Birds Australia
CONSERVATION THROUGH KNOWLEDGE

Birds Tasmania
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RPDC
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Closing Statement by Birds Tasmania to the RPDC Panel re Lauderdale Quay proposal

Dear Sir,

Here is Birds Tasmania's Closing Statement to the RPDC Panel assessing Walker Corporation's proposed Lauerdale Quay development. My apologies to the Panel for being unable to present this orally, but I will be on King Island.

Poor science, congruence in collegial peer review and a lack of independence

1. It is clear that Walker Corporation has no concept of how science in the real world works – true science is critical of the science and not of the scientist. True scientists do not attack other scientists; they challenge the assumptions, hypotheses and syntheses undertaken by colleagues to assess their validity before either accepting or rejecting their work. This approach has not been adopted by Walker Corporation, as their strategy has been to focus on the scientists and concentrate their energies in their attempts to discredit the scientist, rather than the science.

2. We dismiss completely the notion proposed by Dr Meredith that the number of "Google" hits is an appropriate or useful measure of expertise for scientists. Expertise is gained through experience over time and recognised by peers in the associated field or discipline. Expertise is recognised through publications and contributions to the field of research. To propose that the number of hits on a web search can replace this is fantasy, and has no credibility or legitimacy with true scientists – although it may do so for scientists working for developers who are divorced from true science.

3. It is critical to note, as acknowledged by Dr Meredith, there is a significant difference between the science undertaken by scientists for research and academia, and that conducted for DIIS and for/by developers. The two are not the same, and in many ways, the science for DIIS and developers is second-rate compared to that conducted by true scientists and academics, as it does not meet the numerous criteria for true science. Shortcuts are taken, questionable assumptions made, insufficient time is spent collecting data, etc, all of which reduce the quality of the science undertaken for DIIS studies. Such approaches are unacceptable for true science and the results obtained by such studies would not be accepted as legitimate science.

4. The fundamental principle of peer-review of science has been abused by Walker Corporation. True science is assessed by independent colleagues with no interest or

involvement in the original research, to review, assess and validate the work (or invalidate it if it fails the review effort). Walker Corporation's strategy is to have one of their paid experts write something then have it "peer-reviewed" by another consultant, also paid by Walker Corporation. This is not independent and is guaranteed to not produce a hostile or critical review. There is a clear conflict of interest in having both the author and reviewer paid by the same company. A hostile review will ensure no future involvements, contracts or consultancies with the developer. A "friendly" review, no matter how well conducted, can only be seen as compromised by the conflict of interests.

5. Congruence of opinions by paid consultants does not make bad science any better.

6. Thus, despite the voluminous works undertaken by Walker Corporation, there are very large and numerous question as to the quality of the research. None of it has been independently peer-reviewed. The peer-review process undertaken by Walker Corporation for the DIIS is totally compromised. None of the studies or models has been submitted for publication in a peer-reviewed scientific journal in the global scientific literature.

7. The works undertaken for Walker Corporation are not true science, and are second-rate, as defined by Dr Meredith – they are not up to the same standard as true science. Thus, the DIIS remains critically deficient in its contribution to an appropriate assessment by the RPDC of the impacts of the proposed development, and the RPDC can not make an assessment of the true impacts as the data required are still lacking.

Suppression of relevant and critical information from the RPDC panel

8. It is critical to note that for the shorebird issues addressed in the DIIS, the raw data were unavailable for independent peer-review. The DIIS presented tables of means, percentages of means, and other derivatives of the original, raw survey data. No raw data of the individual surveys were available in the DIIS and the associated Appendices. The Walker Corporation prevented any peer-review of the methods used to collect, analyse and synthesise the bird data in the DIIS by scientists independent of the Walker Corporation. It remains impossible for anyone not receiving funds from the Walker Corporation to make an independent assessment of the quality of the shorebird data, survey design and interpretations obtained for the DIIS.

9. Much was made of Birds Tasmania's attempts to obtain a copy of the BTO report written by Atkinson and Stillman, cited in one of the DIIS Appendices. The report is one of a series (BTO Bulletins) available at http://www.bto.org/research/reports/reports_g.htm

10. The report of which we sought a copy is one of the very few BTO documents not publically available on the web. It was very clear from the email interchange between Dr Atkinson and Dr Woehler, narrated by the Walker Corporation during the hearings, that Birds Tasmania were simply requesting a copy of the BTO report – and never the raw/source data.

11. This strategy of asking for related studies is not unusual in science – when a scientist is asked to review a paper or a study, it is appropriate to look at related papers and reports etc by the same author or team of authors, to determine the context and past efforts of the newest research. It is inappropriate to ask for the raw unpublished data, but entirely appropriate to look at related and/or other studies that provide the current paper or study within a broader context. At no point was any request made by Birds Tasmania for the raw data used in the BTO report. The request was for a report cited in the DIIS but not made available to the RPDC as part of the DIIS and unavailable from the web.

