## TAMARLEIGH, 19 Mt Stuart Drive, Newnham, Tasmania.7248.

10th October 2017

Attention Mr Stewart Sharples, Tamar Estuary Management Taskforce, GPO Box 536 Hobart Tasmania 7001 Department of State Growth

13 OCT 2017

Folder No: 06.1998 Document No: 017/397352

Dear Mr Sharples.

I am responding to the TEMT advertisement inviting comment from the public concerning the health and future of the Tamar Estuary and its tributaries.

The South Esk, that once wonderful river, which drains 10% of Tasmania, is now reduced to a trickle at Launceston. This is due to Hydro electric decisions 60 years ago, but the TEMT deliberations are an opportunity to again consider options.

There are strong economic, and community reasons to support returning the river to become a vibrant and useful attraction again. Private enterprise is interested to generate electricity from Duck Reach, the historic birthplace of Tasmanian hydro generation. The required additional water flows, would flush and dilute pollutants, while adding to revenue with sales of electricity to the grid.

In the early 1950s, without meaningful consultation, no compensation and a flawed environmental study, the South Esk was diverted away from the Cataract Gorge. This was merely to increase the hydraulic head to feed a small power station at Trevallyn - only capable of generating slightly more than 2% of the State's total.

Since that time there have been important changes, which today have made that decision even more questionable:

- -Industry is no longer Tasmania's main source of earnings.
- -Tourism, high quality food and wine, relying on a genuine clean green image, have taken over that position, with the potential to further increase those activities, jobs and State revenue.
- -Domestic forms of electricity generation are being widely adopted, such as roof top solar with a new focus on battery storage as backup.

- -Hydro Tasmania has built wind farms to increase the total power generated in Tasmania and there are plans for more.
- -In the 5 years to June 2016, Hydro Tas. reports that a total of 2,281 GWh were imported and 5,135 GWh were exported to Victoria, using Basslink.
- -In summary, a significant 3,442GWh were exported, surplus to local Tasmanian requirement.

Launceston is the only community in Tasmania to be penalised by losing its river for Hydro electric generation, a huge burden which continues today and supports an argument for a reexamination of the 1955 decision. A new appraisal would now have superior evidence for fairer allocation of South Esk water, to be either given back entirely, or shared for other uses.

In terms of economics, the Hydro Tasmania 2015/16 annual report showed a target return on equity for the coming year of 0.68%. Small enough, but the actual result for the period was minus 9.78%.

Therefore, it seems appropriate to examine possible other uses for the South Esk river which offer better returns from other activities. It is within TEMT's power to recommend to Government, that electricity generation "in river" should be investigated on the South Esk, revisiting the present diversion of the water to Trevallyn.

Water quality measurements demonstrate that a return of the Cataract Gorge to its full flow, substantially improves water quality in the Launceston area. The existing flow of only 2.5 cubic meters per second (cumecs) is also used to flush treated waste from the Prospect Sewage Plant, before it flows into the 1st Basin.

That beautiful ancient place, Launceston's community and tourist mecca deserves more careful treatment, than be fed by a miserly stream after flushing sewer waste. Every opportunity should be taken to ensure that its reputation and amenity for swimming and recreation is never put at risk.

- That cannot be claimed today.

A return of the full flow would return the cataract Gorge to being Australia's premier white water course and spectacle.

A return of the full flow would flush and dilute pollutants in the 1st and Yacht Basins.

A return of the full flow would assist sediment removal operations as it did in the past and in recent trials.

Hydro's response has been that "the water is expensive and cannot be afforded". However, the alternative question must be asked:

Can Launceston continue to afford the expense of NOT having its river returned?

Hydro's point is well taken though and perhaps middle ground can be found using a partial flow of 8 cumecs. This flow although well below the average, 70 cumecs (including floods), would be of some benefit to dilute and flush the 1<sup>st</sup> Basin, Cataract Gorge and Yacht Basin, while at the same time, facilitating an exciting new project:

## REBIRTH OF THE DUCK RIVER POWER STATION.

The Duck Reach property is owned by the Launceston City Council, which some months ago invited expressions of interest from groups to refurbish the old power station as a commercial undertaking, independent of Government.

Duck Reach occupies an important position in Tasmania's history, it was the first publicly owned hydro electricity generator in the Southern Hemisphere and Launceston led Australia in becoming one of the first Cities to be powered in such a visionary way.

The first round of Eol's in this historically important project stalled, as Hydro Tas. was not prepared to increase the water flow, sufficient to allow the dual tasks of power generation at Duck Reach and flushing of Prospect waste: But the project is too valuable and we must try again.

The proposal is sound, Duck Reach sits at a sharp bend in the South Esk after a substantial natural fall in the river level, which creates white water among towering cliffs. It would again become a major tourist attraction with an ability to generate significant and reliable electricity.

Utilising a flow of only 8 cumecs it is estimated that electricity valued at over \$3m would be generated for sale to the grid. The surplus to be shared between stakeholders; The Lessees, Launceston City Council and Hydro or the State Government. There would also be significant water left for Hydro at Trevallyn and maintenance of the Lake level.

Given an 8 cumec allocation of water, the project would return historically important Launceston heritage and be financially self supporting.

It is likely that there would be great public support for a return or part return of an improved cleaner flow of the South Esk to the Cataract Gorge.

Much is expected of TEMT and it is likely that a visionary recommendation, outside normal expectations would be extremely well received and in one action, solve a number of problems while returning an important lost benefit to our City.

Yours sincerely.

Alan Birchmore AO