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The Research Director  
State Development, Infrastructure and Industry Committee  
Parliament House  
George Street  
BRISBANE QLD 4000

### **Additional submission - Regional Planning Interests Bill 2013**

Dear Research Director

In reviewing Mr Graham Sherlock's address to the Parliamentary committee for the Regional Planning Interests Bill 2013 I feel it is important to address a few of his statements so that there is no misunderstanding with the information being provided to this committee. I do this in my capacity as a biologist and Professor in the School of Biological Sciences at The University of Queensland. I have been conducting research on Cape York Peninsula for more than twenty years and I am also the Director of Research for the Steve Irwin Wildlife Reserve.

#### **1. "The majority of research is conducted by them (Australia Zoo) on this river (Wenlock) for crocodile research."**

This statement could be misleading. The research activities and projects conducted and supported by Australia Zoo on the Steve Irwin Wildlife Reserve (SIWR) and Wenlock River are extensive and varied, with crocodile research being only a fraction of what has been undertaken to date. As the Director of Research for the SIWR I have sound knowledge of the research projects that have been conducted and are ongoing. As I noted in my original submission to this committee: *"The unique position of the SIWR and the facilities on offer at the Coolibah Base have attracted scientists not only from Australia but also from overseas institutions and is fast gaining international attention. Researchers from The University of Queensland, CSIRO, Australian National University, James Cook University, the Queensland Museum, Queensland Herbarium, The University of Adelaide and many other research organisations and individuals are already carrying out solid and novel research programs on the Reserve: all are highlighting the immense ecological and conservation significance of this region."*

To emphasise my point I draw your attention to a volume of The Queensland Naturalist, Vol 48. p 1-35, where nine scientific papers have been published on the biodiversity of the SIWR. To counter Mr Sherlock's claim, the majority of research activity in fact has focused on the perched bauxite springs, which has resulted in them becoming a newly describe ecotype in Australia and culminated in a 69 page report "Natural Values of the Perched Bauxite Springs" 2009, Barry Lyon and Craig Franklin (authors) that received contributions from a large number of experts (botanists, ecologists & zoologists) who studied these springs and their flora and fauna.

## **2. “The Wenlock River is not part of the Steve Irwin Wildlife Reserve.”**

While titles and surveys may indicate the Wenlock River is not part of the SIWR, areas of the SIWR are intrinsically linked with the Wenlock River system, and are of functional and most significantly, ecological importance. Ecologists have long recognized the importance of riparian vegetation, catchment areas, anabranches and in-ground aquifers in maintaining the health of river systems, and hence the SIWR, which has 65 km of its southern border along the Wenlock River, and springs that flow into the mainstream, must play a significant role in the functioning of this river system.

The facts are:

1. that there are creeks and anabranches of the Wenlock River system that transect the SIWR. We have discovered this empirically as during the wet season we have monitored crocodiles moving from the main stream of the Wenlock into the slower flowing tributaries/anabranches and waterholes found on the Steve Irwin Wildlife Reserve (e.g. Gibson’s waterhole).
2. the perched bauxite springs found on the SIWR do provide an influx of freshwater into the Wenlock River, the volume of which varies with season. It is misleading to state just a single annual percentage of its contribution to the flow of the Wenlock given the highly dynamic nature of these springs and that of the Wenlock. During the dry season, the influx of freshwater from the springs into the Wenlock is likely to be more significant.
3. there is strong scientific evidence to indicate that the bauxite plateau is intrinsically linked with the functioning of the perched bauxite springs on the SIWR and its recharge aquifer. Dr Marc LeBlanc (ANR Chair of Excellence, Montpellier, France), an internationally renowned hydrologist, has conducted extensive studies on the functioning of the perched springs, including infiltration & bore measurements, water chemistry, ion tracing studies, water dating analysis (SF6 and CFC-12) and satellite multispectral mapping, that when taken together, is providing strong evidence demonstrating the connectivity between the bauxite plateau and the perched springs. This appears to be in marked contrast with statements made by Cape Alumina. Dr LeBlanc is currently completing aspects of this study for publication in a peer-reviewed scientific journal. This research and cumulating knowledge/evidence supports the contention that the removal of the bauxite plateau is likely to change the hydrodynamics and characteristics of the springs.

Finally I cannot state strong enough that all scientific data collected to date points towards the fact that the Steve Irwin Wildlife Reserve and the Wenlock River are of immense ecological and biodiversity value. Much more remains to be discovered and we cannot afford to lose or damage an area of regional, national and global significance.

I commend the Queensland Government for this Bill and endorse the proposed environmental legislation that will safeguard this ecologically significant part of Queensland for future generations. Thank you.

sincerely



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