12. Upon receipt of the BTO report, it was immediately clear why the Walker Corporation did

not provide the report to the RPDC - the report unequivocally showed that mitigation was not possible for the proposed loss of primary shorebird feeding habitat at Lauderdale. It is indeed fortunate and appropriate that Birds Tasmania provided the report to the RPDC for their consideration of the impacts associated with the proposed development.

Deficiencies in modelling, no modelling for migratory species

13. In addition to our concerns with the principles of the Carrying Capacity Model, Birds Tasmania reject the use of the model as the primary, and essentially the only justification that it is possible to destroy the critical shorebird foraging habitat at Lauderdale without impacting adversely on the shorebird populations of the DEPA. We base this rejection on the following grounds:

14. The carrying capacity model has had limited application in the UK for one species, the Eurasian Pied Oystercatcher, which is partially migratory (in contrast to the Australian Pied Oystercatcher which is sedentary). It is thus even in the UK appropriate to describe the model as preliminary rather than mature in its development.

15. The Carrying Capacity Model has not been used previously in Australia and is being applied by UK practitioners with limited experience of the Australian Pied Oystercatcher in its Australian habitat and by Australian ecologists with limited experience of the application of the model. This places the model in the research phase, which Dr Meredith has suggested is not appropriate for DIIS-type evaluations. Clearly the Carrying Capacity Model is not mature technology that can be relied on to underpin the Lauderdale Quays DIIS. It is a preliminary effort and has low confidence in its results.

16. Dr. Meredith indicated that the Carrying Capacity Model works by adjusting assumed parameters until the output of the model fits the observed behaviour of the feeding oystercatchers, a procedure known as bootstrapping. Models of this type involving parameter fitting are as stated by Dr Newman empirical, meaning they are based on existing experience and can not be used to predict future trends outside that experience. Dr Meredith confirmed this point, stating repeatedly that the bootstrapped solution of the model provides a "snapshot", namely a solution for one point of time and one set of environmental conditions.

17. While Dr Meredith indicated that the model is robust across a range of simulated scenarios, its physical reality has not been tested for Australian conditions and the Australian Pied Oystercatcher (eg by comparing the modelled and observed impact of the temporary exclusion of oystercatchers from habitat.) As indicated by Dr Newman, this will only occur if the Lauderdale Quays project is implemented and it is the basis of his assertion that the Lauderdale Quays project is a massive ecological experiment with unknown outcomes.

18. Dr Newman demonstrated how the southeast Tasmanian oystercatcher numbers have increased during the last two decades and peaked at Lauderdale and Ralphs Bay. To explain these trends, breeding success and mortality/survival data are required. However other than Newman's data that was generated two decades ago, no mortality data exist, and his data may no longer apply because of environmental changes in the area in the intervening period. Dr Newman's contention is that he cannot predict future trends, he failed in his previous attempts to do so, and in his opinion neither can anyone else. Predicting population trends involves fundamental as opposed to empirical modelling and remains a research goal. It is work in progress outside Australia. These data are missing from the DIIS studies.

19. Dr Meredith's evidence confirmed that the proponent has not conducted any population trend analysis and that it is not possible to do so with the Carrying Capacity Model

undertaken for the DIIS. He also confirmed that model has not been used to predict the impact, implications or consequences of changes in climatic conditions and sea level rise.

20. Dr. Meredith confirmed that no carrying capacity modelling had been conducted for any of the migratory species and in particular, the Red-necked Stint an EPBC-listed species present in numbers approaching international significance in Ralphs Bay.

21. Dr. Newman contends that mortality/survival for both breeding and non-breeding birds must be assessed to obtain population trends for the southeast Tasmanian Pied Oystercatcher population in order to evaluate future population trends, and the risk to the population associated with implementation of the Lauderdale Quays development. It is not enough for the proponent to state that, "*our carrying capacity model shows there is sufficient food in remaining habitat if the project proceeds*" - even if we believed that conclusion. Mortality increases before carrying capacity is exceeded. Quite apart from food availability, there are risks associated with forcing birds out of Lauderdale to areas such as the South Arm Neck where the roosts are inferior, leading to high rates of road strikes on high tides.

22. Cumulatively, these points raised above and earlier, demonstrate the total inadequacy of the DIIS studies to quantify the extent of risk to the Australian Pied Oystercatcher population if the Lauderdale Quays development proceeds. For migratory species such as the red-necked stint, there appears to have been no attempt at assessment whatsoever. To expect that the conclusions reached for the mainly resident Australian Pied Oystercatcher will apply to the red-necked stint is irresponsible (and absurd). On these grounds alone the project should be rejected on the basis that the technical assessment of the risk to bird populations is totally and fundamentally inadequate.

