



NSW Estuary Tidal Inundation Exposure Assessment

Appendix A

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Appendix A: Ocean tide evaluation

Maps of OSU Tidal Inversion Software (OTIS) tidal harmonic constituents

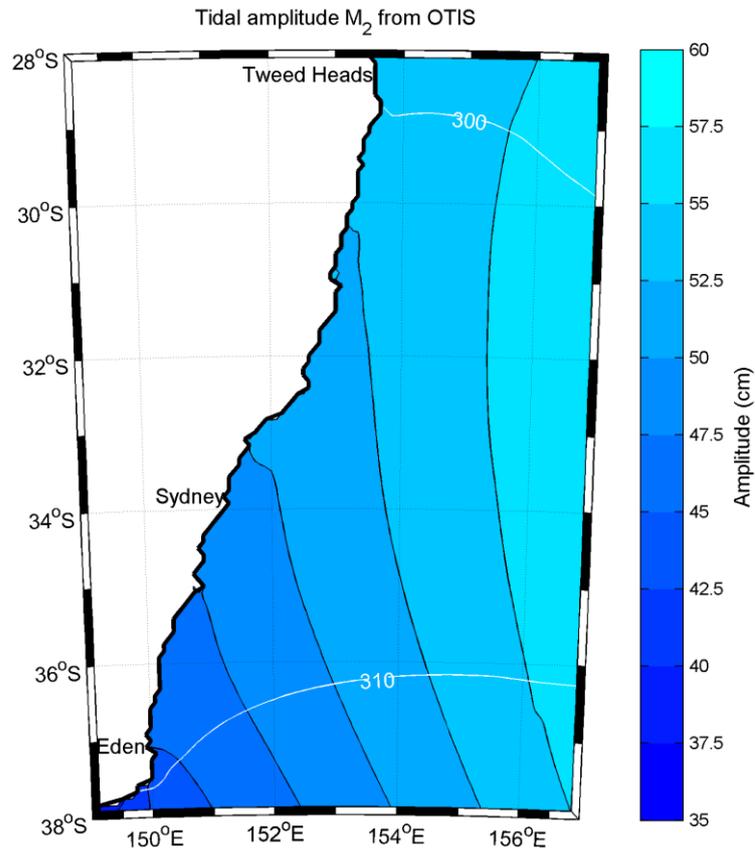


Figure A.1. Plot of M_2 tidal co-amplitude for New South Wales extracted from OTIS model; white contours are co-tidal phase lags (Degs UTC); map is on Universal Transverse Mercator (UTM) projection

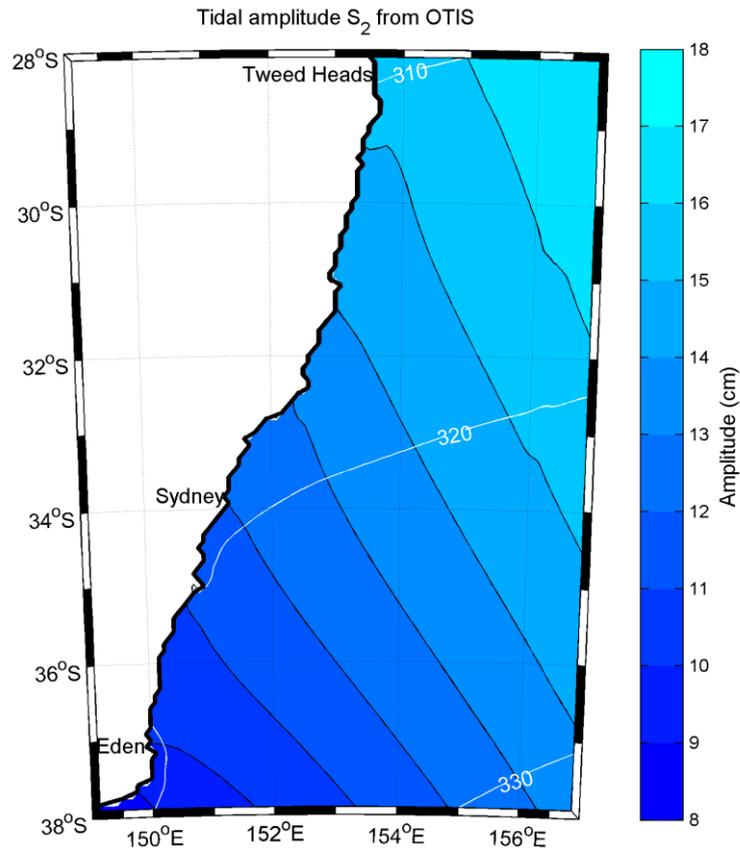


Figure A.2. Plot of S_2 tidal co-amplitude for New South Wales extracted from OTIS model; white contours are co-tidal phase lags (Degs UTC); map is on UTM projection

