

## **Lake Ohau water supply upgrade: Email correspondence Dec 2018 to March 2019**

This section has the email correspondence sent in before and after the public meeting held on the 3<sup>rd</sup> January 2018. They have been abridged to maintain privacy and relevance to this project.

### Correspondent 1 - Question 1

**Received:** Thursday, December 13, 2018 10:06 AM

As I am only just been made aware of the councils intentions to upgrade the water supply, I notice you have not supplied info on how much increase there would be to the owner of a non-connected bare piece of land like myself, can you please supply those figures plus a spread sheet showing all the figures/working that the council considered to come to this increase in rates.

Can I please have a spread sheet break down showing the expected costings of the upgrade?

Was any Govt. department approached about a subsidy due to the fact that this upgrade has obviously been on the books for some time and one of the subsidies only stopped in 2015?

I notice there is no mention of water meters and individual household filtration, are these not an option?

### Correspondent 1 - WDC Response 1:

**Reply:** Friday, December 14, 2018 10:31 AM

*Hi,*

*Thanks for your email.*

*As a bare section landowner, at the moment you pay an availability water rate which is approximately half of the full water rate.*

*The increase to your rates will be proportional to this and that you can expect half of what the developed properties water rate has been projected to be.*

*So,*

*Option 1 - Estimated full rate \$1225.00, Estimated availability rate \$612.50*

*Option 2 - Estimated full rate \$1155.00, Estimated availability rate \$577.50*

*Option 3 - Estimated full rate \$1075.00, Estimated availability rate \$537.50*

*Option 4 - Estimated full rate \$1005.00, Estimated availability rate \$502.50*

*The cost breakdown for the options is at the back of the 'Lake Ohau Upgrade - Fluent report' a link to this report is on the webpage below.*

*Then there's how we came to the rates. Please be aware this is only preliminary to get some indication of likely rates. None of this is set in stone and will only be worked out as the project develops.*

	On -Demand
Capital cfwd to 2018	
Spend 2018	
	\$1,172,800.00
<b>Funded</b>	
Depreciation	-\$160,000.00
Special	-\$95,000.00
DC loan	-\$25,000.00
Separate	-\$50,000.00
Loan	-\$842,800.00
	-\$1,172,800.00
<b>Income</b>	
Development contributions	-\$2,500.00
Interest	\$800.00
Unfund extra depreciation	-\$14,660.00
<b>Expenses</b>	
Depreciation per budget	\$9,195.00
Less abandoned assets annually	-\$4,802.00
Add new capital - 80 years life	\$14,660.00
Loan servicing	\$60,906.00
New operating cost	\$36,500.00
Transfers to reserves	\$2,500.00
Net to fund	\$102,599.00
Including GST	\$117,989.00
Rating base	99.5
Rate	
Loan servicing year 2 onwards	
Rate	\$1,186.00

<https://www.waitaki.govt.nz/our-services/water-and-wastewater/watersupplyupgrades/Pages/default.aspx>

You are correct that there was Government subsidies available to communities in need to help pay for upgrades.

We did research it and Ohau Village was never able to receive this subsidy. In fact later on in this scheme they changed the rules to make it even harder to receive a subsidy. There are no communities in the Waitaki region that would have qualified for the subsidy.

Water meters is a form on on-demand so therefore is part of Options 1 & 2. However there is no plan to install water meters if either of these options are chosen. Water meters are expensive to install, maintain, and read and burden the ratepayer with little gain. They do help with general water usage but not peak usage, and that's what the new water Facility has to be designed for, so there would be no change of design.

Point of use was an early option but dismissed for several reasons. Some of them being:

- High cost of purchase – around \$1500-\$2000 each
- High cost of maintenance – it would be like running 130 small water treatment plants, filter replacements, lamp replacements, testing, sampling etc
- Existing source water is too variable for these to work reliably
- Existing source water does get affected by low flows/drought conditions
- Existing infrastructure is aging and problematic to get to
- They do not meet the NZ Water Treatment Standards
- There is no 'standard' for these devices

I hope this helps and again thanks for your questions.