Invalid offset strategy, revocation and loss of declared Conservation Area, failure to meet the "no net loss" of habitat criterion

23. The proposed off-site offset strategy to mitigate some of the impacts of the proposed destruction of Ralphs Bay is reliant on the identification of future intertidal habitat, and makes the remarkable and unrealistic assumption that the displaced birds will choose/select to use this selected site. Current roost models are capable of some explanatory, but not predictive power, in dealing with roost site selection by shorebirds, and it is impossible to predict where roosting birds will choose to roost in 20, 30 or more years in the future. In essence, the Tasmanian community is being asked to believe the unbelievable – that Walker Corporation can predict the future roost sites for displaced birds in the future when no one else can. They cannot and the Panel should not give any credence to this unrealistic claim.

24. The proposed off-site offset strategy is invalid, as it holds no certainty in maintaining the population of pied oystercatchers displaced by the destruction of their critical feeding habitat. There is no certainty that any area set aside as mitigation for the proposed development will remain protected. At the request of Walker Corporation, the Tasmanian Government attempted to revoke the Ralphs Bay Conservation Area, recognised by State and Federal Governments. A similar revocation could be reasonably expected for any other coastal area in Tasmania, including the proposed off-site offset mitigation area.

25. Walker Corporation will argue that future scenarios and possibilities regarding revocation are hypothetical and irrelevant, but clearly the revocation of a declared Conservation Area sets the precedent for similar actions in the future, and raises considerable doubt as to the viability and certainty of any and all mitigation efforts proposed by Walker Corporation.

26. The proposed revocation and destruction of the internationally significant Ralphs Bay

Conservation Area by the Walker Corporation undermines and invalidates the proponent's off-site offset mitigation strategy. Other protected coastal areas around Tasmania that are of interest to Walker Corporation and/or other developers would be open to similar revocation attempts and development proposals. Once the precedent is established, the conservation of the entire coastal margin of Tasmania is under considerable doubt.

27. The proposed off-site offset area has yet to be identified by Walker Corporation. Birds Tasmania believes that no suitable shorebird habitat exists or is "available" for use as mitigation within the DEPA. No area of equal value/importance to shorebirds, and oystercatchers in particular, exists within the DEPA. A common approach in mitigation efforts elsewhere in Australia is to have the area set aside before the habitat to be lost is damaged or destroyed. This allows an assessment of the viability of the mitigation area. Instead, we are told that the off-site area will be identified at sometime in the future after the development has been approved. Clearly, this is unacceptable and not best practice.

28. The proposed destruction of Ralphs Bay will result in a permanent massive loss of critical feeding habitat for resident and migratory shorebirds within the DEPA. No mitigation is offered by Walker Corporation for this loss, and the use of a critically flawed and inappropriate model to "prove" that sufficient food exists elsewhere in the DEPA is unacceptable (see detailed criticisms above). The result is a net loss of feeding habitat in the DEPA that will lead to a population decrease in pied oystercatchers in the DEPA – as acknowledged in the DIIS.

Impacts to Ramsar values

29. The intimate connectivity among the coastal wetlands and inter-tidal habitats used by foraging resident and migratory shorebirds in southeast Tasmania, acknowledged in the DIIS, clearly indicates that the values of the Pitt Water Orielton Lagoon wetlands, internationally recognised under Ramsar and the EPBC Act, will be adversely affected. There will be national and international repercussions if the destruction of Ralphs Bay proceeds as the impacts on migratory shorebirds meet the significant impact criteria for the EPBC Act.

Ralphs Bay, an Important Bird Area

30. Ralphs Bay meets the international criteria for selection as an Important Bird Area, based on the published 40-year Birds Tasmania data set that was used for the Walker Corporation DIIS. The IBA selection and nomination process is reviewed internationally and independently by BirdLife International. Ralphs Bay meets the criterion where a site holds more than 1% of the global population of a species – in this case, Australian Pied Oystercatchers – a fact that is acknowledged in the DIIS and by Mr Delaney, an expert witness for Walker Corporation.

Ralphs Bay, internationally significant for resident and migratory shorebirds

31. Ralphs Bay and the broader DEPA network are internationally significant for resident shorebirds – the Australian Pied Oystercatcher. This was acknowledged in the DIIS and confirmed by Mr Delaney during his appearance before the Panel. The DIIS acknowledged that more than 1% of the population is present – but in reality, the proportion is closer to 7 or 8%. Mr Delaney acknowledged that Ralphs Bay was internationally significant for Pied Oystercatchers, and acknowledged that the Birds Tasmania survey data were the best available, and recognised that they were better than the survey data collected for the DIIS.