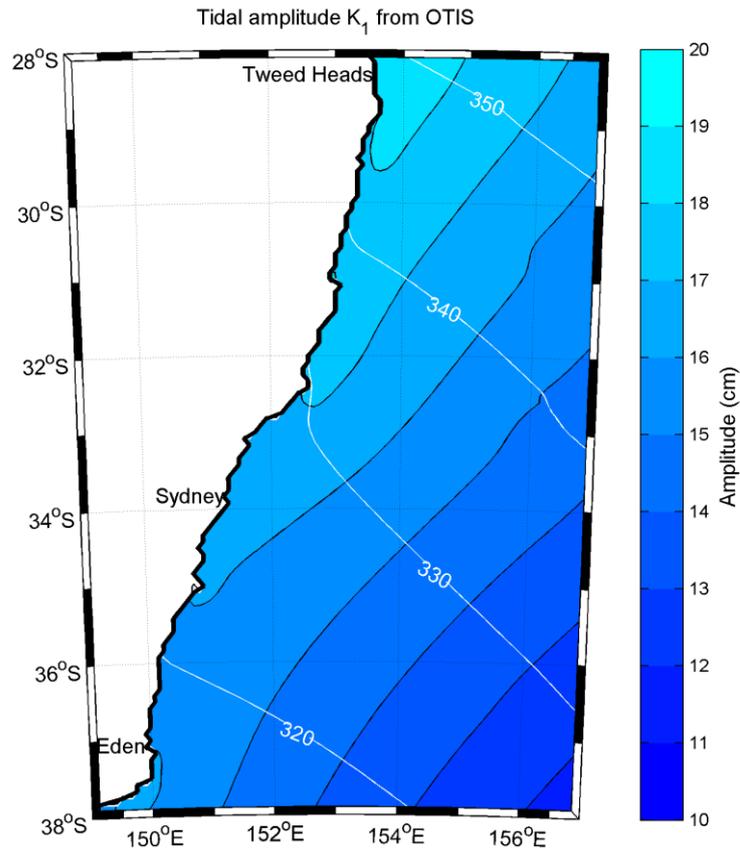


Figure A.3. Plot of K_1 tidal co-amplitude for New South Wales extracted from OTIS model; white contours are co-tidal phase lags (Degs UTC); map is on UTM projection

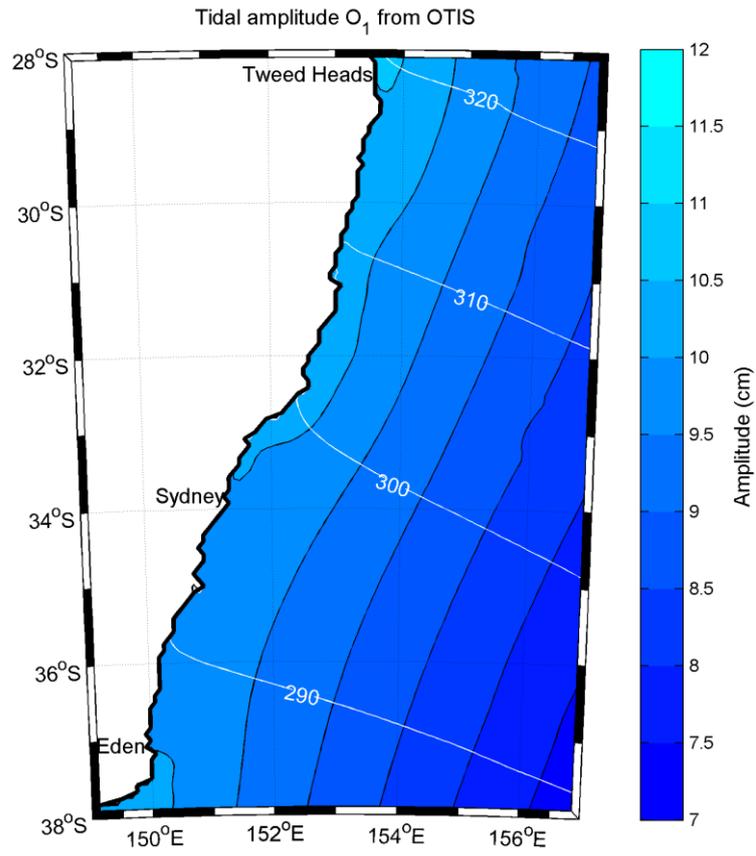


Figure A.4. Plot of O_1 tidal co-amplitude for New South Wales extracted from OTIS model; white contours are co-tidal phase lags (Degs UTC); map is on UTM projection

Total tidal range (R)

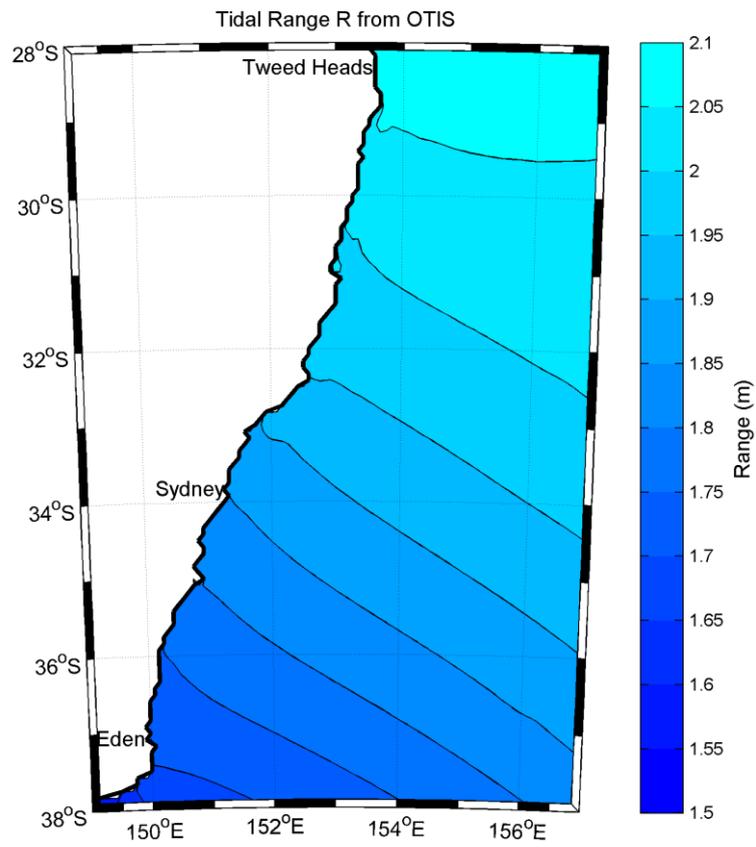


Figure A.5. Plot of tidal range R for New South Wales extracted from OTIS model; map is on UTM projection

