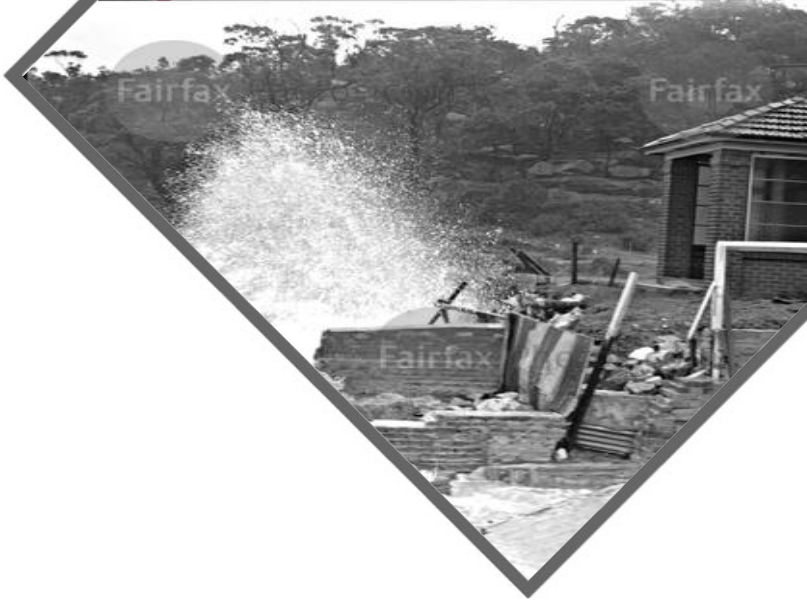


engineering | environmental | economics | engagement

North and Middle Harbour Estuarine Planning Levels Study

Stage 1 and 2 Report

Contact Information

Rhelm Pty Ltd
ABN: 55 616 964 517
Level 1, 50 Yeo Street
Neutral Bay NSW 2089
Australia

Lead Author:
Emma Maratea
emma.maratea@rhelm.com.au

Document Control

Rev	Effective Date	Description of Revision	Prepared by:	Reviewed by:
0	10 June 2019	Stage 1 Report for Council Review	David Taylor Sean Garber	Emma Maratea
1	5 August 2019	Stage 2 Report for Council Review	Emma Maratea	Louise Collier
2	14 January 2020	Final Stage 2 Report	Emma Maratea	Louise Collier
3	4 August 2020	Updated Final Stage 2 Report	Emma Maratea	Louise Collier
4	8 February 2021	Updated Final Stage 2 Report	Sarah Parton	Louise Collier
5	6 July 2022	Minor revisions to Final Report	Sarah Parton	Emma Maratea

Prepared For: Northern Beaches Council

Project Name: North and Middle Harbour Estuarine Planning Levels Study

Rhelm Reference: J1204

Document Location: C:\Dropbox (Rhelm)\J1200-J1299\J1204 - Middle Harbour EPLs\4. Reports\4. Reports\Stage 2\J1204_Middle Harbour EPLs_Rev5.docx

Cover image source acknowledgement: Fairfax Media, Accessed 10 January 2020, https://consumer.fairfaxsyndication.com/archive/Storm-damage-at-Clontarf-in-2ITHRGHKWNG.html, Reported as Storm Damage in the 1940's.

Executive Summary

Foreshore areas of Sydney Harbour within the Northern Beaches Local Government Area (LGA) – being North Harbour and Middle Harbour are subject to periodic inundation by coastal and estuarine processes (coastal inundation is one aspect of coastal hazard). This document seeks to define the estuarine inundation risk on foreshore properties both under existing and future sea level conditions.

Coastal Inundation and Development

Coastal inundation (and subsequent impacts on property and infrastructure within this zone) can be caused by large waves and elevated water levels associated with a range of coastal and oceanographic responses to severe storms. Within this report this is referred to as 'Estuarine Inundation Risk' (Sydney Harbour being an estuary, which forms part of the overall coastal zone). The nature and extent of the inundation is dependent on the interactions between the ocean and the land. Thus, an understanding of the interactions of the ocean and the land is essential to identify the likely extent of coastal inundation.

In order to protect development from the effects of coastal inundation, it is necessary to ensure appropriate development controls are applied to proposed developments where consent is required under Part 4 of the Environmental Planning and Assessment Act, 1979 or where information is relevant to infrastructure planning (such as under the provisions of State Environmental Planning Policy (Infrastructure), 2007). Appropriate planning levels for the purposes of design and construction of buildings and other features are estimated from the best available information on water levels associated with either or both catchment flooding and coastal inundation (both types of flooding/inundation can occur on some properties). The planning levels are generally set to seek to minimise the potential for inundation and damage during rare and extreme inundation events. In this report the levels associated with Estuarine Inundation Risk are referred to as Estuarine Planning Levels (EPLs). Flood Planning Levels (FPLs) are those associated with catchment flooding.

The derivation of property-specific Estuarine Planning Levels (EPLs) is the primary objective of this document. The Estuarine Planning Levels derived from this study will inform the application of planning controls set out in Northern Beaches Council's environmental planning instruments and related planning documents (e.g. Local Environment Plan (LEP), Development Control Plan (DCP) and related Policies).

This EPLs study is being prepared in the following stages.

- **Stage 1 Coastal Modelling:** coastal and estuarine modelling to define the coastal inundation for various design inundation events.
- **Stage 2 Property Data:** application of the modelling outcomes at a property scale (i.e. defining the EPLs for each at-risk property).
- **Stage 3 Planning Controls:** a review of Council's existing policy and planning framework and recommendations for amendments to allow for the application of EPLs within the study area.

The outcomes of Stages 1 and 2 are presented in this document, Stage 3 will be undertaken separately.

Coastal Inundation Processes Overview

To calculate appropriate Estuarine Planning Levels (EPLs) it is necessary to understand the oceanographic and coastal processes impacting the foreshore. The following coastal processes have been considered in the determination of EPLs for Manly and Middle Harbour:

- Regional Processes (ocean scale of hundreds of kilometres);
- Local Processes (within North and Middle Harbour – scale a few kilometres); and

- Site Specific Processes (scales of tens of metres).

The following data and model inputs have been utilised in this study to complete numerical modelling required to define coastal inundation extent and levels in the study area:

- **Sydney Harbour Water Levels:** Sydney Harbour has a long, reliable data set of water levels measured at Fort Denison, and more recently also at Middle Harbour (near the study area). Present day extreme design still water levels are calculated at Fort Denison based on a statistical analysis of measured historical records. The extremes analysis is based on water level data measured continuously at Fort Denison for over 100 years. Based on this analysis a 100-year average recurrence interval (ARI) water level of 1.44 m AHD has been adopted for Sydney Harbour. The numerical modelling undertaken in this study has defined the additional wind setup that can occur at particular locations within Sydney Harbour. This additional wind setup was added to the 100-year Fort Denison water level of 1.44 m AHD.
- **Coastal Storm Winds:** A range of wind data sets have been analysed to define extreme winds which can generate enhanced storm surge and local sea waves in the study area. The key data sets reviewed in this study were:
    - Long-term measured wind speeds at Sydney Airport spanning a period of 68 years (1948-2016);
    - 23 years of wind measurements at Fort Denison (1990-2019); and
    - A synthetic East-Coast Low (ECL) wind dataset which was created using a 1,000 year independently derived Monte Carlo model (Taylor et al, 2017).
- **Extreme Coastal Waves**: NSW has good long-term wave measurements to assist with defining extreme coastal deepwater wave conditions for rare and extreme events. This study has adopted 100-year ARI wave conditions defined for the entrance to Sydney Harbour undertaken for the *NSW Coastal Wave Model: State Wide Nearshore Wave Transformation Tool* (Baird Australia, 2017). As part of this previous study Baird modelled 100-year ARI wave conditions at the entrance to Sydney Harbour using the NSW Coastal Wave model system and deepwater storm waves defined by Shand et al (2011).
- **Sydney Harbour Modelling**: Modelling of wind setup along the foreshore was undertaken using a calibrated hydrodynamic model covering the whole of Sydney Harbour (using the DELFT3D software) (Freewater, 2018). The model is comprised of ten subdomains for different areas of Sydney Harbour and is run as a 3D model with eight vertical (sigma) layers. The model has been validated for currents and water levels at multiple locations throughout the harbour. The model is forced with astronomical constituents plus a residual water level at the harbour entrance, winds over the harbour, and hydrological catchment flows around the harbour. The Department of Planning, Industry and Environment (DPIE, formerly OEH) provided permission for Northern Beaches Council to utilise the DELFT3D hydrodynamic model to undertake the storm surge and local sea wave modelling required in this study.

Coastal Inundation Numerical Modelling

The estuarine numerical modelling has been undertaken using three separate model systems to account for the varying processes that contribute to the calculation of EPL's. The three model systems are:

- **DELFT3D** – hydrodynamic model to model local wind setup that occurs within Sydney Harbour.

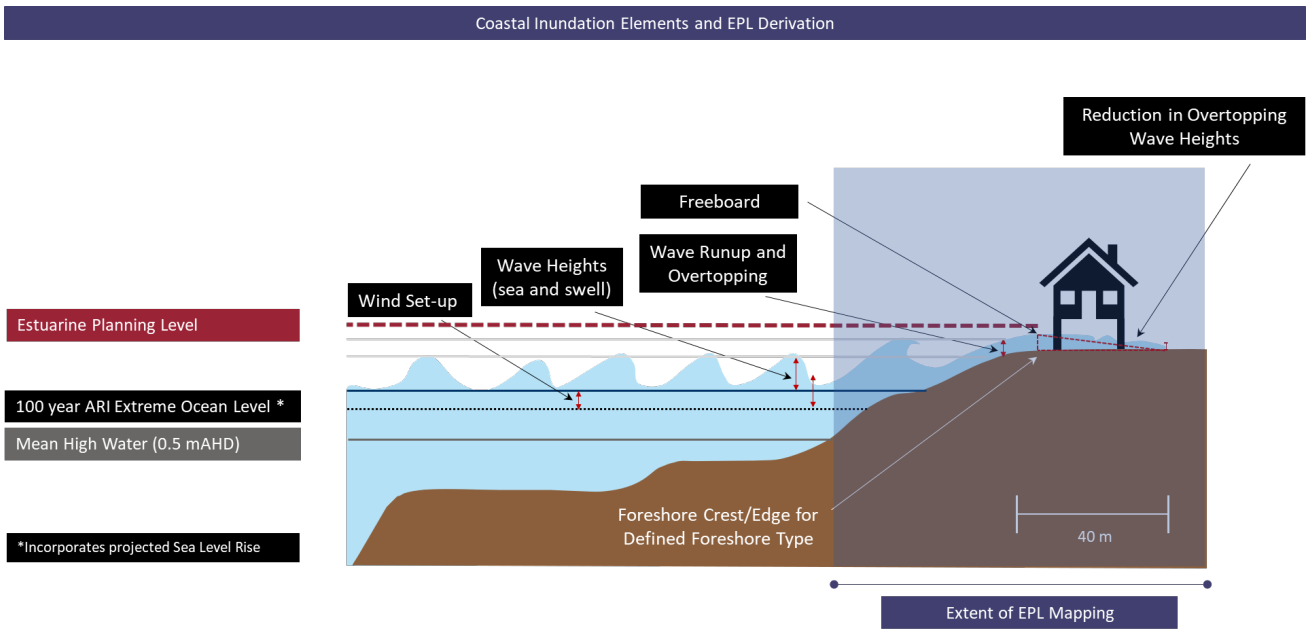
- **SWAN** – wave model, which adopts the same grid as the DELFT3D model, to model local sea waves generated within Sydney Harbour from local wind forcing.
- **MIKE-21BW** – Boussinesq Wave model which models the penetration of ocean (swell) waves into Sydney Harbour and can account for all wave transformation processes between the entrance to Sydney Harbour, and the shorelines of the study area.