Correspondent 1 - Question 2

**Received:** Friday, 18 January 2019 11:50 AM

Hi,

Thanks for this info, I cannot seem to find any pricing for a chlorine only option like other communities have and they are in areas that have high farming, I am led to believe that a bore over 30 meters deep is considered safe for drinking without treatment but chlorine is added to keep the whole system clean, so what is the difference with L. Ohau?

I read in the report that chlorine is more expensive to install and maintain than other options but I am informed that is not so and looking at the option costing chlorine is quite a bit more cost efficient than others, if community members are worried about the effects of chlorine they can install a cost effective filter at their end to remove it.

The amount of plant you are suggesting to install appears to me to be almost 3 times larger than what is required, one pump alone supplies enough for the whole village fully housed and occupied with a substantial amount in reserve and yet you want to do two of everything, or is there new property development in the pipeline that we don't know about, any outsiders who are looking at wanting to connect to the water scheme should have to help fund now or fund their own plant later.

If a bore has to be used, can it not be put in the vicinity of the now storage tanks as there is power running right past it and according to the property owners that have bores up that way, there is good clean water, it has to be more cost efficient to find a descent aquifer (even if you have to go deep) to get pristine quality water to all the costly maintaining and upkeep.

There is mention of leakage due to tree roots, is this thru the plantation due to lack of maintenance as I notice it is all over grown going by the aerial pictures, can this route not be kept clear and be used as the access road as it looks to be the shortest and direct route to the tanks ?

Regards

#### Correspondent 1 - WDC Response 2

**Reply:** Fri 18/01/2019 1:50 PM

Hi,

*The timing of your questions is quite good as the taskforce formed from community has raised some of your concerns mostly on your suggestion of a bore close to existing tanks. So to this particular point there are two critical things – land owner access/permissions, and costs. These will be worked through to see if it is indeed a viable solution. We did not put this type of solution in the report because we do not like the access now – both physical and time taken to get to site (compared to other options), along with quite high risk of not finding adequate water, power costs etc (again compared to other options).*

*On chlorine only being a viable option – I'm afraid it's not so it was not put in. We have to comply with the complete standards and chlorine does not treat water for protozoa (being one section of the drinking water standards). Rural supplies get away with it at the moment as the Rural Ag section of the standards has not been written – in fact in the latest release of the standards (Dec 2018), The Rural Ag section has been taken out. We are not sure of the implication of this just yet, but it may force all supplies to have to fully comply with the standards, of which chlorine only, only deals to a section of the Standards.*

*We do two of everything for resilience. It wouldn't look too good if we put in a new system, and for no fault of anyone's, a pump fails and leaves the village out of water. Council would just look bad. It's a standard thing we do, and that councils do pretty well around NZ to prevent failure to maintain a water supply. There is also the Health Act which stipulates that people should have access to wholesome and healthy water all of the time. If we didn't put in redundancy we could potentially be breaching this Act.*

*I do not know anything about roots getting into the falling main into town. A couple of things (that can be overcome) that may be a factor is traffic over a pipe (brittle uPVC pipe also) that has never had traffic may lessen its life – we do not know how the pipe has been layed/bedded. Access would be through 3 properties instead of one possibly creating difficulties.*

*There has been root looking material found in a manifold, and stones in a hydrant, and we do not know where these came from – possibly always been there.*

*Good questions and suggestions that helps the thought process to make sure we do cover as many aspects to this project as we can.*

Correspondent 1 - Question 3

**Received:** Friday, 8 March 2019 10:29 AM

Hi,

Firstly, thank you for replying to my previous email.

I was wondering if there had been a final decision on the water upgrade for Lake Ohau as I have not been able to find out anything.

I was quite interested in your comment about most councils around NZ put in fresh water schemes with two of everything in case one broke down, I did a little on line research of small community from around NZ and their latest water up grades, I failed to find any that had a replacement plant set up ready to go, in fact most were of a single design of a size that was adequate to supply the needs of the community.

This brings me back to a previous query I had, is there some sort of development or interest of development that the Council know about that this upgrade would be beneficial to?

