

Analysis of TMR Boating Study Rosslyn Bay Carpark

Analysis of the *Queensland Recreational Boating Facilities Demand Forecasting Study 2016* and the *Recreational Boating Facilities Demand Forecasting Study 2011 (Central region)* with respect to Rosslyn Bay facilities.

by Ian Herbert 10-07-2017

TMR published their *Queensland Recreational Boating Facilities Demand Forecasting Study 2016* on 12 May 2017. A copy is available at <http://www.tmr.qld.gov.au/Projects/Name/R/Recreational-boating-facilities/Recreational-Boating-Facilities-Demand-Forecasting-Study-2016> There is a separate report for each shire; the Livingstone Shire Report is the subject of this analysis. The 2011 Study is also available online.

An analysis of these studies reveals many glaring shortcomings in the methodology of the mathematical models presented. So much so that it is extremely difficult to understand how such a study could be used to determine the number of boat ramps that are needed in specific locations.

The 2011 Study was regionally based whereas the 2016 Study analyses information down to individual Local Govt. Areas (LGA). The 2016 Study is based on the number of boat registrations in each LGA, and in surrounding LGAs, and uses population projections for each LGA. However, it makes some grand assumptions in trying to convert boat ownership numbers into demand for boat ramps in every LGA. No evidentiary basis is given for many of these assumptions which are used in formulas as part of their mathematical modelling. In addition, there is absolutely no ground-truthing of the results. Even though the spreadsheets used by the consultants are quite detailed, due to the large number of LGAs in Qld, the mathematics is not particularly complicated, but it is the assumptions behind the formulas used in the processing of the data that is of great concern. Consultants are using macro numbers but applying them on a micro scale for each LGA, which leads to ridiculous results.

The first part of the study, in forecasting boat ownership numbers based in projected population growth for each LGA, appears valid. However, the next four stages include calculations of:

- What proportion of boats are used,
- How many boats per day can a boat ramp cater for,
- How many boats swap between neighbouring LGAs.
- How many carparks are needed for a particular number of boat ramps.

In all these stages, courageous but misguided attempts are made to quantify highly variable parameters. We contend that the results are far less predictable than the consultants would have us believe. There is the contentious formula relating boat ramp lanes to car-trailer

parking spaces. If the formulae presented are to be believed, then Rosslyn Bay already has far more parking spaces than demand would indicate.

Here are our main concerns in detail:

- (1) **Peak Demand.** TMR's policy is to not cater for peak demand. (*Study* p18, pdf pp 20 and 79) **"TMR's approach to the provision of infrastructure for recreational boating is to aim to satisfy average demand rather than peak demand . . . Provision is not made by TMR for peak boating periods such as Christmas, Easter, school holidays, and long weekends."**

It is abundantly clear that the only times when Rosslyn Bay carpark is full is on those days of peak boating periods only when weather conditions are favourable. There can be no doubt that there is enough car parking capacity to satisfy **average demand**. Therefore, TMR must be questioned as to why they are over-riding their own clearly stated policy that only requires them to meet **average** demand and not **peak** demand.

- (2) **Registration activation rate.** Consultants use a "Registration Activation Rate" as the **"proportion of the recreational boating fleet likely to use boating facilities"**. (refer pdf pp 79-83, EA pp 19-23). This section of the Economic Associates report contains a number of unsubstantiated mathematical assumptions declaring that Activation Rates for all LGAs in Qld are either 8%, 10%, 12% or 14%. The differences appear to be based on age, earning capacity and remoteness. There is no indication that any of these figures bear any resemblance to reality, and it all seems to be an exercise of black art. (Livingstone is 14% whereas Gympie is 8% ??). We contend that actual Activation Rates are far less predictable than this.
- (3) **Boat ramp demand** (refer Section 5.1 (p17, pdf p19) (also EA3.3.1 p27, pdf p87) **"The vessel registrations have been converted to an effective lane demand based on a typical boat ramp lane being able to accommodate 40 launch/retrieval manoeuvres per day. It has been assumed that the midpoint (40) between unhampered overall amenity (30 boats per lane per day) and congested operations (50 boats per lane per day) would represent the ideal scenario."** The basis for these numbers is obscure but reference is made in the 2011 study to research in WA and Redlands.

Picking 40 as a midpoint between 30 and 50 means we have a possible 25% error rate to start with. These are very rubbery figures and it seems unwise to apply them on an individual LGA basis. How relevant are these number to all Qld LGAs?

