

Julie Thompson

From: Jim Collier [REDACTED]
Sent: Thursday, 7 September 2017 3:55 PM
To: two
Cc: Jim Collier
Subject: Submission - Legislative Council select Committee Taswater Ownership
Attachments: Historical Tamar River Info.pdf

SUPPORT FOR THE STATE GOVERNMENTS INTENTION TO TAKEOVER TASWATER

In March 1916, **over 100 years ago**, the, then, Marine Board of Launceston wrote to the, then, Launceston Municipal Council requesting that they "...at the earliest possible date proceed to carry out with all expedition a scheme of sewerage works which will avoid the discharging of all sewage and other matter into the North Esk River and other portions of the Harbour, ..." (see attachment)!

Over 100 years later the practice still continues today despite a further request in February 1918 (see attachment)!

"In 2015 raw sewage spilled into the Tamar more than 900 times over the course of the year"
 (The Examiner, 23 July 2017)!

It is very obvious that those responsible for Launceston's and surrounding municipalities inadequate sewage infrastructure over the intervening years since 1916 have failed miserably and they haven't been able to say the matter has not been drawn to their attention as it most certainly has, and with increasing frequency since 1916 and 1917, especially in later years.

At the present time Taswater, owned by 29 local councils, is responsible for Tasmania's sewage infrastructure.

I query which is likely to be the most efficient entity; one owned by 29 different organisations, all with their own agendas, or an institution with just one owner charged with the single responsibility of operating and modernising the utilities under its auspices?

To me the answer is quite simple which is why I fully support the current Tasmanian Governments proposal to take over Taswater.

Submitted by

Jim Collier

of

on

COPY

22.

...cont'd.

"Port of Launceston Authority asks Council to proceed with-sewerage works"

Town Clerk,
Town Hall,
LAUNCESTON.



MARINE BOARD,

Launceston.

March 16th, 1916.

Dear Sir,

I beg to advise that at the recent meeting of this Board the following resolution was adopted, and I have therefore to ask that you will kindly place same before your Council for its consideration and reply:

"That the Launceston Municipal Council be asked to give an assurance
"that they will at the earliest possible date proceed to carry out
"with all expedition a scheme of sewerage works which will avoid the
"discharging of all sewage and other matter into the North Esk River
"and other portions of the Harbour, and thus relieve the Launceston
"Marine Board from the large annual expenditure that they are incur-
"-ring in dredging out such sewage and other matter and also provide
"for the comfort and health of the citizens of Launceston."

Yours faithfully,

Secretary.

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21.

.....Cont'd.

"P.L.A. (Marine Board) asking about sewerage question".

Feb. 1918

M A R I N E B O A R D

LAUNCESTON,

21st. February, 1918.



Town Clerk

Town Hall

LAUNCESEON

Dear Sir,

At the meeting of this Board held on Monday last attention was drawn to the fact that the sewage at the outlets of sewers East of the King's Bridge were becoming very objectionable, and a menace to the health of the City, owing to the dredging operations having been discontinued in that locality.

After the discussion it was decided by the Board " That the City Council be written to and asked what they " intend to do with regard to the sewage question ."

I have therefore to ask that you will place above matter before your Council for their consideration.

Yours faithfully

SECRETARY.



Hydro Tasmania
the renewable energy business

12 April 2005

Mr Jim Collier
PO Box 2035
LAUNCESTON TAS 7250

Dear Jim

Thank you for taking the time to meet with me on Friday, 8 April 2005.

As I mentioned during our discussion, a mini-hydro scheme at Duck Reach is not being considered by Hydro Tasmania because it is judged to be not viable technically, commercially or environmentally. Your letter to Geoff Willis (4 April 2005), mentioned various funding options relating to reinstating the Duck Reach Power Station, however it is unlikely these funds would be available to a Government Business Enterprise such as Hydro Tasmania.

High-level assessment of a mini-hydro project at Trevallyn Dam suggests its economic viability would be marginal. Interpretation of the *Renewable Energy (Electricity) Act 2000* indicates the project may not be eligible for accreditation as a separate power station. This would effectively decrease the amount of renewable energy revenue it would receive for its annual generation, reducing the rate of commercial return on the capital investment.

As you aware, Hydro Tasmania has increased the environmental flow in the Cataract Gorge to 1.5 cubic metres per second and is in the second year of a five-year monitoring program to assess the impacts of this revised flow. At the end of the five-year period, changes to the flow regime, if any, will be based on the outcomes of the scientific data collected.

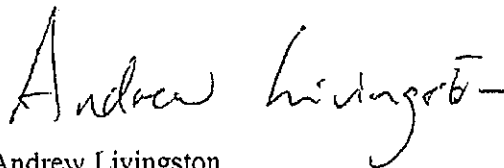
We are also initiating a study, via the University of Tasmania, to identify and quantify the sources of sediment within the Tamar Basin. Such information will be a useful adjunct to the hydro-dynamic model of the Tamar that is being produced by the current Launceston City Council study.

