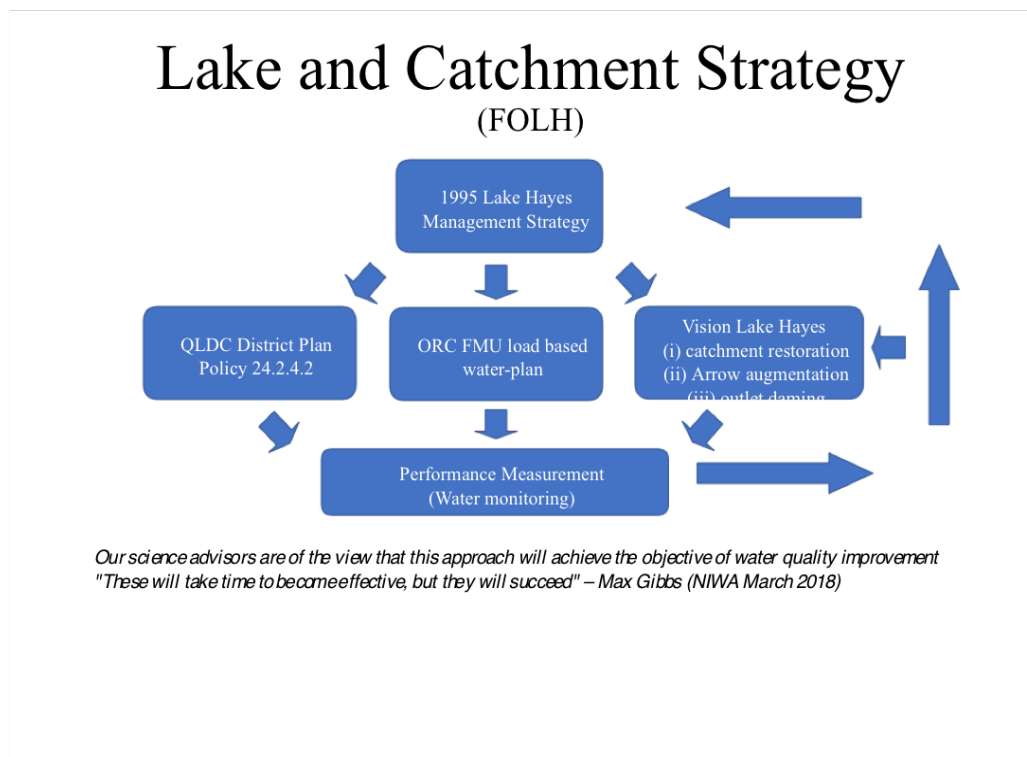


Friends of Lake Hayes Society Inc.

Chair's Annual Report for 2021

It has been another busy year for FOLH with main focus implementing the Strategy presented last year. Finally, we have moved from a planning phase to a "doing" phase with many projects started.

FOLH led an initiative to create a Lake Hayes Strategy Group to steer "all things" Lake Hayes. This group is being run by ORC and includes stakeholder representatives from ORC, QLDC, DOC, Iwi & FOLH. and is chaired by Prof. Brian Boyle from FOLH. The strategy process is summarized in the diagram below.



The group is currently working on revising the 1995 Lake Hayes Management Strategy, reviewing data collection across Lake Hayes and catchment and overseeing physical works including the Vision project, outlet culvert replacement and the Arrow augmentation project.

Early in the year FOLH took part in QLDC District Plan appeals process and through mediation all parties agreed to include Policy 24.2.4.2 which affected all land use activities in Lake Hayes Catchment. When land is developed within the Hayes catchment water quality improvement now needs to be considered. This is a big commitment from all involved and FOLH would like to thank all those involved in making this happen.

The ORC rewrite of the Land and Water Plan process has also begun. This new plan process gives us the opportunity to include much needed enforceable controls for pollution reduction especially around proposed land use changes. In terms of how and when ORC address the consultation around this, Lake Hayes has been included in the Dunstan Rohe not the Upper Lakes Rohe. Therefore, consultation does not start until next March and will be held in Cromwell. The same issues are consulted on around the Upper Lakes including Wakatipu commencing on 17 November 2021. As time is running out FOLH has engaged with ORC on this matter through the Strategy Group as it will require specialist science input to enable any changes.

Early in the year Prof Brian J Boyle carried pollution load analysis from the data collected by the ORC for 18 months over 2019-2020. (View on www.savelakehayes.org). This highlighted the return of very high sediment/ phosphorous loads back to the high levels experienced in 1984 when Robertson carried out his study.

In the ORC Long Term Plan process FOLH submitted against ORC's preferred targeted rate system focused on those living at or close to Lake Hayes. We were listened to and the end result from this was to target pollution clean-up costs by rating this across the whole Queenstown- Lakes District.

The most exciting news of the year was the announcement in September that Mana Tahuna had won \$4.5M of funding to implement the Vision Project. This was on top of Rod Drury \$1.6M generous support for the project and culvert upgrade. Financial support from FOLH membership has also contributed to this project. So a big thank you to Rod and Mana Tahuna for making this FOLH dream turn into a reality.

