Department of Planning and Community Development

In the matter of the Ocean Access Boat Ramp, Bastion Point, Mallacoota Environmental Effects Statement East Gippsland Planning Scheme, Permit Application 162/2007/P

Proponent: East Gippsland Shire Council

Expert Witness Report of Economists at Large & Associates

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1. **Name and Address:**

Economists @ Large & Associates

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2. **Area of Expertise:**

Economists at Large & Associates (EcoLarge) is a group of consulting economists with expertise in the fields of environmental and tourism economics, as well as financial analysis, public policy analysis, and investment research. The three associates have combined experience working in Australia, Asia, Africa and Europe.

EcoLarge have undertaken a number of reviews of public investments over the course of the last 20 years, having been involved in the assessment of costs and benefits, both for government, non-government and community clients.

EcoLarge consultants have presented as expert witnesses to a number of government panels, have sat on adviser panels to industry, have authored a number of tourism economic reports which have been taken to international fora by national governments (New Zealand, Australia, France, Tonga) and continue to work closely with government and industry associations.

The three consultants listed above assisted in the preparation of this expert witness report. Their specific experience is included in the appendix of this report.

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3. **Scope:**

The economists listed above undertook to analyse and test the robustness of the economic model supporting the Ocean Access Boat Ramp Environmental Effects Statement (EES) report, specifically the cost-benefit analysis:

- Pryor Knowledge (ACT) Pty Ltd, *Stage 2 Ocean Access Boat Ramp, Bastion Point, Mallacoota Contract No.641/045 – Report C: Social, Economic and Infrastructure Impacts, February 2007*. (The Pryor report / Pryor)

In our analysis we have referred to other parts of the EES documentation, as well as:

- Coastal Engineering Solutions Pty Ltd, *Mallacoota Ocean Access: Economic Benefit and Demand Analysis,* prepared for East Gippsland Shire & Department of Natural Resources & Environment, Feb 1998

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4. **Summary**

EcoLarge have analysed the economic model used to support the economic assessment figures for the preferred option in the in the ocean access boat ramp EES (Option 3). Some significant concerns exist with the modelling and assumptions which result in misleading economic conclusions, in particular the economic internal rate of return (EIRR), net present value (NPV) and benefit cost ratio (BCR). Our key concerns are set out below:

Assumptions in the modelling pose concerns including:

- Numbers of assumed additional boat launches used in the modelling
- Use of savings in costs due to the boat ramp as net benefits, when in fact these represent losses to the community

Other concerns include issues of:

- Capital cost estimates and inflationary impacts on these since the report was written
- Fuel price increases and impacts on forecasted returns
- No value for loss of surfers from lost surfing opportunities
- Lack of sufficient sensitivity analysis
- The opportunity cost of capital –could this money be better spent elsewhere?

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5. Findings

Assumptions:

- <u>Numbers of assumed additional boat launches:</u>

The Pryor report (Pryor) makes a strong case for the assumed number of additional boat launches that are likely to occur as a result of the development of the ocean access boat ramp. The report calculates that it is likely that boat launches will double across the course of an average year based on tourism visitation numbers. This is explained on the basis of boat ownership rates and that boat launching rates will remain the same due to weather patterns providing additional boating opportunities outside of peak seasons (which are already at capacity).

Pryor concludes that it is likely that the boat ramp will result in 1200 boat launches per year, up from an estimated 600. The report goes on to state that what is important to calculate in terms of benefits from the projects is only those additional launches each year – in this case, 600 launches.

The modelling continues, calculating benefits derived from expenditure by each person involved in each launch. However it is at this point where it appears that the

retained benefits of additional visitors are being calculated using ***1200*** additional launches (see page 15 and 21), rather than 600. Since it is calculated that 600 launches already take place, it is only valid to calculate the additional 600 launches as a basis for the net benefits to the community of a new boat ramp. The use of the total project launchings of 1200 in fact ***doubles*** the projected benefits of the development and is therefore misleading since it includes benefits already accruing to local businesses.

Recreating the economic model, we have recalculated the figures based on only an additional 600 launches per annum and the subsequent retained benefits to the community, the results of which are in the Table 1 below.

Table 1- 600 additional annual launches

	EES		EcoLarge	
Indicator:	**EES Option 3 – Best (5% disc rate)**	**EES Option 3 Worst 7% disc rate)**	**600 new users – Best (5% disc rate)**	**600 new users - Worst 7% disc rate)**
EIRR	30%	29%	19%	18%
NPV	$5.9 m	$4.2 m	$3.1 m	$2.0 m
BCR	3.44	2.47	2.31	1.93

As per the Pryor report, we have only compared the Council's preferred option 3 (as used in Section 7 of the EES – *Potential Economic Impacts and Their Management*) in this modelling, with both the best (5% discount rate and fees charged for parking) and worst (7% discount rate and no fees charged for parking) scenarios.