- (4) **Contribution to Boat Ramp Demand from other LGAs.** Table 9 (p19 pdf p21 and Table A1, pdf p94) claims that recreational boaters who use Livingstone boat ramps comprise 84% of Livingstone boat owners, 30% of Central Highlands boat owners, 9% of Rockhampton boat owners and 5% of Isaac boat owners. There is no evidence to support any of these numbers. This is a key step in the estimates of boat ramp demand, but nobody knows where these numbers come from. Variations to these numbers would result in significant changes to the boat ramp demand predictions made by this report.
- (5) **Fait Accompli.** The 2016 Study is written on the basis that the conversion of Lot 129 to 33 CTUs (car-trailer units) has already been approved and will be completed under the current Capital Maintenance Works Program. Therefore, the Study does not specifically

justify this job but states that it is a forgone conclusion. We consulted the previous Study (2011) to see if there is any justification for the additional 33 CTUs in it. There is mention of feedback from a public consultation period conducted from March to August 2010 where the need for more carparking space at Rosslyn Bay was brought up. However, what is not mentioned in either report is that this was at the height of the resources boom, and that there has been a significant downturn in economic activity and employment since 2013. This would particularly apply to mine workers and contractors who are a higher proportion of boat owners than the general population. Therefore, any justification based upon 2011 demand has evaporated, and it might take many years or even decades to return to these levels under normal growth patterns.

- (6) **Boat ramp capacity evaluation.** Section 4.1.1 (p11, pdf p13)
“TMR provides guidance on its standard/reference number of CTU spaces: 90 CTUs for four-lane ramps. . . . an average relationship of 22.5 CTU spaces per lane”

Using this formula, the 8 lanes of boat ramps at Rosslyn Bay Boat Harbour would require 180 CTUs. At present, there are 246 CTUs at Rosslyn Bay plus an additional 52 at the back two rows of the Marina carpark. Therefore, parking for CTUs is already far in excess of what is demanded. Hence there is no justification for converting Lot 129 to an additional 33 CTUs.

- (7) **Existing capacity** (Section 4.1.3 p15, pdf p17)
Table 7 lists ‘effective’ boat ramp lanes in the Livingstone Shire Council (LSC) area. This indicates that the establishment of an additional parking area for up to 33 CTUs in Rosslyn Bay Boat Harbour will increase the number of ‘effective’ lanes by 1.5, taking the number of effective lanes with all-tide access in LSC from 10.5 to 12. [Or total effective lanes (all access types) from 16.8 to 18.3]

How the consultants can argue that providing an additional 33 CTUs (when there are already 246 CTUs at Rosslyn Bay) can increase the number of effective boat ramp lanes by 1.5 is beyond belief, particularly when the 246 CTUs are only ever fully occupied on very few days per year.

There is no explanation in the report to support this absurd conclusion. The only possibility is that a list on page 13 (pdf p15) relates number of CTUs to the number of effective lanes. The flawed logic here would indicate that by adding another 22 CTUs we would gain one additional effective boat ramp lane, no matter how many actual lanes there are. Taking this argument to its illogical conclusion would mean that TMR only need to provide CTUs and somehow boat ramp lanes would magically appear.

- (8) **Incorrect numbers of Existing CTUs**
Appendix B (pdf p56) states that there are 120 CTUs at the East Ramp and 90 CTUs at the West Ramp (proposed to become 123 if Lot 129 is converted to another 33 CTUs.)

However, at present there are 156 at the East Ramp and 90 at the West Ramp. This gives a total of 246 CTUs. Also, the two southern rows at the Marina provide an extra 52 CTUs giving an overall total of 298 CTUs. While the Marina may be private land, it is not fenced off from public use and recreational boaters are quite free to park there. Therefore, the Table at Appendix B is grossly incorrect.

(9) **Boat Ramp Lane Capacity reduced during peak times.**

Both the 2011 and 2016 Studies claim that there are eight (8) boat ramp lanes available at Rosslyn Bay. The eastern ramp is 15m wide and the western ramp is 13m wide. Four lanes would normally require 14m width, so on face value, it appears that there are eight lanes. However, when observing how these ramps operate, particularly during peak times, it is clear that the left side lane, closest to the floating walkway cannot be used as a vehicle-trailer unloading lane because there are always a number of boats tied up to the floating walkway, close to the water's edge on the ramp. Therefore, there are effectively only six (6) lanes available, not eight. This further undermines the credibility of the flawed 2011 and 2016 TMR studies. It also adds weight to Craig Robertson's view (published in the *Cap Coast Mirror* on many occasions) that what boaties need is more ramps, not more carparks, and that more carparks will only make the current ramp congestion situation even worse. If we were to apply TMR's own formula of 22.5 CTUs being needed for every boat ramp to this number then there would only be a requirement for 135 CTUs, well short of the 246 CTUs that exist at present.

In conclusion, it is very alarming that TMR, with no data on actual occupancy rates, is now using an extremely flawed study to justify boat ramps and carpark requirements. Their dogged persistence at proposing to convert Lot 129 to an additional carpark while providing no justification for it, is quite unbelievable, particularly as it involves spending half a million dollars. This study appears to be a classic case of economists and engineers being glued to their spreadsheets and not getting out of their offices to see what's actually happening in the real world.