

Hearing evidence for application RM22.434 by Cold Gold Clutha Limited.
Submitter: Anthony Ohau Ward-Holmes
Date: 9 November 2023

Introduction

My name is Tony Ward-Holmes. I have been a whitewater kayaker for approximately 40 years. For about 10 of those years I was on the board of Whitewater NZ, the national association of whitewater kayakers. I contributed to many Whitewater NZ projects during that time, one of which was the Kawarau Water Conservation Order. I have lived in the Upper Clutha area since 2014 and have kayaked many sections of the Clutha River / Mata-Au and its tributaries. This includes many times before 2014, including Bannockburn Rapid and The Gap, which are major rapids within 10 minutes drive of this hearing but that were submerged below Lake Dunstan in 1991-1992.

I would like to thank the commissioners and council staff for their work on this application and hearing. I would particularly like to thank them for latitude shown to late submitters, or those not on the correct form, or for any other administrative mishaps. Most submitters are volunteers, taking time off work or away from activities they'd rather be doing, in order to research, write up submissions, and in some cases attend the hearing. It is on the public record (ODT, May 27, "*The sheer bureaucracy of it': Red tape holds up dredge move*") that the applicant considers this process "*a pool of bureaucracy*", implying that it is something that councils or the law has mired them in. I, and I think most submitters, would disagree. The reality is that the applicant has burdened the rest of the community to examine a wide range of potential negative effects on the Upper Clutha environment and community.

The Commissioners have asked if submitters can indicate if we agree or disagree with the Section 42A report author's recommendations. I **agree** with the conclusion of the S42A report, that the application be **refused**.

I don't agree however that the only grounds for refusal should be due to insufficient information to assess cultural effects. My evidence here follows the structure of the S42A report.

Re: S42A 6.1.8 Effects on Recreation Values and Public Access

Recreational Usage

S42A 6.1.8 par 2: "*Several submitters highlighted the range of recreational activities undertaken on the Clutha River / Mata-Au, including walking, fishing, hunting, dog walking, cycling, running, rafting, boating, kayaking, swimming, camping, picnicking and enjoying the peace, quiet and beauty of the river. Submissions also highlighted some recreational-related commercial activities operating in the area, including kayaking, paddle boarding, boating experiences; angling tours; and teaching students raft guiding, white-water kayaking, and white-water rescue skills*"

My submission here concerns non-powered recreational usage, as that is my main experience on rivers. There appears to be no analysis for how much usage the relevant section (which from now on I will refer to as the "Upper Clutha") of the Clutha river / Mata-Au receives. For usage on the water, I contacted Otago Polytech, who told me that they typically take a dozen trips per year from Red Bridge to the Nook, each with 8 to 12 people, plus a longer trip down towards Lake Dunstan

with more like double that number of people. I'm aware of at least one business that uses the section for kayak, canoe and raft guiding, safety courses and instruction courses. The main kayak usage may be by multi-sporters training for various events including an annual race down this section. From these anecdotes and my own experience of the river, my guess is that usage on the water would be on the order of hundreds of person-days per year, and total usage on and off the water, especially once the cycleway is extended, would at least be of the order of thousands of person-days per year.

In the Terramark application, it says on p4 that *“It is considered no more than a hectare would be mined anywhere within the permit in any given month. Over any calendar year this is not likely to exceed more than 10ha”*. The length of the river section applied for is 20-25 km, and the width of the river is 50m to over 100m. This means the total surface area of the river section is getting on to 200 Ha. On the basis that less than 10ha is expected to be mined per year, mining could potentially last for 20 years. During that time, my expectation would be that usage on the water would be in the thousands of person days, and total usage at least in the tens of thousands.

Note that people with a variety of skills and craft descend the Upper Clutha, not all of them experts. Some are students or beginners. Some are backpackers on inflatable unicorns. Some are people in unforgiving craft such as long and fast, but tippy and difficult to turn, multi-sport kayaks. Some are on multi-day trips with heavily loaded, and so slow, boats. Some are families with small children.