Estuarine Planning Levels

Estuarine Planning Levels have been reported at 529 locations along the foreshore based on the outcomes of the estuarine modelling. Specifically, this includes:

- Identifying the 100 year ARI ocean tidal level for existing and future sea levels (i.e. incorporating sea level rise).
- Calculating the wind setup and wave heights (sea and swell) based on the model results.
- Calculating wave run-up and overtopping, which requires:
  - Defining the typical foreshore types around the Middle and North Harbour study area; and
  - Calculation of the reduction in overtopping wave heights as a result of distance from the foreshore.
- Applying a freeboard to allow for any uncertainties primarily associated with the water level and wave calculations.

The components of the EPLs are shown diagrammatically in **Figure E1-1**.



Adapted from Cardno (2015)

Figure E1-1 Estuarine Planning Level Components

Those properties affected by Estuarine Planning Levels (EPLs) have been identified using an 'EPL extent' generated from the EPL calculations described in this report and the Airborne Laser Scanning (ALS) ground survey for the study area.

The EPL for any proposed development on properties within 40m of the foreshore edge is calculated for the proposed foreshore type (or existing if it is to remain the same after the development) and the distance of the development from the foreshore edge. The resulting EPL will account for the 'local water level', wave run-up and overtopping and the reduction in the wave height as a result of distance from the foreshore, plus a freeboard of 0.3m.

The EPL for any proposed development on properties beyond 40m of the foreshore edge will be equal to the 'local water level' at the property location, plus a freeboard of 0.3m.

If the proposed development lies outside the EPL extent, then no EPL or estuarine hazard mitigation measures would be applied to the development.

This report provides for identification of 588 land parcels (as defined by cadastral boundaries) that would potentially have estuarine risk controls applied to development within these land parcels. Further this report identifies Estuarine Planning Levels for each of these land parcels.

It is recommended that Council review its current planning process with regards to the application of Estuarine Planning Levels within the study area and notification of estuarine risk on property planning certificates (issued under Section 10.7 of the Environmental Planning and Assessment Act, 1979). This would be undertaken as part of Stage 3 of this project.

It is recommended that community engagement be undertaken as part of future stages of this project.

Table of Contents

Appendices

Figures

Tables

Glossary*

Australian Height Datum (AHD)	A common national surface level datum approximately corresponding to mean sea level.
Average recurrence interval (ARI)	The average time between which a threshold is reached or exceeded (e.g. large wave height or high water level) of a given value. Also known as Return Period.
Benchmarks	A standard by which something can be measured or judged. For example, predicted amounts of sea level rise to incorporate into planning considerations.
Cadastre, cadastral base	Information in map or digital form showing the extent and usage of land, including streets, lot boundaries, water courses etc.
Catchment	The land area draining through the main stream, as well as tributary streams, to a particular site. It always relates to an area above a specific location.
Climate change	A process that occurs naturally in response to long-term variables, but often used to describe a change of climate that is directly attributable to human activity that alters the global atmosphere, increasing change beyond natural variability and trends.
Crest level	The level in metres Australian Height Datum (mAHD) of the top of a particular foreshore type.
Coast	A strip of land of variable width that extends from the shoreline inland to the first significant landform that is not influenced by coastal processes (such as waves, tides and associated currents).
Coastal inundation	Coastal inundation occurs when a combination of marine and atmospheric processes raises the water level at the coast above normal elevations, causing land that is usually 'dry' to become inundated by sea water. Alternatively, the elevated water level may result in wave run-up and overtopping of natural or built shoreline structures (e.g. dunes, seawalls). In the case of an estuary, coastal inundation may be caused by a combination of processes including high tides, storm surge and wave run-up onto the foreshore.
Coastal processes	Coastal processes are the set of mechanisms that operate at the land-water interface. These processes incorporate sediment transport and are governed by factors such as tide, wave and wind energy.

Coastal Zone	The coastal zone, as defined by the Coastal Management Act 2016, means the area of land comprised of the following coastal management areas: (a) the coastal wetlands and littoral rainforests area, (b) the coastal vulnerability area, (c) the coastal environment area, (d) the coastal use area.
Design storm event	A significant event to be considered in the planning process.
Development	As defined in the Environmental Planning and Assessment Act 1979 (EP&A Act). New development refers to development of a completely different nature to that associated with the former land use, e.g. the urban subdivision of an area previously used for rural purposes. New developments involve re-zoning and typically require major extensions of existing urban services, such as roads, water supply, sewerage and electric power. Infill development refers to the development of vacant blocks of land that are generally surrounded by already developed properties and is permissible under the current zoning of the land. Conditions such as minimum floor levels may be imposed on infill development Redevelopment refers to rebuilding in an area, e.g., as urban areas age, it may become necessary to demolish and reconstruct buildings on a relatively large scale. Redevelopment generally does not require either re-zoning or major extensions to urban services.
Estuarine Planning Level	The combinations of elevated estuarine water levels (derived from significant historical sea or ocean events or sea/ocean levels of specific ARIs) and freeboards selected for estuarine inundation risk management purposes.
Estuary	The CM Act defines an estuary as any part of a river, lake, lagoon, or coastal creek whose level is periodically or intermittently affected by coastal tides, up to the highest astronomical tide.
Extreme Ocean Water Level	The highest elevation reached by the sea/ocean as recorded by a tide gauge during a given period (after MHL, 2018).
Extreme Storm Event	Storm for which characteristics (wave height, period, water level etc.) were derived by statistical 'extreme value' analysis. Typically, these are storms with average recurrence intervals (ARI) ranging from one to 100 years.
Foreshore	The part of the shore, lying between the crest of the seaward berm (or upper limit of wave wash at high tide) and the ordinary low water mark, that is ordinarily traversed by the uprush and backrush of the waves as the tides rise and fall; or the beach face, the portion of the shore extending from the low water line up to the limit of wave uprush at high tide. The CM Act defines the

	foreshore as 'the area of land between highest astronomical tide and the lowest astronomical tide'.
Foreshore Crest/Edge	Generally, the landward limit of the foreshore. In some cases, it may be located higher than the upper limit of wave wash at high tide.
Foreshore type	The nature of the foreshore at any given location, e.g. retaining wall, sandy beach, rocky foreshore.
Flood	A general and temporary condition of partial or complete inundation of normally dry land areas, including inundation as a result of sea/ocean storms and other coastal processes or catchment flows.
Flood risk	Potential danger to personal safety and potential damage to property resulting from flooding. The degree of risk varies with circumstances across the full range of floods. Flood risk is divided into three types, existing, future and continuing risks as described below: ▪ Existing flood risk is the risk a community is exposed to as a result of its location on the floodplain. ▪ Future flood risk is the risk a community may be exposed to as a result of new development on the floodplain. ▪ Residual flood risk is the risk a community is exposed to after floodplain risk management measures have been implemented.
Freeboard	Provides reasonable certainty that the risk exposure selected in deciding on a particular flood chosen as the basis for the EPL is actually provided. It is a factor of safety typically used in relation to the setting of floor levels, levee crest levels, etc. Freeboard is included in the flood planning level. As a component of the EPL, a freeboard is added to the local (still) water level.
Geographical information system (GIS)	A system of software and procedures designed to support the management, manipulation, analysis and display of spatially referenced data.
High Tide	The maximum height reached by a rising tide. The high water is due to the periodic tidal forces and the effects of meteorological, hydrologic, and/or oceanographic conditions.
Highest astronomical tide (HAT)	The highest level which can be predicted to occur under average meteorological conditions and any combination of astronomical conditions. In Australia HAT is calculated as the highest level from tide predictions over the tidal datum epoch (TDE), this is currently set to 1992 to 2011. The HAT and the Lowest Astronomical Tide (LAT) levels will not be reached every year. LAT and HAT are not the extreme water levels which can be reached, as storm surges may cause considerably higher and lower levels to occur.
Mean high water mark	The line of the medium high tide between the highest tide each lunar month (the springs) and the lowest tide each lunar month (the neap) averaged over out over the year. In NSW, the methods

	for determining the position of the MHWM are outlined in the *Crown Directions to Surveyors - No. 6 Water as a Boundary.*
Mean High Water Springs (MHWS)	The MHWS is the highest level which spring tides reach on the average over a period of time (usually several years).
Mean Low Water Springs (MLWS)	The MLWS is the lowest level which spring tides reach on the average over a time period (usually several years).
Mean Sea Level (MSL)	MSL is a measure of the average height of the sea or ocean's surface such as the halfway point between the mean high tide and the mean low tide. At present, mean sea level is approximately equivalent to 0mAHD (reported as 0.03 mAHD in MHL, 2019).
Probability	A statistical measure of the expected frequency or occurrence of flooding.
Risk	The chance of something happening that will have an impact on objectives, usually measured in terms of a combination of the consequences of an event and their likelihood.
Sea	Tasman Sea (interchangeably also referred to as Ocean in this report).
Sea level rise (SLR)	A rise in the level of the sea surface that has occurred or is projected to occur in the future, as measured from a point in time. The rise can be reported as a global mean or as measured at a specific point or estimated for a specific part of the sea or ocean.
Storm surge	The increase in coastal water level caused by the effects of storms. Storm surge consists of two components – the increase in water level caused by the reduction in barometric pressure and the increase in water level caused by the action of wind blowing over the sea surface (wind set-up).
Storm tide	An abnormally high water level that occurs when a storm surge combines with a high astronomical tide. The storm tide must be accurately predicted to determine the extent of coastal inundation.
Tidal inundation	The inundation of land by tidal action under average meteorological conditions and the incursion of sea water onto low lying land that is not normally inundated, during a high sea level event such as a king tide or due to longer-term sea level rise. For these planning controls, it is defined as the land that is inundated up to the level of Highest Astronomical Tide (HAT).
Wave run-up	The vertical distance above mean water level reached by the uprush of water from waves across a beach or up a structure.
Wave set-up	The rise in the water level above the still water level when a wave reaches the coast. It can be very important during storm events as it results in further increases in water level above the tide and surge levels.
Wind waves	Waves resulting from the action of the wind on the surface of the water.

