



Monaro Acclimatisation Society Inc
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Sustainable future fishing for trout and native fish

SNOWY HYDRO 2.0 – MAS CONCEPT PLAN

On 2 July 2020 MAS Secretary Rod Whiteway and I met with senior officers from NSW Fisheries to discuss the MAS Concept Plan for a trout grow-out facility as a recreational fishing offset for Snowy Hydro 2.0.

Following that meeting NSW Fisheries have asked the MAS to formally enter into “Agreed Principles” arrangement. The MAS Executive is currently discussing this Agreement; however, we indicated we have four key priorities that we are committed to.

On 7 July 2020 I met with senior staff from Snowy Hydro to discuss the MAS Concept Plan. Again, we explained our key priorities and Snowy Hydro did not express any negativity to our approach. Snowy Hydro indicated they are keen for a meeting between MAS, DPI and Snowy Hydro in the not too distant future to begin working formally on the plan.

THE OVERALL CONCEPT

Since the announcement of Snowy Hydro 2.0 the MAS has been concerned that redfin perch would be pumped from Talbingo Dam into Tantangara Dam and beyond. To help protect the Snowy Mountains trout fishery the MAS embarked on a process to identify how larger trout could be stocked to counter the expected redfin predation and to protect our trout fishing legacy and reassure the Snowy trout community that something was being done. The MAS soon realised that it was undertaking this process in a policy vacuum, so the MAS began negotiating directly with Snowy Hydro on mitigation measures.

Since this time, the MAS has presented a number of concepts to Snowy Hydro as the detail of Snowy 2.0 emerged. In order, the MAS considered: a floating cage facility on one of the lakes where trout could be grown out; a land based grow-out facility at the base of either Eucumbene Dam wall or Jindabyne Dam wall; a land-based facility on Snowy Hydro land opposite Waste Point on Lake Jindabyne and finally this Concept Plan which sees operations based within Gaden Trout Hatchery. The MAS has invested a significant amount of its resources in coming to this point with the support of the trout anglers of the Snowy Region.

This Concept Plan has been developed to overcome an identified barrier to fish production at Gaden Hatchery which is documented in the Snapshot of NSW Trout Strategy at Page 9, Hatcheries and Stocking:

Increase the size of fish stocked (where beneficial) In impoundments where Redfin are present, stock larger trout to mitigate the negative effects of this pest species. Stocking

larger fish is extremely popular with fishers and provides a short-term boost to local tourism. Note: there are significant limitations on the abilities of the hatcheries to produce and transport large numbers of larger trout and the majority of trout stocking will continue to be based on fry and fingerlings.

The MAS concept of a grow-out facility within Gaden is specifically designed to address the significant limitations to growing and stocking larger fish from Gaden Hatchery.

Under the Final Assessment, Snowy Hydro is required to develop a detailed Recreational Fishing Management Plan, which includes a program involving the spending of \$5 million over 5 years during construction (of Snowy Hydro 2.0) to develop the capability to restock, and to restock, the Tantangara Reservoir and Lake Eucumbene with salmonid fish. The anglers of the region have provided substantial support for the MAS proposal that the facility must produce fish of such a size that can withstand redfin predation. The MAS has identified 200 to 250mm as the preferred size and this has subsequently been confirmed by DPI researchers.

To get trout to this size it is imperative that the Gaden Trout Hatchery is capable of operating year-round with minimal impact from reduced water flow or high water temperatures. Over the last two hatchery seasons we have seen Gaden production impacted by Thredbo River hot water events. It is likely that these hot water events will continue ad hoc into the future. Because of climate change there is the distinct probability such events will become more frequent. The MAS has formed the view that Water Temperature Security (WTS) is the critical element in any Plan for the facility. To ensure WTS the MAS has developed this Concept Plan to ensure WTS for the grow-out facility and Gaden Hatchery generally.

WATER TEMPERATURE SECURITY FOR GADEN HATCHERY

After considerable investigation of alternatives, the MAS has come to the view that the only feasible way of securing WTS for Gaden Hatchery is to invest in a pipeline and pump from Lake Jindabyne to the Hatchery. This pipeline will be approximately 4 to 5.2 kilometres in length depending on extension into the lake and exit point at Gaden. It will extend from the deepest point in Lake Jindabyne off Hatchery Bay and terminate at Gaden Hatchery.

The pipe will be serviced by a pump located at Hatchery Bay on Snowy Hydro land. The pipeline and pump will be configured to be able to supply enough water to run the grow-out facility and the rest of the hatchery when required. It is envisaged that the pipeline will be used to supplement the Thredbo River water supply to the Hatchery during times of low flow and to provide enough water to be able to shandy water from the Thredbo River down to an acceptable temperature during hot water events to ensure the WTS of the entire hatchery.

Figure 1 indicates the approximate path of the pipeline.