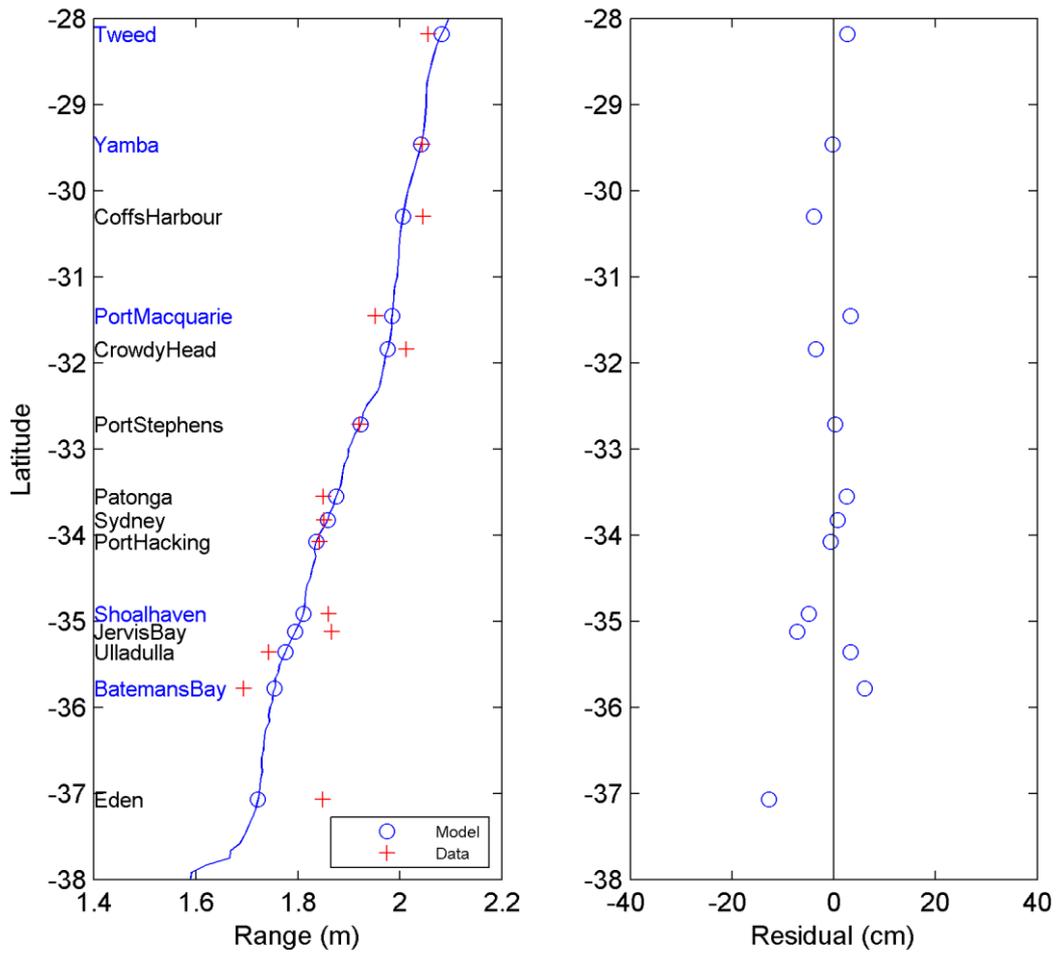


Figure A.6. Plots showing comparison between total tidal range R values from OTIS model and gauge data for open ocean (named in blue) and onshore open ocean gauging locations (named in black)