As demonstrated in the table above, this has a dramatic impact on the key economic project indicators.

- Pryor has reported a number of cost savings due to the project as benefits of the project.

We would argue, that for consistency with the calculation of benefits and costs in this analysis, savings in costs, from no longer needing the use of the tractor to launch boats, and no longer needing to remove sand annually, is in fact a reduced cost burden to the commercial operators who supply the service - and since it presumably paid its way under a commercial finance arrangement, it is assumed that the tractor arrangement also returned to the commercial operators a benefit.

As a result the cost base of the commercial operators has been reduced but the cost base of the council (who own the ramp) is now increased (net of the $30,000 in sand removal costs). The cost base of the council covers the operating costs, and depreciation costs of the ramp. Since the ramp will presumably be free to the small group of people who use boats - the ratepayers are effectively paying for boat owners to have fun or run commercial businesses.

The net benefit to the community is having the lowest cost method of putting boats in the water available (assuming that no boats in the water is not viable). The

crucial question is which method (tractor or ramp) provides the highest net benefit (gross revenue [imputed if necessary] less costs).

Under these circumstances attributing the savings from closing the tractor operation as benefits from getting the ramp is simply wrongly founded economic method.

Once only additional launches are considered and costs are attributed accurately, the NPV is likely to dramatically lessen, along with the EIRR. The combination of these two points results in the proposal likely to become economically unjustified and given other economic, environmental and social concerns, makes this a highly risky project.

Other concerns:

- Capital cost estimates:

Capital cost estimates of between $1.1 and $1.3 million were originally provided in the 1998 report by Coastal Engineering Services (CES) and have been updated in the 2005 Pryor report. The range of capital costs is estimated by Pryor, using the same modelling process as the 1998 CES report, at between $1.5 and $1.8 million. Option 3 is estimated by Pryor at $1.7 million under a 90% usability scenario.

It is not clear precisely how these figures were adjusted upwards between 1998 and 2005, whether new quotes were obtained from engineers or whether figures were simply adjusted for inflation.

It is worth noting the context within which such a construction and engineering project current sits. It is a time of drastic skills shortages across that nation with many large scale infrastructure projects being planned or undertaken in most states. This has lead to capacity constraints in labour, raw materials and capital. It is critical that all of these factors have been considered in the re-calculation of capital costs for this project. Any blow out in costs, as we have seen occur frequently in many engineering projects of this size and larger, will lead to a deterioration of project benefits.

We are not confident that the appropriate consideration of these factors has been undertaken, and at the very least, a sensitivity analysis should be provided to see the impacts of changes in capital costs to the project net present value and BCR.

Other concerns:

- Fuel price increases:

The recent spiking of global oil prices has had a dramatic impact on retail fuel prices across Australia. It has recently been demonstrated that higher prices have a clear elastic relationship with demand, as shown by modal shifts in Melbourne to public transport, resulting in higher patronage levels. It is likely there fore that oil price rises will be having a subsequent impact on boat users, particularly recreational users, who's boat trips are not revenue generating events in the way of the abalone industry.

Pryor's modelling was based on increased ***recreational*** boat use at a new facility. As such, it is likely that the benefits of increased users will diminish given current and potential future fuel prices increases, leading to lower EIRR, less convincing BCR and a lower NPV.

- No value for loss of surfers and other recreational users

Pryor dismisses the issue of loss of surfing opportunities on the main Mallacoota break due to the breakwater development. This is indeed an oversight. As with his calculations for benefits accruing from fisherman, so there are benefits from the surfing community. Many surfers will travel for a good surf break, and along with that comes expenditure on accommodation, meals, drinks etc. It is likely that there will be some conflict between users of the boat ramp and surfers at times when the waves are surf-able, but not too large for boats to launch. This has the potential to have negative economic benefits to the community as surfers turn away from this as an option. The same can be said for other recreational users of the beach that may be negatively impacted by the development – beach users and walkers in particular.

- Lack of sufficient sensitivity analysis – only two discount rates and user charges. Should also have modelled ramp users, number of people per boat, and tourism expenditure.

As we have demonstrated above, there are parts of the modelling that are quite sensitive to changes in the assumptions. The modelling by Pryor has only a small amount of sensitivity analysis, with only 2 discount rates (it could very well be argued that a higher discount rate should be applied), additional ramp user numbers are not tested, nor are tourism expenditure levels. Our analysis in this report indicates the key areas for concern are capital costs and ramp user numbers. Both of these, with sufficient variation, have the potential to sink this project from an economic perspective.

- What is the opportunity cost of capital?

