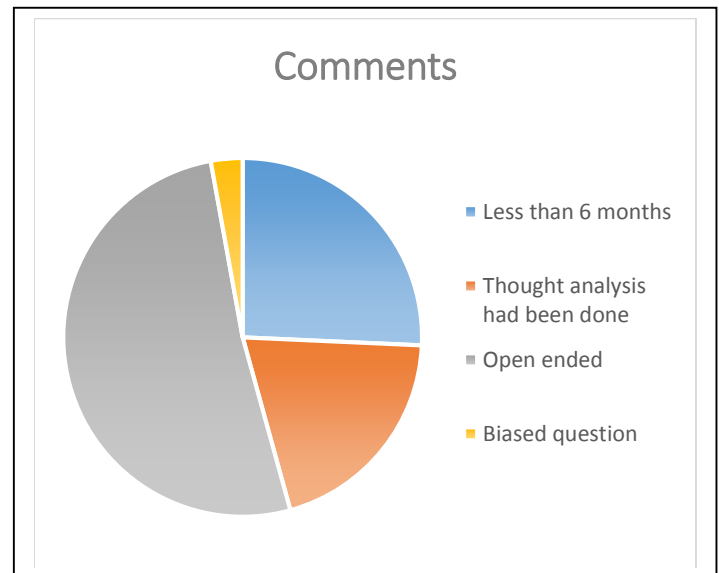
60 respondents made comments in the open text section of that question. Using thematic coding, just over half ($n=35$) wrote comments relevant to the question of time.

Of those 35, 26% stressed that any analysis should be done in less than six months (e.g. “Just get on with it” and “the need is already urgent”).

20% thought (wrongly – see *Offset Bias*, below) that all analyses had already been completed.

1 respondent (3%) felt that the question was extremely biased (see *Survey Bias*, below).

Importantly, 51% felt that “the outcome is more important than the wait” and “it's been bad for long enough that another couple of years to do sound investigation is worthwhile” and were happy to see delays of two years or longer - “however long it takes”.



Contrary to statements by MPs and NZTA, the overwhelming majority of road users say **long-term factors are more important** than starting construction immediately.

They want to ensure that a right decision is made, not a quick decision.

“CHEAPEST” OPTION

Although there is no evidence to suggest that the Falls route would be the cheapest option (other alternatives have not been costed), the general consensus is that a downstream bridge could cost up to \$5 million more. Respondents were asked a series of questions to see if they felt that this cost was justifiable. Two questions in particular were very specific on this topic:

85.7% agreed that “spending an extra \$5m now in order to save \$25m over 25 years is a good choice”. 7.6% disagreed.

82.8% felt it more important to “spend \$5m more and get two bridges now rather than spending \$30m in 10 years to get two bridges later” than to “spend the least amount of money as possible up front”.

SURVEY BIAS

There has been some criticism of bias in the survey questions. While most of these comments have merit, there are mitigating circumstances:

SUBJECT BIAS

It is difficult to create a survey that doesn't *look* biased when the situation under consideration *is* factually biased. For example, everyone – including NZTA and the Minister of Transport – agrees that a downstream bridge will be required in the near future (i.e. 10 years' time) due to traffic loads. Any survey question that addresses future-proofing will automatically look like it favours a downstream bridge because we all agree a second bridge will be needed, ***if a bridge is built at the Falls***. The need to build a second bridge in the near future is much less likely if a downstream route is chosen now.

OFFSET BIAS

There was some intentional bias to offset the consistent disinformation campaign by NZTA and politicians. For example, a recent letter from Todd Barclay (MP for the region) contained the following misleading statements:

“...action needs to be taken as soon as possible to relieve the pressure on the existing infrastructure.”

There are two issues here. One, NZTA have made contradictory statements. They have said that action must be taken *now* ‘to relieve the pressure’ but have also said that the current traffic loads are well within normal parameters and that there is no immediate need to build a bridge.

Two, the implication is that the ‘action’ he speaks of is a bridge at the Falls. I would agree that ‘action needs to be taken as soon as possible’ but that the ‘action’ should not waste taxpayers’ money and should properly address the ‘pressure’ and not just move the congestion 100m down the road.

NZTA use a common business case development methodology across the country for assessing new spend projects *such as this...*” (my italics).

The implication is that the NZTA proposal for a bridge at the Falls has undergone a thorough analysis. However, as far as I can tell this is not the case. I suspect that a thorough analysis *was* done but so long ago as to no longer be valid. Either way, Mr. Barclay and NZTA have refused to provide such an analysis despite frequent requests.

“...political interference in this process... is inappropriate and would undermine the integrity of the system we have.”

This statement was made to justify why our elected representative has felt it unnecessary to represent his constituents and engage with NZTA. Paradoxically, the reason why we are in this situation is precisely *because* of “political interference”. The Accelerated Regional Road Program (ARRP) announced last year specifically circumvents NZTA’s “common business case development methodology” – a clear case of political interference. It is possible that without the ARRP, NZTA would have used their normal methodology and recommended a downstream bridge.

“...within ten years the district will most likely receive a second bridge...”

This is simply an attempt to push the problem away into some indefinite future. However, taking this at face value, planning for this second bridge should already be underway. It isn't. Mr. Barclay also says we will “receive” a bridge. From whom? NZTA have said that they won't pay for the second bridge. Is Mr. Barclay promising that the national government will provide the funding for two bridges? Ask him at the next election and I can guarantee he will say something else.

Finally, Mr. Barclay said in his letter that he has **“...had a large degree [sic] of constituents approach me saying that they just want the project to proceed... the group opposing the siting decision are in**

the minority...”

This survey conclusively proves that, far from being ‘in the minority’ the opposition is very much a majority opinion. Mr. Barclay also says that he “consistently supports the best option as informed by robust evidence”. So where is the robust evidence (e.g. in the form of a statistically reliable survey such as this) that shows those opposed to the siting decision “are in the minority”? It doesn’t exist.

SELECTION BIAS

Selection bias (e.g. only getting opinions from friends) is a common error in surveys. This survey avoided selection bias in two ways:

The survey was advertised in multiple media outlets and it was clear from the pattern of responses that people took the survey based on those adverts (i.e. a wide audience was reached).

IP addresses were collected; these were used solely for the purpose of seeing if multiple responses were coming from one source. This was a subjective analysis as there are cases where multiple responses are legitimate (e.g. a household sharing a computer or an internet café). Once the check was completed, all IP addresses were permanently deleted before any data was disseminated.

11.4% of responses ($n=51$) came from an IP address that had already been used. Of these 51 cases, 32 occurred (7.1% of all responses) when two responses came from the same address. There was one extreme case where 11 responses (2.5% of all responses) came from the IP address. The most likely situation for shared IP addresses responsible for <4 responses is a shared family or work computer. The IP address from which the 11 responses came from could have been an internet café or other shared, semi-public device (e.g. smart phone being passed around).

All of these were evaluated for duplication. Of the 51 responses, 48 differed in content from responses from the same IP address on at least 30% of answers – this suggested that the respondents were, indeed, different people.

However, in three cases ($<1\%$), the responses were very similar and the main difference was that one set was incomplete, the other complete. Here, it was assumed that the respondents were the same person who had encountered difficulties completing the survey the first time (there were some technical issues for mobile phone users, especially iPhones) and then succeeded on the second attempt. These responses were deleted from the final survey results.

RESOURCE LIMITATIONS

Finally, and this is a *mea culpa*, I created the survey in my spare time without compensation. Yes, the survey could have been better with a significantly larger amount of time and money. These resources were simply not available.

I was motivated by the idea that doing *something* was better than just criticising from the side. I encourages those who found this survey to be biased, or those who disagree with the findings (Mr. Barclay?) to create their own surveys; the results from a multitude of surveys (meta-analysis) would surely give a more nuanced and accurate picture of ratepayers’ and road-users’ opinions.

BIAS CONCLUSION

As in any reliable survey, biases have been identified and addressed. The number of responses meets accepted statistical prerequisites:

The results presented in this paper are statistically reliable and accurately reflect the opinions of ratepayers and voters in the Wakatipu Basin.

ROUTE

The survey contained a series of fifteen questions statements that required respondents to rank them in order of preference. Seven favoured the Falls route, seven favoured an alternative and one was a control, 'neutral' question. I looked at the ratio of first and second choices (positive) to fourth and fifth choices (negative). By combining these ratios across all questions for all respondents, it was possible to determine the preference for a Falls bridge over a downstream alternative.

Statements that favoured a downstream route had a positive:negative ration of 2.74:1.

Statements that favoured the Falls route had a positive:negative ration of 0.20:1.

That is, characteristics that favour a downstream route (e.g. keeping the current bridge open to light traffic) are seen as positive almost three times as often as they are seen as undesirable characteristics. Conversely, characteristics that favour the Falls route (e.g. the shortest route to shops and services) are seen as positive only 1/5th as often as they are seen as undesirable characteristics.

A bridge downstream is seen as having **2.74 benefits** for each drawback.

The Falls bridge is seen as having **5 drawbacks** for each benefit.

The clear conclusion is that
voters and ratepayers prefer a downstream bridge
over the NZTA Falls option.

CONCLUDING STATEMENT

This preliminary report has been released ahead of the final full analysis as time is of the essence. Decision makers are pressing ahead with construction of a bridge at the Falls despite strong community objections. Of even more concern is the amount of disinformation being used to justify this decision. Statements such as Mr. Barclay's, "the group opposing the siting decision are in the minority" run completely contrary to the evidence, yet these unsubstantiated statements are being used to convince other decision makers (e.g. QLD Council) to push through unpopular decisions.

My previous analyses showed that:

- The Falls route was the least beneficial route from a technical and social perspective
- The Falls route has the worst cost-benefit ratio of other routes assessed
- All bridges qualify for the ARRP funding, not just the Falls route.

This survey concludes my analyses by demonstrating that public opinion is **strongly against** the Falls route and that voters and ratepayers want to see their representatives and public servants build a bridge that will serve their needs for many years to come, not the short-term needs of politicians.

Adam Childs
August 16, 2015

CROSSING THE KAWARAU RIVER AT FRANKTON QUEENSTOWN

AN ESSENTIAL LINK IN THE NATIONAL ROADING NETWORK

CROSSING THE KAWARAU

- ☐ WILL THIS BE THE SECOND FOLLY IN THE SAME SPOT?
- ☐ WILL THIS BECOME THE MOST EXPENSIVE PARKING LOT IN THE VALLEY?
- ☐ EXPANSION OF THE POINTS SET OUT IN THE SUBMISSION FROM HUDSON TURNBULL, QUEENSTOWN, 16 MARCH 2015
- ☐ THE SUBMITTER HAS LIVED IN QUEENSTOWN FOR 40+ YEARS, OWNED & OPERATED A 7 VEHICLE COMMERCIAL PASSENGER SERVICE & WAS A Q-LDC COUNCILLOR FOR 2 TERMS IN THE 1990'S



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Map date:
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CROSSING THE KAWARAU

FURTHER COMMENTS ON POINTS RAISED

1. The importance of this river crossing in the context of the national roading network has been over-shadowed by local concerns.

The residents of Kelvin Peninsula particularly, as well as users of the Remarkables Ski Area, have been most vocal about the traffic hold-ups caused by the present bridge - and understandably so. However, that has skewed any local consultation undertaken by the roading authorities and the natural reaction has been to do something about the bridge on the same site rather than look at the much bigger picture. And, of course, to try and pacify the locals at the lowest cost.

2. The suggestions for improving the roading network on the whole Frankton Flats have focussed too narrowly on access to and from the Remarkables Town Centre area.

Again, the broader picture has not been used as a starting base and the immediate and urgent has been the focus instead. However all is not lost and it will not take too much to tweak the existing plans to encompass the needs of the national State Highway network.

3. There has been a marked increase in visitor and commercial transport traffic through the Wakatipu Basin which does not go to the Queenstown CBD area.