*Many of the glossary terms here are derived or adapted from the *Coastal Management Glossary* (OEH, 2018).

Acronyms and Abbreviations

1D	One-Dimensional
2D	Two- Dimensional
3D	Three-Dimensional
AHD	Australian Height Datum
AEP	Annual Exceedance Probability
AIDR	Australian Institute for Disaster Resilience
ARI	Average Recurrence Interval
AR	Assessment Report (IPCC)
ARR	Australian Rainfall and Runoff
BoM	Bureau of Meteorology
CD	Chart Datum
CM Act	Coastal Management Act, 2016
CM SEPP	State Environmental Planning Policy (Coastal Management) 2018
DCP	Development Control Plan
DECC	Department of Environment and Climate Change (now largely DPIE)
DECCW	Department of Environment, Climate Change & Water (now largely DPIE)
DEM	Digital Elevation Model
DLWC	Department of Land and Water Conservation (now largely DPIE)
DoI (Water)	Department of Industry (Water) (formerly DPI Water) (now DPIE)
DPE	Department of Planning and Environment (now DPIE)
DPIE	Department of Planning, Industry and Environment
DPI Water	Department of Primary Industries – Water (Now DPIE)
ECL	East Coast Low
ENSO	El Niño-Southern Oscillation
EPL	Estuarine Planning Level
FFL	Finished Floor Level
FPL	Flood Planning Level
FRMP	Floodplain Risk Management Plan
FRMS	Floodplain Risk Management Study
GIS	Geographic Information System
Ha	Hectares

Hs	Significant Wave Height
Hm0	Significant Wave Height
IFD	Intensity-Frequency-Duration
IPCC	Intergovernmental Panel on Climate Change
ISEPP	State Environmental Planning Policy (Infrastructure) 2007
km^2	Square kilometres
LAT	Lowest Astronomical Tide
LEP	Local Environment Plan
LGA	Local Government Area
LiDAR	Light Detention and Ranging
m^2	Square metres
m^3	Cubic metres
m/s	Metres per second
m^3/s	Cubic metres per second
mAHD	metres to Australian Height Datum
mm	Millimetres
m/s	Metres per second
NSW	New South Wales
OEH	Office of Environment and Heritage (now DPIE)
PMF	Probable Maximum Flood
PMP	Probable Maximum Precipitation
$R_{2\%}$	Two percent wave run up level. This is the run-up level, vertically measured with respect to the still water level, which is exceeded by two per cent of the incoming waves.
RCP	Representative Concentration Pathway
SES	State Emergency Service
SWL	Still Water Level
TN	True North
Tp	Wave period

1 Introduction

The foreshore areas of Sydney Harbour – being North Harbour and Middle Harbour within the Northern Beaches Local Government Area (LGA) are subject to inundation by coastal and estuarine processes. Coastal inundation is one aspect of coastal hazard (*Coastal Management Act*, 2016).

In order to protect future development from the effects of coastal inundation, it is necessary to ensure appropriate development controls are applied to proposed developments where consent is required under Part 4 of the Environmental Planning and Assessment Act, 1979 or where information is relevant to infrastructure planning (such as under the provisions of State Environmental Planning Policy (Infrastructure), 2007). Appropriate planning levels for the purposes of design and construction of buildings and other features are estimated from the best available information on water levels associated with either or both catchment flooding and coastal inundation (both types of flooding/inundation can occur on some properties). The planning levels are generally set to seek to minimise the potential for inundation and damage during rare and extreme inundation events.

Rhelm, with the assistance of Baird Australia, was engaged by Northern Beaches Council (Council) to determine appropriate planning levels for the foreshore areas of North Harbour and Middle Harbour based on a range of oceanic and estuarine processes (including ocean tide, wind set up and wave height, wave run-up, a freeboard and allowance for sea level rise).

1.1 Study Context

Inundation of the coastal zone (and subsequent impacts on property and infrastructure within this zone) can be caused by large waves and elevated water levels associated with a range of coastal and oceanographic process responses to severe storms. Within this report this is referred to as 'Estuarine Inundation Risk'. The nature and extent of the inundation is dependent on the interactions between the ocean and the land. Thus, an understanding of the interactions of the ocean and the land is essential to identify the extent of coastal inundation.

In order to protect future development within the coastal zone from coastal inundation, it is necessary to ensure appropriate controls are applied to development.

Estuarine Planning Levels (EPLs) are currently applied as a method for managing risk to property along the foreshore of Pittwater (in the north of the Northern Beaches LGA). EPLs are applied under the provisions of the Pittwater Local Environment Plan (LEP) 2014. More specifically, Northern Beaches Council's approach to managing this risk is set out in the *Estuarine Risk Management Policy for Development in Pittwater* (within the Pittwater Development Control Plan (DCP), 2018).

At the time of preparation of this study Northern Beaches Council had separate Local Environmental Plans (LEPs) and Development Control Plans (DCPs) operating for the three former LGA regions.

Coastal hazard is managed at the highest level through the *State Environmental Planning Policy (Coastal Management) 2018*. However, the coastal vulnerability provisions for the Northern Beaches LGA are not yet operational as vulnerability mapping was not in place for Middle or North Harbour at the time of the completion of this study.

The *Manly LEP 2013* (Clause 6.10) currently sets the defining provisions for coastal hazards for Middle and North Harbour. These clauses generally aim to reduce the impacts of coastal zone development on the natural coastal processes and manage risk to property and life associated with coastal hazards. *Manly LEP 2013* also

contains; *Clause 6.8 Landslide risk*, which applies to properties containing geotechnical issues in North and Middle Harbour as identified in various coastline hazard definitions studies.

The *Manly DCP 2013* does not provide specific controls relating to coastal risk management but does have controls relating to setbacks enforced by the foreshore building line shown on the LEP Foreshore Building Line Map.

The Estuarine Planning Levels derived from this study will inform the planning controls set out in the documents described above and any new planning controls developed for the amalgamated Northern Beaches Council. This may be done in a similar manner to the existing *Pittwater LEP 2014* and *Pittwater 21 DCP*. This will be investigated and discussed further as part of Stage 3.

1.2 Study Approach

This Estuarine Planning Levels Study is being prepared in the following stages.

- **Stage 1 Coastal Modelling:** coastal and estuarine modelling to define coastal inundation.
- **Stage 2 Property Data:** application of the modelling outcomes at a property scale (i.e. defining the EPLs for each affected property).
- **Stage 3 Planning Controls:** a review of Council's existing policy and planning framework and recommendations for amendments to allow for the application of EPLs within the study area.

The outcomes of Stages 1 and 2 are presented in this document, Stage 3 will be undertaken separately.

The coastal modelling completed for Stage 1 adopted methods to generate coastal inundation results that are consistent with the *Pittwater Estuary Mapping of Sea Level Rise Impacts* (Cardno, 2015) which provided the coastal inundation data to inform coastal planning for the Pittwater estuary. This included the analysis of the impact of sea level rise values of 0.4m and 0.9m on estuarine inundation.

2 Study Area

The study area includes the foreshore areas of North Harbour and Middle Harbour that lie within the Northern Beaches LGA. This includes the suburbs of Manly, Fairlight, Balgowlah Heights, Clontarf, Seaforth and Killarney Heights. The study area is comprised of a range of land uses, including national park and nature reserves, public recreation, residential, commercial and light industrial. The study area is shown in **Figure 2-1**.