Also amiss in this analysis is the valuation of an alternative investment. There is always an opportunity cost of capital investment, meaning there are other areas into which the same amount could be invested for alternative returns. It needs to be demonstrated that this opportunity cost could not provide higher returns to the community than a risky boat ramp project.

This is a critical omission. For example, would a marketing campaign to promote tourism in the town have a greater impact on economic growth? Would the money be better spent on a hospital or school upgrades to generate well being? These should have been assessed in the report.

Overall concerns:

- Lack of inclusion or clarity of concerns discussed by Pryor

The 2005 Pryor report highlights several valid points regarding the assessment of local economic benefits and the project in general, these are:

- "Additionality"
- "Smart growth and sustainability"
- Tourism predicated on a single form of activity
- "Crowding out"
- Capacity-building public costs
- Spill over costs

Although these are often provided with respect to the 1998 CES report, it is not always clear how these were addressed in the 2005 Pryor report. On the issue of "additionality", it is acknowledged that analysis couldn't be included due to limited scope/data. Decision makers need to factor these potential risks into their decision making process to ensure the best long term economic outcome for the local community.

- Distinct lack of traceability of data:

The economic analysis provide by the proponent in both the CES report and the Pryor report present a distinct lack of traceability in the data trail. As discussed above, the number of additional launches versus total launches is difficult to ascertain, as is the derivative of the capital cost estimates, that appear to have changed, insufficiently explained, between the CES report and Pryor report, with little discussion. This makes it a very difficult process to verify whether there is sufficient rigour in the calculations.

Our conclusion is that there is not sufficient rigour in the reporting to support the findings.

6. Summary

When the above listed changes are made to the model, a very different picture of the economic case for the ocean access boat ramp is apparent.

The tables above have shown that with little variations in the modelling assumptions, the BCR, NPV and EIRR of this project can quickly get to a level that is not viable. This all makes the project look very risky, with an ability to become quickly unviable with the smallest of changes.

We would suggest that this project does not stack up as a strong investment case, holds various risks, and as such should not proceed.

7. Conclusion

Economists at Large are concerned as to the reliability of the projected economic outcomes of the ocean access boat ramp project as outlined in the EES. The council concludes that the net economic benefits to the community would be significant,

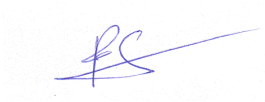
however our analysis indicates this greatly overstates the economic impact of the project.

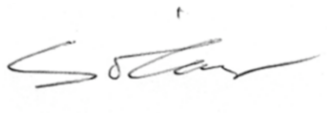
As outlined above, our modelling indicates that the project is unlikely to generate the forecast benefits and hence the economic internal rate of return, net present value and the benefit cost ration is likely to be much reduced compared to the proponent's claims.

Based on this analysis, we find that the project is uneconomic and therefore should not proceed.

8. Expert final closing statement

We have made all the inquiries that we believe are desirable and appropriate and that no matters of significance which we regard as relevant have to our knowledge been withheld from the Panel.





Francis Grey

Simon O'Connor

Tristan Knowles

Date: 27 June 2008

Appendix 1:

Qualifications of Consultants

Francis Grey – Principal:

Francis Grey has worked as a consulting economist, Economists@Large & Associates, since late 1989. Prior to that he worked in the Federal Treasury and the financial markets. Since 1989 he has worked for the Australian Conservation Foundation on the Industry Commission Mining and Mineral Processing Inquiry, The Resource Assessment Commission Forest and Timber Inquiry and the Commonwealth Ecologically Sustainable Development process. Subsequently he has completed work for the Commonwealth Department of the Environment, Sport and Territories, CSIRO, the Resource Assessment Commission, the North East Forest Alliance. More recently he has completed work for the World Conservation Union, Landcare, Warringah Council (c/o of the University of NSW), Western Region Refuse Management Group (c/o of Monash University). Recently he has been involved in the economics of whalewatching and assisting in the establishment of the SAM Group sustainability assessment of the top 200 Australian listed companies. He still dabbles in economic forecasting on a regular basis.

Francis Grey was a junior officer in the Royal Navy. He graduated in Economics and Politics from the Australian National University, Canberra and joined the Commonwealth Treasury before moving to the financial markets. He has been an independent consulting economist since 1989, with a specialty in the economics of the environment. His clients included the Australian Conservation Foundation, the Commonwealth Department of the Environment, Sport and Territories, CSIRO, the Resource Assessment Commission, the World Conservation Union and IFAW. He was a member of the WMC Ltd Environmental Report Advisory Panel for approximately 2 years. He has developed a strong interest in understanding the processes by which companies reduce negative impacts and enhance positive outcomes. Since early 2000 he has been implementing the SAM Group sustainability assessment of Australia's top 200 listed companies. Francis is the Research Manager (Australia & New Zealand) for SAM and coordinates the annual research process behind the publication of the Australian SAM Sustainability Index (AuSSI) Index published in the business pages of The Australian newspaper. The AuSSI comprises the sustainability leading companies amongst the Australian Top 200 listed entities. As part of his work with SAM he also works with the research team that produces the Dow Jones Sustainability Index.