32. The DEPA, which includes Ralphs Bay, is internationally significant for migratory shorebirds – it is listed by Wetlands International on the inventory of internationally significant sites for migratory shorebirds. The Walker Corporation attempted to downplay the international significance of the DEPA for red-necked stints, but the fact that the DEPA is internationally significant for migratory red-necked stints, an EPBC-listed migratory species, can not be overlooked or downplayed.

33. It is critical to note that the Walker DIIS surveys were conducted at a time when the red-necked stint numbers in the DEPA were at a 20-year low in their population cycles. Based on his answers, it was apparent that Mr Delaney was ignorant of these cycles or of the episodic nature of shorebird population biology, despite repeated questions by Birds Tasmania about these aspects. The population cycles are clearly evident in the long-term Birds Tasmania survey data used in the DEPA, but were overlooked in the DIIS. Both Mr Delaney and Dr Meredith acknowledged the superior quality of the Birds Tasmania survey data in their appearances, yet the population cycle in red-necked stints in the DEPA were ignored in the DIIS.

34. Similarly, the survey data by Birds Tasmania indicates that the DEPA population of Pied Oystercatchers exceeds that reported by DIIS surveys, in some cases by significant margins. The DIIS surveys under-estimated the numbers of oystercatchers present, and thus the impacts to resident shorebirds were under-estimated in the DIIS. Attempts by Walker Corporation to suggest that the current population estimate of Australian Pied Oystercatchers is grossly low, through a distorted and inappropriate analogy with an anomalous influx of a migratory shorebird (Oriental Pratincole) that exceeded current population estimates, were invalid, given the intensity and spatial extent of survey and census efforts for Pied Oystercatchers throughout Australia. The error margin for the estimated population of Australian Pied Oystercatchers is unlikely to exceed 10%, based on our knowledge of the biology of the species.

Conclusions

35. Our conclusions and grave concerns remain unchanged: that the Walker Corporation DIIS is fatally and fundamentally flawed, characterised by poor science, questionable hypotheses, faulty analyses, erroneous interpretations, inappropriate conclusions and that has utilised an approach that ignores established ecological principles and concepts.

36. Poor surveys with inappropriate assumptions incorporated within the methods of data collection and analyses have produced a DIIS that is manifestly unable to assess the true and full suite of impacts of the proposed development on the resident and migratory shorebirds, their habitats and the future consequences of sea level rise, habitat loss and displacement. Relevant scientific studies that would have assisted in the assessment have been ignored or overlooked, and combined with the selective use of consultants' data and reports, provides a biased and scientifically invalid DIIS.

37. The DIIS has no scientific credibility in its current state with regard to shorebirds and impacts to shorebirds in the DEPA.

38. It is clear that much more data are required to address the potential impacts for a comprehensive and scientifically valid DIIS. All additional data must be collected, analyses and interpreted using methods that address the fatal flaws identified by Birds Tasmania and other representors. Until these data are collected and analysed with a sound knowledge of the biology and natural history of the species involved (such as the pied oystercatcher), the Precautionary Principle would be appropriately applied and the proposed development refused on the basis of the high number of uncertainties present and the massive impacts already acknowledged in the DIIS.

39. Birds Tasmania is of the opinion that to approve the proposal with a large and lengthy volume of permit conditions is inappropriate, given high level of uncertainties, data gaps and errors in the methods used in the Walker Corporation DIIS. The science supporting the DIIS is manifestly inadequate, a situation that is unacceptable given the proposal involves the permanent loss of a declared Conservation Area that is recognised nationally and internationally for its value to shorebirds.

40. The science used in the DIIS must be best-practice and relevant to the permanent and significant loss of critical habitat to resident and migratory shorebirds in the DEPA. It is essential that the DIIS withstand and pass independent peer-review and scrutiny.

41. As Dr Newman stated, the proposal represents an ecological experiment, and given the multitude of flaws in the model and other DIIS data, it is likely to see significant impacts to Pied Oystercatchers and Red-necked Stints in the DEPA, and through them, significant and irrevocable loss to declared Ramsar values in adjacent wetlands. Clearly and unambiguously, these impacts will have national and international ramifications.

42. The absence of any modelling for Red-necked Stints, which are present in significant numbers within the DEPA, in the DIIS is sufficient to stop the proposed destruction of Ralphs Bay immediately.

43. It is our belief that the Panel should determine that the proposed destruction of Ralphs Bay is unnecessary, indefensible and unjustifiable, given the massive negative environmental impacts to the resident and migratory shorebirds of the DEPA.

Yours sincerely

Dr Eric J Woehler
Chair, 16 July 2009