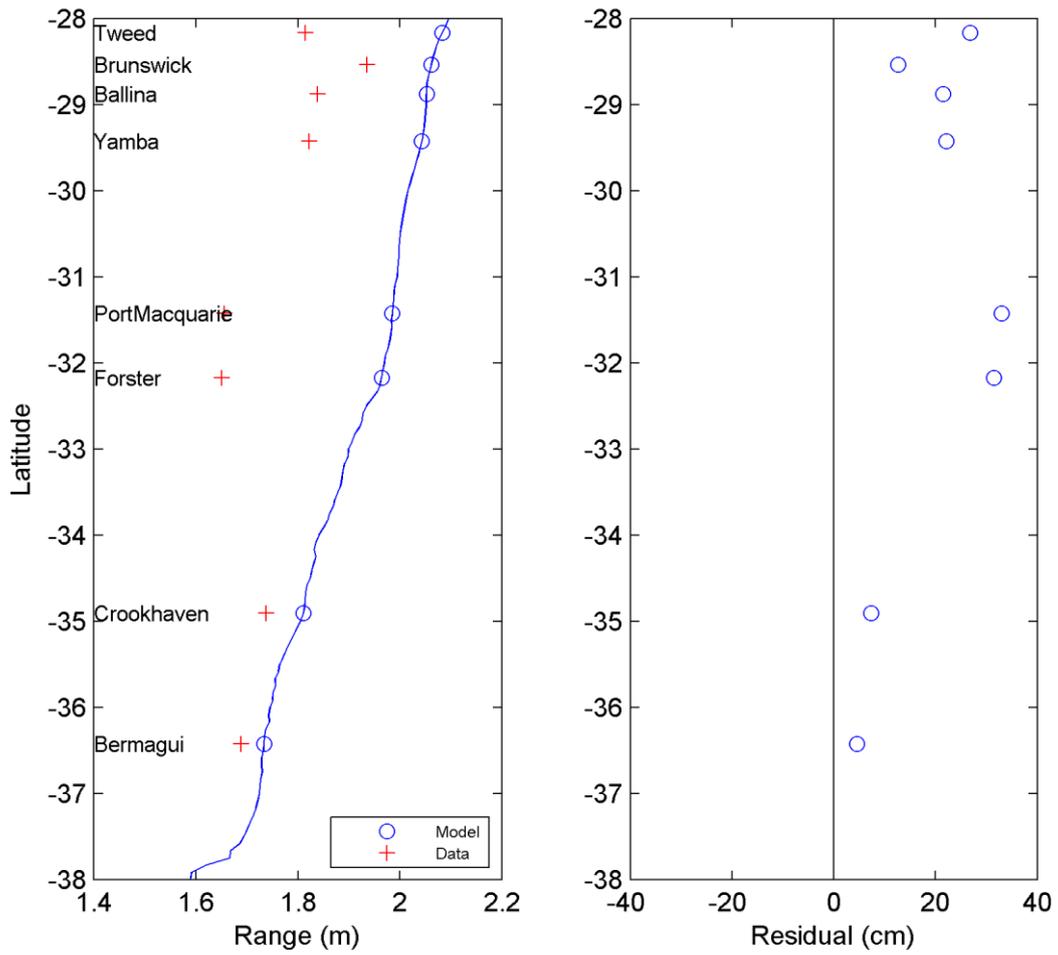


Figure A.7. Plots showing comparison between total tidal range R values from OTIS model and gauge data for onshore river entrance gauging locations

High High Water Solstice Springs (HHWSS)

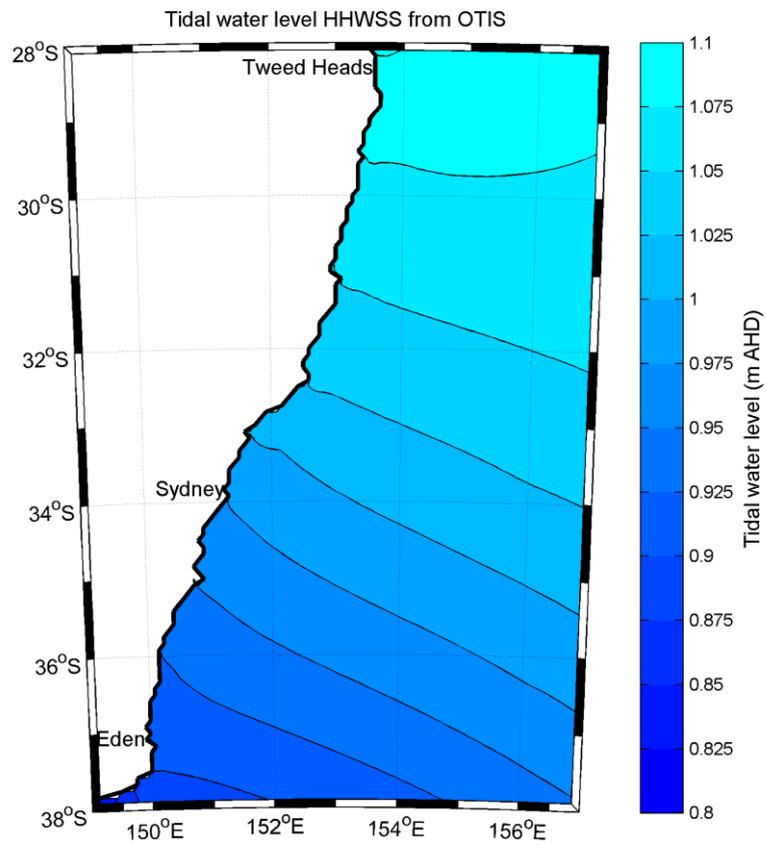


Figure A.8. Plot of HHWSS for New South Wales extracted from OTIS model; map is on UTM projection