With the rapid development of the Glenda Drive Industrial area and now with the 'big box' stores under construction nearby, there is, and will be, a large increase in heavy transport delivering and picking up in Frankton with few vehicles venturing along SH6A into Queenstown. We are also seeing a rapid transformation of the Gorge Road Industrial area from industrial and bulk retail to lighter industrial and service operations. There is no need for this heavy transport to negotiate the residential areas of Frankton at the western end of the airport. (This was foreseen when Ken Gousmett and I first promoted the re-zoning of the land where Glenda Drive now is way back in the late 1970's)

CROSSING THE KAWARAU

4. With the rapidly expanding residential areas south of the Ladies Mile highway, and in the Arrowtown area, there is an appreciable amount of traffic eastward from the Frankton Flats, which also does not go into the Queenstown CBD. This will increase.

One of the problems we have in this District is trying to convince government departments and others based elsewhere that we have rapid growth going on here. For example the Health bodies, the Education industry, the postal operation and dare I say it, the Transport authorities - except for the Airways authorities I might add. Understandably most 'departments' rely on Statistics N Z for forecasting however their figures never seem to be all that accurate. In the 1990's then-CEO of the Q-LDC, Keith Grantham, asked Stats N Z for their comment and we learned they issue figures in three bands, low, med and high, with the expectation that the user will see results near to the med band. Keith discovered the Q-LDC was consistently returning numbers in the high region, or higher ! To the layperson observer, this sort of 'lagging behind' is still evident in most of the aforementioned areas of expertise or responsibility.

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5. The Kingston Road section of the present SH6, from the BP roundabout Frankton, to the Remarkables Ski Area entrance has a large number of 'problem' areas which it is suggested should have millions spent on improvements - apart from the new bridge.

This is covered in Item 44 which projects a cost of \$4 360 000 between Grant Road on SH6 and the present Kawarau Falls Bridge. \$4 360 000 !!! I have marked some of the problem areas on the following map.

This sort of expenditure more than validates my suggestion for shifting the site of the new bridge to the eastern end of the Frankton Flats.

Let's say creating a new 'greenfield' highway costs around \$1 000 000 per kilometre to construct. The new road I'm proposing on the south bank of the Kawarau River between the Boyd Road intersection and a point opposite the end of the airport runway will be approx 2 km long with minimal land purchase, if any. Yes - it will have some terrain challenges, but overall I imagine it will be a fairly straightforward engineering exercise.

(Map follows)



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- 6.** The suggested re-sited Kawarau River Bridge can be described as: 'a new two-lane bridge with a speed environment of 100 km/hour', rather than 70 km/hour as proposed for the Kawarau Falls site.
This is a real plus when comparing the time required to travel from the Remarkables Ski Area entrance to the Glenda Drive or BP roundabouts. And what a magnificent scenic entry to the Wakatipu Basin ! Coupled with the Shotover River bridge it makes for two lovely arrival points into the Queenstown area - especially in the autumn when the poplars are in colour !
- 7.** The historic Kawarau Falls dam/bridge will be quite adequate for local traffic once SH6 is diverted to the east end of the Frankton Flats.
Given the low population on Kelvin Peninsula and there being no through traffic I would suggest that the traffic light system may even be superfluous. And without the heavy transport traffic, the maintenance costs of the old bridge will plummet as well - a point the Q-LDC engineers will be pleased about.
- 8.** It is far from preferable to have the Frankton residential areas dissected by a busy State Highway particularly with children crossing to school and many elderly people out and about in the area.
This has been acknowledged already with the provision of 2 pedestrian crossings complete with traffic lights on the Kingston Road section from the BP roundabout to the Kawarau Falls bridge.

CROSSING THE KAWARAU

- 9.** The ground beneath the present road alignment on the south bank of the Kawarau River, between the Falls Bridge and the Kelvin Peninsula turn-off, is naturally prone to slippage and will require expensive maintenance should it remain a State Highway carrying increasingly heavy commercial traffic.

The type of sedimentary material left behind from the melting glacier in this region is particularly prone to slipping when inundated or waterlogged and is a problem on both banks of the Kawarau River in the region of the Falls. There are several patched over slips on the current highway and a house above the northern abutment of the Falls/Dam bridge and the car park of the Frankton Kindergarten have also both had problems in the past few years.

- 10.** With the increase in dairy farming particularly, north and south of the Queenstown region, there has been a noticeable increase in heavy transport through the Wakatipu Basin.

As in many parts of the country the rapid increase in farm conversions has created a lot of new trucking traffic. We often see North Island stock-trucks passing through as well as many from all over the South Island. They prefer the 'inland route' SH6/8/79 and 72 over the east coast SH1 route. They can go all the way from here through the McKenzie Country and rejoin SH1 at Woodend north of Christchurch, successfully avoiding several towns and cities. (Google 'Lumsden to Woodend!') In addition there are heavy milk tanker, bulk fertiliser and stockfeed trucks.

- 11.** With Queenstown accommodation at certain levels being booked out at busy times of the year, anecdotally many tours and visitors are either only passing through the town on the way to and from Te Anau and Milford Sound or not calling in at all and passing through the Wakatipu Basin.

And this will increase as visitors' tastes change and they avoid the 'busy' tourist towns.

CROSSING THE KAWARAU

- I2.** It has been particularly noticeable during the past 12 months that there has been a large increase in traffic to and from the Airport and the Remarkables Shopping Centre.

Well, that's understandable given the growth of activity at both sites. And it isn't stopping tomorrow either !

- I3.** It is not unusual for the traffic stream to be backed up from the roundabout at the intersection of Robertson Street and Riverside Road and from the intersection of Humphrey Street and SH6 all the way to the BP roundabout.

That is - along Lucas Place to the airport entrance roundabout and along the main highway.

- I4.** These 'traffic jams' can occur at odd times throughout the day and not just at 8:00 am or 5:00 pm as in a larger urban setting.

And it can be any day of the week. If several international flights arrive at much the same time as the Remarkables Ski Area closes for the day, you get a huge increase in traffic all trying to squeeze onto a single two-lane highway. These traffic jams are certainly not what our visitors have come here to partake in and increasingly we hear anecdotally of people saying they would think twice before coming here again. Not good !

CROSSING THE KAWARAU

- 15.** Adding a new two-lane bridge at the Kawarau Falls site will do absolutely nothing to prevent this situation and may even exacerbate it as the 'pulse' now created by the traffic signals on the existing one-lane bridge will disappear.

Currently, traffic attempting to enter the traffic stream on SH6 from Humphrey Street or Lucas Place gets a window of opportunity every time the bridge traffic lights go red for northbound traffic however without that it will become very difficult to make progress. It is going to become a fraught situation.

And here's another thought - all those people who had until then strongly supported the siting of the new bridge alongside the historic Falls bridge will suddenly, quietly melt away.....

- 16.** It is important for the Ambulance, Fire and other services to be able to move quickly through the Frankton area without negotiating heavy traffic flows.

That's pretty obvious. Was this given any consideration earlier?

- 17.** The numbers of rental vehicles travelling from the international airport are also increasing rapidly, adding to the congestion, and throwing 'unseasoned' drivers immediately onto a busy State Highway.

Well..... this is fairly topical isn't it ! There are certainly a lot less large coaches picking up or dropping off groups of visitors nowadays as people choose the FIT/self-drive options. And you'd be hard-pressed to find anyone in Queenstown who thinks we will be getting less visitors in the next few years !

CROSSING THE KAWARAU

- 18.** There are growing numbers of pedestrians and cyclists going to and from the ever-busier Queenstown Events Centre as well as using the new Queenstown Bike Trails.

I don't know if the Event Centre's growth was factored in when this Plan was discussed but certainly the Bike Trails phenomena was unheard of in 2001 and 2003 when the Transport Strategies were formulated (and which are quoted as being relevant) so it does throw a little doubt on this resulting Transport Plan.

- 19.** The re-sited Wakatipu High School in the Remarkables Park area will increase the amount of pedestrian traffic in the western end of the Frankton Flats.

Likewise - the shifting of the total Wakatipu High School to Frankton is a relatively new (and welcome) concept unlikely to have been part of the considerations. I certainly did not find any reference to it in this Document.

CROSSING THE KAWARAU

- 20.** It may be feasible to use the plans for the new Kawarau Falls bridge at the suggested downstream site simply by turning them around.

My Scottish heritage demands I seek ways to do things at the least cost, where possible! I'm obviously not a bridge engineer however this may be something worth looking at.

- 21.** It may not be necessary to allow for pedestrian or cycle traffic on the new bridge as they can be directed to the historic bridge instead, thereby saving further costs.

As stated earlier, I suggest the bridge at the downstream site can be designed for a 100km/h speed limit, at the end of a limited-access State Highway, which suggests it preferable to keep pedestrians and cyclists out of that environment.

- 22.** The local community is fortunate to have this chance of considering this proposal to shift the State Highway from the western end to the eastern end of the Frankton Flats as the continuing development may well preclude such a suggestion in future.

- 23.** Such opportunities to allow for growth have been lost to the local community in the past, for example; connecting Panorama Terrace to Hallenstein Street; designating a State Highway corridor above the current alignment of SH6A/Frankton Road; designating a wider corridor for Kelvin Peninsula Road, and it would be a sad day for the District if this submission was not accepted and carried out before a major development is placed across the suggested route.



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CROSSING THE KAWARAU

- OKAY. LET'S DO THE MONEY. FIRSTLY, THE PROJECTED COSTS OF THE DRAFT PLAN OPTION.

NEW BRIDGE AT KAWARAU FALLS	\$16 288 319
-----------------------------	--------------

GRANT ROAD TO FALLS BRIDGE	(SAY)	\$ 3 000 000
----------------------------	-------	--------------

PLUS;

ACCESS FROM HUMPHREY/ROBERTSON	(SAY)	\$ 2 000 000
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IMPROVEMENTS SOUTH BANK OF RIVER	(SAY)	<u>\$ 2 000 000</u>
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	<u><u>\$23 288 319</u></u>
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CROSSING THE KAWARAU

- SECOND, THE GUESSTIMATED COSTS OF THE DOWNSTREAM OPTION.

NEW BRIDGE AT CONFLUENCE	\$16 288 319
--------------------------	--------------

NEW HIGHWAY ON SOUTH BANK	(SAY)	\$ 3 000 000
---------------------------	-------	--------------

PLUS;

CONNECTION TO EASTERN ACCESS ROAD (SAY)	\$ 2 000 000
---	--------------

\$21 288 319



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CROSSING THE KAWARAU

- ☐ THE CONCLUSION OF THE SUBMISSION
- ☐ HOWEVER;
- ☐ HOPEFULLY NOT THE END OF THIS OPTION !!
- ☐ I URGE IT BE GIVEN SERIOUS CONSIDERATION BY OPEN MINDS

Recorded Kelvin Heights Turn Off

	Bill				Total Traffic	Total				
	K/H-BDG	KING-BDG	BDG-KING	BDG-K/H		K/H-BDG	KING-BDG	BDG-KING	BDG-K/H	
12-Jun	56	69	62	33	220	25%	31%	28%	15%	Bad Wx
13-Jun	43	69	79	61	252	17%	27%	31%	24%	
14-Jun										
15-Jun	46	66	75	60	247	19%	27%	30%	24%	
16-Jun	66	81	52	71	270	24%	30%	19%	26%	
17-Jun	37	96	59	57	249	15%	39%	24%	23%	
18-Jun	50	42	53	30	175	29%	24%	30%	17%	
19-Jun	56	97	46	56	255	22%	38%	18%	22%	
20-Jun	53	69	59	108	289	18%	24%	20%	37%	
21-Jun										
22-Jun	60	76	65	37	238	25%	32%	27%	16%	
23-Jun	50	89	57	79	275	18%	32%	21%	29%	
24-Jun	59	88	46	51	244	24%	36%	19%	21%	
25-Jun	67	78	47	47	239	28%	33%	20%	20%	
26-Jun										
27-Jun										
28-Jun										
29-Jun										
Jun Total	85008	920	700	690						
	99%	1%	50%	50%						
85928					295	26%	37%	29%	27%	
1390 Total From Bridge					Averages					