Regards

Correspondent 1 - WDC Response 3

**Reply:** Friday, March 8, 2019 12:48 PM

Hi,

*So where we are at is that we have had several meetings with the Task Force that was formed following the public meeting held on the 3rd January. These have been very productive.*

*Through this, there have been no decisions other than these:*

- The survey results show the community do not want chlorine installed at this stage, and that most people want an on-demand supply going forward. Any designs or options going forward will be on this basis. The survey result, survey feedback, and email feedback (Including your own – no names or references to properties or individuals are given) is in a document we will be putting on the WDC website are referring the community to it. It is with the Task Force just to check before doing final layout changes and being 'published'.*
- From the meeting, survey feedback, and the Task Force, it was very clear McKinnon Reserve was not to be used, and so we are looking at other options to see if we can get a cost effective alternative option.*
- With this, the landowner on which the existing source and reservoirs are located has gratefully given an option of using his property in a limited way that looks to be a viable alternative option to anything we have looked at so far. We are exploring this option at a higher level first to give comparison to our existing options.*
- We are engaging a hydrogeologist to look to start on the more detailed investigation regarding likelihood of finding water in various locations identified. From here we will discuss the merits/risks of the options (with the Task Force) to take forward into more detailed costings. Detailed costing will again involve the Task Force to see where possible savings can be made.*
- In the meantime, we will need to somehow get out to the Community where we are at. I'm guessing that we should be telling them exactly what I'm telling you now...*
- So, over all the process has changed, and the timeframe to go through this is extended. I have no problem with this and I think we are making good progress in the right direction. We need to get to a stage where we are taking options to Council for them to make final decision.*

*Duplication of bores (and bore pumps) is the only doubling up of equipment that I was talking about (I think) – we can design for one bore, and we'll look at that, and I can make sure there are 'hot' spares available in case of failure. As you can appreciate, if that one bore silts up or needs maintenance, then the supply will have to be off for the duration that it takes to remedy this – which if I think about it could be for quite an extended period (sourcing drill rigs for redevelopment etc). These are the type of risks that go into our thinking. How many days do you think we should allow the supply to be off for? – it would be good to get your opinion here.*

*Hydovars do have in-build duplication also, and I do not know of any sites that do not have this. It is generally inherit in their design. There will only be one UV unit, one filter unit etc – sorry if I mislead you in this (One additional pump was for 'fire flows' only).*

*(Update: There is two of a lot of equipment for redundancy and to meet higher design flow. (Duty/Assist).*

*Our design to date is based on sound industry based knowledge and experience, experience of designing, building, maintaining, operating, complying with all things drinking water.*

*We have found if we do not put a good healthy amount of conservatism into design, costs, etc, up front then there are a lot of shocks, and surprises, and hard work down the track, and this doesn't help anyone. I can honestly say that we do not go out with scare tactics in mind. What we have put out there is pure and simple based on experience to date. We have and are shocked ourselves at the costs of doing things these days – we look back and say, 'would we have done anything different', and most of the time the answer is 'No'.*

*Hope this helps*

#### Correspondent 1 - Question 4

**Received:** Wednesday, 13 March 2019 12:09 PM

Thanks,

I don't think you miss led me but in almost all of the option reports/pricing it states two of everything, I can only go on the info I am supplied with and I know nothing is set in concrete yet, maybe missed in the proof read.

I find it very hard to believe that a secure deep bore would have a silting problem like the shallow ones you keep talking about, but if there is a problem it would be fix in half the time as there would be twice as many repair vehicles and staff sent in case one broke down. (Sorry couldn't help it )

As you may or may not be aware my preference was for a single secure deep bore up by the original tanks so it is gravity feed to village, with or without chlorine it doesn't worry me as it can be removed after the gate, at least I know the whole system is clean.

It is cost efficient to install without all those ongoing over heads (expensive running costs ) and can be added to later if needed too.

I did not want to be one of these people that sits back and waits till the end, then voice their opinion because they are not happy.

I also have no idea what the feeling is at the village on what the majority want apart for what was said at the meeting on the 3rd of Jan but I have voiced my opinion and now will go with the flow.

Regard

#### Correspondent 1 - WDC Response 4

**Reply:** Wednesday, 13 March 2019 13:10 PM

*Hi,*

*Thanks for all your comments to date and I do appreciate that you have raised your questions now rather than after. Your queries have been relevant and to the point which makes them generally easy to answer.*

*I have been cc'ing in the Task Force and I know they are also appreciative of your emails, they get quite a bit out of them too.*

*I welcome you continue to ask questions on our options, methods, etc, on this project and you are welcome to re-question us on anything you have already raised but haven't got the answer to your satisfaction.*

Correspondent 2 Question 1:

**Received:** Saturday, 15 December 2018 7:17 PM

As I understand it, supply to the village will be pumped rather than gravity fed. Does this not create a vulnerability to power outages or other pump failure? If so, the risk would be greater for an on-demand rather than a restricted system.