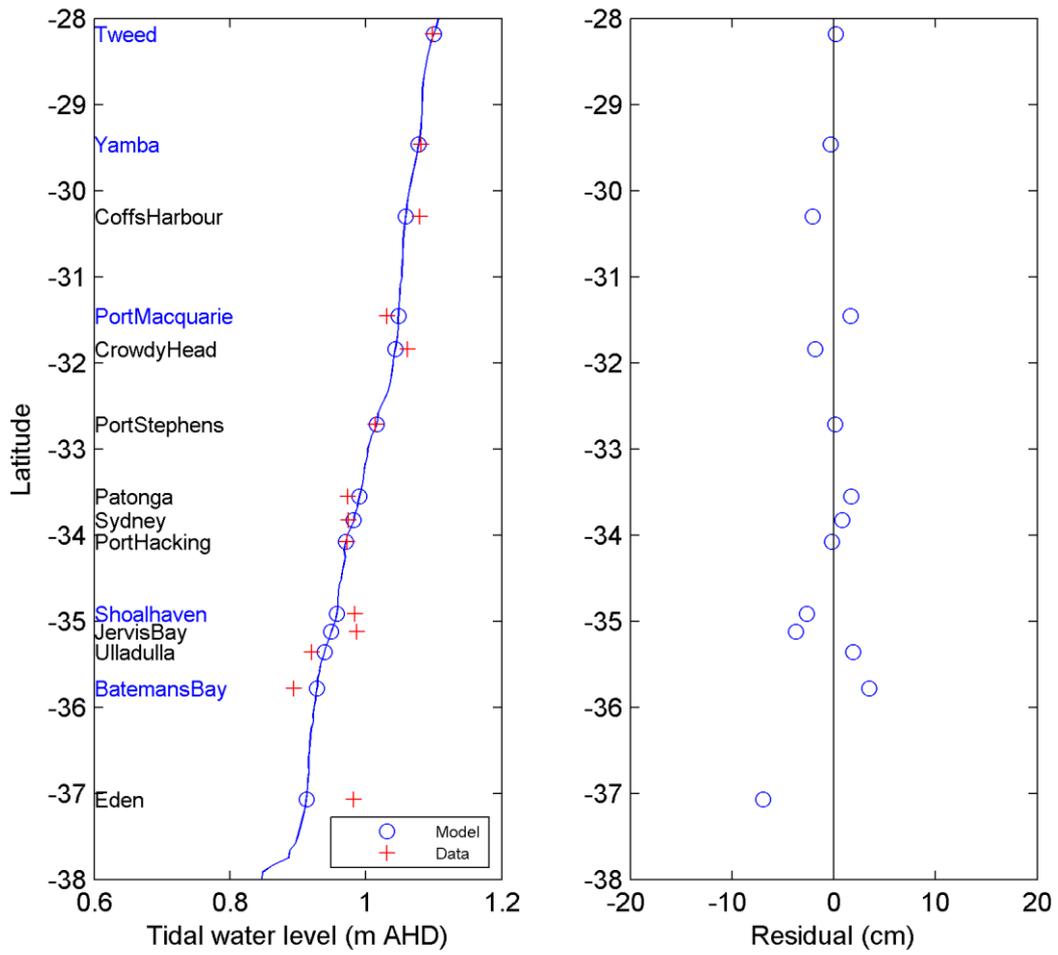


Figure A.9. Plots showing comparison between HHWS values from OTIS model and gauge data for open ocean (named in blue) and onshore open ocean gauging locations (named in black)