The issues surrounding the Tamar are complex and any regime changes will need to be based on scientific data, i.e. good models and sound studies.

Given the marginal economic viability of a mini-hydro development at Trevallyn Dam and the range of studies currently being conducted, Hydro Tasmania will not proceed to business case stage in the near future. The organisation will await the outcomes of the studies and modelling before proceeding with a detailed design scope for such a project.

Again, thank you for the opportunity to meet last week. I welcome such occasions for frank and receptive discussion.

Yours sincerely



Andrew Livingston
Group Manager Production

Jim's comments:

Obviously I was too optimistic in my understanding of the outcome from my Hydro meeting (wishful thinking maybe) however one must live in hope.

Despite that the fact Hydro Tasmania has confirmed its intention to initiate a sedimentation study can only be looked on from a positive perspective, whether it is an 'excellent' outcome remains to be seen depending on study guidelines (catchments etc.?) and composition of the study team (Sedimentologists?).

No doubt this information will emerge as the study comes closer to reality rather than just a proposal.

I still find it incredible Hydro continue to indicate the recently increased Gorge flow to 1.5 cubic metres per second is significant, especially considering it was only 0.43cumecs for nearly 50 years since Trevallyn Power Station opened and bearing in mind the 'average low summer' flow pre-dam was 20 cumecs!

The advice in regard to development of a mini-hydro station below Trevallyn Dam was most disappointing as I certainly left the meeting with a different and more positive impression, however this still seems the best option to returning a more natural water flow to the Cataract Gorge (with subsequent benefits) consequently I will lobby as much as possible for this, as hopefully Launceston City Council (and other interested parties) will do, not only directly to Hydro Tasmania & State Government but also to the federal government in respect to such a project attracting accreditation under the Renewable Energy (Electricity) Act 2000.

This, it would seem, would or could make all the difference!

Regards,

COPY

Office of the Chief Executive Officer

27 July 2005
Our Ref: OCEO-23351



Hydro Tasmania

The Honourable Don Wing MLC
President of the Legislative Council
Parliament House
HOBART TAS 7000

Dear Mr Wing

Thank you for your letter of 15 June 2005 to Hydro Tasmania's Group Manager Production, Mr Andrew Livingston, in which you seek various information relevant to your concerns about siltation in the upper reaches of the Tamar River.

While I apologise for the delay in responding to your enquiries, to do so in a comprehensive manner required considerable research into our historical records. This is the principal reason for the delay.

May I also suggest that any future approaches you wish to make to Hydro Tasmania on this or other matters be directed to me as Chief Executive Officer. I will ensure that such approaches are forwarded to the correct quarter and are dealt with as expeditiously as possible.

Your letter raised four matters as follows:

- a) water flow through Cataract Gorge
- b) restoration of Duck Reach Power Station
- c) mini power station beyond the Trevallyn dam
- d) siltation in the Tamar River.

Our responses are as follows.

(a) Water flows through the Cataract Gorge

At the attachment, please find the flow records that you have requested for the South Esk through the Cataract Gorge.

For your further information, may I advise that in 2003, as part of a review of environmental issues in the South Esk catchment, a commitment was made by Hydro Tasmania to increase the minimum flow from the originally agreed 0.425 cumecs (cubic metres per second) to 1.50 cumecs, or 1500 litres per second. This minimum flow equates to 129 million litres per day, or 47 gigalitres per year.

Hydro Tasmania is now in the second year of a five-year monitoring program to assess the impacts of this revised flow. At the end of this monitoring period, changes to the flow regime, if any, will be based on the outcomes of the scientific data collected.

(b) Restoration of Duck Reach Power Station

Duck Reach Power Station was developed progressively by the City of Launceston from 1885 onward. The station was taken over and operated by the then Hydro-Electric Commission in 1944. When the Trevallyn Power Station commenced operation in 1955, the Duck Reach Power Station was closed and site ownership reverted to the City of Launceston.

A search of our technical records/drawing system discovered some historical drawings, but the archived information cannot be released without the specific authority of the asset owner, the City of Launceston.

The last significant involvement by Hydro Tasmania in Duck Reach Power Station was during 1983, when the Tamar Region Master Planning Authority and the Launceston City Council studied various Duck Reach restoration and development proposals. A Hydro Tasmania staff member was on the 11-person study team, however we only retain an early draft version of the report on our files. The final conclusion and recommendations would be available from the Launceston City Council.

(c) Mini power station beyond the Trevallyn Dam

In December 2003, Hydro Tasmania prepared a pre-feasibility study for a mini-hydro development at the foot of Trevallyn Dam that would utilise the energy available from the environmental flow in the Cataract Gorge.

Details of the proposed plant are:

- Head 23 metres
- Flow 1.5m³/sec
- Turbines 2 x 152 kW
- Energy 2.4 GWh per year
- Cost \$1.05 million

The Commonwealth Government's Mandatory Renewable Energy Target (MRET) regulations indicate that such a project would not be eligible for accreditation as a separate power station. This means that the energy output from any mini-hydro development must be included in the existing Trevallyn Power Station Renewable Energy Credits (RECs) baseline, which would effectively decrease the amount of renewable energy revenue it would receive for its annual generation, reducing the rate of commercial return on the capital investment. Accordingly, our high-level assessment of a mini-hydro project at Trevallyn Dam suggests its economic viability would be marginal.