Correspondent 2 WDC Response 1:

**Reply:** Monday, 17 December, 2018 8:57 AM

*Thanks for your email.*

*You are correct in the existing system is gravity and a gravity fed network is defiantly the easiest, cheapest, and most reliable compared to a pumped system.*

*We have tried to minimise water interruptions in the design. We have included in the new facility an auto start generator so that if the power goes out, the generator will automatically start up and the pumps will kick back in and continue to supply water to the village.*

*There will be two pumps at least working in duty-standby. If one pump has a fault for any reason the second pump can at least maintain water going into the network.*

*Most (restricted) connections have a storage tank on the ground and from there the water needs to be pumped (by a private pump) into the house to have water flow. Obviously in a power outage the ability to do this (unless there is a private generator) is limited.*

*It is a risk not to have on site storage. We have tried to minimise these for what-ever solution/option the village property owners pick.*

Correspondent 2 Question 2:

**Received:** Monday, 17 December 2018 9:49 AM

Thanks for that full reply. I am an old-fashioned fellow who has stuck with gravity feed from the storage tank on our other property. I wonder whether you have considered pumping from the bores into storage on the present site so enabling gravity feed? I realise the tanks are getting old, but it should be possible to replace them in situ with plastic jobs.

Correspondent 2 WDC Response 2:

**Reply:** Monday, 17 December, 2018 10:06 AM

*Short answer is yes we did think of this and for a long time it was a preferred option.*

*The numbers are close, and what it came down to is access to site. The existing reservoirs are on private land and the current landowner is and has been exercising his rights. There is limited access and what access there is in not in great shape. I do not know what it would take to replace the existing reservoirs – it could easily be done, but for what conditions we need to work under? The area is environmentally sensitive and so our normal modus operandi doesn't apply, and so there is quite a big risk with this option.*

*We would also have to increase access to the reservoirs as we will want to know things like low level alarms, depth of water in reservoirs, flow etc. Putting technology in a remote place like that just doesn't sound feel like the right thing to do.*

*Hope that helps*

Correspondent 2 Comment 3:

**Received:** Mon 17/12/2018 10:34 AM

I hadn't factored in the access issue. When I was on our water scheme committee, WDC people kept on telling us that Local Govt Act gave the council powers that private scheme operators could not have. But I see the practical problem.

Correspondent 3 Question 1:

**Received:** Sunday, 16 December 2018 8:44 PM

Hi

We have a question about the pumps, the 2 in the bores, and the 2 above ground.

What will the noise level be for each pump, and how much ground vibration will travel through the substrate from the bores to the surface, in particular anything that could be felt in nearby houses. (Our house one of the closest houses to your proposed site).

Correspondent 3 WDC Response 1:

**Reply:** Mon 17/12/2018 9:10 AM

*Hi,*

*I can only really answer with the experience we have had with 5 recent water upgrades where we have pumps in bores. Our experience here is that there is no noise or vibration transmitted. In most of these installations there are houses within the same distance you are from the bores and we have had no feedback of any noise or vibrations from these people.*

*The pumps required in the Ohau Village bores will be smaller than anything we have around the district yet and so it is likely these will be unnoticed.*

*As far as the pumps in the shed, we will design the shed to have minimal noise emitting from it. Again we have two or three sheds relatively close to houses around the district and we have had feedback of no noise emitting from them.*

*Things like tree planting and screening is very effective and can be developed further if there is any issue with noise. We are aware of the sensitive environment we have up there and we will go to extra effort to prevent emissions of any sort.*

*Regards*

Correspondent 4 Question 1 (With responses in Italics – Refer Correspondent 4 WDC Response 1, below):

(This email has the responses embedded within them – these responses were sent Fri 21/12/2018 3:54 PM)

**Received:** Thursday, 20 December 2018 2:50 PM

Good morning

Without Prejudice

as some comments are based on observations only, that need to be, and will be, investigated in depth.

