

Minutes GM 21 October 2024, LV RSL and Zoom, 7.30pm

Zoom: Meeting ID: 830 1299 5447 Passcode: 007

Guest speaker: Rob Freeman, IFS, Penstock stocking and other matters

Present: Tony Abel, Mark Aspinall, Glenn Becher, Anna Bellette, Rob Brodribb, Stephen Butler, Norm Cribbin, Malcolm Crosse, Lyndon Cubbins, Peter Glanvill, Craig Granquist, Scott Haslock, Chris Hilton, David Lipscombe, Dave Long, Paul Markey, Robert Phillips, Peter Rasmussen, Andrew Reed, Chris Rothe, John Smith, Ian Stokes, David Travalia

Zoom: Tom Woolley, Chris Hilton, Malcome Crosse, Peter Rasmussen, John Smith, Peter Glanvill

Apologies: Denis Abbott, Wayne Bellette, Chris Berndt, Michael Bourne, Tony Dell, Rob Dineen, Andrew Fisher, James Jones, Tim Lewis, James Mackay, Paul McCosh, Doug Miller, Douglas Mosenthal, Peter Murphy, Neil Pinkard, Chris Roberts, John Spencer, David Tarbath, Tim Urbanc, Noel Wilson, David Young

Guests: Dan Markey, Greg Austen

Minutes: Norm Cribbin, Paul Markey

Corro in and out:

Letter from Tony Dell re AAT presentation GM 16 September – circulated at Tony's request

AAT Interim Shallow Waters Report – circulated

Various technical references re Report and presentation – circulated

Recollections Pine/Penstock and other fishing dating to 1951 Charles Peck – memoir docs X 2, circulated

Insurance update – Tim Munro

Arising:

Insurance update: as Tim was not present, Tony outlined the broad advice from Steve Knight @ Dobson, Mitchell, Allport that we need to seek out a more suitable policy, which Tim is pursuing. Rob Phillips endorses this opinion. In the interim, it is prudent to retain the policy we have.

AAT presentation September GM: Tony Dell's request that his letter re the AAT presentation be an agenda item in November was agreed, to allow members the necessary consideration of the issues raised and associated materials.

Wood for Miena: Tony Abel outlined our approaches regarding some wood for Miena – 10 tonnes to be shared with Cubbins and Stokes. It's proving difficult to get a reply from the vendor after our initial contacts.

Financial: Norm discussed his September report, circulated, and reports that outstanding subs are flowing well after some prompting. There is presently no firm provision for Sorell stage 2 – Kenny has been working on a materials list for costing.

Activities:

Gt Lake Tie-in 12 Oct: was excellently attended overall, including some 26 or so of our members in one role or another. The organisers are to be congratulated for a very successful event.

Casting: recommenced October 16th, at the Mt Stuart venue.

4 Springs 14-17 Oct: numbers thinned out a little through illness and injury but enjoyable. The duns have not started in any numbers but everyone got some fish plonking or persevering with dries. Excellent fish in excellent condition, and Hadspen remains very good accommodation.

Activities forthcoming:

Westy, tying tuition: 3 November, RSL, 9.30am for 10am start. Brian has emailed details to those on the list of assistants.

Bothwell dams: Stephen Butler reports Weasel is full. Ian Stokes to clarify with Henry Edgell our position re Deniston this year.

Shack reports:

Miena: the pump mystery appears to have been solved after a trip to the pump-whisperer in Hobart. There is a 2 screw plate on the back, housing a fan. If it's not priming, undo, spin the stuck fan a couple of times and put it back together.

Sorell: Tony visited on the 19th, all OK but the locks need some silicone spray – thanks, Granny – as a bit stiff. We need to get some wood, although the campers don't seem to have found what there is there, as yet.

General business:

Donated books: We've sold many - \$411 to date – but Peter Ras has suggested those left aren't moving and he'll put them on Marketplace as a job lot. If there's no interest there, then donate to the Howrah Rotary Club Book Exchange.

Meeting closed: 8.10pm. Andrew thanked the Committee for minding the shop in his absence.

Guest Speaker: Rob Freeman IFS, on:



Rob spoke for over an hour. His first observation was that IFS, and hence our fisheries, are somewhat in flux. With the loss of John Diggle, Chris Wisniewski and Neil Morrow about 85 years of organisational knowledge and experience have departed. It's a big gap to fill, especially in challenging times.

Rob's presentation principally outlined IFS studies and analysis directly relevant to issues raised in the recent Shallow Waters report and, most specifically, regarding Penstock. He provided considerable technical detail and description related to:

- the fundamental water management issues affecting the Lagoon following the closure of Waddamana in the 1990's; and
- the related ecological effects on the aquatic flora and fauna.

The following is a brief summary. The presentation included a lot of data points and graphic analysis. With Rob's permission, our Zoom recording will be up on our You Tube – details to follow.

Water management

Water management has been the main driver over the past 30 years. Rob suggests Penstock is fundamentally and irrevocably changed without reversion to something like historical flows through from the canals. This is not at all likely. His observations – mid-late 90's deterioration of water quality to the point of eutrophication plus loss of canal spawning – correlate with Charles Peck's memoirs circulated earlier this month, though Charles dates these back to the early 1970's. Overall, lack of flow-through has fundamentally altered aquatic flora and fauna types and distribution, with the lake becoming more silted. The water quality has subsequently improved since a flow slot was cut into the Waddamana end, though flow remains very limited. (*Note: Rob and I have had a couple of chats since Monday and he's emailed me this timeline):

Hi Tony, a quick timeline regarding Penstock. Adds some clarity, with riparian flows via Waddamana B turbine finishing during May 1992. After this time and between when the slot was cut in the southern dam wall, poor water quality was experienced within Penstock Lagoon.