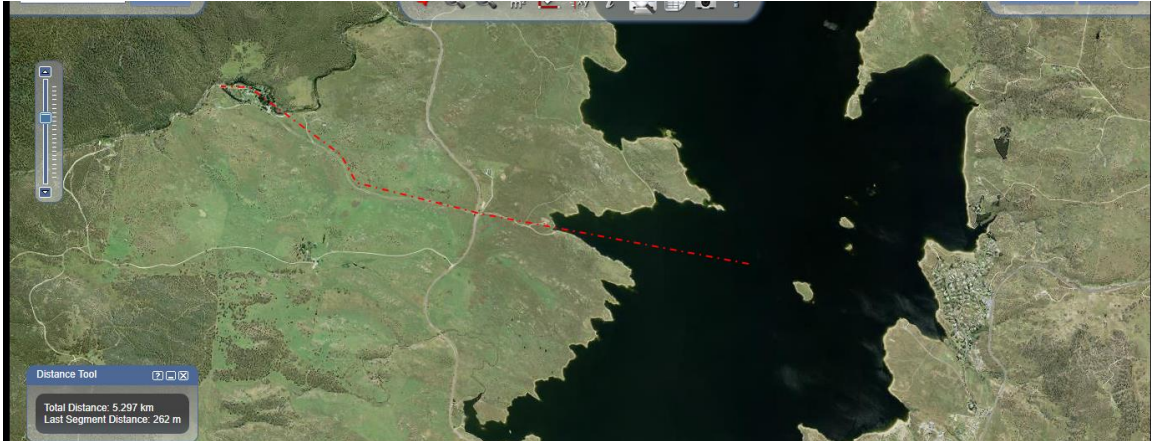


Figure 1

THE GROW-OUT FACILITY

It is the MAS view that the grow-out facility should consist of a shed and tank system capable of growing out a minimum of 150,000 yearling trout per annum. The shed and tank system has many advantages over an earthen ponds system: they are cheaper to construct, shedding provides security, and flexibility of operations is enhanced. Exact configuration of the system will require extensive consultation with DPI hatchery staff to ensure that what is developed is operational for the longer term.

ACTUALLY STOCKING

A grow-out facility will be next to useless if the grown-out fish are not able to be transported to their destination in an efficient manner. The current fleet of transporters held at Gaden will be insufficient to effectively transport yearling trout to the various destinations needed.

It is the MAS assessment that a large tanker / transporter will be required. While the MAS acknowledges the assurance given by NSW Fisheries that the new Narrandera fish transporter will be available from time to time, the MAS believes that the scale of this facility demands a dedicated large fish transporter. Having a larger fish transporter ameliorates the stocking limitations for larger fish identified in the Snapshot of NSW Trout Strategy.

ENSURING THE OPERATIONAL FUTURE OF THE GROW-OUT FACILITY

The MAS is aware that there will be some significant on-going costs for the facility. For instance, pipes and pumps do not last forever. The MAS has investigated high specification water pipe and we have discovered that the current standard for water pipe used in mains domestic supply is rated to last 100 years. It is entirely feasible to use this grade of pipe in this project.

However, pumps are a different issue. This plan envisions the pump only being used in times of water temperature stress or low flows. This means that the life of the pump will be extended considerably, however to ensure that the plan does not place unnecessary stress on future funding the MAS proposes an amount of money be set aside for repair and replacement of the pump and some repair of the pipeline. This will guarantee the medium-term future of the facility without impost on Government, DPI or RFFTEC.

To support the operational costs of the pump, the MAS has had several discussions with Snowy Hydro on the electricity supply for pumping water. The MAS believes it is well placed to continue these discussions.

The MAS is aware that a grow-out facility will place a strain on Gaden staff at the current staffing level. The MAS notes that Gaden staff are currently funded through RFFTEC. The MAS will support a RFFTEC application for an additional staff member for the facility. The MAS realises that there is considerable concern amongst anglers to the funding of DPI staff from the angler licence fee, but in this instance funding another employee of the hatchery makes a direct contribution to the Snowy fishery and should not be confused with other positions that do not make such a direct contribution.

THE THREDBO RIVER WEIR

The MAS notes that the natural rock barrier / weir in the Thredbo River where the current hatchery off-take is located has become silted and eroded to a point where it no longer supplies the traditional amount of water to the hatchery. DPI has investigated options for improvement to the weir. At this time, the MAS is unsure if the funds allocated to build the Grow-out Facility will be enough to include this weir upgrade. Discussions will be continued to explore future weir options.

At present, the hatchery is holding a population of the Stocky Galaxiid which were harvested from Tantangara Creek. These Galaxiids and Macquarie Perch have been identified as the native species especially vulnerable to redfin. Holding Stocky galaxiids at Gaden is the first step in trying to build a breeding / reserve population should the worst happen. To this extent Gaden has an important role to play in the future of Stocky galaxiids and possibly Macquarie Perch. The MAS feels it would be entirely appropriate for a contribution to be made by the native fish sector within DPI who have also been allocated \$5 million to assist with the weir should it be required.

THE MAS PRIORITIES

The MAS has adopted the position that there are four priorities for this project, and they are non-negotiable in concept. They are:

1. Water Temperature Security must be secured for Gaden Hatchery,
2. The facility must be capable of growing out a minimum of 150,000 yearling trout per annum for stocking,
3. A suitable fish transporter must be part of the plan to ensure trout are stocked efficiently and effectively, and
4. Holding a reserve of funds for the mid-term repair or replacement of the pump and / or pipeline.

CONCLUSION

While there is room for us to negotiate on the finer detail of this Concept Plan, the MAS is committed to the above four strategic priorities unless better options can be identified. The MAS is not willing to forgo water temperature security for the hatchery and any plan must provide water temperature security along with the capacity to grow out fish for now and the future.

The MAS has worked hard to be officially included in this process and we will do our part to ensure that the improvements to Gaden Hatchery place it in a strong position to ensure that the recreational trout industry of the Snowy region remains strong and viable. Creating an improved fishery is at the forefront of our approach and we are committed to keeping anglers abreast of developments as they happen.

Steve Samuels
President
Monaro Acclimatisation Society Inc
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