**ANNEXURES** **- Critical Review Analysis and Assessment of Lake Conjola Dredging Activity**

| **No:** |  **Content** |
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| **1** | Patterson Britton Partners *Lake Conjola Entrance Study 1999* – Four naturally occurring Entrance conditions |
| **2** | Royal Haskoning DV originally proposed configuration dredging plan per *Spurway 2014* and *REF2015* as opposed to approved navigational dredging plan per *‘Rescuing our Waterways’* Programme  |
| **3** | Manly Hydraulics Laboratory *M2 Tidal Constituent for Lake Conjola Entrance* *(2007-2017)* depicting August 2015 entrance closure |
| **4** | Aerial image depicting February 2016 *‘Imminent Closure’* entrance condition prior to commencement of dredging activity in May 2016 |
| **5** | Aerial image depicting June 2016 *‘Imminent Closure’* entrance conditions nearing completion of dredging |
| **6** | Lake Conjola Water Level, Rainfall, Tides and Moon plots depicting significant rainfall events between 2011 and 2017 - 3 post-dredging rainfall events of 100mm or more within 24 hours resulting in no low level flooding and 5 pre-dredging rainfall events of 100mm or less within 24 hours resulting in low level flooding |
| **7** | Image depicting post-dredging scour effects associated with natural northerly migration of southern ebb channel 2016 |
| **8** | Image depicting improved water clarity (quality) through the dredged navigation channel 2016  |
| **9** | Image depicting northern foreshore erosion due to location of dredged northern navigation channel 2016  |
| **10** | Image depicting southern foreshore erosion due to natural process of southern ebb channel migration 2016 |
| **11** | Lake Water Level, and Rainfall Plots cross referenced with *M2 Tidal Constituent* for the period 2010 - 2017 |
| **12** | Image depicting seagrasses and improved water clarity (quality) post dredging August 2017 |
| **13** | *M2 Tidal Constituent* Plot Jun 2010-Aug 2017 depicting improved entrance conditions post 2016 dredging activity  |
| **14** | Patterson Britton Partners *Lake Conjola Entrance Study 1999* illustrating 6 preferred Entrance Management Options / Benefit : Cost Analysis of these 6 and 7 other Entrance Management Options investigated / Assessment Summary of all 13 Entrance Management Options investigated |
| **15** | Brochure to Residents - OEH/Warringah and Pittwater Councils : *Community Guide to Clearance of the Narrabeen Entrance Lagoon* outlining aim of and procedures for an open managed entrance in 2011  |
| **16** | Shoalhaven City Council – 2014 Application for Funding under *‘Rescuing Our Waterways’ Programme* for Configuration Dredging for Beach Nourishment – Lake Conjola/Mollymook Beach  |
| **17** | Image depicting reclaimed southern dune foreshore and active southern ebb channel even though not directly aligned with or connected to entrance |
| **18** | Image depicting foreshore erosion / sedimentation and constricted access conditions of dredged northern navigation 2016  |
| **19** | Image depicting post dredging entrance conditions 2016 |
| **20** | Image depicting location and alignment of 1999 dredged channel per schematic of approved *Lake Conjola Entrance Stage 1 Entrance Works 1999* |