Simon O'Connor – Senior Consultant:

Simon O'Connor has over 7 years professional experience working in the fields of economics and finance and their convergence with the environment. This experience has revolved around the areas of corporate sustainability, environmental economics and sustainability ratings of listed companies and has included undertaking in depth economic modelling, analysis and research for the private, public and non-government sectors. He holds Bachelors degrees in Commerce (Economics) and Arts (French), with a Graduate Diploma in Environmental Science, all from Monash University.

He begun his career working within the risk management arm of a global insurance brokerage in area of corporate social responsibility, and there he undertook environmental risk consulting for large corporations in the Asia Pacific region. Projects covered cleaner production assessments, environmental management systems, energy efficiency projects, development of company specific environmental indicators and sustainability reporting. He has worked for

industries including oil and gas, vehicle manufacturing, printing, forestry, food processing and surface transport/logistics.
His environmental economics experience extends back to 2000 with Economists @ Large, working as an associate consultant. This experience has given him exposure to Australia's national energy markets, renewable energy generation and the status of carbon regulation in Australia. This has included undertaking cost benefit analyses of proposed river diversions for hydropower generation and socio economic assessments of natural resource assets in Australia and the South Pacific. Further emphasis has been on tourism economic studies, particularly in relation to whale watch tourism across the Oceania region, having written reports for the International Whaling Commission in three consecutive years.
Simon worked recently for one year in the UK, gaining experience in European financial markets. He currently coordinates the Australian research arm of a financial research house specialising in environmental, social and governance ratings of global listed companies. He has strong analysis skills in the resources and finance sectors.
Simon currently works as an Economic Adviser to the Australian Conservation Foundation.
Simon, through his work for EcoLarge, has extensive experience managing economic surveys and authoring reports for international public release. Previous reports have been tabled by governments of Australia, New Zealand and France at international forums.

Published reports:

- O'Connor, S. (Economists @ Large & Associates) (2007), *Pacific Islands Whale Watch Tourism 2005: a region wide review of activity- An IFAW Report (the International Fund for Animal Welfare).*
- Schaffer, A. & Garrigue, C. (2007), *Review of Commercial Humpback Whale Watching Activities in the South Pacific*, a report for the French Government Fonds Français pour L'Environnement Mondiale with economic data contributed by S.O'Connor of Economists @ Large – Presented at the International Whaling Commission 2007 by the French Government.
- O'Connor, S. (Economists @ Large & Associates) (2007), *Whale Watch Tourism in the Kingdom of Tonga: a socio-economic evaluation of the Tongan whale watching industry - An IFAW Report.*
- Innovest Strategic Value Advisors (2007), *Metals and Mining Global Sector Report - April 2007*
- O'Connor, S. (Economists @ Large & Associates) 2005, *The Growth of the New Zealand Whale Watching Industry: a socioeconomic assessment - An IFAW* - Presented at the International Whaling Commission (IWC) in June 2004 by Hon. Chris Carter, New Zealand Minister of Conservation.
- O'Connor, S. (Economists @ Large & Associates) 2005, *The Growth of Whale Watching in Sydney 2003-2004: Economic Perspectives - an IFAW Report*
- O'Connor, S. (Economists @ Large & Associates) 2004, *The Growth of Whale Watching Tourism in Australia: a socioeconomic assessment - An IFAW Report* - Presented at the IWC in June 2004 by Dr David Kemp MP, Australian Minister for the Environment and Heritage.
- O'Connor, S. (Economists @ Large & Associates) 2004, *An Economic Evaluation of Costs and Benefits of the Diversion of Water from the Mowamba River for Hydroelectric Generation: a report for the Snowy River Alliance.*

Tristan Knowles – Associate Consultant

Tristan holds a Bachelors Degree in Applied Economics from Victoria University. Selected to participate in extensive international exchange programs, Tristan has lived in Hong Kong, Beijing and Kuala Lumpur, studying business, economics and languages. In 2007, Tristan was selected to participate in Green Steps, an organisational sustainability training program run by Monash University.

Since joining Economists at Large in January 2008, Tristan has been involved directly with reports looking at forestry in NSW and whale watching tourism globally.

Prior to joining Economists at Large, Tristan was working in the telecommunications industry at a strategic planning level for a supplier of pre-paid cards and vouchers to network operators in developing countries.