Penstock Timeline

- Formed in 1915 in conjunction with the Great Lake power scheme (French 1994).
- Poatina commissioned in 1964/1965 and large throughflows ceased (French 1994).
- Riparian water released through Waddamana B until its closure in 15 May 1992 .
- Any riparian flows now bypass Penstock and travel down the Shannon River.

- *Slot cut in southern dam wall in August 1995 to minimise retention time and maximise lagoon flushing (max discharge of 0.5 cumecs).*

IFS management

Fisheries have sought to manage the environmental and demand pressures over this period via a number of measures. With respect to the loss of spawning from the canals, they've experimented with a range of stocking sizes and rates from a variety of sources, principally Liawenee and Arthurs. Growth and condition factors have been monitored and evaluated, ultimately leading to the conclusion that stocking adult fish is most effective and now stocking rainbows only as fry. Stocking rates have also been a function of demand. The quantities of stocking are under review – see below.

Stocking management

Stocking rates have also reflected demand pressures due to the extended failures of other waters, particularly Arthurs and Sorell. These now recently include Woods and Pine. It's been suggested the demand pressures are circular, self-perpetuating – the worse other lakes, the more Penstock demand, the more stocking, the higher the expectations, the higher the fishing pressure.

However, projected changes in management toward fewer and bigger fish now suggest less need for stocking. The changes in catch and release monitored over the past few years also reinforce this trend. Creel data from Penstock indicates C+R rates have gone from around 30% of browns 20 years ago to 63% at present. Interestingly, in comparison, 4 Springs from around 15% to 30%. Rainbows are at lesser C+R rates for both lakes. App users report higher rates.

Fish size, condition, length and catch rates

IFS extensively monitor and evaluate their activities. Different mechanisms enable management assessments of these and some sense of the interactions between them.

Creel surveys and the postal surveys are historical, now complemented by the IFS app. Input techniques – size, provenance and numbers of stockings, combined with fin clipping and or punching, along with biological markers – enable working estimates of longevity, survival rates by size and origins and so forth – all in the context of other factors, such as water levels and angler effort. Creel surveys indicate catch rates and angler effort, and they, postals, trapping and now the IFS app all provide information as to size, length and condition. Trapping enables some direct empirical evidence, albeit variable as to other factors, such as season, weather and water levels. Hydro sampling and measurements add additional dimensions. Overall, Penstock in particular has been subject to considerable scrutiny over the past 20 or 30 years. As above, this is in the context of the considerable angling demand pressures experienced due to the failure of other waters.

Summary – IFS data capture, modelling and analysis

Some brief standouts: much fuller detail and the graphics will be available on Zoom on our website:

- As above, stocking with adult fish is most cost-effective. There is better survivability, with good growth rates. It provides more consistency, predictability of fishery performance, over the course of a season, viewed from angler and other management perspectives.
- Fish previously sourced from New Norfolk are no longer available – too expensive
- Comparisons between diploids and triploids indicate no significant differences.

- Via extensive trapping and analysis, Fisheries estimate that the age of the average fish going in is a minimum of 3 years, with an average around 3 to 5 years. The eldest of the various cohorts examined is estimated as 12 years. Growth rates of the adult inputs are estimated as about 70% YoY.
- Estimated catch rates have remained broadly similar from 2000 to the present – around 1.25 browns, 0.2 rainbows per 6-hour day – though the average size of fish has diminished from around 2.5 – 2.8kg mid-nineties to around half that at present. App users report higher rates.
- Angler effort is now declining, from around 4000 **days fished by anglers** 2000-01 to an abnormal peak of around 24000 in 2020-21 (possibly a Covid effect) to around 6000 in 2022-23. As above, the peaks most likely reflect the deterioration, unavailability, of other waters. Why the rates now appear to be declining requires more investigation. It doesn't appear to reflect angler dissatisfaction. Angler expectations vary considerably but Rob reports that, overall, anglers are pretty happy with the fishery – 'cos that's what you guys are telling us'.
- The analysis of this range of data has enabled estimates of the numbers of trout in the lake. These are broadly indicative rather than definitive but Rob estimates presently around 5,300. He suggests an optimum number is probably around 6-7000.

Going forward

Along with others, Rob suggests Penstock's management issues need to be seen in international and statewide contexts. At the macro level, mayflies are in trouble, world-wide. Statewide, we are seeing changes in weed composition and distribution. Penstock has undergone the major flow changes described above. The changes witnessed with Arthurs, Sorell and Pine probably include over-recruitment drivers. The recent blue green algal problem with Woods may do so also, along with pond weed die back – the algae thrives when the weed can't absorb the nutrients. Sorell, Arthurs and Pine have been affected by periods of low levels and the two latter by fire. There are multiple factors at play.

From the IFS perspective re Penstock, angler satisfaction, consistent catch rates, fish growth and condition suggest a fishery that is functioning well but 'can do with a few tweaks around stocking'. Rob suggests the major management objective and constraint with respect to Penstock is controlling fishing effort. As above, management objectives are now a high-quality fishing experience, with rainbows stocked only as fry in a brown trout fishery. This will not suit everyone's hopes and expectations, but is likely to reduce fishing effort. He suggests there is little merit in further restrictions on boating. They are not required or likely to be effective, other than changes from better user education, signage and markers – ensuring users, particularly new users, understand expectations and the reasons for them. It's clear, as with catch and release, there have been significant changes in boating behaviour over the past couple of decades, which can readily be further encouraged. However, from a macro perspective, the best reduction of angler effort on Penstock will be achieved by improving the performance of the larger fisheries.