As I'm travelling and I do not have access to all the questions I asked previously but I'll try and compile some key points from memory, from a couple of years back if I recall.

The questions are not to be critical of WDC, but to establish a baseline of information as this project is going to be a massive cost for both the rate payers and WDC, and therefore it is in both sides interest to establish the most suitable solution.

Many of the positions taken by WDC on the reasoning for the need to change are potentially based on misinformation, ie: water quality, turbidity, system capacity and source capacity etc

**Water Quality**, the greatest concern is health risk, and we understand this position and the need to meet standards due to the contamination issue in Havelock North. But is this a knee jerk, risk adverse reaction to an event that has little or no bearing on this situation, but what you are proposing is to move the supply from a near pristine, very low risk source to one with a significantly higher risk of current or future contamination.

(I will address this point separately as this has significant ramifications, and massive risk as compared to the existing source). *“are we jumping out of the fry pan into the fire”??*

*WDC Comment: Decision to upgrade water supplies to NZDWS was made in 2008 by Council. It is purely that Ohau Village is the next one to do, and its currently our next highest risk supply. (We have upgraded 12 supplies to date). Further quality info provided in the Fluent Report and in the Water Sampling Results*

**Ecoli counts:** It is understood the report of high counts is potentially misrepresented as total rather than individual, has any real in depth investigation into this or its potential source been undertaken? Refer to comment later on stones in the pipes...

*WDC Comment: Info provided in the Fluent Report and in the Water Sampling Results. Comment also in the Leaflet and FAQ's*

**Turbidity:** that is often easily addressed and resolved and should not be a reason to change a reticulation and source.

Much of this is likely to be associated with the low demand on the network which creates low velocities in the system due to low property occupancy and turbidity collects. Turbidity is possibly only noticed at holiday periods when the demand on the system increases significantly, thus increasing velocity and dislodging sediment.

I was present last year during a fire training drill, the turbidity I observed was less than I would have expected, though there were stones in the reticulation, which begs the question how they got there?

You and I can make some obvious conclusions as to source of this contamination but it is **highly unlikely** it came from the supply point and the source should not be blamed.... We will leave that there.....

*WDC Comment: High turbidity is not that easy to treat, and there is colour in the water also complicates it. (Officer's note: Colour was tested for (after this email) and there is no colour in the Ohau Supply) Further comment is provided in the Fluent Report and in the Water Sampling Results. Comment also in the Leaflet and FAQ's*

**Source capacity:** We feel WDC may have mistaken the Freehold Creek with Parsons Creek, which has dried up at times, certainly visually at the bridge but Freehold has not, to anyone's recollection, ever dried up or been a concern.

*WDC Comment: The source is an un-named minor branch of Freehold creek by way of the gravel delta. Ohau Village has run short of water on a few occasions. Further comment is provided in the Fluent Report. Comment also in the Leaflet and FAQ's*

**Land Access:** It has been suggested the land owners may refuse access in the future, but let us understand why this might be.

There is a local long term resident who believes he owns the area and has unwritten rights to go where and do as they please, this person/s drives their 4x4 across this land without authority or



permission destroying the land and vegetation, if I was the land owner, I too would be ..... and take action against unauthorised access.

So let's bring this issue into perspective for what it really is, lets address the cause, not the outcome...

*WDC Comment: I have been in constant contact with the landowner. It is not just a private person giving him grieve, other service providers have been accessing his property without any contact. There is also the question of things likely water supply protection zones and permitted activities within this for example.*

*Further info in the FAQ's*

**Fire protection:** another area of high concern and high risk, we have already had two house fires in the village, (though it was the same person, twice) fire is a constant concern to us all, the pump station is proposed to be installed where a likely fire would come from, if this was damaged by fire then we have no firefighting capacity.

A gravity tank, as we currently have, eliminates this concern.