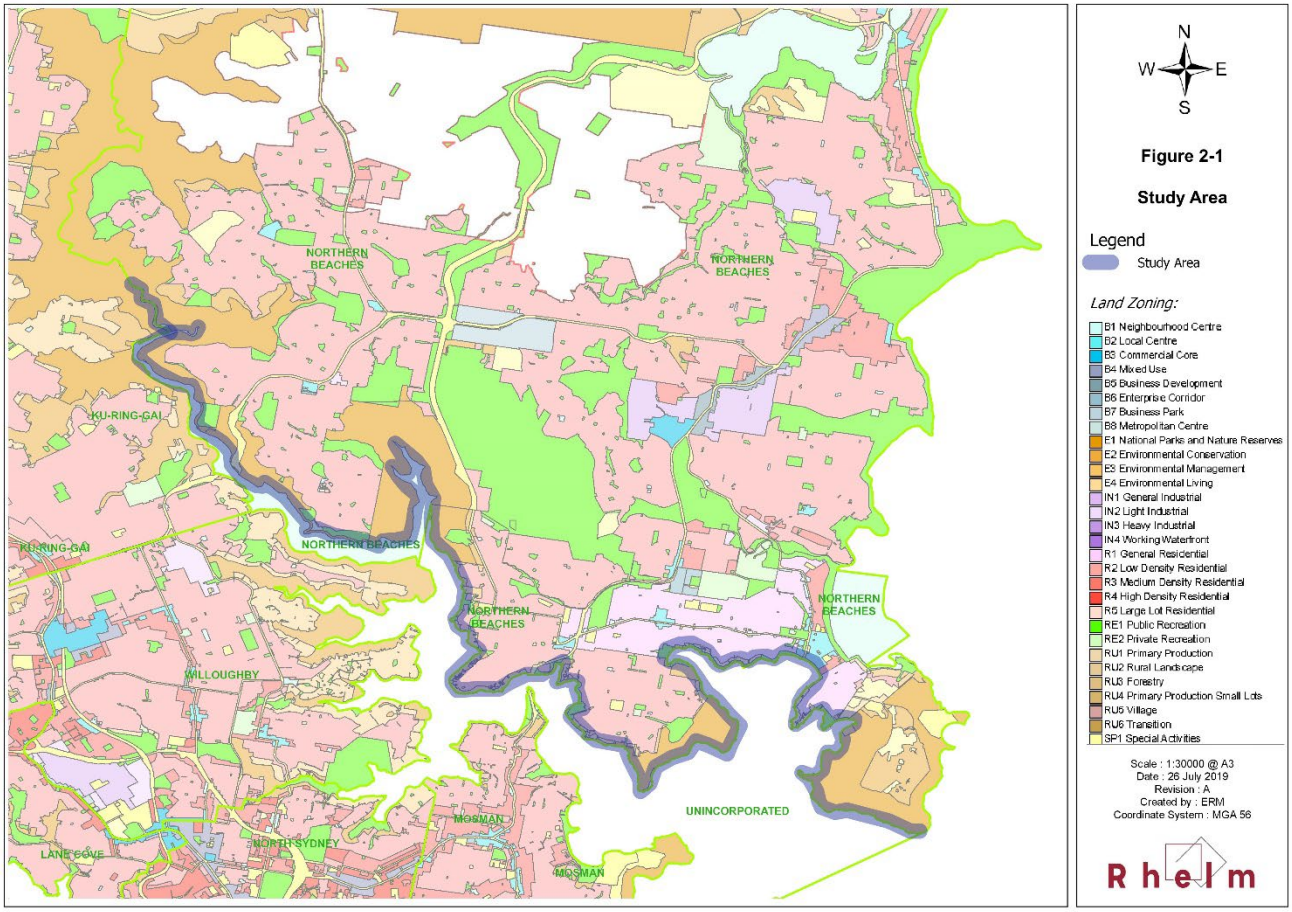


Figure 2-1 Study Area

2.1 Coastal Processes Summary

Sydney Harbour is a drowned river valley estuary which is dominated by tidal processes in the lower reaches where the Northern Beaches Council foreshore areas are located (see **Figure 2-1**). Diurnal tides with a range of 1 to 2 m flow through Sydney Harbour with minimal friction loss or transformation of the tide characteristics compared to the open ocean due to the relatively deep channels and open waters of the lower harbour.

Prevailing southerly and south-easterly swell (ocean) waves penetrate into Sydney Harbour and impact on shorelines between Clontarf, Middle Head and Many Cove. Large storms and swells occur several times per year resulting in swells of 1 to 2 m impacting on some shoreline areas. The most significant weather systems which can lead to coastal inundation of the Northern Beaches Council areas of Sydney Harbour are associated with East Coastal Low (ECL) storms that generate strong winds offshore and along the coastal fringe which result in large waves and elevated coastal water levels.

Elevated coastal water levels during the passage of a severe storm are the result of barometric effects and wind setup. The combined effect of barometric setup and wind setup is referred to as storm surge. Barometric

setup occurs due to the intense low-pressure systems that generate large storms. This reduction in air pressure over the water surface results in a local rise of the water level. Wind setup is a result of the wind inducing wind shear stresses on the water, which in turn generate currents. When these currents are impeded by the coast, a resulting increase in the water level occurs.

The Northern Beaches Council foreshore areas of North Harbour and Middle Harbour can experience large shoreline waves from swells which penetrate the entrance of Sydney Harbour and also locally generated sea waters. Waves can be particularly significant for coastal inundation when wave or wave runup impact on coastal structures, for example seawalls. Waves can overtop these structures which can result in significant inundation of adjoining properties.

The coastal modelling completed in this study to define coastal inundation levels within Sydney Harbour have focused on spatially quantifying the following processes that result in coastal inundation of foreshore areas:

- Wind setup from winds acting over Sydney Harbour from all possible directions;
- Local sea waves generated over Sydney Harbour from all possible directions; and
- The penetration of ocean swells to foreshore areas for the most severe offshore wave direction where prevailing storm waves are observed offshore.

3 Discussion of Coastal Processes

To calculate appropriate Estuarine Planning Levels (EPLs) it is necessary to understand the oceanographic and coastal processes impacting the foreshore. The following coastal processes have been considered in the determination of EPLs for North Harbour and Middle Harbour:

- Regional Processes (ocean scale of hundreds of kilometres);
- Local Processes (within North and Middle Harbour - scale a few kilometres); and
- Site Specific Processes (scales of tens of metres).

These processes are consistent with those adopted for the Pittwater EPL study (Cardno, 2015) and are outlined schematically in **Figure 3-1** and described in more detail in the following sections.

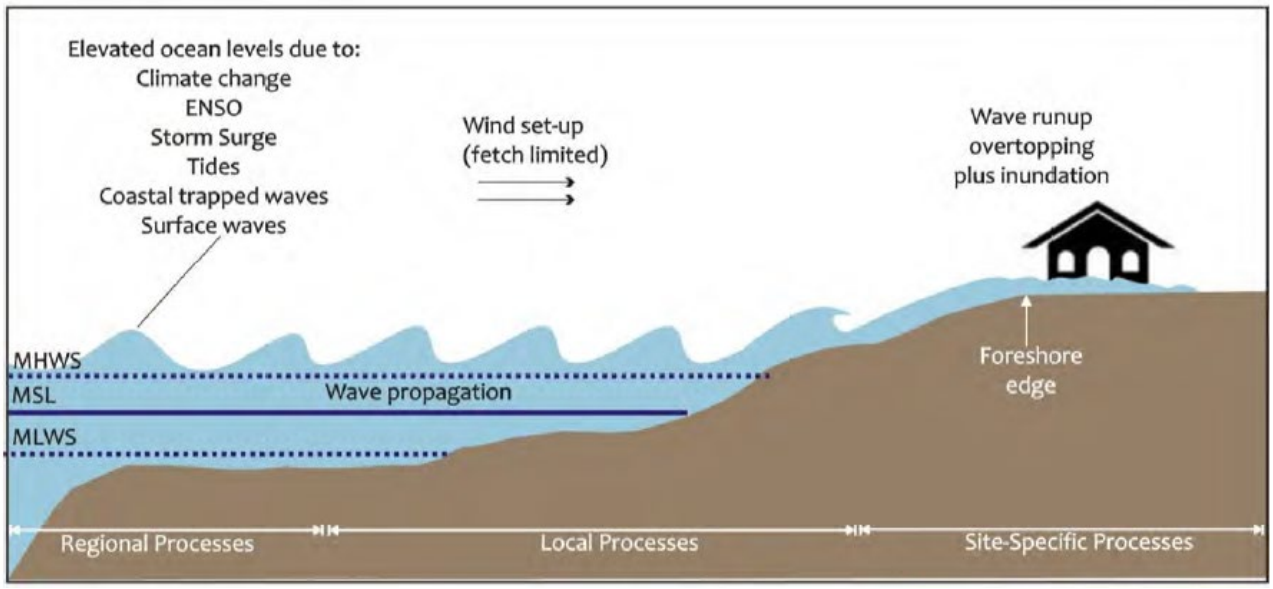


Figure 3-1 Coastal Processes Affecting Estuarine Planning Levels (from Cardno, 2015)

3.1 Regional Processes

Regional oceanographic processes relate to those ocean processes that are influenced by energy inputs causing sea level fluctuations over the larger scales of the NSW coastal waters and essentially affect coastal waters between Wollongong and Newcastle simultaneously (i.e. hundreds of kilometres of coastline). Coastal water levels in the study area region can be influenced by the following oceanographic processes:

- Astronomic Tides.
- Meteorological / Oceanographic Processes:
    - Storm Surge from wind setup and barometric setup.
    - Ocean Waves.
    - Coastal Trapped Waves.
    - El Niño-Southern Oscillation (ENSO).
    - Meteorological Oscillations.
- Climate Change and Sea Level Rise.
- Tectonic Processes.

Tectonic processes are not considered in this assessment as they play a very minor role (and hence low risk) in the study area, although though it is known that tectonic processes like tsunami created significant damage at Clontarf during the 1960 Chilean tsunami.

At times, these individual factors interact in complex ways to elevate water levels significantly above normal tidal levels. Storms, principally East Coast Lows, with low central atmospheric pressure (barometric setup), strong onshore winds (resulting in wind setup) and large waves superimposed on spring (or king) tides, are the most common cause of elevated water levels. This is shown diagrammatically in **Figure 3-2**. Taylor *et al* (2017) and Aldridge *et al* (2018) were able to replicate the extreme wave and water level probability distributions along the NSW coastline with a stochastic East Coast Low model. Those studies concluded along the NSW coast hazard models for the erosion and coastal inundation needed to include astronomical tide, storm surge and ocean waves. For the Sydney Region, those processes can all be defined from analysis of measured data. The combined probability of water levels from Astronomic Tides and Meteorological / Oceanographic Processes can be well defined from the long-term Fort Denison tide gauge data set (Watson and Lord, 2008). The deepwater probability of ocean wave conditions can be defined from the long-term measured wave data along the NSW coast (Shand *et al*, 2011). **Sections 4.1 and 4.2** present the regional scale water level and wave conditions adopted for this study.