Carried over		May	totals	1794	2335																				
				Keven		David																			
				Sth - West King -Qtn	Sth - East King-Crom	East - Sth Crom-King	East - West Crom-Qtn	Total Daily Numbers	Sth - West King -Qtn	Sth - East King-Crom	East - Sth Crom-King	East - West Crom-Qtn													
Tues	2-Jun	9:28	9:58	123	182	184	116	605	20%	30%	30%	19%													
Wed	3-Jun	9:30	10:00	92	159	173	134	558	16%	28%	31%	24%													
Thurs	4-Jun	3:30	4:00	173	260	180	151	764	23%	34%	24%	20%													
Fri	5-Jun	11:30	12:00	140	210	193	153	696	20%	30%	28%	22%													
Sat	6-Jun	2:00	2:30	197	226	177	143	743	27%	30%	24%	19%													
Sun	7-Jun																								
Mon	8-Jun	10:00	10:45	153	189	184	121	647	24%	29%	28%	19%													
Tues	9-Jun	9:00	9:30	121	173	225	167	686	18%	25%	33%	24%													
Wed	10-Jun	11:15	11:45	181	212	0	0	393	46%	54%	0%	0%													
Thurs	11-Jun	9:15	9:45	131	212	188	126	657	20%	32%	29%	19%													
Fri	12-Jun	9:00	9:30	107	198	230	200	735	15%	27%	31%	27%													
Sat	13-Jun	1:00	1:30	190	295	238	189	912	21%	32%	26%	21%													
Sun	14-Jun																								
Mon	15-Jun	3:30	3:30	189	280	234	175	878	22%	32%	27%	20%													
Tues	16-Jun	4:00	4:03	201	300	185	190	876	23%	34%	21%	22%													
Wed	17-Jun	1:00	1:30	165	210	0	0	375	44%	56%	0%	0%													
Thurs	18-Jun	11:45	12:15	167	231	196	211	805	21%	29%	24%	26%													
Fri	19-Jun	12:00	12:30	192	243	207	212	854	22%	28%	24%	25%													
Sat	20-Jun	2:00	2:30	166	224	161	152	703	24%	32%	23%	22%													
Sun	21-Jun																								
Mon	22-Jun	12:00	12:30	131	215	196	260	802	16%	27%	24%	32%													
Tues	23-Jun	4:00	4:30	203	280	177	214	874	23%	32%	20%	24%													
Wed	24-Jun	12:15	12:45	133	211	192	156	692	19%	30%	28%	23%													
Thurs	25-Jun	10:00	10:30	129	207	202	130	668	19%	31%	30%	19%													
Fri	26-Jun																								
Sat	27-Jun																								
Sun	28-Jun																								
		Jun Total		4949	6845	3722	3200	Total Daily Numbers	Sth - West King -Qtn	Sth - East King-Crom	East - Sth Crom-King	East - West Crom-Qtn													
				42%	58%	54%	46%																		
		Total From South		11794		6922	Total From East	878	27%	38%	28%	24%	Total to Bridge		1563		1390	Total From Bridge							
				Averages																					

Total				
Traffic	K/H-BDG	KING-BDG	BDG-KING	BDG-K/H
220	25%	31%	28%	15%
252	17%	27%	31%	24%
247	19%	27%	30%	24%
270	24%	30%	19%	26%
249	15%	39%	24%	23%
175	29%	24%	30%	17%
255	22%	38%	18%	22%
289	18%	24%	20%	37%
238	25%	32%	27%	16%
275	18%	32%	21%	29%
244	24%	36%	19%	21%
239	28%	33%	20%	20%

Bad Wx

Total				
Traffic	K/H-BDG	KING-BDG	BDG-KING	BDG-K/H
295	26%	37%	29%	27%
Averages				

May	totals	1794	2335
-----	--------	------	------

				Keven		David						
				Sth - West	Sth - East	East - Sth	East - West	Total Daily Numbers	Sth - West	Sth - East	East - Sth	East - West
				King -Qtn	King-Crom	Crom-King	Crom-Qtn		King -Qtn	King-Crom	Crom-King	Crom-Qtn
Tues	2-Jun	9:28	9:58	123	182	184	116	605	20%	30%	30%	19%
Wed	3-Jun	9:30	10:00	92	159	173	134	558	16%	28%	31%	24%
Thurs	4-Jun	3:30	4:00	173	260	180	151	764	23%	34%	24%	20%
Fri	5-Jun	11:30	12:00	140	210	193	153	696	20%	30%	28%	22%
Sat	6-Jun	2:00	2:30	197	226	177	143	743	27%	30%	24%	19%
Sun	7-Jun											
Mon	8-Jun	10:00	10:45	153	189	184	121	647	24%	29%	28%	19%
Tues	9-Jun	9:00	9:30	121	173	225	167	686	18%	25%	33%	24%
Wed	10-Jun	11:15	11:45	181	212	0	0	393	46%	54%	0%	0%
Thurs	11-Jun	9:15	9:45	131	212	188	126	657	20%	32%	29%	19%
Fri	12-Jun	9:00	9:30	107	198	230	200	735	15%	27%	31%	27%
Sat	13-Jun	1:00	1:30	190	295	238	189	912	21%	32%	26%	21%
Sun	14-Jun											
Mon	15-Jun	3:30	3:30	189	280	234	175	878	22%	32%	27%	20%
Tues	16-Jun	4:00	4:03	201	300	185	190	876	23%	34%	21%	22%
Wed	17-Jun	1:00	1:30	165	210	0	0	375	44%	56%	0%	0%
Thurs	18-Jun	11:45	12:15	167	231	196	211	805	21%	29%	24%	26%
Fri	19-Jun	12:00	12:30	192	243	207	212	854	22%	28%	24%	25%
Sat	20-Jun	2:00	2:30	166	224	161	152	703	24%	32%	23%	22%
Sun	21-Jun											
Mon	22-Jun	12:00	12:30	131	215	196	260	802	16%	27%	24%	32%
Tues	23-Jun	4:00	4:30	203	280	177	214	874	23%	32%	20%	24%
Wed	24-Jun	12:15	12:45	133	211	192	156	692	19%	30%	28%	23%
Thurs	25-Jun											
Fri	26-Jun											
Sat	27-Jun											
Sun	28-Jun											
Mon	29-Jun											
Tues	30-Jun											
Wed	1-Jul											
Thurs	2-Jul											
Jun Total				4949	6845	3520	3070					
				42%	58%	53%	47%					
Total From South				11794		6590	Total From East	Total From North				

Bill				
	K/H-BDG	KING-BDG	BDG-KING	BDG-K/H
12-Jun	56	69	62	33
13-Jun	43	69	79	61
14-Jun				
15-Jun	46	66	75	60
16-Jun	66	81	52	71
17-Jun	37	96	59	57
18-Jun	50	42	53	30
19-Jun	56	97	46	56
20-Jun	53	69	59	108
21-Jun				
22-Jun	60	76	65	37
23-Jun	50	89	57	79
24-Jun	59	88	46	51
25-Jun				
26-Jun				
27-Jun				
28-Jun				
29-Jun				
30-Jun				
1-Jul				
2-Jul				
Jun Total	576	842	653	643
	41%	59%	50%	50%
	1418		1296	Total From Br

Total				
Traffic	K/H-BDG	KING-BDG	BDG-KING	BDG-K/H
220	25%	31%	28%	15%
252	17%	27%	31%	24%
247	19%	27%	30%	24%
270	24%	30%	19%	26%
249	15%	39%	24%	23%
175	29%	24%	30%	17%
255	22%	38%	18%	22%
289	18%	24%	20%	37%
238	25%	32%	27%	16%
275	18%	32%	21%	29%
244	24%	36%	19%	21%

Bad Wx

idge

Airport Roundabout - South- right into McBride St

26th June 5:00 - 5:30pm

- 1. Traffic coming from airport and Remarkables Park turn left at airport roundabout travel south and turn right into McBride St - 124 vehicles
- 2. Traffic travelling north off Kawarau Bridge turn left into McBride - 83 vehicles
- 3. Traffic turning left towards Queenstown at the BP roundabout - 98 vehicles
- 4. Traffic turning right towards Lake Hayes at the BP roundabout - 182 vehicles.

Total fm South and A

	1	2
26-Jun	124	83
Using McBride st as a short cut	207	
	Grand Total	
	Of that	

BP Roundabout

3	4
Left	Right
98	182
35%	65%
280	Total
487	
42.51%	are using McBride st. !!

A Vision of Queenstown, 2033

Second Edition: August 2016

Adam Childs

Transportation in the Wakatipu: A Call for Action

A journey of a thousand miles
begins with a single step"
- **Chinese Proverb**

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FOREWORD

Three years ago, I wrote two reports¹ titled that described the challenges faced by Queenstown and proposed solutions to them. The reports addressed four main issues:

1. Unmanaged growth
2. Transportation
3. Finance
4. Systemic challenges

The last section, *Systemic Challenges*, examined cultural explanations for the seeming lack of progress and vision within our community, namely short-termism and reactive management as opposed to long-term, cohesive vision and proactive planning that actually gets implemented.

Despite wide circulation and discussions with Council members and the mayor, the recommendations were largely ignored. The result is that the negative repercussions of reactive management have been felt in the town far faster than I had anticipated. Traffic congestion, increased journey times, lack of parking, *etc.* are now the biggest complaints of long-time residents while sky-high rents, lack of affordable housing, low wages, *etc.* are the issues facing new arrivals.

On top of this, the environment – the foundation of the region’s economy and quality of life – is being increasingly degraded. There are many dangers in this pattern, dangers that have been realised in other places around the world: There are many, many examples of tourist-dependent sites that, through short-sightedness, destroyed their natural beauty and are now tired, grimy, low-cost destinations.

Fortunately, there are also many examples where people have got it right. I have drawn on many of these examples for this second edition of my vision of Queenstown. Nothing in this report is unique; all of the recommendations have been successfully implemented by forward-looking managers, politicians, business people and communities and their lives have been enriched by doing so.

I have decided to write this updated report as local elections will be held in just over one month. I challenge voters to ask the candidates what is their vision of Queenstown in twenty years’ time? If they cannot answer basic questions such as this, or what the population of the town will be, then how can they be in charge of planning for the future? *If you don’t know where you’re going, you can’t get there.*

There are two caveats to this report:

1. It deals solely with transportation. This is not because spatial planning, affordable housing, diversification of the economy, or disaster resilience are any less important. It is merely a reflection of the limited spare time that I have to write this report.
2. This is not a recipe to be blindly followed – I’m not that good! Rather, it is an example of cohesive, long-term solutions. Other people – especially our new Council – will likely disagree with much of this but my question to them would be; ‘If not this, then what?’ Negative criticism without alternative solutions will not help us.

¹ “A Vision of Queenstown” and “One Bite at a Time”.

As I was finishing this article, I picked up the latest copy of the *Mountain Scene*. The lead article announced the approval for a \$100m, 4.7 hectare shopping complex. It talks of shops, restaurants, housing, *etc.*, but not a single word on transport. This is exactly the sort of short-term thinking that will strangle Queenstown in the long run. It continues the trend to centralisation of services that increases traffic and exacerbates congestion and it fails to provide even

‘Hendo’s Hole’ and part of the Five Mile shopping centre was an ideal site for a multi-mode transport centre. Government at national and local levels let this opportunity slip away. In the end, allowing the hole to be filled in and millions of dollars spent on carting away earth from the development. Millions of dollars that will not benefit Queenstown in any meaningful way. And now we have another decision thrust upon us with a minimum of public consultation that will cost us all millions of dollars.