A family on a multi-day canoe trip from Lake Wānaka to Beaumont.

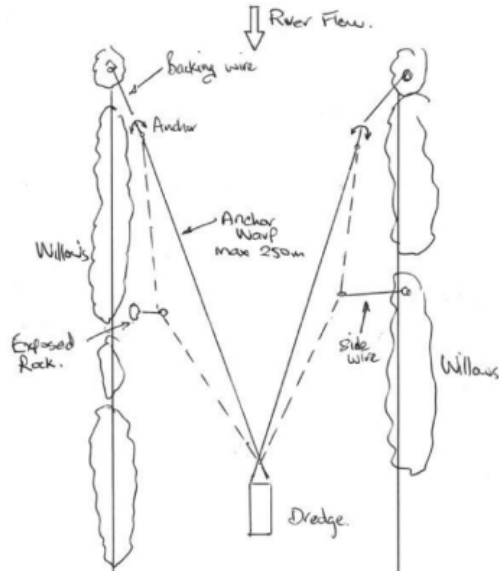
Temporary effects

S42A 6.1.8 par 4: *“Areas are not re-worked because there will be minimal gold within them, meaning that any effects at different locations will be temporary. Recreation activities described are generally also mobile (e.g. walking, cycling, kayaking), in that they will only encounter the dredge for a short duration before passing by”*

I do not know to what extent commissioners are required to balance the negative effects of a consent application against its positive effects. The positive effects, as well as only accruing to a small number of individuals, are also temporary. So it seems to me that discounting a negative effect to be minor or less than minor because it is temporary is false discounting because the same logic applies to the positive effects. Regardless, it is not a given that recreational effects are only temporary. Many of the thousand or thousands per year who use the Upper Clutha are tourists. It only takes one unimpressed post on Tik-tok or Instagram to go viral, to make a long-lived dent in NZ's marketing as a clean green tourist destination.

Safety

Some potential negative effects are even further from temporary. Death is permanent. S42A 6.1.8 figure 1 is a diagram showing an example of the dredge at anchor. To any kayaker or rafter, the risk to life presented by the spider-web of cables and wires all the way across a fast-flowing river is glaringly obvious.



“Strainers” are anything on which kayakers, rafters or swimmers can be entangled or pinned against by the force of the water. The worst forms are the likes of trees, upside-down cars, fences, or anything that water can flow through but a person can't. Single branches, ropes, and the likes of the dredge anchor warps are still potentially lethal hazards. Long boats such as multi-sport kayaks can collapse and wrap around anything they're pinned against, with a kayaker still inside if they haven't exited quickly. Kayakers could be knocked over by anchor warps immediately upstream of the dredge or they could even be funnelled towards the dredge, not a place that anyone would want to be underneath.

An relevant example of entanglement on the Clutha / Mata-au is that in 2018 a SUP boarder required CPR and then hospitalisation “*after the woman's ankle leash got tangled around a five-knot buoy, about 1 kilometre down river from The Outlet*” (from the ODT). Note that the five-knot buoy is in a considerably slower section of river than much of Red Bridge to Lindis Crossing, and navigating around it is trivial yet a SUP boarder still all but drowned because they did not realise the hazard that it posed.



The usual strategy to minimise hazard from strainers is to stay away from them. On the Upper Clutha, where the strainers are almost all trees, that usually means staying in the middle of the river. On a bend, it means shaving the inside of the bend, because current always pushes to the outside of a bend and into any trees on the outside bank.