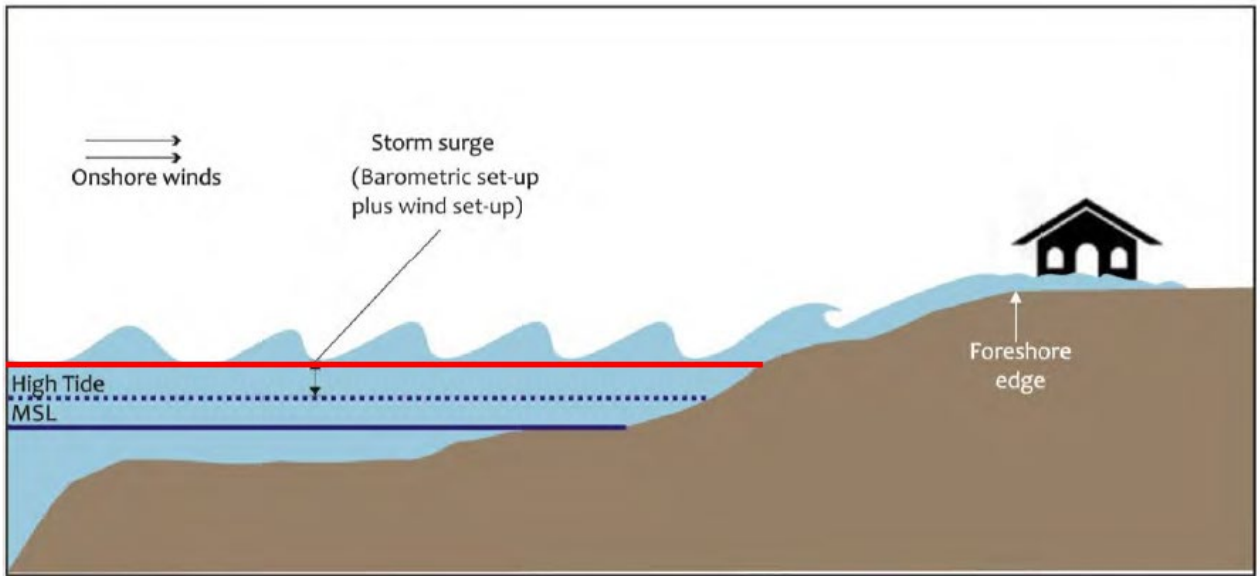


Figure 3-2 Regional Coastal Processes (from Cardno, 2015)

Determining a regional elevated water level for planning purposes depends on the probability of that level occurring and the risk associated with it. Planning benchmarks are generally determined on the basis of an average recurrence interval (ARI), which relates the probability of a particular water level occurring. Department of Planning (2007) advises that for flood prone land unless there are exceptional circumstances, councils should adopt the 100 Year ARI flood levels for planning of residential development. This relates to the water level associated with a storm event that has the probability of occurring once every hundred years. It is important to note that at the time of preparation of this study, the planning circular of 2007 (Department of Planning, 2007) was under review.

3.1.1 Sea Level Rise

Sea level rise will have an impact on coastal inundation levels in the future. It is noted that estuarine inundation is an existing risk as well as a future risk, sea level rise analysis was undertaken to understand how that risk may increase in the future.

The impact of two sea level rise scenarios has been assessed in this study. In the absence of a Council policy defining specific sea level rise values for this purpose, sea level rise of 0.4m and 0.9m have been selected for analysis to ensure consistency with many of Council's previous flood studies, and the Pittwater EPL approach (Cardno, 2015).

The selection of these values is supported by current science. In its fifth assessment report (2013), the IPCC (reported in Church et al, 2013) has developed a range of future sea level rise projections associated with different greenhouse gas emission scenarios (representative concentration pathways (RCPs)). These indicate that 0.4m sea level rise is almost certain by 2100 and 0.9m is likely. The application of these levels in this study is discussed in **Section 6.2**.

Table 3-1 Likely Global Sea Level Rise by 2100 (Church et al, 2013)

Scenario	***Likely* global mean sea level rise range by 2100 (relative to 1986-2005)**
Significantly Reduced Emissions (RCP 2.6)	0.24–0.61 m
Highest Emissions (RCP 8.5)	0.54–1.06 m

3.2 Local Processes

Local processes within the context of this study relate to the processes that cause variations in 'elevated local water levels' within the lower Sydney Harbour adjoining the Northern Beaches Council's foreshore areas (see **Figure 2-1**). Water levels within the lower Sydney Harbour (including North Harbour and Middle Harbour) will be influenced by local variations as a result of both wind strength and direction and waves.

Local Wind Setup

The same wind that adds to the regional storm surge in the form of wind setup has the potential to also cause further variation in the water level through wind setup developed over Sydney Harbour. This wind setup, however, is much smaller than the regional storm surge discussed in **Section 3.1** and is limited by the distance of water (fetch) over which the wind blows.

Wave Height

Ocean storms can contribute to elevated water levels along the coastline and inside Sydney Harbour. For the North and Middle Harbour foreshore areas, the most severe ocean storm waves come from the southeast to south sector. The ocean storm waves propagate from the deeper ocean into the shallow water of Sydney Harbour and the waves undergo changes caused by diffraction, refraction, shoaling, bed friction and wave breaking.

Local wind-generated waves can contribute to the elevated water levels as a result of ocean storms. The highest local wind-generated waves will occur during storms that have south to easterly winds that 'push' water onto the coast. In this way the two processes (regional and local) are correlated and the likelihood the

highest ocean water levels and highest local wind-generated waves occurring together (joint occurrence) will be very rare on the westward-facing shorelines of the study area.

Numerical wave modelling of the swell and local wind waves is presented in **Section 5**. Wave heights will vary depending on the location along the Northern Beaches Council foreshore areas and some areas are exposed to relatively large storm swell waves.

3.3 Site Specific Processes

Site specific processes within the context of this study relate to the processes at the foreshore. The physical factors that will impact the elevated water level will be the nature of the foreshore (e.g. retaining wall or sandy beach, referred to in this report as "foreshore type") and the height of the foreshore.

As a wave reaches the foreshore an 'uprush' of water onto the foreshore will occur, this is called wave run-up. The height of wave run-up is affected by the nature of the foreshore. Should wave run-up be large, wave overtopping may occur, which results in the temporary inundation of the foreshore area. The inland extent of the wave inundation is assumed to be 40m from the foreshore crest. With the inclusion of a freeboard allowance (see **Section 6.5**) this is an appropriate distance to assess the impacts of waves on coastal inundation and has been verified from site observations following severe storms along the NSW coastline.

Wave run-up mechanisms in this study have been quantified in a manner consistent with the Pittwater EPL's described in **Figure 3-3**. Wave run-up for shoreline types in the study area is presented in **Section 6.4**.

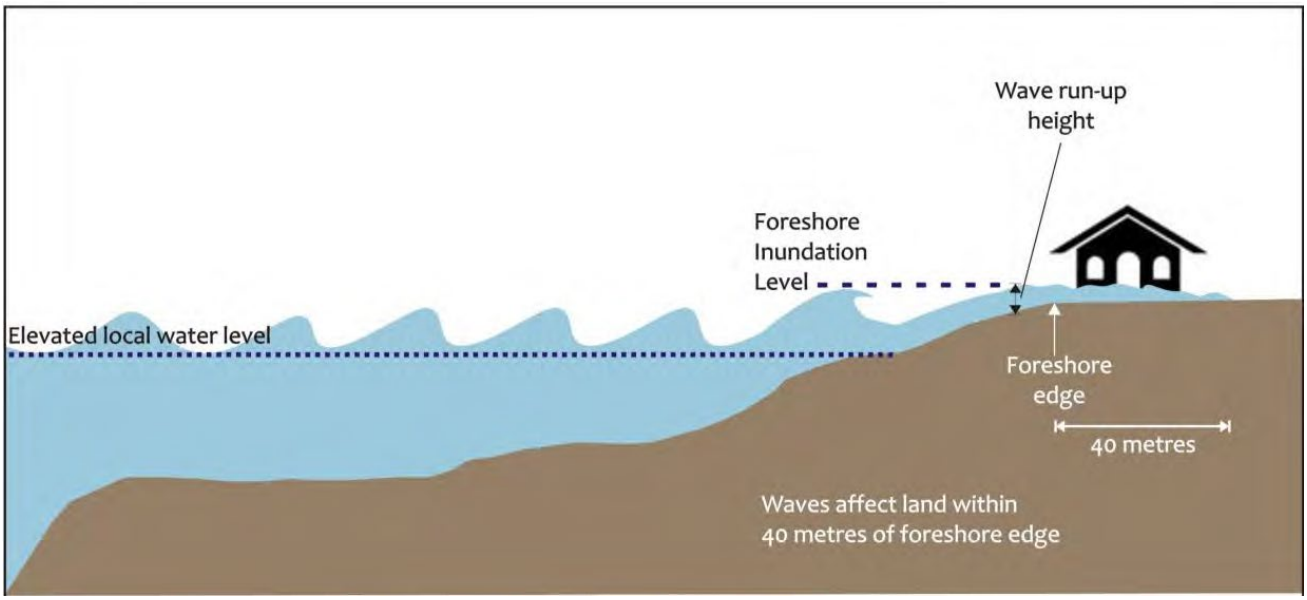


Figure 3-3 Site Specific Coastal Processes (from Cardno, 2015)

4 Data Compilation and Review

The following sections summarise the data and model inputs that have been utilised in this study to complete modelling required to define coastal inundation in the study area.

4.1 Sydney Harbour Water Levels

Sydney Harbour has a long, reliable data set of water levels measured at Fort Denison, and more recently at Middle Harbour (near the study area). Present day extreme design still water levels at Fort Denison based on a statistical analysis of measured historical records are provided in **Table 4-1** which are aligned with the outputs from the Fort Denison Sea Level Rise Vulnerability Study (Watson and Lord, 2008). The extremes analysis is based on water level data measured continuously at Fort Denison for over 100 years. The data reflects the astronomical tide levels as well as anomalies or variations from the predicted tide from storm surge and freshwater flows (assumed very minimal). Similarly, the data inherently incorporates climate-change and other seasonal-induced sea level rise over this timeframe. **Table 4-1** presents the extreme water levels for Fort Denison from Watson and Lord (2008) which have been adopted as the basis for the 100-year ARI ocean water level adopted in this study. A 100-year ARI water level of 1.44 m AHD has been adopted for Sydney Harbour, and the high-resolution modelling undertaken in this study has defined the additional wind setup that can occur at particularly locations within Sydney Harbour. This additional wind setup was added to the 100-year Fort Denison water level of 1.44 m AHD.

Table 4-1: Extreme water levels at Fort Denison, Sydney (Watson and Lord, 2008)

Average Recurrence Interval (ARI) (years)	Present Day Extreme Still Water Level	
	m CD*	m AHD
1	2.2	1.2
10	2.3	1.3
50	2.3	1.4
100	2.4	1.4
200	2.4	1.5

* CD = Chart Datum which approximates to LAT and is about 0.93m below AHD.

4.2 Coastal Storm Winds

A range of wind data sets have been analysed to define extreme winds which can generate enhanced storm surge and local sea waves in the study area. The key data sets reviewed in this study were:

- Long-term measured wind speeds at Sydney Airport spanning a period of 68 years (1948-2016);
- Wind measurements from at Fort Denison (1990-2019); and
- A synthetic East Coast Low (ECL) wind dataset which is derived from a 1,000 year independently derived Monte Carlo model (Taylor et al, 2017).