*WDC Comment: I have no concern with this. All water facilities to some degree have a fire risk, even the existing one. I do not see any difference to any other township in NZ*

### Questions:

1. What is the total tank storage capacity? *WDC Comment: In Fluent Report – depends on option.*
2. What is the pipe diameter for the supply pipe from the tanks to the village? *WDC Comment: Not designed yet – part of detailed design*
3. Do WDC know what the real supply capacity is, or should be, of this current source? *WDC Comment: Refer Fluent Report*
4. What is the elevation of the tanks? *WDC Comment: Refer Fluent Report*
5. What is the CZP ( Critical Zone Pressure) in the village? *WDC Comment: Refer Fluent Report, you may have derive the pressure from the R.L.'s*
6. Has a hydraulic model been undertaken of the current system to ascertain the current capacity, future capacity, friction head loss concerns, and potential demand and supply issues? *WDC Comment: No, this is about the water quality, not so much about the reticulation. Saying that the town reticulation was looked at and it is fine for even going on-demand (vs currently Restricted.)*
7. What is the demand profile of supply? *WDC Comment: Refer Fluent Report – Fairly flat profile due to being a restricted water supply.*
8. Do you have flow / demand data for the village over a 12 month period or even longer would be better? *WDC Comment: Yes, Refer Fluent Report. A water meter was installed a few years ago and had a datalogger attached.*
9. When was an NRW program last performed on this network? ( I have offered to perform this twice now and investigate the tanks etc for free, as a gesture of goodwill, my offers have been ignored by WDC and rubbished by one resident of the village) *WDC Comment: Not sure if one has been. The flow recording shows low flows, and so I don't think a network this size warrants this. Apologies but I know nothing of your previous offers in this regard.*
10. Have the tanks been inspected internally? *WDC Comment: Yes*
11. WDC have suggested the source does not have enough capacity, now, or in the future, I find this extremely strange and difficult to accept. When this village was built, the developer ( who was a very good developer, noted, as this is unusual for developers) actually built a quality village and infrastructure. He would have been required by WDC to build a water supply to accommodate the 130+ potential homes to be built, not enough to marginally supply 10 permanent resident homes.. Also back 30 years, focus was not on water conservation and often 1000 – 2000 litres ppd (per property per day) or more was budgeted for, this of course in today environment is an utter abuse of our natural resource and should be discouraged, the question is, what was approved by WDC for this village, the records will be on hand at WDC? *WDC Comment: refer previous answers, Fluent Report, and FAQ's*
12. Bore supply, has WDC taken any water samples (test bores) to verify if the water is suitable? *WDC Comment: This is part of the next stage – detailed design and further investigations.*

13. Has WDC looked at what potential sources of contamination maybe present above the “extraction point”, eg: It appears Ohau lodge may have been discharging their waste and effluent onto DOC land for many years, I for one would not drink from someone else’s toilet and I’m sure if the villagers were aware of this they would be of the same opinion. *WDC Comment: Ohau Lodge is approx. 6km away, there are numerous creeks between Ohau Lodge and the village. Lake Ohau will greatly oxidise and disperse any contaminates if there is any (If the new source drags water in this direction (yet to be determined)).*

If a bore is the only solution WDC will accept, then the water quality must be established first before embarking on a costly pump station.

Does WDC know the ground water flow direction, we would assume it flows down the valley. *WDC Comment: Ground water flow direction yet to be determined – next stage of design/investigation.*

If this is the case then we all must be concerned that our proposed future drinking water maybe contaminated now, and if not now, in the future from the many years from what appears to be the lodge discharging it’s chemicals, waste, oil and effluent into the environment on DOC land, this needs to be intensely investigated and findings openly reported on, to the community before any decision on a bore is considered.

If we start to draw from this aquifer we are likely to draw this potential contamination towards our extraction point.

If the proposed site is deemed free of contamination now, then multiple up stream monitoring bores must be installed and constantly monitored for potential effluent discharge well before it reaches our water supply, a costly exercise not budgeted for in the current proposals. Though this cost should of course be borne by the commercial operator if what appears to be happening, is happening. But as usual, the rate payers will likely be burdened with this cost as well.

An appropriate solution is to have the lodge remove and clean up the current process and install a commercial effluent plant on their own land and bring the process into the 20<sup>th</sup> century, just as everyone else has to do.

Our current water source is well above and away from this potential risk area and is only likely susceptible to very minor contamination issues.