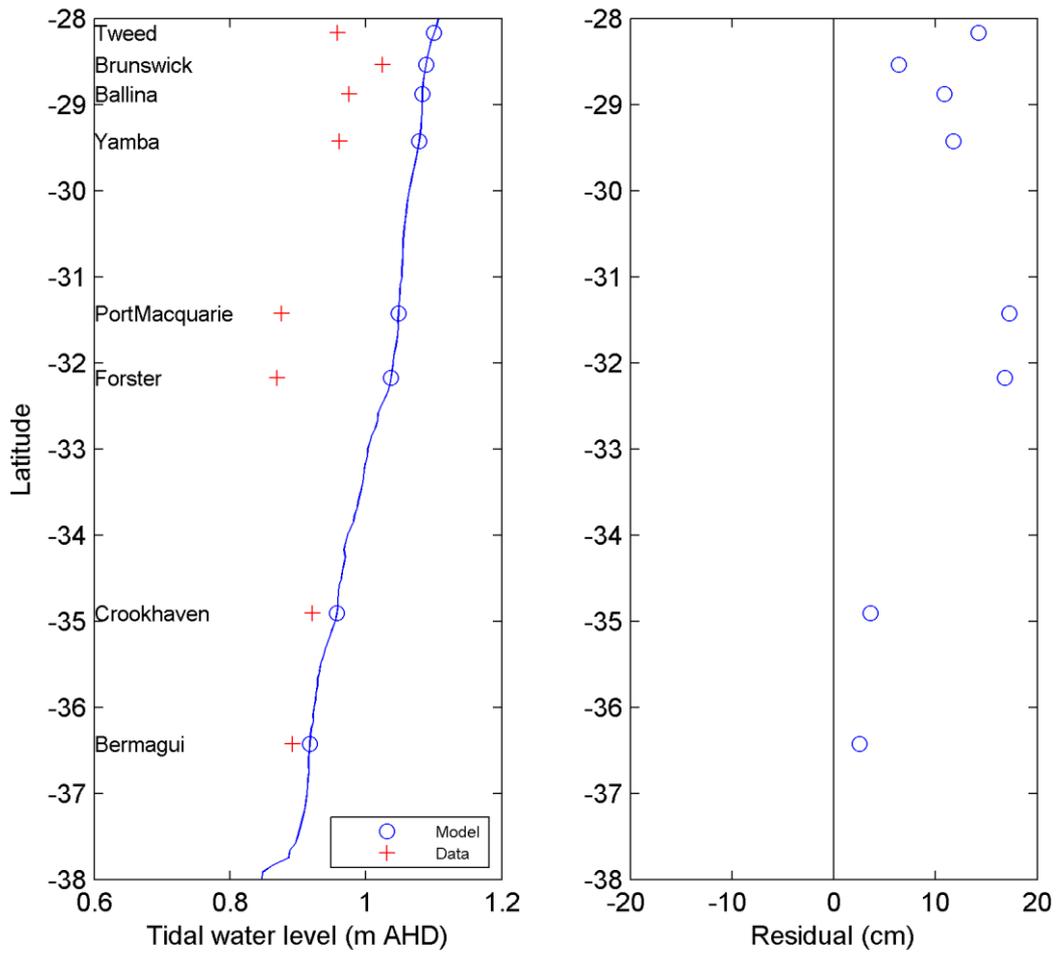


Figure A.10. Plots showing comparison between HHWSS values from OTIS model and gauge data for onshore river entrance gauging locations

Indian Spring Low Water (ISLW)

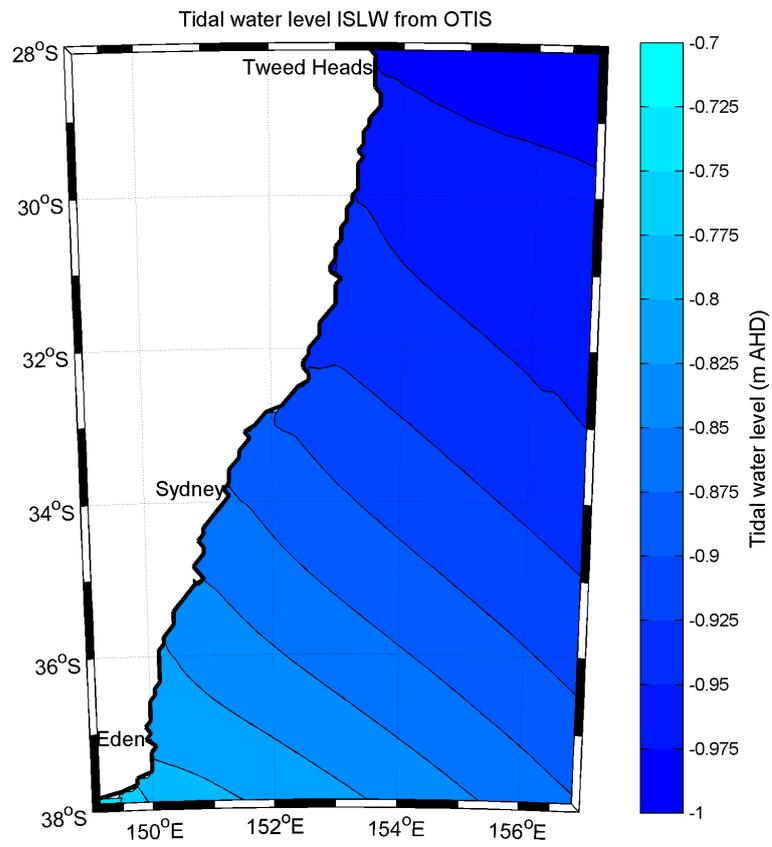


Figure A.11. Plot of ISLW for New South Wales extracted from OTIS model; map is on UTM projection