A review of all three datasets concluded that the Sydney Airport data was the most appropriate for use in defining extreme event winds. The directional extreme wind data from Sydney Airport has been adopted to define 100-year ARI sustained (10-minute average) winds for eight directional sectors as defined in **Table 4-2**. The strongest storm winds occur from a southerly direction, and this directional also correspondences to the longest fetch length exposure for most of the Northern Beaches Council foreshore areas in Sydney Harbour.

Table 4-2: Extreme wind speeds based on long-term Sydney Airport data (1948-2016)

Direction	100-year ARI wind speed (m/s)
Omni-Directional	28.2
North	15.4
Northeast	16.3
East	17.8
Southeast	20.4
South	27.5
Southwest	22.7
West	22.3
Northwest	20.8

4.3 Extreme Coastal Waves

NSW has good long-term wave measurements to assist with defining extreme coastal deepwater wave conditions for rare and extreme events. This study has adopted 100-year ARI wave conditions defined for the entrance to Sydney Harbour undertaken for the *NSW Coastal Wave Model: State Wide Nearshore Wave Transformation Tool* (Baird Australia, 2017). As part of Baird Australia (2017) 100-year ARI wave conditions were modelled at the entrance to Sydney Harbour using the NSW Coastal Wave model system and deepwater storm waves defined by Shand et al (2011). **Table 4-3** presents the 100-year ARI wave parameters (Hs – significant wave height, Tp – Wave period and mean direction at the entrance to the harbour in degrees True North) adopted for the entrance to Sydney Harbour.

Table 4-3: 100-year ARI extreme wave conditions for entrance to Sydney Harbour (Baird Australia, 2017)

Deepwater Direction	Hs (m)	Tp (s)	Mean Dir. @ Entrance to Harbour (deg TN)
South-southeast	7.47	13.7	123
East-southeast	6.81	12.4	104

4.4 Sydney Harbour Modelling (GSLLS)

Between 2012 and 2016, Baird in partnership with Cardno, undertook a series of modelling projects for the Greater Sydney Local Land Services (GSLLS) which informed the development of a preliminary estuary processes study for Sydney Harbour (Freewater, 2018). The estuary processes study is now being administered by the Department of Planning, Industry and Environment (DPIE, formerly the Office of Environment and Heritage, OEH).

Modelling of wind setup along the foreshore was undertaken using a calibrated DELFT3D hydrodynamic model covering the whole of Sydney Harbour (see **Figure 4-1**). The model is comprised of ten subdomains for different sections of Sydney Harbour and is run as a 3D model with eight vertical (sigma) layers. The model has been validated for currents and water levels at multiple locations throughout the harbour. The model is forced with

astronomical constituents plus residual water level at the harbour entrance, winds over the harbour, and catchment hydrological flows from around the harbour.

DPIE has provided permission for Northern Beaches Council to utilise the DELFT3D hydrodynamic model to undertake the storm surge and local sea wave modelling required in this study.

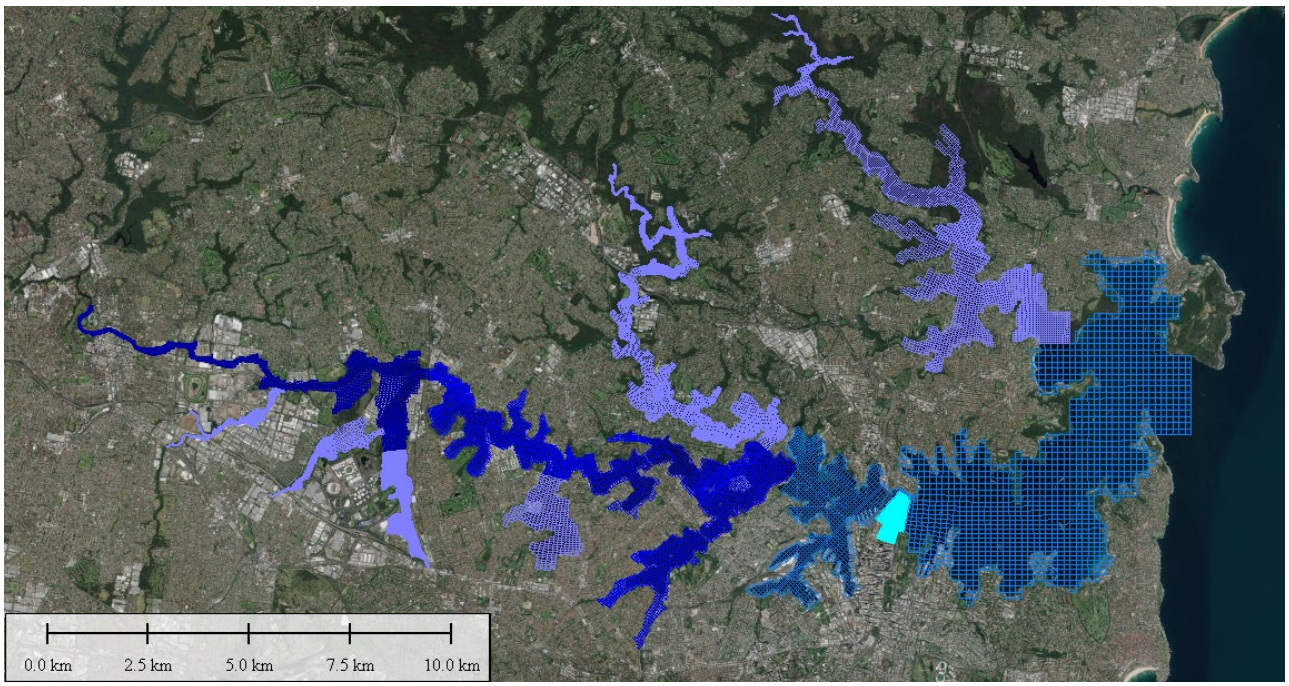


Figure 4-1 Delft3D Sydney Harbour Model

5 Estuarine Modelling

The estuarine modelling has been undertaken with three separate model systems to account for the following processes that contribute to the calculation of EPL's. The three model systems are:

- DELFT3D hydrodynamic model to model local wind setup that occurs within Sydney Harbour.
- SWAN wave model, which adopts the same grid as the DELFT3D model, to model local sea waves generated within Sydney Harbour from wind forcing.
- MIKE-21BW (Boussinesq Wave model) which models the penetration of ocean waves into Sydney Harbour and can account for all wave transformation processes between the entrance to Sydney Harbour, and the shorelines of the study area.

5.1 DELFT3D Modelling

The Fort Denison water level data provides a good basis to define extreme ocean water levels for return periods of 200-years ARI and greater. However, within embayment's and sections of Sydney Harbour, additional wind setup can occur which elevate water levels above Fort Denison levels.

Modelling of wind setup along the foreshore has been undertaken using a calibrated DELFT3D hydrodynamic model covering the whole of Sydney Harbour (**Section 4.4**) to quantify the variation in extreme water levels between Fort Denison and the study area. As outlined in **Section 4.4**, the model is comprised of ten subdomains for different sections of the harbour and is run as a 3D model with eight vertical (sigma) layers. The model has been calibrated for tidal and wind driven currents and water levels at selected sites around Sydney Harbour. For this study, the model resolution through Port Jackson between the entrance and the Sydney Harbour Bridge was increased to a maximum grid resolution of 50 m. Through the entire tidal extent of North Harbour and Middle Harbour, model resolution is typically 10 to 20 m.

The DELFT3D model was applied with spring tide and wind forcing to model wind setup for the eight directional sector winds defined in **Table 4-2**. The wind setup was calculated as the maximum difference between the maximum modelled water level and the boundary tide level for each of the calculation points. The largest wind setup from all direction scenarios were adopted as the 100-year ARI wind setup at each output location. The largest wind setup was generated by winds from southeasterly to southwesterly direction in the study area and this is consistent with the prevailing direction of storm waves for the study area. The 100 Year ARI south-east wind setup modelling results are shown in **Appendix A**.

5.2 SWAN Modelling

Local sea waves were calculated in a consistent manner using a SWAN wave model which adopted the same model grids and wind conditions as the DELFT3D model scenarios described in the previous section. The SWAN wave model adopted a fixed 100-year ARI water level for each model simulation and local sea waves defined by significant wave height (Hm0), wave period (Tp) and wave direction were computed for each output location. The largest wave heights from the defined in **Table 4-2** were adopted as the 100-year ARI local sea wave conditions. The largest waves were generated by winds from southeasterly to southwesterly direction in the study area and this is consistent with the prevailing direction of storm waves for the study areas. The 100 Year ARI south-east wind wave modelling results are shown in **Appendix A**.

5.3 MIKE21BW Modelling

Ocean swell penetration into Sydney Harbour were modelled using the MIKE-21BW model for the two 100-year ARI ocean wave scenarios described in **Table 4-3**. The MIKE-21BW adopted a constant 6 m grid resolution

through the whole study area and the grid was rotated to align with the wave directions at the entrance to Sydney Harbour. The model adopted the same underlying bathymetry data set as the Delft3D/SWAN model (see **Section 4.4**) and a 100-year ARI static water level for the two wave scenarios. The swell wave parameters defined by significant wave height (Hm0), wave period (Tp) and wave direction were computed for each output location.

Figure 5-1 presents the wave penetration plot for a 100-year ARI wave condition into Sydney Harbour for a south-southeast deepwater wave direction which is typical of many severe storms on the mid-NSW coastline and which is the most severe wave direction for most of the Northern Beaches Council foreshore areas. The wave heights at Middle Head are very large and significant wave penetration occurs into Middle Harbour and Clontarf, and also into Manly Cove.

