

## **Minutes GM 16 September 2024, LVRSL and Zoom**

### **Zoom GM**

**<https://us02web.zoom.us/j/83012995447?pwd=dUl2Wis0Y3UxMWd0b3Rkc1dxSThxdz09>**

**Meeting ID: 830 1299 5447 Passcode: 007**

**Present:** Denis Abbott, Tony Abel, Glenn Becher, Anna Bellette, Wayne Bellette, Elliott Blackwood, Michael Bourne, Stephen Butler, Norm Cribbin, Malcolm Crosse, Lyndon Cubbins, Simon Gates, Craig Granquist, Tim Lewis, David Lipscombe, Dave Long, Doug Miller, Peter Murphy, Chris Rothe, John Spencer, Ian Stokes, David Travalia, Tim Urbanc, Tom Woolley, Tim Munro, Tony Dell

**Zoom:** Tom Woolley, Peter Rasmussen, Paul McCosh, Neil Pinkard

**Apologies:** Rob Brodribb, Glenn Cannell, Rob Dineen, Andrew Fisher, Peter Glanvill, Chris Hilton, Damian Hingston, Adrian Hope, Eric Howard, James Jones, Stephen Luttrell, Paul Markey, Laurie Matcham, Douglas Mosenthal, Robert Phillips, Andrew Reed, Chris Roberts, Stuart Spotswood, Bill Turner, Noel Wilson

**Guest:** Gary France, AAT

**Minutes GM 19 August 2024:** Craig Granquist, Elliott Blackwood

### **Corro in and out:**

Membership nomination Corey Harris nom Peter Rasmussen, sec Tom Woolley

Discussions Health re possible 1<sup>st</sup> aid grants

Brief of insurance questions Tim Munro, AAT

### **Arising:**

Corey Harris membership approved

Tim Munro indicated a brief has been provided to Steve Knight @ Dobson, Mitchell, Allport and a response expected shortly.

Some discussion re possible grants for 1<sup>st</sup> Aid, field and or MH. Considerable interest in the former if a grant becomes available, need for further discussion wrt the latter in the context of the present grant guidelines.

**Financial:** the bank records to end of August circulated with the agenda and attached. Of particular note, Norm indicated there are substantial subs outstanding – some \$2000+ – and

asks those concerned to address the matter. Any hardship issues should be discussed with the Committee.

**AAT Report:** was discussed at length at previous meeting

**Forthcoming activities:**

**Tie-in Sat 12 October, Miena:** Anna gave a briefing on the Tie-in, substantially booked up. Greg French will be guest speaker at the Friday evening opening event.

**Casting sessions:** Wayne indicated they will resume on 16 October, venue either Mt Stuart or the previous venue in New Town – more info to come on this.

**4 Springs 14-17 Oct** – numbers stable, extras could be catered for

**Beginners Tying event 3 Nov, RSL – Westy and assistants** – now confirmed, room for some more tying assistants

**Shack Reports:**

Miena – we have arranged for 5 tonnes of wood, delivery in the next few weeks

Sorell – still waiting on Ken's availability and now complicated by fishing, especially 4 Springs.

**General Business:**

Brian McCullagh reminded us that we had missed providing certificates to some of the recent life members – the Committee will explore this.

**Fowler Trophy draw:** 42 entered

**Round Robin:** nothing of note bar some muted gloating by bone fishermen accompanied by the grinding of teeth of others....

**Meeting Closed: 8.30pm**

**Guest Speaker:** Gary France, AAT

**Gary France on the Shallow Waters study, AAT recommendations and directions**

This is a very extended meeting minute but I'm very conscious three-quarters of members were not at the meeting. They've received considerable amounts of information since and will be wondering what's going on. Gary's presentation was wide-ranging, complex and raised many questions. It's difficult to summarise and I'll see if we can get the recording up and available on our members' website. As we've now received the Interim Report members should read the following in that context. As the presentation included spirited Q+A, these are summarised

here. For ease of reference I'll also attach this summary as a pdf file. It's difficult to unpack all this information, but here goes:

The Shallow Waters project grew from concerns re Little Pine and Penstock as to perceived declines in mayfly numbers over recent years. This is a world-wide phenomenon. It largely focused on enduring concerns as to the impacts of boating on these lakes, including as to how these may be impacting mayfly numbers via turbidity impacting macrophytes and resultant macroinvertebrate impacts, as well as possible hydrocarbon pollution problems. This latter is now ruled out by Hydro sampling.

As with all things, these concerns arise in the context of climate change, demographic changes and changes to usages and so forth. There are many factors involved, their roles are largely uncertain, and their interactions also not well understood. The meeting strongly supported the need for on-going research.

At the time of writing, we've now received both the Interim Report and some detailed longitudinal information from Charles Peck, to feed into the equations. The summary below is based on Gary's presentation, the Q+A and the Report.

In brief:

## **1. Hydrocarbons**

### **Possible hydrocarbon pollution**

Some initial concerns related to hydrocarbon pollution. Hydro sampling indicates this is not only not a major factor, but not a factor at all for either Penstock or Pine – 'negligible'.