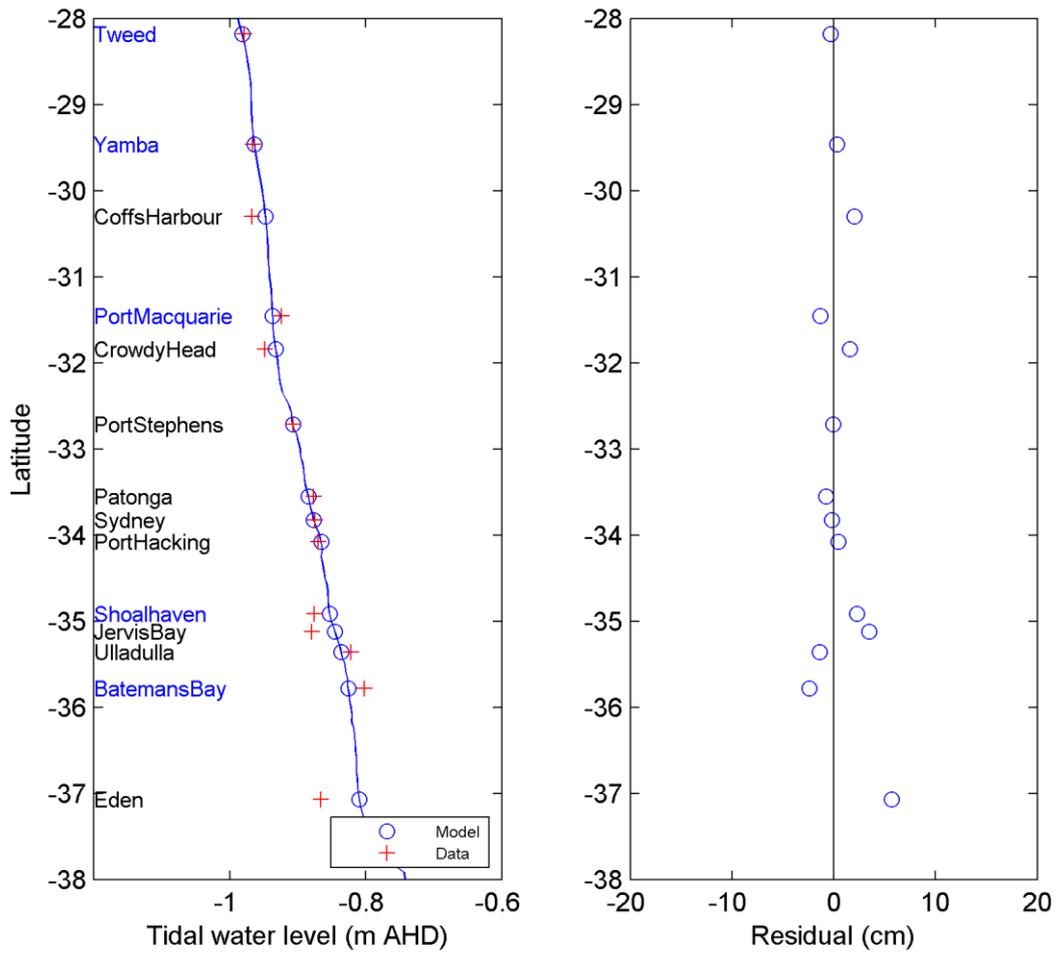


Figure A.12. Plots showing comparison between ISLW values from OTIS model and gauge data for open ocean (named in blue) and onshore open ocean gauging locations (named in black)

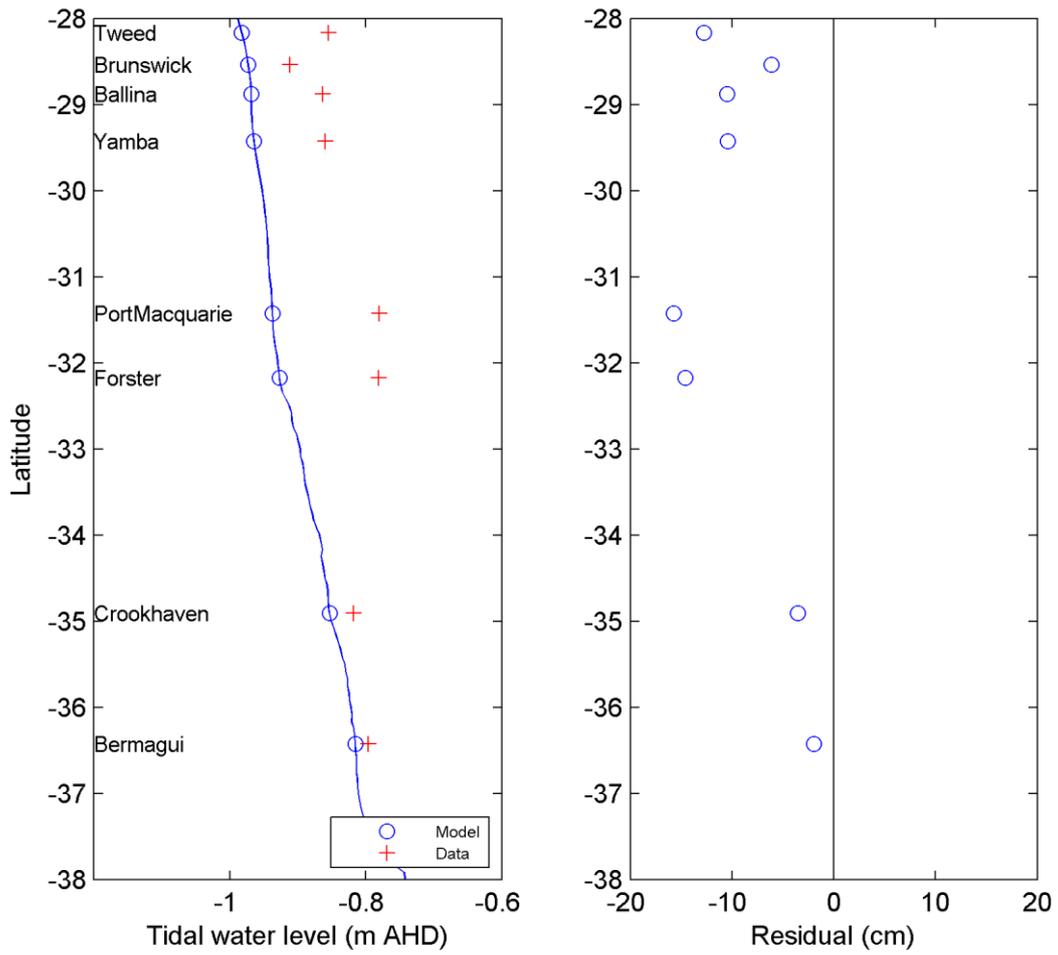


Figure A.13. Plots showing comparison between ISLW values from OTIS model and gauge data for onshore river entrance gauging locations