The strategy of staying in the middle of a river becomes a problem if the applicant's dredge is already positioned in the middle of the river. Going around the dredge is a problem when the dredge is secured by anchor warps and wires that you can also get entangled in, especially given they're extremely difficult to see. The problem is worse on a bend where the river is faster, current is pushing to the outside, and a kayaker or rafter has to actively work to stay away from that side. All of the above is exacerbated for a less-experienced river user. Meanwhile for a dredge on that bend the anchors would need to be positioned more sideways, upstream of the bend or inside the bend, to counteract current pushing the dredge to the outside of the bend. It all becomes an accident waiting to happen.

Note that the Upper Clutha is considerably bendier than the currently mined section downstream of Beaumont.



Upper Clutha (Red Bridge to Lindis crossing) vs Lower Clutha (Beaumont Bridge at top)

S42A 6.1.8 par 7 *"the crossed warps are typically 0.5 – 1.0 m deep within 5 m of the dredge, and continue to sag towards the riverbed thereafter. The warps are up to 250 m long and to ensure they do not lose grip further backing wire may be used. Side wires are sometimes used for increased stability. The Applicant has advised they typically submerge well under the water within metres and do not impede waterway access to other vessels. If side lines have the potential to pose a risk to other craft, they are marked with a red buoy"*

A group of kayakers including myself visited the dredge below Beaumont bridge on Sat 28 October.

This is a still from a video of the scene:



One of the anchor warps, a nearly flat white line, can be seen against the dark shadow of the willows. There is little sag. On the Upper Clutha there would usually be even less sag because the current is usually faster, which I will discuss later. The warp extends out of the video frame to the right so it is not possible to see how far it goes before going below water. The warp is difficult to see and the point of entry into the water cannot be seen in earlier video from further away. I usually wear glasses, but not while kayaking, and did not see either warp at all at the time. My guess from this still is that the visible warp could extend 2 or maybe even 3 dredge lengths, so possibly 50m to 75m, before entering the water. Below the water, with little sag, it will extend further at a similar angle and will still be a hazard until it is a metre or more below water level, for a kayaker who has rolled upside down or for anyone swimming due to mishap with a kayak, raft, SUP board, lilo or whatever.

From this we can conclude that the hazard presented by a warp may sometimes extend 100m or more from the dredge. This may seem a long way but bear in mind that the warps can be up to 250m long. It appears that a hazard extending only 5m, as claimed by the applicant in their evidence, would not be typical. Side wires or backing wires just add to the hazard, and as demonstrated by the Wānaka five-knot buoy incident, even buoys to mark a hazard are themselves a hazard.

In contrast to our visit to the dredge, the photo provided by the applicant in their S92 response looks like this:



I do not think the above photo shows a typical anchor scene. The warps are not crossed, the right warp is not under tension, it is in very slow current, and only a small amount of the 250m possible length appears to have been used. This photo gives a misleading impression of the hazard presented to other river users by the anchor warps.

S42A 6.1.8 par 8 The QLDC harbourmaster suggests a consent condition: *“Placement of an advertisement in the local paper to inform people of the area of the suction dredging operation”*. I think this suggestion ignores the reality that few people read classified advertisements in the 21st century. More importantly, the onus should not be on other river users to navigate unnatural and sometimes invisible hazards created by the applicant.

I have noticed Duncan Kenderdine's evidence, quoting the QLDC harbour master recommended mitigation that *“No mooring or anchor lines extend into the river beyond the port or starboard beam of the dredge to minimise health and safety risk or restrict access to other users”*. My understanding is that that would be incompatible with dredge operation as the anchors are placed widely so that the dredge can position itself side-to-side (as well as up- and downstream) by winching the respective anchor warps in or out. But even if it were possible and the warps were directly upstream, they would still be a hazard for anyone crossing upstream of the dredge in order to get to the inside of a bend, or to an eddy, or to avoid downstream trees or rocks, or many other conceivable reasons.