Major projects such as this are often announced with the cost of construction in large type. As it has in this most recent case: “\$100m plan OK’ed” is the headline. But let’s be clear:

1. Only a small percentage of that \$100m will go into the local economy
2. Each time a mega project such as this is approved without providing for some sort of transport solution – park and ride facilities, a bus terminal, a light rail station, *anything* – costs ratepayers millions. Any such facility doesn’t have to be built now although I argue in this report that it is cheaper to do it earlier rather than later.
3. Each time one of these projects gets approved, the cost goes up by millions. By my calculations, the opportunity cost at Five Mile was in the vicinity of \$20m and this new development will add a similar amount. These costs rarely get mentioned in announcements but they are real, and unlike the construction costs, 100% of them are felt locally. They include:
 - a. Increased eventual cost of providing transport solutions that need to be further away and/or require purchase of inflated land rights
 - b. Using NZTA figures, traffic congestion in the Queenstown area will cost over \$50m *per year* in ten years’ time unless we move away from our current reliance on private vehicles or over *one billion dollars* over the next thirty years. This dwarfs any positive economic impact from a new shopping centre.

It is well past time that we moved away from short-term, reactive, small-scale solutions and really started planning for a future wherein residents and visitors alike can continue to enjoy the attractions and quality of life that currently exists in the Wakatipu.

Adam Childs

September 4, 2016

Queenstown

Why

There are two questions to be answered before we look at transportation in the Wakatipu basin in any depth:

- *Why should we care about transportation issues?*
- *Why has it become a problem now?*

WE SHOULD CARE FOR MANY REASONS

Whether you are a resident of Queenstown, a regular commuter to the town or a visitor, there are many reasons to care about traffic in the region:

- Traffic congestion costs time and money (e.g. fuel costs) and increases pollution
- Increased traffic increases risk of accidents with significant personal harm, especially for pedestrians and cyclists
- Traffic congestion detracts from the region's beauty and quality of life; traffic jams are neither pretty nor quiet!
- Excessive traffic and journey times detracts from visitors' enjoyment. This is especially true for the high-expenditure tourist that the resort wishes to attract.

Ultimately, we should care because the increase in vehicular traffic may be an indicator of the resort's success in attracting visitors and residents in the short-term, but it threatens the resort's attractiveness and financial viability in the long-term.

WHY HAS IT BECOME A PROBLEM NOW?

Access to and from the town is geographically constrained by the lake and the mountains and there is little space to build new roads. Just like the 'straw that broke the camel's back', there is a certain point at which smooth traffic flow quite suddenly changes into congestion. Anyone who has been in the region for even a couple of years will be aware this tipping point. In short, it is simply that routes have reached their saturation point. There are a number of exacerbating factors:

- Both national and local Governments have focused more on increasing tourism (short-term gain) than on long-term planning and provision of infrastructure
- Businesses have taken advantage of the political environment to expand: Queenstown airport is a perfect example of business success isolated from infrastructure
- Generally, NZTA use existing traffic loads when deciding whether to improve or expand roads rather than looking ahead to projected loads. This results in a typically reactive piecemeal approach to improvements where roads with heavy traffic get improved only to direct traffic into bottlenecks further on
- Queenstown's growth has been unusually high, exceeding expectations, but as businesses (e.g. hospitality and developers) profit, there is reluctance to try and slow growth even temporarily (e.g. by reducing Destination Queenstown's budget)
- Government relies on 'the market' to provide solutions even when it has become very clear that this does not work

Where

Where we should focus our efforts means looking at a combination of existing bottlenecks and forecasted growth. To do this accurately, it should be done in conjunction with spatial planning², a subject for another report. That said, we can predict with some accuracy where the main issues are:

- Frankton Road and SH6/6A from Lake Hayes and Shotover Country to the CBD
- Around the Airport, Remarkables Park and Five Mile
- Traffic from Remarkables Ski Field, Kelvin Heights, Jacks Point and Hanley Downs
- Queenstown CBD
- Lake Wakatipu

Each of these have unique constraints and needs and need to be addressed separately. One thing should already be clear however: Building more road capacity in one place (e.g. along SH6) simply moves the congestion to another place (e.g. SH6A/Frankton Road).

What is needed (and more on the specifics of *What* in the next section) are alternatives: Alternative routes, alternative modes of transport.

FRANKTON ROAD AND SH6 TO THE CBD

This road is already at capacity. Peak traffic queues can stretch for over a kilometre albeit they tend not to last for long... at present. In the next twenty, thirty years the demand for transportation along this corridor will grow exponentially. Demand will grow from:

- Population growth in surrounding areas (e.g. Shotover Country, Hanley Downs)
- Increased tourism, that is still being aggressively promoted by government and businesses both locally and nationally
- Growth along the corridor (e.g. new hotels and residences and the new marina)

While there is some room for increasing the capacity of this road – it has a wide centre lane in some places for example – experience tells us that any increase in capacity will be rapidly taken advantage of. Furthermore, this road narrows at the BP end and has many access routes leading off it meaning that many people need to make right hand turns. Using the central lane for more through traffic would probably be self-defeating as people block the lane to make turns.

The centre lane can be used for an alternative transport mode – for example, streetcars, light rail transit or as a dedicated lane for public buses, taxis, shared cars and, eventually, driverless taxis. The usefulness of this is severely curtailed if people are still allowed to make right turns all along the road. Dedicated right turn and U-turn facilities – perhaps with traffic lights – would be needed at the few places where space permitted. Its utility for streetcars or LRT is even more limited as it is barely wide enough for one track, not two: Two-way traffic would depend on short double track passing bays.

It is highly likely that any such use of the centre lane would provide relief for only a short time (5-10 years at most), be costly and would face significant resistance from road users, residents and businesses.

² And Council's willingness to adhere to those plans. Previous plans have been developed at substantial cost to ratepayers and then ignored or overridden when it came to providing consents.

What is needed are new routes that add to capacity without diminishing the current road. And we must have at least a twenty-year vision, if not longer. This means planning for 100% increases in demand, not just ten percent. For these reasons, I propose three options that could all be developed (there are compatible, not competing options):

1. Light rail transit
2. Commuter bicycle lanes
3. Water buses and taxis

Light rail transit (LRT)

An LRT could be built alongside the lake on the Frankton Track. In my opinion that would be a mistake because:

- It would get stuck in time-consuming and costly land acquisition issues
- It takes away an attraction of the area (many people enjoy the track)
- It would be difficult to integrate into a region-wide transportation system at the CBD end. It would either terminate near the ice rink in the gardens making it difficult to coordinate with buses and other transport, or it would have to cut through or alongside the gardens terminating near the Bath House. This last option would face engineering issues (steep gradients) and significantly impact the beach and the gardens.
- The path is not currently wide enough for two tracks (in places it isn't even wide enough for one track); as properties and/or hillsides abut the northern side of the path, the rail track would, in many places have to be built above the lake.
- Subject to subsidence and flooding.

The alternative that I proposed three years ago is still, in my opinion, the best one: Use the existing utility corridor around the 400m contour line on Queenstown hill. The advantages of this route include:

- The journey itself would offer great views and be a stunning introduction for visitors to Queenstown and with good design, would not detract from views of the hill
- Land acquisition would be much simpler and cheaper to negotiate
- It opens up opportunities to provide residences with good public transport that are currently inconveniently distant from bus routes on Frankton Road
- The terminus above Gorge Road would be easy to incorporate into a region-wide transportation system

The biggest objection I hear to the LRT option is the cost. I feel that this objection is misplaced. There are many studies around that show – over the long-term – that the cost of LRT systems are comparable to other mass transit systems. Costing of the LRT option is discussed in more detail in Appendix Two.

Moreover, an LRT is the *only* way to significantly increase capacity along this corridor to meet anticipated demand over the next few decades. It is true that an LRT will cost more than, say, widening Frankton Road but what of the intangible, long-term costs?

- An LRT can be attractive, more vehicular traffic never is.
- What will Queenstown do in five, ten years when even a widened Frankton Road is insufficient and traffic queues all the way from the airport to the CBD are common?

Commuter bicycle lanes

Studies show that the use of bicycles for short distance personal travel increases dramatically when cyclists are made to feel safe. This is done by having dedicated cycle lanes that are paved and physically separated³ from vehicular traffic *and* pedestrians (and their dogs!). In many countries, these dedicated lanes can also be used by motorised vehicles such as electric bicycles, scooters or mopeds under 50cc and mobility scooters. One objection to commuting by bicycle that I have heard is that Queenstown's weather will be a problem. Studies have shown that weather is not that significant a factor. Cities such as Berlin, Amsterdam and Copenhagen that have comparable climates have very large cycling numbers.

Other things should also be done to encourage cyclists – bicycle lanes by themselves are insufficient. Facilities such as secure, covered bicycle racks in town, bicycle-friendly ferries to Kelvin Heights or Shotover Country that give commuters the option for only cycling one way, *etc.* will all need to be developed.

Water buses and taxis

Good water transport (i.e. frequent, affordable and large enough to accommodate prams, bicycles, shopping, *etc.*) is another way to increase capacity between Frankton and Queenstown CBD without detracting from the scenery nor taking away from existing routes.

Connecting Shotover Country, Lake Hayes Estate, select stops along Frankton track (e.g. the Boat Shed and the Marina), Kelvin Heights⁴ and the CBD⁵ could divert as much as 10% of Frankton Road traffic off the road.

AROUND THE AIRPORT AND THE SHOPPING CENTRES

The most obvious solution to alleviating congestion is to finish the Eastern Arterial Route (EAR) that runs south of the airport to connect Remarkables Park to Five Mile Shopping Centre. The EAR is, however, a short term solution especially given the anticipated growth in passenger numbers at the airport. The airport alone (so disregarding ski field, resident and shopping traffic) is forecast to handle two million passenger arrivals and departures within a couple of years. Even if every one of them travel to and from the airport in cars of four people, that still results in around 1,500 cars per day *on average*: peak periods are much higher.

Diverting much of that traffic away from road vehicles would go a long way to alleviating traffic in the area. To do that, we need public transport that is reliable, frequent and affordable *and* has the capacity for large loads.⁶ An LRT as described above that connected the airport with the CBD and major hotels fits that bill. If the LRT can be supplemented with good bus and water systems, it would also take much of the resident and shopping traffic.

Other options that should be encouraged include online shopping that is delivered by a (free) delivery service run by the shopping centre⁷ and car share systems⁸.

³ Low concrete slabs as used in car parks will suffice but the further away from vehicles and the larger the barrier, the better.

⁴ At both ends. The Eastern end providing alternatives for Ski field, Jacks Point and Hanley Down traffic while the Western End provides options for residents as well as visitors wishing to go to KH golf course and sailing club

⁵ This should terminate at the wharf or harbour so it can be integrated with other public transport.

⁶ E.g. visitors with suitcases, families with children, shoppers with large purchases, disabled people using mobility aids.

⁷ Purchases from all stores are consolidated dependent upon delivery location.

⁸ While these do not alleviate traffic *per se*, they do reduce the overall number of cars in the region and thus alleviate parking issues.

TRAFFIC FROM SOUTH OF THE KAWARAU RIVER⁹

New developments such as the improvements to the ski fields and new residences at Hanley Downs will result in large increases in traffic volumes from the south in the next few years.

As previously discussed, encouraging alternative transport modes will be the best way to handle increased demand. This includes:

- A dedicated bicycle lane across the river. The ‘hard shoulder suitable for cyclists’ on the new bridge is *not* sufficient when there are large trucks travelling at 70kph on this route. The best option would be to have a dedicated bicycle lane parallel to the approach roads and then doing a little work on the old bridge to make it a pedestrian- and bicycle-bridge.
- Ferries from the east and west ends of Kelvin Heights capable of carrying motor scooters, bicycles, prams, skis, *etc.*
- Public bus services to the ski fields, Jacks Point, Kelvin Heights and Hanley Downs.

It is also important to acknowledge that new bridge currently under construction is likely to reach capacity in just a few years and that planning for a second bridge should already be underway. This second bridge could be much further downstream, crossing the river to the west or east of Lake Hayes estate. This would be (finally!) the bypass that Queenstown needs. Heavy traffic (e.g. stock trucks) from Southland to Cromwell and Christchurch would then have no need to join the airport and shopping centre traffic.

