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| Title | Review of Lagoon Entrance Modelling for Flood Studies |
| Abstract | <p>Separate Flood studies have been undertaken for four coastal lagoons in the Gosford area, that is, Avoca, Cockrone, Terrigal and Wamberal Lagoons.</p> <p>Different analytical approaches have been used for Avoca-Cockrone and Terrigal-Wamberal Lagoons. The physical processes involved in the break-out of the lagoons through the beach are complex. Thus, there is a potential for the different analytical processes to produce significantly different results.</p> <p>For this study, separate MIKE-11 models were established for Terrigal-Wamberal Lagoons. These models were calibrated against the documented openings of August and September 1993.</p> <p>MIKE-11 models have been previously established for Avoca and Cockrone Lagoons as part of the Flood Studies.</p> <p>The Avoca Lagoon hydraulic model established for the flood study was modified to remove the source of numerical noise which resulted in the over-estimation of the volume of water discharged to the ocean during the opening calibration event. The re-calibration did not alter the parameters for initial breakout of the lagoon.</p> <p>The amendment of channel lengths in the Avoca model was also undertaken to remove a minor over-estimation of storage. The revised hydraulic model produced an estimated one percent AEP design flood level 20mm lower than that obtained in the flood study. This variation in estimated flood levels is not considered significant.</p> <p>It is noted that the critical duration storm (that is, the design storm that produces the greatest water level in the lagoon) was the 9 hour storm for each lagoon.</p> <p>The design flood level estimates for the one percent AEP flood in Terrigal Lagoon and Wamberal Lagoon determined by the review hydraulic model were within 30mm of the flood study estimates. This can be considered to provide independent verification of the flood study estimates.</p> |
| Resource locator | |
| Gosford City Council - Review of Lagoon Entrance Modelling for Flood Studies | <p>Name: Gosford City Council - Review of Lagoon Entrance Modelling for Flood Studies</p> <p>Protocol: WWW:DOWNLOAD-1.0-http--download</p> <p>Function: download</p> |
| Unique resource identifier | |
| Code | 592c55d5-2b86-4dd8-a89a-b078fd84f97e |
| Presentation form | |
| Edition | 27/06/2017 |
| Dataset language | English |
| Metadata standard | |
| Name | ISO 19115 |
| Edition | 2016 |
| Dataset URI | https://datasets.seed.nsw.gov.au/dataset/592c55d5-2b86-4dd8-a89a-b078fd84f97e |
| Purpose | Land and Resource Management |
| Status | On going |
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| Spatial representation | |
| Type | vector |
| Spatial reference system | |
| Code identifying the spatial reference system | 4283 |
| Topic category | |

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| Keyword set | |
| keyword value | |
| Originating controlled vocabulary | |
| Title | ANZLIC Search Words |
| Reference date | 2008-05-16 |
| Geographic location | |
| West bounding longitude | 151.410828 |
| East bounding longitude | 151.460266 |
| North bounding latitude | -33.495999 |
| South bounding latitude | -33.408918 |
| NSW Place Name | Gosford |
| Vertical extent information | |
| Minimum value | -100 |
| Maximum value | 2228 |
| Coordinate reference system | |
| Authority code | urn:ogc:def:cs:EPSG:: |
| Code identifying the coordinate reference system | 5711 |
| Temporal extent | |
| Begin position | |
| End position | N/A |
| Dataset reference date | |
| Resource maintenance | |
| Maintenance and update frequency | As needed |
| Contact info | |
| Contact position | Data Broker |
| Organisation name | Central Coast Council |
| Telephone number | 1300 463 954 |
| Email address | ask@centralcoast.nsw.gov.au |
| Web address | https://www.centralcoast.nsw.gov.au/ |
| Responsible party role | pointOfContact |
| Limitations on public access | |

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| Metadata date | 2024-03-25T09:56:20.614047 |
| Metadata language | |