
Conclusions & Recommendations



10. CONCLUSIONS & RECOMMENDATIONS

10.1 INTRODUCTION

10.1.1 The assessment of the proposed Hebe Haven Yacht Club Development (Phase 2) described in this document indicates that the environmental impacts that would potentially arise from the development can be managed to within acceptable levels. This is based on the assumptions adopted in the EIA for construction methods, construction plant and the mitigation measures specified. Conclusions and any proposed mitigation measures as recommended in the previous sections are summarised below.

10.2 MARINE WATER & DREDGING IMPACT

10.2.1 Hydrodynamic modelling has shown that tidal currents within Hebe Haven will not be affected following completion of the proposed reclamation and dredging works. Tidal flushing and long term water quality will therefore not be affected by the proposed works and no long term mitigation measures are required.

10.2.2 Use of a small to medium grab dredger during the dredging operations would maintain the sediment release rate at or below 0.5 kg/s provided that "sweeping" techniques are not used. Numerical water quality modelling has indicated that such a dredging operation would limit water quality impacts to the immediate vicinity of the dredging operation and would not impact sensitive receivers within or close to Hebe Haven. No further mitigation measures are recommended. Other possible dredging mitigation measures such as the use of sealed grabs and silt curtains are more likely to increase than reduce fine sediment releases, due to the very shallow water in the proposed dredging area.

10.3 ECOLOGICAL IMPACT

10.3.1 Results from the plume dispersion model reveal that the predicted extent of the sediment plume would not have a significant impact on SRs.

10.3.2 Suspended solids deposition or secondary impacts associated with suspended solids in the marine environment are also predicted to be acceptable. WQOs are exceeded only very locally for nutrients and suspended solids and overall impacts on the ecology of Hebe Haven is predicted to be minimal.

10.3.3 The loss of seabed due to reclamation is confirmed as 2,619m² and this is considered to have acceptable impact, due to the low ecological value of this habitat.

10.3.4 The total dredged area is estimated to be 14,400m². Disturbance to benthic communities will be short term and the ecological impact is acceptable.

10.4 CONSTRUCTION NOISE IMPACT

10.4.1 This report concludes that the Phase 2 development would not result in any

unacceptable noise impact at NSRs. No specific noise mitigation measures are recommended.

10.5 AIR QUALITY IMPACT

10.5.1 While dust emissions from the Project are not expected to produce a significant impact at nearby SRs, effort should be made by the contractor to reduce dust emissions.

10.6 CONSTRUCTION WASTE

There are no significant impacts associated with the handling or disposal of construction waste. The main waste stream is for uncontaminated marine muds, approximately 23,000m³, the disposal of which is governed by legislation as detailed in Section 3 and 4.

However, every effort should be made to reduce waste arising, to recycle and to minimise waste disposed of to landfill. To achieve this we have recommended that waste inventories are maintained on the site and detailed records are kept to facilitate efficient waste management.

10.7 LANDSCAPE & VISUAL IMPACT

10.7.1 During the construction phase there will be minor landscape and visual impacts predominantly affecting the actual users of Hebe Haven who will benefit from the works in the long term. The actual impact is minimised by the small number of construction plant operating at any one time. It is also recommended that stockpiles and site fencing be used where practicable to screen potential visual impact.

10.7.2 In the operational phase the phase 2 development does not result in any significant change in site usage and therefore does not alter the landscape character of the study area. Views from key points overlooking the Haven will be changed only marginally if at all.

10.8 FISHERIES

10.8.1 A fisheries impact assessment was carried out and no unacceptable impacts were predicted to capture fisheries nor to the Ma Nam Wat Fish Culture zone.

10.9 CONCLUSION

10.9.1 None of the potential environmental impacts identified in this study were found to be insurmountable. With the implementation of the mitigation measures recommended above, and with monitoring and audit to ensure such measures are effectively implemented, the proposed works will not cause unacceptable environmental impacts.