(d) Siltation in the Tamar River

In its 'natural' (i.e. pre-European settlement) condition the upper Tamar was silted with extensive mudflats. The occasional floods scoured out some silt in the upper Tamar, but the effects of flood scouring were soon undone by new silt from the rivers upstream and accumulated silt pushed back with every incoming tide.

Last century, a combination of dredging and the discharges from the Trevallyn Power Station tailrace, enhanced by water diverted from Great Lake, lowered the silt levels. When major port operations were moved to Bell Bay, the dredging effort was reduced leaving only Trevallyn tailrace flows to lessen the natural siltation of the upper Tamar. It is estimated that 100,000 cubic metres of silt removal effort is required each year to maintain silt levels in the upper Tamar and that current Trevallyn operations provide 70,000 cubic metres per year of this desired silt removal effort.

While the Trevallyn Power Station operations significantly lower the overall silt levels in the upper Tamar, appropriate local dredging is still required to improve recreational and visual impacts in some areas. The Launceston City Council has now recommenced a dredging program and the Council, in conjunction with Hydro Tasmania, is developing a hydro-dynamic model of the Upper Tamar to better evaluate a range of management options, including siltation management.

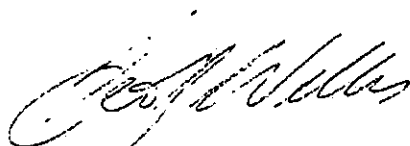
Trevallyn Dam itself has had little impact on the siltation of the upper Tamar as it has not changed the natural flood cycle. The storage is relatively small and it has little effect on the frequency and size of floods.

An increase in the discharge through Cataract Gorge would necessarily decrease the Trevallyn tailrace discharge. This would then decrease the amount of silt that Trevallyn Power Station operations currently remove from the upper Tamar. It is likely that the increased Cataract Gorge flow will be less effective at removing silt from the upper Tamar and the rate of siltation will increase.

Hydro Tasmania will study this issue in more detail when the hydro-dynamic model, currently being developed, is available.

Thank you for the opportunity for Hydro Tasmania to provide you with as much of the information you have sought as we are able to do.

Yours sincerely



G L Willis
Chief Executive Officer

Attachment
Flows in the South Esk River Downstream of Trevallyn Dam



Hydro Tasmania
the renewable energy business

20 September 2005

Mr Jim Collier
PO Box 2035
LAUNCESTON TAS 7250

Dear Mr Collier

Thank you for your recent correspondence to Hydro Tasmania – specifically to Andrew Livingston (dated 4 July 2005 and 8 August 2005) and to Geoff Willis (29 August 2005).

Andrew Livingston has recently separated from Hydro Tasmania and I have been appointed to the position of Group Manager Production. The following response is in answer to questions raised in your correspondence to Andrew.

With regard to your concerns about Minister Ian Campbell's letter addressed to you on the subject of a new mini-hydro development below Trevallyn Dam (dated 22 June 2005); Hydro Tasmania is clear about the accreditation requirements for mini-hydro schemes under the *Renewable Energy (Electricity) Act* and I suggest that Minister Campbell is providing guidance to you on the application of the relevant legislation to your earlier proposal.

In relation to your queries about Trevallyn Dam and the levels of sediment discovered in the waters captured by the Dam, I can advise the following information.

Trevallyn Dam has three, 18 cumec capacity valves situated at its base. These valves are a dam safety requirement, which enable the lake to be drained should there ever be a risk of dam failure (the power station can only partially drain the lake). To ensure that these valves are operable when needed they are opened for short periods, up to two hours, two or three times a year when the South Esk is in flood.

The purpose of operating the valves on a regular basis is to exercise the valves and the control gear in order to maintain them in good working order, and to clear any build up of silt behind the valves which could block the outlets. They are operated only in flood spill conditions to minimise the impact of turbid water being released into the Launceston Gorge (flood waters are naturally turbid).

The valves were also operated in the past to supply water to a commercial recreational rafting company when it was operating within the Launceston Gorge. The operator had a commercial contract with Hydro Tasmania for this water release.

When the lake was last drained for maintenance purposes, very little silt was discovered behind the dam. This was probably in part due to the fact that the discharge valves were used to drain the lake well below the power station intake.

The current study into siltation of the Upper Tamer River Estuary is being managed by the Launceston City Council with Hydro Tasmania providing assistance as requested. I refer you to Mr Steve Ratcliffe from the Council for any further information.

I will be in the Launceston area in coming weeks and I would like the opportunity to meet with you at a time that is convenient. Philipa Rich, my assistant, will make contact with you direct in order to arrange a convenient time for us to meet.

Yours sincerely

A handwritten signature in black ink, appearing to be 'SK' with a stylized flourish extending to the right.

Simon Krohn
Group Manager Production