It will be far easier and cheaper if QLDC started planning for a new access road (preferably designating it as SH6) along the south side of the river to where a new bridge would be built *before* that land gets developed (and it will!).

QUEENSTOWN CBD

It has been talked about for decades: Pedestrianise the centre! Each year that goes by makes it harder and harder to do as development and density increases so the faster this is done, the better. The main problem as I see it is that Council is trying to do this in isolation. As if putting up a few bollards is what pedestrianisation means. This is equivalent to building a car with only two wheels – it doesn’t go very far until all the wheels are in place!

A comprehensive solution would consider such items as:

- Where to park cars and other vehicles at the edge of a pedestrianised area
- Appealing alternatives to using private vehicles at all
- Disincentives for private vehicles E.g. costly parking on the edges
- Different systems for rate payers versus visitors (e.g. subsidised parking for residents)
- Integration with public transit systems
- Access times for service and delivery vehicles
- ‘Part-time pedestrianisation’; vehicles restricted to specific times and days of the week
- Access for emergency vehicles
- Transit times (e.g. RVs heading west to Glenorchy or vice versa can only do so between 5am-7am or 6pm-8pm)
- Free public transit within the zone for those with mobility issues (or just tired!) – in many towns and cities this is made into an attraction (e.g. old-style trolley buses)

⁹ Remarkables Ski Field, Kelvin Heights, Jacks Point and Hanley Downs as well as long distance traffic, e.g. from Invercargill and Te Anau.

LAKE WAKATIPU

The lake is vastly underutilised. Apart from the water buses and taxis described above, it would be relatively easy to put in place a high-speed, hydrofoil ferry service between Kingston-Queenstown-Glenorchy. These types of ferries have been running for decades in places such as Macao and Hong Kong. This sort of service would have many advantages:

- Journey times are comparable to driving (Kingston to Queenstown 30 minutes, Queenstown to Glenorchy 40 minutes)
- It adds more capacity to routes that cannot be easily expanded (narrow roads bounded by hills and the lake)
- As an exciting, alternative way to get around the region, tourists would likely comprise a high number of users – this reduces the number of people unused to our roads off the more difficult routes presumably decreasing accidents and decreasing average journey times
- It would make Kingston and Glenorchy more attractive for residential growth
- A PPP with Chinese companies can almost be guaranteed ensuring taxpayer up-front costs would be minimal if desired
- Rate-payer discounts could be used to attract commuters to use the service
- It provides an alternative transport system during disasters and crises (e.g. landslips, snowstorms or accidents that block roads)
- Once ferry terminals were in place, one or two additional ferries with vehicle-carrying and/or freight capacity could further supplement transport options in the region

What

What to do about the situation was a major part of my first report three years ago. In that first report, I quoted the former mayor of Bogota. His words are still relevant:

"A city speaks, a city creates behaviour. We want people to be able to leave their cars at home. In Holland a political decision was made to support bicycle infrastructure. It is done little by little. In Japan 30% of people who arrive at a train station arrive by bike. To have a safe bicycle route is a right; governments have to take a risk, show leadership and do the uncomfortable thing to invest in the necessary infrastructure."

I discuss what to do about transportation in two sections – overall strategies and specific activities (tactics).

STRATEGIES

GOVERNMENT INVOLVEMENT IS ESSENTIAL

The 'market', the private sector, is not capable of providing solutions to transport issues by itself. Government involvement is essential.¹⁰ Just as we don't expect the private sector to build New Zealand's roads, we cannot expect it to build other aspects of a transport network.

However, this does not mean that governments must go it alone. Projects involving both the public and private sector are increasingly popular and effective. These are known as PPP: Public-Private Partnerships and there are many untapped opportunities for them in the region.

DE-EMPHASISE ROADS

Apart from the fact that the Wakatipu has very little space available to build more roads, building them encourages more vehicles; it rarely solves transport issues.¹¹ However if road capacity is not to be increased then one or more of the following must happen:

1. **A decrease in the number of people and the amount of goods moving around.**
This is highly unlikely and, to the majority, undesirable. Indeed, most people want growth, not a decrease. That said, decentralisation of services can go a long way to reducing traffic and Council – through zoning and consents – can influence this.¹²
2. **An increase in per-vehicle efficiency.**
Although there is room for this strategy (e.g. car sharing), it is not substantial. Nevertheless, possibilities should be examined.
3. **An increase in road use-over-time efficiency.**
Spreading the traffic load over time
4. **A decrease in the use of personal vehicles (cars)**
The next three strategies describe how this can be done.

¹⁰ Incidentally, this holds true for the other hot topic in the region: Affordable housing. A subject, perhaps, for another report.

¹¹ A great example is the M25 ring road around London, UK. Built to handle increased demand for the next three decades, traffic exceeded capacity within 18 months.

¹² For example, someone in Fernhill or Arthurs Point who needs some nuts and bolts has little choice except to drive out past Frankton – a return trip of more than twenty kilometres.

PROVIDE GOOD PUBLIC TRANSPORT

This is the area where Queenstown really needs to focus. Apart from the strategies already discussed, this is accomplished primarily through the provision of reliable, affordable and frequent public transport.

MAKE ALTERNATIVE TRANSPORTATION ATTRACTIVE

Iconic public transport¹³, transport that provides an experience¹⁴ and prioritising alternatives over private vehicles¹⁵ have succeeded in reducing traffic congestion in many places.

HAVING A COHESIVE, INTEGRATED TRANSPORT SYSTEM THAT IS EASY TO USE

Perhaps the most important strategy of all is to integrate all of the different modes of transport seamlessly. Restricting people's freedom to choose and to making it difficult to swap from one mode to another are the biggest barriers in getting people to give up their cars.

UNDERSTAND THAT THERE IS NO SUCH THING AS A FREE LUNCH

Tourism and growth is worth a lot to the District.¹⁶ Those that benefit should be prepared to invest and/or contribute to the costs of these sectors. This is discussed in more detail in "How", below.

TACTICS

In this section, I will describe some specifics of how the above strategies could manifest. To repeat what I said in the foreword, this is not a recipe. These are ideas to be discussed, debated, considered and eventually discarded or implemented. The one option that we do not have – if we wish to continue to enjoy the Wakatipu the way we do today – is to be complacent and not choose any of the following suggestions.

GOVERNMENT INVOLVEMENT

- QLDC needs to be much more active in ensuring District plans are implemented. This could include a Monitoring and Evaluation (M&E) unit – semi-independent or based on self-reporting of Key Indicators on a regular basis – of progress on implementation.
- Government at all levels need to be prepared to provide long term loans and financing for large infrastructure projects.
- QLDC need to use their zoning and taxing powers (rates) more selectively and proactively (e.g. receiving revenues proportional to benefit received) as well as using user fees more imaginatively (see "How" for more details).
- QLDC need to put prioritise public interest above commercial benefit; for example, adhering to the green spaces policy stated in Council's April 2007 "*A Growth Management Strategy for the Queenstown Lakes District*" instead of allowing development. Council should also not be deterred from 'competing' against private companies when the service in question is clearly one of public interest (e.g. public transport).
- Notwithstanding the above, Council should be more proactive in developing PPPs for essential services rather than competing against the private sector (e.g. subsidising a private contractor to deliver transport services in return for agreed service levels).

¹³ E.g. San Francisco streetcars or Hong Kong harbour ferries

¹⁴ E.g. scenic railways

¹⁵ E.g. dedicated lanes and/or times for taxis, buses, car pooling, bicycles, etc.

¹⁶ According to MBIE, over \$1.8bn p.a.

DE-EMPHASISE ROADS

- Council should do comprehensive cost-analysis benefits of roading improvements and building that includes indirect and intangible costs and benefits that build upon NZTA assessments. In many cases, it may be seen that money spent on roads – and consequent increase in traffic – would be of better benefit if spent on non-road items. It is the responsibility of QLDC and the local MP to argue these points in Wellington.
- Ensure essential services are available locally. For example, new sub-divisions over a certain size, or that will increase the population in the area over a certain size, must have schools, churches, shops, playgrounds, etc. sufficient to service that population. Developers should either be required to run those services until such time as a private enterprise takes over and/or provide a performance bond to ensure such.
- Following on from the above, Council should look to provide mixed zoning rather than large tracts of same-use zoning – e.g. large, purely residential subdivisions in one place and sprawling shopping malls in another – to reduce local transport needs.
- Increase passenger-per-vehicle efficiencies by introducing carrots (e.g. access to fast lanes) and sticks (e.g. tolls) that promote car-pooling or sharing.
- Increase passenger-per-vehicle efficiencies by introducing a PPP for shared cars wherein subscribers can pick up a car just about anywhere in the district, rent it for just a few hours and then park it near their destination.¹⁷
- Alleviate peak period traffic congestion time by staggering traffic loads (e.g. by using tolls or other restrictions on peak period travel). Encourage flexible shifts in Government offices.
- Restrict large private vehicle access (including delivery vehicles and recreational vehicles) to certain times of day/night. RVs cannot park in town, only at the transport hubs. RVs and buses only allowed along certain roads for transit (e.g. to Glenorchy).
- Provide pleasant, serviced parking facilities for RVs at major transport hubs with good access to buses, taxis, electric bicycles, *etc.*
- Pedestrianise the CBD! This has been discussed for decades without substantive progress.

PROVIDE GOOD PUBLIC TRANSPORT

A number of maps and images are provided at the back of this report that illustrate some of the following suggestions.

- The Connectabus service is neither affordable nor frequent enough to encourage car users to swap to public transport. Services need to be increased and fares decreased. This can be partially funded through disincentives such as high parking fees, congestion charges, tolls for single-person cars, *etc.*
- Encourage or facilitate internet or smart-phone enabled car-pooling a la Uber.
- Introduce subscriber model car rental services (see above) that allow locals to rent for a few hours (e.g. to go shopping) instead of having to own their own vehicles
- Introduce similar public bicycle hire systems wherein the bicycles can be picked up and dropped off at a large number of sites.¹⁸
- Consider introducing free public transport at least in the CBD but also out to the ski fields in the winter.¹⁹ Existing bus services (e.g. Shotover Jet, NZSki) can be asked to opt

¹⁷ E.g. This is how Amsterdam's very successful Greenwheels program works

¹⁸ E.g. Transport for London ('Boris Bikes') and Paris' Vélib public bicycle hire system

¹⁹ This is what Queenstown's sister city, Aspen, does. Free transport in the CBD is also used in places such as Melbourne.

into a combined public transit service and thus be exempt from (new) CBD congestion charges. Free public transport is an excellent way to kick start usage and acceptance; mitigates concerns about high parking fees and other user fees; is not as expensive as it seems as time and money is saved by not having to sell tickets or monitor fare-paying

- Have different fare structures for rate payers versus visitors, especially to/from the airport
- Alleviate Frankton Road traffic by creating a parallel light rail route. This could go along Frankton Track (not recommended) or the utility corridor near the 400m contour line. A short-term alternative would be an LRT/streetcar down the centre of Frankton Road.
- Make it a condition of licence for a certain percentage of buses to have bicycle, ski and snowboard racks.
- Utilise waterways with scheduled water buses as well as private water taxis; shared use with commercial organisations essential.
- Ensure disabled access (e.g. wheelchairs & mobility scooters) for public transport such as water taxis and LRT.
- Ensure systems have facilities for people with heavy bags (e.g. arriving tourists) and families with small children (e.g. any gondolas must have come to a complete stop).
- Create 'transport loops', even using mixed modes, e.g. water bus from Kelvin Heights to CBD, bus goes to LRT at Queenstown Hill, LRT to airport and then another bus back to Kelvin Heights.
- Ensure connections between systems are as seamless as possible: Minimal distance between, minimum stairs and always with alternatives (e.g. ramps) and, most importantly, one ticketing system (this can be extensive – e.g. paying for parking at a park & ride includes a bus day pass).
- Provide rate payers / long term residents with subsidised fares.
- Bus lanes should be restricted to bus, taxi, motorcycle or share vehicles at peak periods.