## **2. Mayflies**

**Mayflies are recognised worldwide as indicators of environmental health. They have low tolerance of poor water quality. Which species are present and how numerous?**

John Gooderham and Ron Thresher conducted two macroinvertebrate sampling days at Penstock Lagoon via a citizen science approach with volunteers. John, Ron and volunteers collected, identified and estimated approximate densities from 6 sites selected for varying habitats using the Waterbug Ap. From his years of mayfly studies on Penstock Ron considers nymph densities well below those he has observed in the past, perhaps only some 25%. Overall, the sampling together with Ron's mapping enables some assessment of comparative productivity, insect diversity and density at the different sites and ideally establishes work

toward functional baselines. Given their limited resources, the Q+A emphasised some member views that on-going AAT commitments will need to be carefully prioritised.

### **3. Water and sediment sampling**

#### **Pollution as a major driver of decline in insect populations**

Having ruled out hydrocarbons as a relevant cause of water degradation, the sub-committee concluded the Hydro drone footage of scarification required investigation of another major factor identified in declining mayfly populations world-wide, habitat degradation.

#### **Boating impacts**

##### **Habitat degradation as a major driver of decline in mayfly populations**

The sub-committee researched the impact of motorised boats on shallow waters as cited in the Report. Largely North American, this highlights correlations between boat size and speed and the level of bottom disturbance and its impacts on the aquatic plants key to healthy aquatic ecosystems. The Report concludes that these studies, having regard to the drone footage, indicate damage and degradation in both Pine and Penstock such as to justify boating limitations. These include the AAT corridor recommendations discussed at the meeting though not included in the Report.

These conclusions and recommendations attracted spirited debate, including with respect to aspects such as boat and motor size, trim and handling, contemporary tilt technologies, observed water conditions, the relevant impacts of other factors such as drogues, swans, wading, considerations of regulating speed with sanctions and, in particular, strong support for the need for improved user education – better and more signage concerning the lakes, better Penstock Sandpatch and channel markers, maybe even Mike Bourne’s smiley face/angry face solar sign on the channel – real-time peer pressure.

### **4. Other possible factors, relevant indicators and measures**

The sub-committee identified a number of other factors which might contribute to the perceived mayfly decline. These include

#### **4.1 (p 6) Increasing angler effort and boating activities**

Two charts indicate increase of angler effort (2000-2017) and traffic monitoring of vehicles with trailers (Jan 2023-March 2023). Re the latter, the number of vehicles with trailers is given as a cause of concern for increasing boat-based degradation. The Report suggests:

*'[this] data appears to back up anecdotal observations of increased boat traffic and angling pressure compared to earlier years associated with better mayfly fishing. Similarly, the ever-increasing size of boats observed on Penstock, corresponding motor capacity and therefore depth of disturbance, creates further concern on the likely impact of boat-based fishing.'*

#### **4.2 (p 7) IFS performance monitoring**

**Through creel interviews and the new Angler Diary the Inland Fishery Service has more nuanced data than provided by earlier postal surveys.**

The catch rate chart 2000-2022 shows broadly consistent trends over that time for both browns and rainbows. 2021-2022 creel surveys indicated on a full day's fishing being equivalent to 6 hours, the daily catch rate for brown trout [was] estimated at 1.05 brown trout and 0.18 rainbow trout.

The 2022 IFS performance assessment report concluded with respect to the impacts of both stocking and angler effort:

*'In summary, the Penstock Lagoon fishery is performing well, although some minor adjustments to stocking, the take of larger fish and reducing angling effort will provide beneficial outcomes. In addition, the goals for brown and rainbow trout need to be reviewed and set at more realistic levels.'*

#### **4.3 (p 8) Trout predation and stocking rates; stocking rates as incentives to fish**

Both John Gooderham and Ron Thresher reference the predatory implications of trout as a major ecological stressor for mayfly decline: *"Based on apparent densities of trout in the lake, even a conservative estimate of the number of nymphs they eat suggests a very large effect on the hatches"*. There have been a number of controlled evaluations internationally.

With respect to **angler effort** on Penstock, it is suggested *'Poor performance of other fisheries has led to greater popularity of Penstock.'*; and with respect to **stocking rates**, a possible self-perpetuating cycle:

*'Historic IFS data shows some correlation between stocking and angler visitation as the IFS seeks to address the increased "harvesting" of fish resultant from increased angler effort. This increase in visitation is compounded as the publishing of responsive stocking information encourages increased angler efforts and "harvesting"'*

#### **4.4 (p 9) Water level and water quality consideration**

##### **(Habitat degradation as a major driver of decline in mayfly populations) (Ecological stressors)**

The Report points to the seasonal factors influencing lake levels and potential influences of climate change re the correlations between low water levels, high angling pressures, high stress levels on fish and mayflies. It suggests seasonal low water levels will increase the turbidity potential from boats and thence the degradations cycle. Discussion agreed that influencing the timing and quantities of water releases should be a major priority. With respect to Penstock this includes ensuring appropriate summer flows from the Shannon R. It's recognised that the seasonal fluctuations vary – Penstock approximately 25cm from full at late summer, while Pine will vary perhaps a metre or more. However, in terms of degradation effects, it remains that the Hydro data indicates turbidity on Penstock Lagoon is largely a factor of wind speed, and international studies cited in the Report make similar findings. Pine is considerably more exposed.

##### **Some conclusions and recommendations**

Rather than repeat these, members are referred to the final section of the Report. Particularly, the presentation included a map of a recommended corridor from Bertram's to the dam on Little Pine. This latter has given rise to considerable comment and is not mentioned in the Report.