I believe the risks to our health from possible contaminated ground water is significantly higher directly downstream from a very old and active effluent discharge, rather than from a high country, high quality water source. WDC needs to convince the community this proposed source is free of contamination now and in the future, this needs to be done before embarking on any new costly change. *WDC Comment: Above paragraphs seem to be a point of view, with speculation - not something to comment on or answer a question to.*

**Alternatives:** Today we have so many new solutions available to us, even down to simple, low cost community or even individual property UV treatment costing only a few hundred dollars, the solutions are out there, we just need to agree on what. *WDC Comment: Refer to Fluent Report regrading point of use devices*

If WDC are adamant on chlorination then we all have a long, costly waste of effort if WDC are simply just going to chlorinate regardless, which appears to be the what we are all reading between the lines. *WDC Comment: Refer to Leaflet and FAQ’s*

I apologise I cannot attend this important meeting, and am disappointed the meeting was planned to allow those who could not attend to participate in this critical meeting.

Best Regards

Correspondent 4 - WDC Response 1 (and in italics above):

**Sent:** Fri 21/12/2018 3:54 PM

*Hi,*

*I have done a quick check and if you scroll down to your questions, I have put a short response.*

*A lot of decisions have been made, either by Council, by Community Board or by Officers of Council based on delegation and process.*

*There are a few decisions that the Community have the chance to make, and this will be by way of a survey. The survey will be online and a link will be put onto the website on or around the 3<sup>rd</sup> January, and it will close at the end of January.*

*From there we collate the results and get ratification from the Community Board and Council, and then move onto detailed design, more in-depth investigations etc, then onto construction.*

Regards

Correspondent 5:

**Received:** Thu 3/01/2019 8:33 AM

We would like to send our apologies regarding the meeting today. It makes no sense to us to have bores beneath the sewerage tanks. Also a seismic event creating even a little tsunami would wipe it out. We favour in-house filtration systems and the use of the current water supply / rejuvenated current tanks.

Thanks

Correspondent 6:

**Reply:** Friday, January 04, 2019 at 10:03 AM

I wanted to write to you to let you know that the most vocal may not necessarily represent all. My interest is in just getting it done. It has to be done to comply with legislation and it would seem that no matter what the solution - whether near the village or on some other land the cost is much the same.

Some ideas:

Run a pipe along the road to the nearest river flow into Lake Ohau?

Perhaps show the cost per day and the cost per day for other areas.

APPROXIMATE COSTS FOR OTHER AREAS - sewerage plus water

Oamaru \$1.70

Omarama \$2.40

Otematata \$1.70

Kurow \$1.88

Ohau currently \$0.80

Ohau proposed - for those that have a house on the section \$2.70

Approximately half the properties in the Village don't have a house and only pay half the rate. This is not the practice in some other areas, for example a house in Oamaru is a section and the rates are the full amount for sewerage and water services. If all the properties in the Village paid the full amount the daily rate would drop by a 1/4 and would be approximately \$2.00 a day for all.

What didn't seem to get across was that no matter what the solution, whether near the village or on DOC land or elsewhere, the cost is much the same.

Regarding noise during construction, its worth nothing that there's always a house or two being constructed in the village. During the summer months there's noise from motor-boats, bi-plane flights for tourists.

Regarding being able to see the water treatment buildings once installed, any house in the village has to see or has a view of just about any number of other buildings in the village. It also could just as easily be camper-vans parked down on the road that you might have to look at from time to time.

Regards and all the best.

Correspondent 7 Question 1:

**Received:** 18 January 2019 at 09:55:01 NZDT

I just wanted to drop you a note thanking you and other members of the Waitaki council for fronting up to the Lake Ohau lodge during the festive season to explain the water situation. I appreciate it was the holiday season and it was a challenging topic to take on with good humor and grace.

I have one small question, I am just undertaking a build in the village that will start onsite in March. if the village decided to go on demand supply, is there a way we can hook up now to the existing supply "on demand" so we don't have the expense of a tank and pump etc. for what could be a very short time?

Correspondent 7 WDC Response 1:

**Reply:** Monday, 21 January 2019 11:34 AM

*Good question!*

*At this stage we have to say that you have to comply with the current rules, being a restricted supply requiring a storage tank (and a pump for pressure if you need one).*

*The decision will likely be made before you build on whether the supply will end up restricted or on-demand, and to be honest the early trend in the survey is that it is likely will be on-demand.*

*I think keep in touch in the mean-time, and whether you have to plan to have a tank and pump temporarily can be made closer to the time.*