MAKE ALTERNATIVE TRANSPORTATION ATTRACTIVE AND HAVING A COHESIVE, INTEGRATED TRANSPORT SYSTEM THAT IS EASY TO USE

- River and lake taxis are often seen as worthwhile attractions by themselves; tourists take Thames river buses (London) and Hong Kong ferries for the experience.
- Spend a little more at time of construction for aesthetically pleasing design of bridges, overpasses, stations, *etc.*
- Commuter bicycle lanes should be understood to be different from recreational; they need to be paved and physically separated from other vehicular traffic.
- Park & ride facilities should be more than just car parks. Small shops, toilets, restaurants, should be planned for. Provide showers, changing rooms, *etc.* at major multi-mode hubs.
- Start planning now for 'Queenstown: The clean, green city of the future' by providing facilities for electric cars, communal cars and driverless taxis; apply to car manufacturers to be a test site for driverless cars.
- Proactively look for innovative transit solutions that make Queenstown stand out from the crowd.
- Have a Light Rail Transit system that whisks new arrivals from the airport to the CBD in minutes along the 400m contour line with the best views in town!
- Have ride-, drive-on ferries from Kelvin Heights to Queenstown wharf.
- Add pedestrian escalators, like those popular in Hong Kong, at strategic places to facilitate access to the LRT and shortcuts for people walking into town.

When

Now!

As should be clear by now, there is a lot of work that needs to be done. Successive councils have shown that they have the capacity to plan, but little inclination to act. And that is the imperative at this point. Even if the plans are not perfect, doing something is going to be better than simply generating more paper.

It should also be clear that the passage of time reduces our options, or at least makes them financially unrealistic. For example, acquiring land rights for a light rail transit system or a new road south of the river will be much more expensive, or even impossible, in the future when that land has been built upon.

This is not to say that we have to start building a second bridge or a light rail transit tomorrow. But it does mean that we need to start: A journey of a thousand miles starts with a single step.

So there are three main actions that the new Council should commit to – preferably before they are elected!

1. Adopt a thirty- to fifty-year plan in principle; determine what the essential features, especially concerning land rights and zoning, are; act to secure those rights in the lifetime of this Council.
2. Take advantage of opportunities as they arise and insist that any new development fit into this long-term plan. For example, last summer saw substantial work on SH6 between the BP and Stalker Road roundabouts. It would have cost very little extra to have incorporated dedicated, physically separated bicycle lanes during this period. Similarly for the work on Hawthorne Drive, approach roads to Five Mile and around Glenda Drive and Gorge Road just outside town past Industrial Place. That bicycle lanes were not incorporated is a false economy. If Council are serious about their desire to reduce vehicular traffic²⁰, they need to act not just wish that this desire will somehow manifest from thin air. As for the new Kawarau Bridge still under construction, it is not too late to insist that commuter bicycle lanes be added to the bridge and the approach roads.
3. Insist that the new commercial developments along SH6 set aside land, approach roads and the like for mass transit systems that will be developed in the near future.

²⁰ Something that has appeared in Council documents for around fifteen years, each time expressing the thought that an increase in bicycle and pedestrian traffic will be instrumental in such a reduction. As Councils have then failed over and over to actually do anything to encourage bicycles and pedestrians, is it any wonder that vehicular traffic has continuously exceeded 'forecasts' and thus led to the congestion we see today.

How

This section looks at financing. Not in detail, after all, this is report is the voluntary work of a single individual, not a report produced by consulting firms for tens of thousands of dollars! No, rather than look at details, I want to look at the big picture.

All too often, I hear people say that Queenstown cannot afford anything like the schemes I have described in this report. But can Queenstown afford not to do something bold? After all, people come here to enjoy themselves and enjoy a wonderful quality of life. If that enjoyment is taken away, whither Queenstown?

From a back-of-envelope calculation, I estimate that implementing all of the recommendations in this report would cost in the vicinity of five hundred million dollars. Appendix two contains some details of the costs of a Light Rail Transit, by far the largest expenditure in this package.

I can hear the cries of incredulity now. ‘Five hundred million dollars! Half-a-billion! How can a rate payer base of twenty thousand²¹ afford that?’ The answer is, of course, that they can’t. And that amount does not need to be spent up front. However, given that real estate inflation is much higher than government borrowing interest rates, and that with each passing day the costs of traffic congestion increase, it is a false economy to delay a solution any further.

For the sake of argument, and accepting that budget overruns are common, I’m going to look at a ‘worst-case scenario’ where all the funding is required up front and the cost overrun is 50% such that the final bill is \$750m.

Where could this sort of money come from? Remember that we are looking at a minimum 30-year time frame in terms of benefits. My guiding principle with these suggestions is always to ask those who are benefiting to contribute back into the community:

- On average there are 100,000 real estate transactions in the region averaging around \$500K each. That’s \$50 *billion* per year or \$1.5 *trillion* over 30-year time frame. In many cases, the sellers are reaping substantial gains. And the estate agents also make significant profits from all these transactions. A 0.1% tax or levy on these transactions would pay for *two* \$750m transport solutions without seriously affecting buyers and sellers.²²
- Similarly, developers could be asked to contribute to transport solutions. This could be in the form of cash or payment-in-kind (e.g. building a bus station in their new development). They could be ‘rewarded’ with more lenient zoning such as consent for a three-storey carpark. This could have the added benefit of slowing Queenstown’s red-hot market that is making housing and retail rents so expensive.
- The above is an example of a ‘weak PPP’. Strong PPPs would see developers, such as mass transit companies, being given the rights to revenues from services provider (subject to strict regulatory oversight on prices, service levels, *et al*) in return for up-front costs. This can be sweetened by offering government funding guarantees that lower finance costs and providing development/land rights around transport hubs (which quickly increase in value). In some cases, communities have ended up paying nothing.

²¹ Give or take a few thousand...

²² If the estate agency had to pay this then their take from a 5% fee on selling a \$500K property would go from \$25,000 to \$24,500. If we only want one transport solution, the difference would halve to just \$250.

- In the short-term, forming public-private consortia could alleviate transport issues. An example of this would be to work with NZSki and Shotover Jet such that their buses to Arthurs Point were considered part of the public transport system. Although the companies would obviously reserve the right to cooperate or not, Council can use a number of licencing and regulatory ‘carrots and sticks’.
- Tourism in New Zealand currently contributes \$2.5bn to GDP. A significant portion of that is collected in the QLDC region. A good MP, with the support of Council, should be able to convince the Finance Minister that putting just 10% of the GST that is collected in this region back into resolving transport issues is good for both Queenstown and the country. 10% of GST would result in \$750m – the entire cost of the solutions proposed.
- Over this 30-year period, Queenstown can expect something in the vicinity of 75 million passenger-trips to and from Queenstown airport. A \$15 charge to use an LRT that is faster, less stressful and more scenic to get into the CBD is not unreasonable and fairly common in cities around the world – it’s also cheaper than renting a car for a couple. Locals (and the definition of local can extend to Cromwell or wherever we decide) would only pay a discounted amount (e.g. one-third). Assuming that only half of those trips end up being full-fare LRT users the revenues would be over \$500m.
- Costs of congestion, maintenance and land use could be reflected better in user fees (e.g. peak hour congestion charges, parking fees, public transit) and offset for rate payers / residents by subsidies and coupons for free use. These have the added benefit of reducing road transport in favour of alternative forms, *so long as those alternatives are in place first!* Raising parking fees before building *good* park and ride facilities and public transit is a recipe for disaster. The amounts raised by such an approach has too many variables to guess at but could come in around 10-20% of the cost of the suggestions in this report.
- Intangible revenues are even harder to estimate but one thing is sure; if the quality of life and the quality of experience in visiting Queenstown decreases, this will be seen in a loss of revenue in the hospitality sector, by developers and by property owners.

None of the above are incompatible so a mix-n-match approach can work as well, reducing the burden on any one source.

Again, it is not my position to detail the mechanics of these possibilities – I am not an elected member of Council nor have I been engaged professionally to propose solutions. That said, I challenge those people who *are* in such positions to say why or why not they don’t consider these sources of funding.

A FEW LAST REMARKS ON ‘HOW’ OR ‘WHAT NEXT’

Whatever we decide to do, it should be as easy as possible for the user:

- Smart cards (tap on/off) for public transit;
- All-day travel passes over *all* transit systems (with some, more expensive, passes incorporating private sector access such as the Skyline Gondola)
- Fare prices should be as low as possible – even free in some areas; the reduction of administration costs and time collecting fares often makes up a lot of the revenue loss;
- Set up a separate commission or department within council that is exempt from the three-year political cycle (although still accountable).

**Queenstown officials often talk of being a ‘World Class Destination’:
When will we start acting like one?**

"A culture of short-termism pervades political life... future generations should not be discounted against simply because they are born tomorrow and not today... governing requires a dual vision: a commitment to address current needs and to build the foundations for vibrant generations in the decades ahead. We urge decision-makers to overcome their pressing daily preoccupations to tackle problems that will determine the lives of today's and tomorrow's generations."

- University of Oxford, 2013

"We choose to go to the moon in this decade and do the other things, not because they are easy but because they are hard, because that goal will serve to organise and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win."

- John F. Kennedy, 1962

Appendix One: Alternative Transport Examples

(See separate, oversize, document for *Appendix Two: Maps*)

LIGHT RAIL TRANSIT AND RAPID BUS SYSTEMS

Just to put a few things in perspective: Upgrading Malaghans Road to create a viable alternative to SH6 would as has been discussed recently would still cost hundreds of millions of dollars. Although presumably a (little) less than the cost of an LRT route, it would be much more environmentally and aesthetically intrusive and would do nothing for alleviating congestion within the CBD.

SEATTLE



GOLD COAST



PORTLAND



QUITO



HIGH SPEED FERRIES MACAO & HONG KONG



COMMUNAL, SHORT-TERM CAR RENTALS (ELECTRIC) AMSTERDAM



AUCKLAND



COMMUNAL, SHORT-TERM BICYCLE RENTALS & PEDICABS NEW YORK



MILAN



LONDON



PHYSICALLY SEPARATED BICYCLE COMMUTER LANES CHICAGO



NEW YORK



VANCOUVER



LONDON



Appendix Two: Maps

(See separate, oversized, document for *Appendix Two: Maps*)

SIMMONDS Anna

Wanaka/Upper Clutha

Submitters Comment

Please see attached word file.

ANNUAL PLAN SUBMISSION – 2017/2018

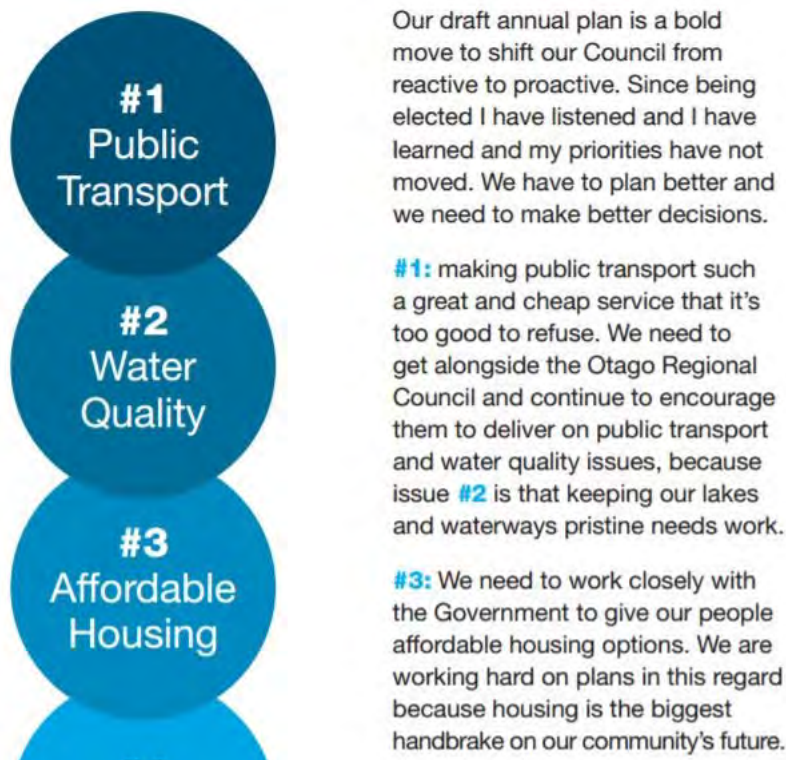
Anna Simmonds



Wanaka

Like many of my fellow ratepayers, my concerns are the rampant, poorly monitored and managed deterioration of our environment as we grow.