Water velocity

In S42A 6.1.4.a par 3, mention is made that the the lower Clutha River / Mata-Au has a lower gradient than the upper Clutha River / Mata-Au and as such water velocity can be expected to be greater in the Upper Clutha. This affects safety in many ways, eg river users need to navigate faster and earlier to avoid obstacles. A less obvious effect is that drag is proportional to the square of velocity. On the river, this means drag on the dredge, and thus force on its anchors and anchor warps, quadruples if velocity is doubled. It also means that force on a swimmer, kayak or raft that is pinned against anything whether it be a rock, tree, anchor warp or dredge, is quadrupled.

I have not measured the velocity of water in either section but a video taken at Red Bridge shows an obviously faster flow than one taken at the Beaumont Bridge on the same day. It could easily be 41% faster. That is a significant figure because 1.41 is the square root of 2, so if the velocity at Red Bridge is 41% faster then the force on anything held against that flow would be double what would occur at Beaumont. Any extra force would raise a greater length of anchor warp close to the surface, or completely out of the river, than was observed below Beaumont.

Safety conclusion

I note that last month Judge Evangelos Thomas of the Auckland district court, who found Whakaari Management Limited guilty on a charge of breaching workplace safety laws in respect to Whakaari/WhiteIsland, criticised the company for “astonishing failures” given the “*obvious risks*”. On the Upper Clutha, I think the risk to kayakers, rafters and other river users by the dredge anchor system is an “*obvious risk*”.

When there would be thousands of river users, many of them beginners, navigating past the dredge during the course of the proposed mining, I think the effect on safety must be more than minor.

S42A 6.1. par 10: “*I consider that, subject to the conditions identified in Appendix A, adverse effects on recreation values and public access will be less than minor*”

I strongly disagree with the above statement.

- It is clear that there has not been enough investigation of effects on safety to be able to make any such assertion.
- It is clear that the applicant's evidence on safety cannot be trusted.
- It is my opinion that the effect on safety would be considerably more than minor.

Re: 6.1.10 Effects on Natural Character and Amenity

Noise

S42A 6.1.10.b par 7: “*Several submissions raised concerns about noise emissions from the operation of the suction dredge.*”

I have not found a noise assessment by a Ms Royce that is also mentioned in that paragraph. I did see mentions of a 55dB limit in the district plan. I googled “how loud is 55dB”. The answer returned was “*55 dB is a level that describes moderate to soft sounds. In fact, it is comparable to a quiet home environment, a residential street, or a normal conversation between two people*”.

When visiting the dredge, we found the following:

- It was much louder from behind, ie downstream.
- It was either much louder on the right ie starboard side, or it was much louder downwind (as there was a light westerly when we visited).
- Any evidence that does not measure noise in different directions and in different wind conditions would be worthless.

I was surprised how noisy it was. Downwind beside the left bank of the river and downstream, at a

distance of about 100m, I tried to objectively assess the noise level. I decided it was not as loud as a wood chipper, but was louder than a ride-on lawnmower. At 200m distance the noise level would be only one quarter but I think still considerably more than 55dB. If there was a residence at that distance, that noise level from 7 am till 10pm, 7 days a week, for a month or whatever it would take for that area to be mined, would be maddening. I think it would be well outside the district plan's limit, and the effect would have to be more than minor.

Re: S42A Appendix A, draft conditions if the consent is granted

S42A Appendix A includes a long list of proposed conditions that are almost all self-monitoring. In many cases, such as monitoring change in the colour or visual clarity of water 200m downstream, self-monitoring would be difficult even with the best will and endeavours by the applicant. However there is evidence by other submitters that the operation of the dredge has involved multiple and ongoing fuel spills, oil leaks, shit being chucked into the river and many other insults to the environment and to cultural values. None of these incidents appear to have been reported to Maritime NZ or ORC. It is apparent from this behaviour that the applicant does not operate with the best will and endeavours to mitigate the side effects of their activities or to conform to monitoring requirements.

Clearly any self-monitored conditions would not work. It therefore follows that the application needs to be refused in its entirety, rather than granted subject to consent conditions that would be ignored.

Conclusion

The consent application should be refused.