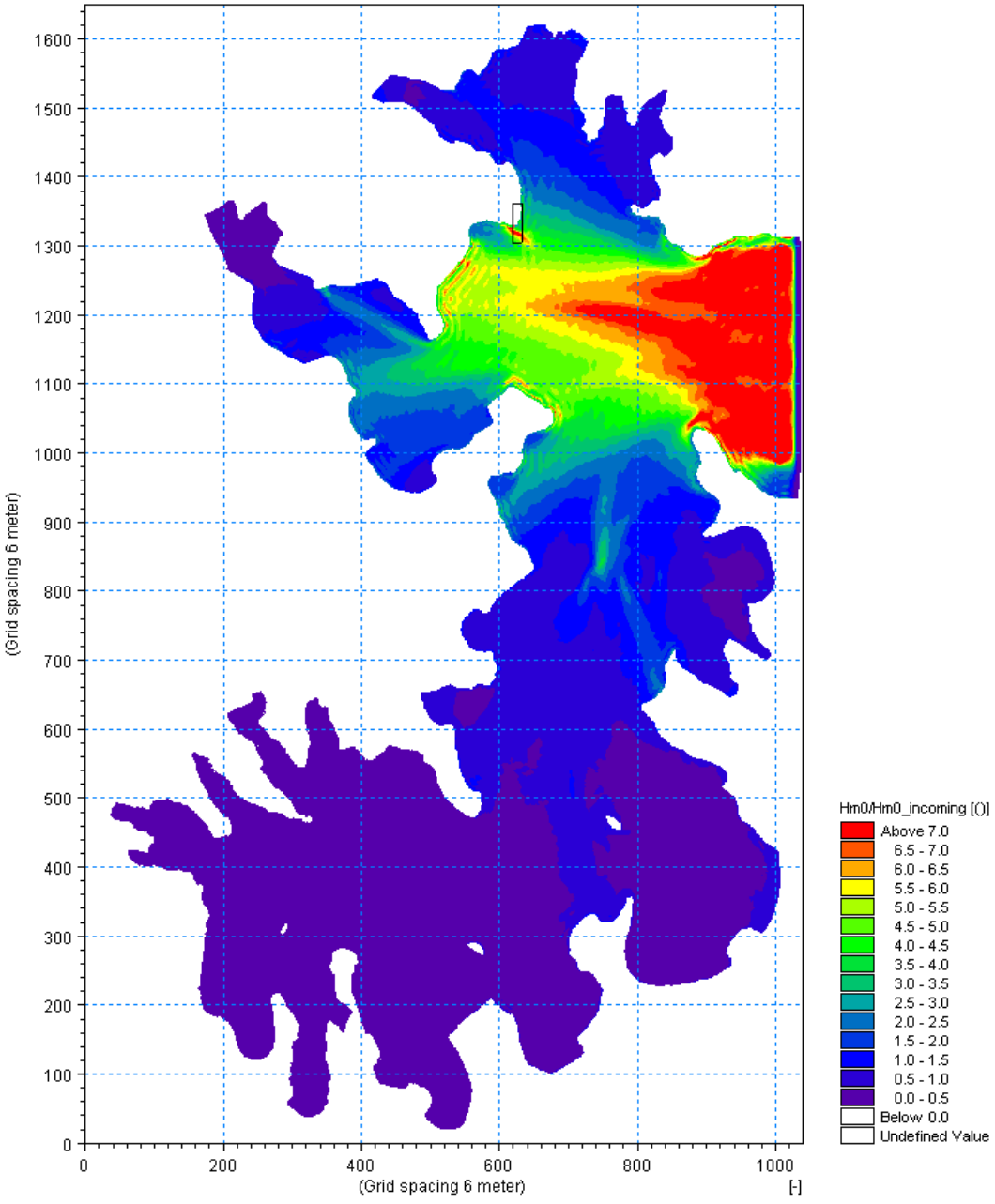


Figure 5-1 100-year ARI ocean wave condition penetration into Sydney Harbour, south-southeast deepwater wave direction

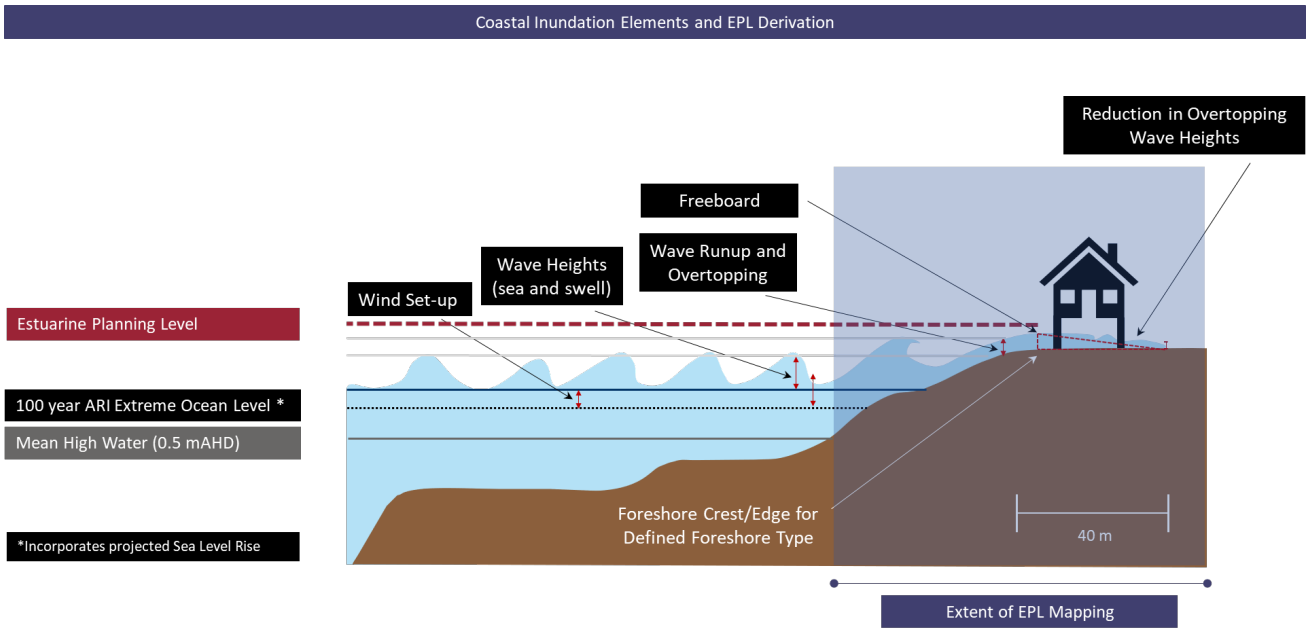
6 Calculation of Estuarine Planning Levels

6.1 Estuarine Planning Level Components

Estuarine Planning Levels have been reported at 529 locations along the foreshore based on the outcomes of the estuarine modelling (**Section 5**). Specifically, this includes:

- Identifying the 100 year ARI ocean tidal level for existing and future sea levels (i.e. incorporating sea level rise).
- Calculating the wind setup and wave heights (sea and swell) based on the model results described in **Section 5.1**.
- Calculating wave run-up and overtopping, which requires:
  - Defining the typical foreshore types around Sydney Harbour study area; and
  - Calculation of the reduction in overtopping wave heights as a result of distance from the foreshore.
- Applying a freeboard to allow for any uncertainties primarily associated with the water level and wave calculations.

The components of the EPLs are shown diagrammatically in **Figure 6-1**.



Adapted from Cardno (2015)

Figure 6-1 Estuarine Planning Level Components

6.2 Tidal Event Mapping and Sea Level Rise

It was considered appropriate to adopt the 100 Year ARI ocean water level event as the design event for planning purposes within the North Harbour and Middle Harbour coastal zone. In order to calculate the 100 Year ARI ocean water level, the Fort Denison tide gauge (Sydney Harbour) has been identified as an appropriate ocean water level gauge. As outlined in **Section 4.1**, extremal analysis of the Fort Denison tide gauge data reported in Watson and Lord (2008) has been applied. The extreme water levels provided from

this gauge provide a historical record of the combined effects of the processes described above. The 100 Year ARI level at Fort Denison was determined to be 1.44 mAHD (to two decimal places).

To provide an estimation of the projected impact of sea level rise on these tidal events, predicted sea level rise of 0.4m and 0.9m have been applied (see **Section 3.1.1**, with those adopted for Pittwater, as per Cardno, 2015).

Table 6-1 provides the levels that were used with what is referred to here as the 'present-day levels', which are actually based on the analysis of recorded tidal levels for the period 1914 – 2006 (Watson and Lord, 2008). In reality, Watson and Lord (2008) note that sea level rise has been observed at a rate of 3.1 mm/year and so using this trend as a coarse guide then the actual present day reference point (at 2019 when the calculations for this study were conducted) is potentially up to 0.04 m higher (i.e. 3.1 mm/yr times 13 years that have elapsed since the calculations based on actual data were completed). Given the small nature of the variance, the present day values have been retained as those reported by Watson and Lord (2008), which is consistent with that adopted for Pittwater (Cardno, 2015). It is important to note that the ocean water level projections in **Table 6-1** for 2050 and 2100 are adjusted from the reference point of 1990 which has been the common basis for sea level rise projections by the Intergovernmental Panel for Climate Change (Church and Gregory, 2001; Church et al, 2013).

Table 6-1 Present Day, 2050 and 2100 Ocean Levels

	Present Day Level (aka Existing Level)	**2050**	**2100**
Predicted Sea Level Rise	0 m	0.4 m	0.9 m
100 Year ARI Ocean Water Level*	1.44 mAHD	1.84 mAHD	2.34 mAHD

*Does not include wind set up or wave run up.

Sea level rise has been incorporated into the determination of Estuarine Planning Levels (EPLs) by calculating EPLs for 0.4m and 0.9m of sea level rise (in addition to the existing sea level). The shoreline wave height has also been updated where appropriate for the sea level rise predictions.

6.3 Wave Height and Wind Set-up

When selecting a design event upon which to calculate local wave heights, the likelihood of those waves occurring at the same time as the 100 Year ARI ocean water level needs to be considered.

Since many of the shoreline areas in the study area experience the largest local sea waves and wind setup as a result of winds from a southeast to southwest direction, the maximum 100-year ARI ocean water level was adopted to be concurrent with the 100-year ARI wind setup, local sea and ocean swell waves modelled in the scenarios presented in **Section 5**.

The wind setup, local sea and swell waves were calculated at over 500 output locations along the foreshore.

6.4 Wave Run-up and Overtopping

As described in **Section 3.3**, the height of wave run-up and the depth of overtopping are dependent on the foreshore type and the height of the foreshore edge (crest level). The inland extent of the wave inundation is assumed to be 40m from the foreshore crest based on the study team's observations of inundation associated with severe storms in the Sydney region. Therefore, the EPL applied to a development depends on the distance of the development from the foreshore edge.

6.4.1 Foreshore Types

The nature of the foreshore (foreshore type) is critical in the calculation of wave run-up and overtopping. The Pittwater Estuarine Planning Levels (see Cardno, 2015) adopted the following foreshore types:

- Type 1 - 1 in 10 natural slope (representing grassed and sandy gently sloping foreshores);
- Type 2 - 1 in 5 rocky shoreline (representing natural rocky foreshore or sloped rip rap);
- Type 3 - Vertical sea wall (e.g. block work or other retaining walls); and
- Type 4 - Mangroves.