I question the motivation of council to include water quality as a real and active high priority. I certainly applaud the sentiment, but feel the inclusion of the #2 priority as water quality appears to be an afterthought. Every other priority in your documentation is allocated a whole paragraph, and much more funding than the \$150,000 for 'further investigation of lake snow'.



The money which is being allocated to the 'chlorination and compliance' (totalling \$500,000) should not be included as funding towards this aim, it is a mere ambulance at the bottom of the hill which contributes nothing to addressing or solving the issues which resulted in the requirement for chlorination in the first place.

I would strongly urge council to define a clear set of environmental impact parameters, whereby things like the silt buildup at the Wanaka Marina is monitored and controlled. I would love to see our town lead the world in its management of our natural environment over and above the financial gain of hasty exponential housing and tourism growth. In the longer term a focus on the above will become of far greater value (both financial and personal) to our community than any short term monetary gain.

A suggestion toward recognising that all financial economic systems are a wholly owned subsidiary of the earth would be to create a maximum build size. Imagine the design innovation which could come from having more financial resources going in to a smaller footprint!

I believe that minimum build sizes in this town have resulted in many buildings clad in cheap materials, constructed with a focus on nothing more than the achievement of the monstrous size requirements.

Conclusions

I would request that significantly more funding be appropriated for further repair, research and monitoring to save the alarming decline of the clarity and quality of our lakes and river beds. I have not met any person who has lived in this town for more than five years that doesn't agree our lake is deteriorating, and I don't believe we have to continue on this path.

Consideration towards a radical turnaround in the move towards bigger and bigger homes with a maximum build size rather than a minimum being the norm.

Thank you for your time in reading my submission and I hope that you can incorporate this viewpoint. I have reason to believe it is a common one among long term residents.

SIMPSON Liz

Wakatipu

Submitters Comment

I'd like to comment generally in that I support all the work programmes put forward for consultation.

SIMPSON Roger

Wanaka/Upper Clutha

Submitters Comment

Lake Hawea Chlorination:

- The Hawea community wants chlorine-free water. This has been demonstrated again and again through petitions and overwhelming majority votes at community meetings.
- The community does not feel "consulted" by Council. Decisions are made and we are "informed" after the event.
- It is still unclear why the upgraded uv treatment system and water intakes (costing \$1.5million) are being rejected even though there has been no recorded ecoli outbreak since the upgrade in April 2016. It would be more sensible and more economic to vermin-proof the reservoir.
- Permanent chlorination in Hawea is not necessary to meet NZ Drinking Water Standards (uv water treatment will suffice).
- The community is willing to accept temporary chlorination when/if considered necessary i.e. for actual ecoli outbreaks. But not as a precautionary measure.
- Permanent chlorination will inevitably mean a reduction in the standards of testing of lake water quality.
- Council has suggested concern for contamination throughout reticulation during work on pipes etc but this cannot be supported. Work is fastidious and high standards are adhered to.
- Council boldly (and inaccurately) states that chlorine is not harmful, in their "commonly asked questions" but adding a known toxin to water that is considered some of the best water in NZ, makes no sense at all.
- The community voted for a uv water treatment system back in 1987 and paid \$5,000 per household for that. If chlorination is to be introduced, even temporarily, this money should be returned – with interest.
- There is a long list of, as yet, unanswered questions regarding all aspects of this matter.
- As residents and ratepayers we reject the Council's reasons as to why they want to permanently chlorinate. The most commonly quoted example of Havelock North is not relevant. A Christchurch community voted to reject chlorination and this was duly honoured.
- The community has the right to determine its destiny. And it is happy to accept the consequences.
- One of the many reasons people love Hawea is the chlorine-free drinking water.

SIMPSON-WELLS Poppy

Wakatipu

Submitters Comment

I think the demand is there for an affordable public transport system and am glad to see evidence of this in the annual plan.

I think it is very wishful to think that the increase in rates will be absorbed by landlords. With demand greater than supply for housing in the Wakatipu area is it highly likely that these increased rates will be passed onto those who are renting. I believe the lower-income workers (often doing fundamental jobs) will struggle the hardest.

Lastly, I would like to see some expenses set aside for building and maintaining Queenstown's iconic mountain bike trails. Many visitors and seasonal workers come to Queenstown specifically for mountain biking and I believe it is important to further encourage this. Queenstown Mountain Bike Club has built some great trails in the past and it would be great if they could get the funding to continue and expand our current network of trails. It is important to keep our trails safe through sound maintenance in order to keep this sport safe for everyone. The mountain biking community is an integral part of Queenstown's community, not only in the summer. I think QTMBC has achieved great things solely on sheer motivation and love for the sport...imagine what could be done with a little funding help from QLDC....

SINCLAIR IRWIN Isabella

Wanaka/Upper Clutha

Submitters Comment

HAWEA WATER SUPPLY

1 I am aware of the statutory responsibility on each elected council member to take all reasonable steps to protect the health of ratepayers.

2 This accountability and responsibility was demonstrated, for the ratepayers of Hawea, when UV treatment of water was introduced and willingly paid for by ratepayers in the 80s and 90s and this treatment still meets the required water standard. No negligence so far.

3 The last e.coli outbreak affecting the Hawea water supply was well over a year ago and caused by an opossum getting into a storage tank. How could that possibly happen? Human negligence I suspect.

4 Many ratepayers are satisfied with the standard of treatment and quality of the water for domestic use.

5. I understand the Councillors' nervousness around responsibility for water quality and residents' health.

6. The QLDC and the ratepayers of Hawea have an outstanding opportunity to work with Government departments and Universities to demonstrate, maintain and improve the process of getting water straight from one of the purest sources in New Zealand, reticulated safely for domestic use without having to add chemicals to it. A cooperative enterprise, such as this, would be groundbreaking and be a 'flagship' piece of work that in the future could be replicated in many other situations throughout New Zealand.

7. It is important to inform and get the approval of Ministers Coleman, Smith and Barry and information to their respective departments so that they are aware of the situation and how it fits with their focus on, and policies for improving water quality.

8. I recommend:

That the QLDC councillors review their decision to chlorinate the Hawea water supply.

That Government departments and research units at both Otago and Lincoln Universities are informed and involved over the next three years in monitoring, analysing and reviewing the current system of water treatment for Lake Hawea residents

That data is evaluated again in three years time and recommendations made so that councillors have reliable, valid, and useful information on which to base their decisions.

That the current system remains in place without change for the next three years.

PS. Don't worry about tourists.....have you ever lived or travelled in Papua New

Guinea, Thailand or Cambodia??? I have.

NB. My family members, all of whom are ratepayers support the Hawea Associations submission. The ratepayers names are

Isabella Sinclair Irwin

John Ross Sinclair

Rae-ann Sinclair

Nigel Williams

I will be contacting the named Ministers of the Crown named above with my proposal as well as the CEOs of their respective Departments.

Submitters Comment

Hi, As a local young/middle class family that has lived in the area for the last 20 years. I have an invested interest in keep our little but growing town a desirable and functioning environment. My major concerns are the future for my family. I feel that I am one of the last generations of New Zealanders families that will be able to afford and live in Queenstown.

- Traffic/Bus

I am all for offering public transport but I am against it being paid for by rate payers. There needs to be a tourist/bed tax to fund this - look at Summit County in Colorado for an example of how this is done. I am also a working mother that needs to drop children at school and then get to central qt for work. How is this possible on the a public transport system... no pick ups near schools? Why aren't we looking at ferry services and removing cars from our roads to the lake.....

- Staff Accommodation you need to develop accommodation for the workers - moving them back into high density accommodation in QT. Out of family homes - you don't need to free up land and create urban sprawl. Look where the problem is. The amount of homes being built in Shotover Country for the purpose of rental accommodation not for families are unnecessary and aren't fixing the problem. Landlords are fulling them up and charging huge rents. Look at the staffing issues for the lower income earners and fix the problem at the other end of the market.

- Funding - lets look at funding one of Queenstown amazing community the Queenstown Mountain Bike Club! They need your funding to work on one of Queenstown amazing resources.

I hope my suggestions are of use and feel free to contact me if you would like to discuss them further. Make our town NZ most desirable destination!

Thanks
Anna

SMITH Clive

Wakatipu

Submitters Comment

I would like to comment on the proposal to chlorinate water in Glenorchy.

I do not want chlorinated water in Glenorchy. Why poison perfectly clean water. Chlorine is carcinogenic - this is a fact. There needs to be more consultation on this subject with the community.

Submitters Comment

I live in Arthur's Point and would like to make a submission against your plan to chlorinate our water supply. We are very proud of our wonderful water and visitors always remark at how great it tastes. I drink a couple of litres every day, which I will NEVER do if we have chlorine in our water. That is an obvious health benefit to having great tasting water. Council recently spent \$2 million on a UV system to treat water at source, but I am sure that you are feeling pressure from central government/ department of health to treat all water and i understand your reasons for wanting to avoid any bad publicity or potential health issues. But we live in a modern democracy and I am 100% sure that the majority of Arthurs Point residents (and indeed Arrowtown, Glenorchy and Hawea too) do not want chlorine in our water. I expect you to follow the majority decision and if necessary consult a poll of residents before making any decisions.

the Glenorchy waste water scheme is unbelievable!!!! Expecting the ratepayers to cover that massive cost of \$30k each beggars belief!! Who has that kind of money spare? I know of GY locals who will lose their life savings if forced to pay this. They have perfectly functioning, environmentally friendly septic tank systems. It is simply UNFAIR for them to bear this cost. it has to come from central government (if at all) who receive millions in GST each year from visitors to and through glenorchy and give next to nothing back.

SMITH Meira

Wanaka/Upper Clutha

Submitters Comment

I continue to be upset about chlorination of water in Hawea. Apparently our water pipe system is getting old. Our lake is fine to drink from and so is the river. Please repair the pipe system and not go for the easy and cheap solution. Yes repiping and repairs are expensive but infrastructure is more important than throwing money at the stadium in Dunedin or building a recreation building in Wanaka. They are extras and not neccessities!!! Please consider the fact that this area is growing and infrastructure will need to be brought up to standard.

Submitters Comment

The draft annual plan outlines that there will be an increase to all rate payers of approximately 4%.

I understand from recent media that Paula Bennett is opposed to a visitor tax, which would assist with paying for infrastructure. It is also apparent that the government don't have a good track record of assisting with infrastructure works happening in Queenstown, For example the tight budget of the new Kawarau Falls Bridge and the upgrades to the hospital (that's sarcasm btw).

Anyway, what I am saying is please work harder on bringing in a bed tax. I was informed that Queenstown has on average 13,000 guests every day, this number cannot be compared with anywhere else in NZ, its over 50% of the regular population. If you charge them \$3.00 a night which would go into rates that would be \$39,000 per night. Per year that works out to be \$14,235,000. Based on a simple rate package of \$2,500 per dwelling, you need 5694 rate payers/dwellings to cover this.

Just to highlight this cost again it is \$3.00 per night. It is not a percentage. The guy staying in a backpackers doesn't pay any more or any less than they guy staying at Millbrook Resort. I consider that Paula Bennett, Bill English and Todd Barclay would have a very difficult time saying that \$3.00 per night would drive away tourists.