The main aim of the Lake Hayes Vision catchment restoration work is to take 1000tpa of sediment out of the system and returning pollution loads back to levels which last seen in the late 1990s when the lake was last in recovery mode. Reduction in nitrogen and e-coli loads will also be achieved from plantings and run-off modification around Mill Creek.

Local Environmental consultancy E3 Scientific has lodged resource consent with ORC for in-stream works and ORC has given a \$10K grant towards this process. When this consent is in place E3 will move on to complete ORC consent for the new wetland west of the outlet of Mill Creek and QLDC consent for the earthworks associated with this.

Mana Tahuna is currently building resources to implement the Vision project and riparian planting was launched on a stretch of Mill Creek with 350 Wakatipu High School students planting alongside the Mana Tahuna crew last month.

Huge support has been given to the project from many catchment stake holders including Daggs and Huttons farms, MillBrook and Threpwood. Work on these sites will include new sediment traps and systems developed to extract this sediment along with existing traps/ponds along Mill Creek. I look forward to reporting next year on what percentage of our 1000T target has been achieved through this work. It this looks like this will be a significant reduction.

ORC, FOLH and Rod Drury met last week at the outlet culvert to discuss the upgrade work. ORC has appointed planners to do all the consenting work and an engineering consultant to finalise design and manage the project. The final design proposed will include flexibility on height and flow management. This will allow flow/height adjustments to be made to ensure we get the balance right for optimal lake height and maintaining healthy wetlands and lake margins.

ORC is working with Iwi and the Arrow Irrigation company with the aim of having consents for water take and discharge in place for next spring to allow the augmentation process to begin as well in this time frame. This will require the hook up of the existing infrastructure to the Arrow pipe to be completed next winter while the irrigation scheme is turned off.

A key part of the Strategy for Lake Hayes is to install comprehensive water quality testing throughout sections of the catchment above and below development activity. FOLH is working through the Strategy Group with a view to getting ORC to overview a general water testing plan. It is envisaged that physical testing will be either through in-creek sensors and loggers, the lake buoy data. It will be supplemented by manual testing through existing work of ORC, Mana Tahuna and FOLH with all the data being integrated and stored in a single data base.

Looking forward.

We have a lot of projects happening at present and we look forward to seeing results flow through from the water sampling and changes within lake.

To assist with this FOLH are planning to commission Marc Schallenberg to carry out a review of all available lake and catchment data, i.e., ORC data. This enables us to measure specific load changes within predetermined parts of the catchment using the Linear Catchment Study, ongoing FOLH samples and Mana Tahuna samples. This will be used to provide an up-to-date benchmark State of Lake report from which we can measure improvements in both the lake and the catchment. We have asked Marc to look at shaping this report in a way that it is easy to update as more data is collected.

As physical works and Regulatory Support moves into place, FOLH's focus will shift towards community education. This will include helping residents and property owners and managers to understand how living and operating in the catchment can impact on water quality. This will also include getting QLDC staff and contractors on board to shift the emphasis from policing to an understanding of the outcomes of actions from activities such as road maintenance, stormwater run-off, etc. This understanding needs to get right down to the people for example on the diggers, etc., as their decisions on the ground ultimately impact on water quality.

I would like to thank the many people that have helped make this year a success. FOLH is an executive of 10 people all of whom have contributed many hours of their own time to make things happen.

All our members (165) continue to support us both financially and in kind.

Sargood Bequest Generously contributed \$25K for the second year in a row. Their support has allowed us to continue with our push to get better regulatory support through both the QLDC and ORC Planning processes. It is not our intention to fight/police consents in the catchment however where we see what we think are consents going against improving water quality in Lake Hayes we will try to get involved. Some of the Sargood funding was used to purchase mobile turbidity sensing equipment. This will allow us to measure sediment/phosphorous load at multiple locations during rain events.

There are many other individuals whose contribution to FOLH whom I need to specially acknowledge.

A big thank you to Rod Drury for his financial support and belief in FOLH.

Big thank you as well to Mana Tahuna for making the Vision project happen. With the support of the Mana Tahuna Trustees and CEO Michael Rewi, Jana Davis (Mana Tahuna Operations Manager) gave over a year of his time on this funding submission. His drive and determination played a big part in making this happen. Project Manager Sarah Mukai is now stamping her mark on the project and has given us confidence on delivery.

Thanks to Glen Davis and his team at E3 Scientific for the added efforts they make in support of us.

Marc Schallenberg continues to provide regular pro bono advice and support around the complex lake issues and evolving environmental legislation.

Thank you, Robyn La Roche, for continuing to manage our very professional website.

Steve Skelton at Patch Landscape put in considerable time and effort into building visuals including an artist's impression of what the proposed new wetland would look like viewed from the Lake Hayes track.

Rob Enright our Barrister has supported us with legal representation at discounted fees. Whether we like it or not we need to participate in expensive regulatory processes to influence water quality outcomes and Rob played a big part in getting Policy 24.2.4.2 into the QLDC District Plan.

Mike Hanff
3/11/21