Comparison of harmonic and statistical tidal quantities

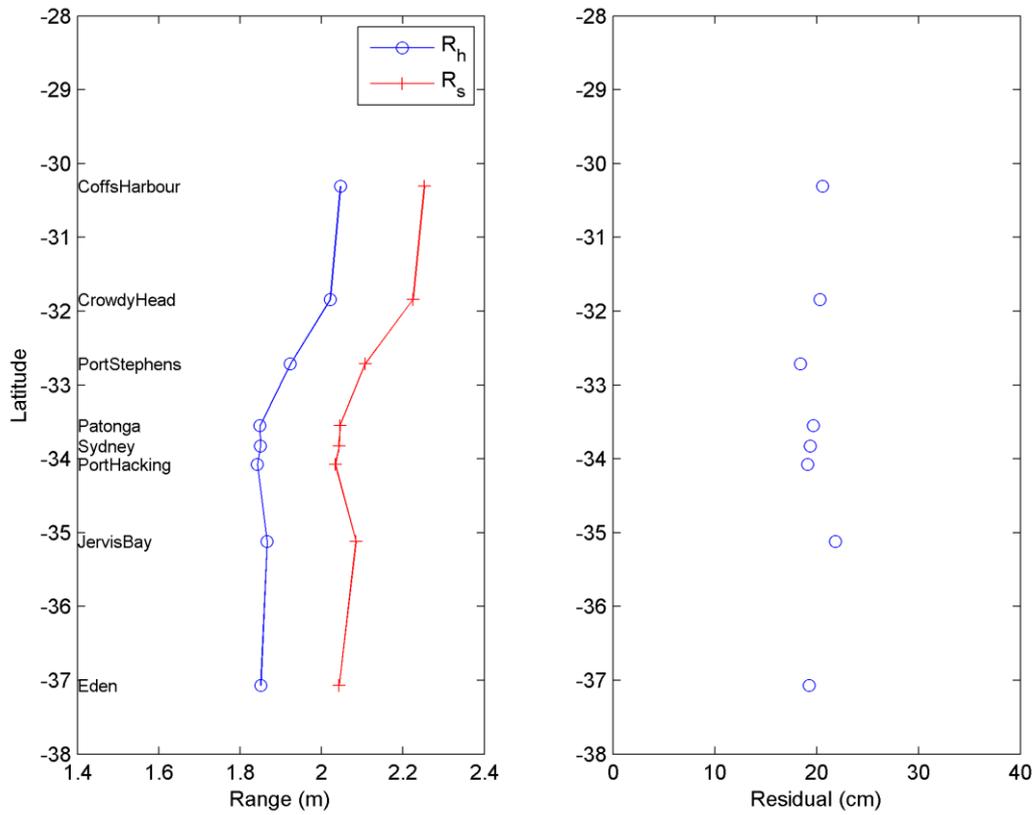


Figure A.14. Plots showing comparison between total tidal range R calculated using harmonic constituents (R_h) and statistics from predicted tide (R_s)

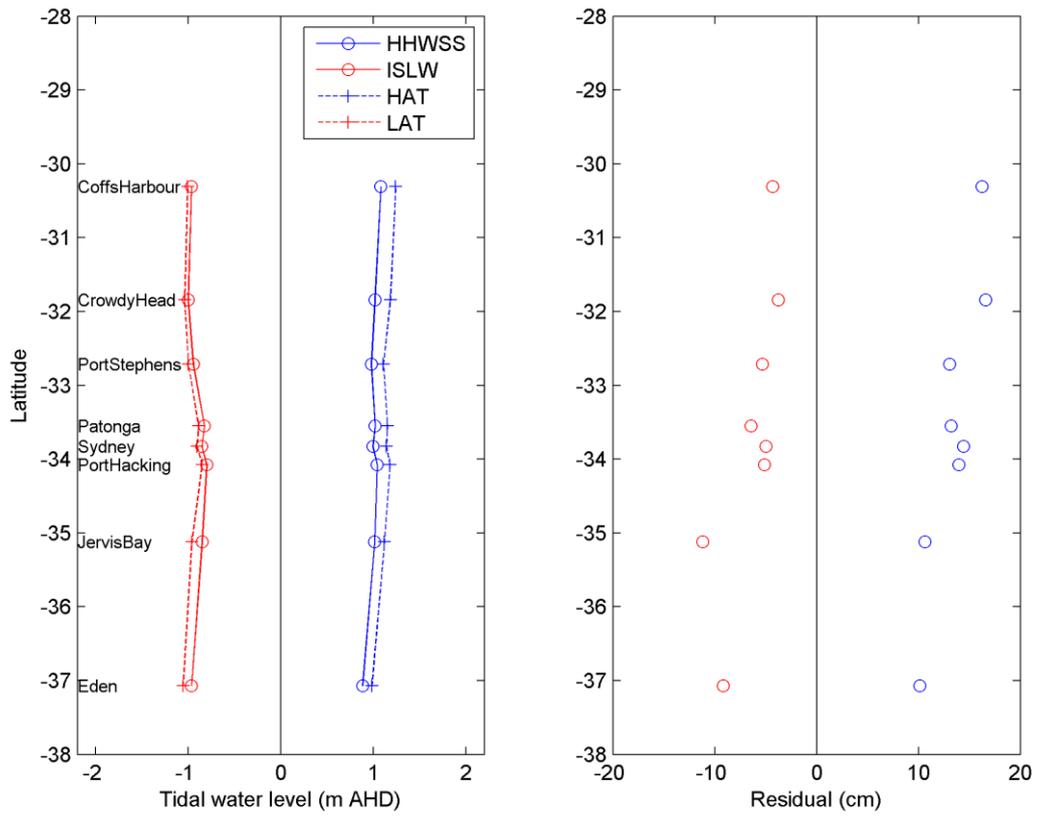


Figure A.15. Plots showing comparison between high and low water quantities calculated using harmonic constituents (HHWSS and ISLW) and statistics from predicted tide (highest astronomical tide (HAT) and lowest astronomical tide (LAT))