Please take serious consideration of this easy and efficient way to create additional money to cover new and maintaining existing projects within our region.

SMITH Quentin

Friends of Allenby park

Wanaka/Upper Clutha

Submitters Comment

Reserves improvements budget wanaka

Friends of Allenby park have been working with council staff to care for and enhance Allenby park as a community park for the residents of mt iron and wanaka. With the support of council a plan has been developed that includes a path, play ground equipment, fitness and social to create a bumping or gathering space for the community. Although we were conscious of not going over the estimate by council reserve staff to complete is approximately \$180k. The community with the support of council plan to seek 2/3 of that's total from external and community raised funds. Current allocation under the annual plan allows \$30k. Which would leave a projected shortfall of about \$30k. The friends of Allenby park request that council's contribution be increased to approximately 1/3 or \$60k which should allow the progress of the Allenby park community park project to the benefit of the mt iron and wider wanaka communities. Kind regards

SMITH ROSIE

Wakatipu

Submitters Comment

I am a keen mountain biker, and i came to Queenstown originally for the mountain biking I really enjoy riding the trails that the Queenstown Mountain Biking Club has built over the past 15 years. These trails attract visitors from all over the world, and Queenstown has become a renowned mountain biking destination. Even though the club has built some excellent trails I want them to build more. Considering the spin off benefits to the town in general, and how much the club has achieved on the smell of an oily rag, I think it is only fair that the council financially support for the club in their efforts. I support the club's request for funding to be included in the Annual Plan.

Submitters Comment

Overall I'm impressed with the new Mayor and his team. Things are getting done, so well done to all.

With regards to the Annual Plan I would like to comment on the proposal to chlorinate the water supply in Arthur's Point.

I feel this is unnecessary and overkill in response to government advice (pressure?) to ensure water safety. I can completely understand that council does not want an episode like recently in Havelock North, however I believe that effective UV treatment at the source would have prevented the outbreak occurring. I believe approximately \$2 million was spent recently on fitting such a filter here.

A possible event would be for contamination of the water supply post-UV screening, and I would expect Council to have assessed all possible options for this in addition to the option of chlorination. In my opinion, adding this potentially dangerous additive to the water should be the last possible option. Surely ensuring the security (ie, nothing can get in) of the water supply would be the best option for us?

I am pretty sure that the vast majority of Arthur's Point residents do not want chlorine in our water (who would?) and I fully expect Council to undertake a democratic process to consult with local residents in depth before forcing something like this upon us.

Finally, we love our water here, it tastes fantastic and the health benefits of good tasty drinking water cannot be underestimated. I, and I'm sure many others too, will drink a lot lot less water if this is forced upon us. I drink at least 2 litres of our water daily, because it tastes great, and would not do that if it had chlorine in. You may be adding to an environmental problem, as more people would buy bottled water, which is an incredible waste.

Submitters Comment

Permanent Chlorination of Lake Hawea Water Supply

The Lake Hawea water supply has been designed to support the community's wish to avoid permanent chlorination of the water. There was a very clear expression of community opposition to the QLDC permanent chlorination proposal at the January 2017 public meeting.

The original scheme was constructed in 1991 with upgrades in 1998, 2003 and 2015. The latest upgrade included a 1.5 million dollar installation of a UV system and new bores to negate the necessity of permanent chlorination. The community wants to work with Council, and we support all steps to reach compliance with drinking water standards, but we want all efforts to be made to remove the step of permanent Chlorination.

I want to find a solution to compliance of drinking water without permanent Chlorination.

I stand against Chlorination except when water quality testing indicates it is required.

Submitters Comment

'Population growth in the Queenstown Lakes District being unavoidable the environment needs to see a higher level of protection.

The Remarkables mountain range (Hector Range) is a unique place that provides an ideal playground as, apart from where the operations of NZSKI presently are, it is so far preserved from man made structures.

The Remarkables offers an opportunity to discover the outdoors, to learn to respect the land and appreciate its beauty away from man made structures.

Should there be a greater impact on the land, fauna and flora this will mean that our local community will lose opportunities to connect with the place, for our students, children to be raised learning to respect their Whenua (the land) and for our national and international visitors to come for what the place is: preserved, beautiful and respected.

Operations of NZSKI must remain contained to where they presently are (Rastus Burn Recreational Area) to avoid any further damage to the land and encroachment to the land that is so far conserved and appeal to many locals and visitors for what it is.

Submitters Comment

Hi, my name is Jakub Soltysiak (NZ resident) 495 Frankton rd unit 14 Queenstown, few ideas from me:

1. Transport, we need much more affordable prices for public transport, way cheaper prices for bus tickets, it is cheaper to use your own car than to go by bus, I never heard of any place like that... Frankton rd is already a mess and it is going to be only worse also Kawarau rd
2. Housing, so far everyone sees that you are trying to sell as many and for as much (land, houses) not thinking of people who came here do a lot of good for town and would like to stay here longer, maybe even buy a modest affordable house, I really feel that you should invest some effort in creating better condition for people who are here already long and would like to buy a house for themselves (first home buyers plan)
3. Increasing rates, of course the poorest will pay for that, my rent has been increased 3 times over the 18 months period, guess what a lot of people do not get paid a lot and rich people having houses here do not want to pay more as they have important expenses like a boat or another luxury trip abroad so they raise the prices, the trouble is that employers do not want to raise the wages either, so you are creating more and more trouble increasing the differences between poor and rich, poor get poorer, rich richer, that is not a sustainable model, once again everything is about SUSTAINABILITY if model is not it is going towards a collapse sooner or later, and you are the part of a problem, we need solutions that is why you were chosen by people to have this job.
4. National living wages, you probably heard about it, it is a larger study by economists, sociologists and many other where it has been calculated the minimum wages for people to stay healthy, happy, have some joy from life, there is no more important place in New Zealand to implement it than here. It is 19.25 and it is the average for entire country which means that in most expensive places it should be higher but if even council does not offer living wage their employees how can any other businesses take a good example, it really should be 20+ \$ in Queenstown and council should be giving example. The living wage draws a line of between poverty and acceptable fair payment in regards to expenses, you are failing at this level
5. Lake, water quality, probably it does not need to remind that all of us are here because of beautiful mountains and great clean lake, we really have to make the best we can to keep the waters clean and monitor their health regularly.
6. Lastly, it would be great to have some sort of quick education system about our roads, maybe something at the airport in few different languages. I work as a professional driver and the group of drivers showing the poorest skills are Asians, nothing against them, my girlfriend is Chinese but the culture of driving or lack of it is really a problem, being slow and selfish does not help locals and creates frustration and tension between cultures, I would like few things to be introduced to our visitors, like asking to check the mirrors and if blocking the traffic show them a way to pull over and let people behind drive pass, reminding them that stopping in dangerous

places and taking photos might result in serious injury or death, reminding to stay on the left side of the road, I noticed that petrol station are doing some of them, but the more they see the safer everyone is.

NOW WHAT I LIKE YOU ARE DOING:

1. Great to have new sewage systems, good job.
2. Some good solutions of the traffic (lights, bays)
3. New Kowarau bridge, finally, great idea
4. Hopefully new bigger better hospital.

GOOD JOB !

Thank you for reading
Kind regards
Jakub Soltysiak

SPENCE Andy

Wakatipu

Submitters Comment

Funding for QMTBC

SPENCER michael

Wakatipu

Submitters Comment

no chlorination of glenorchy water supply

there is no problem with the water supply so why add poison to it.

SPIBKS Daniel

Wakatipu

Submitters Comment

I believe our district should do more to protect our amazing environment. I would love to see progressive programs put in place to reduce waste such as banning (or phasing out) plastic bags from supermarkets etc.

I would also like to see more resources put into extending our trail network for mountain biking to cater to all levels of riders. I believe our existing trails are a major assets to our community and extending them will not only be beneficial to our existing community but also as an attraction to people around the world which will enhance our reputation. As a member of Queenstown Mountain bike Club I believe this organisation is well placed to deliver this goal if given adequate funding to do so.

Thank you kindly.

Daniel Spinks.

SPICER Penelope

Wanaka/Upper Clutha

Submitters Comment

I am concerned about the proposal to chlorinate the Luggate water supply where I reside. In fact I am so concerned that I do not want, along with many others in the village, to have it chlorinated at all. To date we have clean, drinkable water without chlorination and this water tastes beautiful particularly in comparison to the drinking water in Wanaka which is disgusting.

On QLDC website there is a Frequently asked questions about chlorinating drinking water one of which says

"I've heard that chlorine is unsafe – is that true?

No. Chlorine has been used safely all over the world for around 120 years. It keeps millions of people all round the world – including most of New Zealand – safe from waterborne illness."

Research suggests that this is patently a lie! Water can enter our body via drinking and through our skin and has been linked to cancers. Given that NZ's environment already lends to a high rate of skin cancer alone, with our high UV rays, why increase our chances at getting cancer, any cancer, with a mass medication of a chemical that is so dangerous.

Christchurch a city of around 300, 000 people does not 'medicate' its population and therefore if they can keep their communities safe without this poison, then why can't a village of around 400 people have the same rights.

The Netherlands, a country with a population of nearly 17 million does not chlorinate, and has not done so for around a quarter of a century. In 1974 Dutch researchers discovered the presence of chloroform, a probable human carcinogen, in potable water. Ever since, scientists have identified hundreds of disinfection byproducts (DBPs), compounds that are formed by the reaction between chlorine and naturally present organic matter in the water.

The discovery of DBP, coupled with negative public perceptions regarding the taste of chlorine, has motivated several countries, including the Netherlands, Switzerland and Germany, to move toward potable water delivery systems without disinfectants that remain with the water – known as residual disinfectants – and thus, reach people's taps. This change started in the late 20th century and these countries water utilities rely instead on advanced treatment, improved physical integrity of the distribution system and careful management of distribution system operations.

Again if these countries are either moving away from or have moved away from chlorination of potable water due to the long term harmful effects of doing so, why can't and why shouldn't Luggate also do this?

Recently a meeting was held at Luggate Hall where Ulrich Glasner explained the Councils proposal to chlorinate our already clean water 'just in case' and also to prevent any criminal liability on the Councils part should there be an outbreak of water borne illness. One of the locals likened the chlorinating of our water to putting

an ambulance at the bottom of the cliff rather than putting it at the top and I totally agree.

The councils short sighted attitude in chlorinating our supply rather than taking preventative measures to avoid the possibility of bacteria entering the system suggests that they are looking at doing what they feel they must as cheaply as possible to avoid a possible backlash, criminal or otherwise, rather than listen to what the people want.

I might remind the council also, that the people voted the Councillors in to listen and carry out the wishes of the people. By chlorinating our water supply it goes against what the community has said it wants.

I propose that the Council listen to the wishes of the community and investigate other possibilities for keeping our water clean and untreated, if and when it needs to be, keep the community fully informed and consult with us before making any final decision

STARK Michelle

Wakatipu

Submitters Comment

council funding for mountain bike trails in around the Wakatipu basin.

STEELE Jamie

Wakatipu

Submitters Comment

Funding for the Queenstown Mountain bike club to maintain and increase the world class trail network that we have here in Queenstown. Many other clubs in nz receive funding from their respective local government and it would be great to see QLDC lend them a hand.

STEGMAIER Alissa

Wakatipu

Submitters Comment

Mountain biking has a huge effect on the Queenstown community. It's been growing rapidly over the last years.

It's great for the businesses in town, as it brings thousands of people from all around the world into town spending their money. The trail network is one of the worlds best, which gets build by the Queenstown Mountainbike Club all by volunteers.

Therefore I think the council should support the local club who are doing amazing work on the trails with minimal impact on the beautiful environment. It could be used to create more events for family's, and skills parks to help support young families and the healthy future of new talents.

With the help of the funding bigger plans, goals and visions of the Mountainbike Club could be achieved for a multitude of positive benefits for Queenstown.

STEPHENS Athol

Queenstown Golf Club

Wakatipu