The shoreline types are also appropriate for Middle Harbour, although the mangrove type shoreline is not generally observed in this study area. However, for consistency with the Pittwater (Cardno, 2015) approach all four foreshore types have been applied to the calculation of EPLs for Middle Harbour.

For this study, modifications to the approach within Cardno (2015) were made with respect to the maximum vertical level (or 'crest') of shoreline structures and the toe level of structures based on information for the study area reported in WRL (2012). WRL (2012) reports the outcomes of survey and inspection of seawalls along the foreshore of the Northern Beaches Council area. Using this information, the following levels were assumed for the wave overtopping calculations:

- Structure crest levels up to 3.5 m AHD have been adopted. In wave exposed areas of Sydney Harbour seawalls particularly have higher crest elevations than most structures in Pittwater.
- Toe level of the shoreline seaward of the structure of -0.5 mAHD. This level was adopted to calculate breaking wave heights (where applicable).

For these foreshore type categories calculations were undertaken for five foreshore crest levels, being:

- 1.5 mAHD;
- 2.0 mAHD;
- 2.5 mAHD;
- 3.0 mAHD; and
- 3.5 mAHD.

The wave overtopping of the shore was calculated using methods described in USACE (2002) and CERC (1984). The methods and equations are briefly summarised below.

Firstly, wave run-up is computed for a scenario without overtopping to determine the maximum elevation of run-up for each shoreline type. This was calculated using the equations of De Waal and van der Meer (1992). The runup level equation is presented in equation 6.1:

$$\frac{R_{2\%}}{H_s} = 1.6\,\xi_{op}\ where\ 0.5 < \xi_{op} < 2, or\ 3.2\ where\ \xi_{op} > 2 \qquad (6.1)$$

$$Level = SWL + R_{2\%} \qquad (6.2)$$

ξ_{op} is the surf similarity parameter based on deepwater wave height and wavelength and includes the structure slopes that were specified in the paragraphs above. The 2% wave run-up level ($R_{2\%}$) is adjusted based on shoreline type using the following reduction factors:

- Smooth concrete or blocks: 1.0 (no reduction)
- Grassy or vegetated bank: 0.9
- Rocky shoreline: 0.6

Following calculation of the unobstructed maximum run-up level, wave run-up and overtopping is calculated using van der Meer and Janssen (1995):

$$K_{TO} = C\left(1 - \frac{R_c}{R_{2\%}}\right) \; where \; C = 0.51 \qquad (6.3)$$

For vertical walls, Equation 6.3 is modified, and the shoreline wave height replaces the $R_{2\%}$term. The wave height transmitted over the wall (H_{TO}) and flood level (Level) is then calculated as follows:

$$H_{TO} = K_{TO} \times H_s \qquad (6.4)$$

$$Level = Crest\ Level + H_{TO} \qquad (6.5)$$

If the still water level is above the structure crest, the following equation from NSW Government (1990) is adopted:

$$Level = SWL + \frac{H_s}{2} \qquad (6.6)$$

6.4.2 Inland Extent of Wave Overtopping

Where a land parcel (allotment) slopes steeply back from the shoreline edge structure, the EPL may affect only a small part of the land parcel. However, where a land parcel is relatively flat, wave run-up may penetrate some distance inland, but is attenuated by percolation and friction. This landward reduction of wave inundation cannot be estimated with great confidence and has been based on observational experience.

It is assumed that wave run-up diminishes to zero at a point 40m inland from the edge structure. This means that at the foreshore, the EPL is set to the "maximum EPL" and at 40m from the foreshore the EPL is set at the local (still) water level. A linear interpolation has been used to calculate the EPL for areas between 0m and 40m from the foreshore, as shown in **Figure 6-2**.

The freeboard allowance accommodates the potential that some shallow, low velocity wave inundation may extend further than 40 m from the foreshore edge.

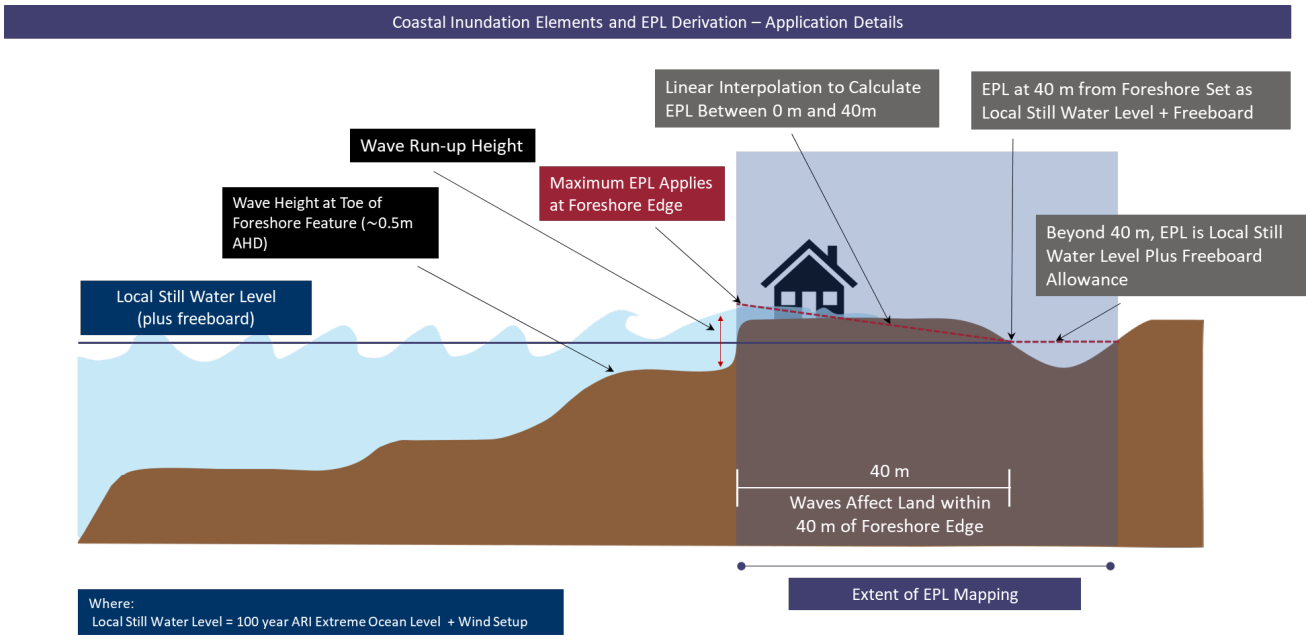


Figure 6-2 Calculation of Landward Reduction in Wave Inundation

Reduction factors have been calculated for each of the model reporting locations. The reduction factors vary for each of the localities due to the fact that the Design Still Water Levels (SWL) and Wave Height calculations vary between each locality.

Reduction factors have been calculated:

- At 5 metre increments with regards to distance from the foreshore edge (up to a maximum distance of 40 metres);
- For the foreshore type and height combination that produces the greatest amount of wave run-up (i.e. the highest EPL for that location); and
- For the 0.4m and 0.9m sea level rise scenarios (the existing or present day sea level rise scenario is not used for planning purposes and as such no reduction factors are required).

This results in a total of 16 reduction factors (8 for each sea level rise scenario) for each property within the 'existing' (or present day) sea level EPL database.

6.5 Freeboard

The estimation of all of the components that make up the EPL at each selected location includes some uncertainty, and the degree of uncertainty varies with each water level component. It is greatest for wave run-up; and wave run-up is normally the largest water level component, other than astronomical tide.

It is common practice to take some precaution over this uncertainty. This is generally achieved through the application of a freeboard.

Prior to explicit incorporation of provision for sea level rise in planning levels, a freeboard of 0.5 m was commonly been adopted in NSW, incorporating a 0.3 m freeboard with an additional 0.2 m to account for potential sea level rise (much less than the current projected sea level rise, see **Section 3.1.1** and **Section 6.2**).

A freeboard of 0.3m is considered appropriate for the definition of the EPL. This accounts for 0.05m uncertainty in wind setup, 0.15m (i.e. 10% variance on 1.5m) uncertainty on maximum wave height (swell), with the remaining 0.1m allowing for uncertainty in wave overtopping and runup.

It should be noted that the recommended 0.3 m freeboard has not been included in the provisions of estuarine inundation risk extent maps that identify inundation-affected properties. However, those properties identified as being affected by estuarine risk inundation will have a freeboard included in their EPL. The identification of "at risk" properties is discussed in more detail in **Section 7.1**.

6.6 Summary of Calculated EPL's

A summary of the significant EPL's parameters from the more than 500 calculation points is provided in **Table 6-2**. The full suite of EPL's are presented for all calculation points in **Appendix B** (also provided to Council in digital format).

Table 6-2 Summary of Significant EPL Parameters for Present Day, 2050 and 2100 Ocean Levels

Parameter	Location Name	Easting (MGA z56)	Northing (MGA z56)	Present Day (Existing Sea Level)	2050	2100
Maximum local wind setup	NBC_MHEPL_001	331865	6264756	0.45 m	0.45 m	0.45 m

Parameter	Location Name	Easting (MGA z56)	Northing (MGA z56)	Present Day (Existing Sea Level)	2050	2100
Maximum Wave Height – Swell Dominated	NBC_MHEPL_401	339706	6258829	1.47 m	1.76 m	2.12 m
Maximum Wave Height – Sea Dominated	NBC_MHEPL_429	340856	6258679	1.47 m	-	-
Maximum Wave Height – Sea Dominated	NBC_MHEPL_360	331865	6264756	-	1.73 m	1.77 m
Maximum EPL – Type 1 3.5 m AHD Crest (1 in 10 natural slope)	NBC_MHEPL_401	339706	6258829	4.19 mAHD	4.39 mAHD	4.65 mAHD
Maximum EPL – Type 1 3.5 m AHD Crest (1 in 5 rocky slope)	NBC_MHEPL_396	339556	6258829	4.03 mAHD	4.28 mAHD	4.60 mAHD
Maximum EPL – Type 3 3.5 m AHD Crest (Vertical sea wall)	NBC_MHEPL_396	339556	6258829	3.29 mAHD	3.65 mAHD	4.34 mAHD
Maximum EPL – Type 4 (Mangrove)	NBC_MHEPL_001	331865	6264756	2.19 mAHD	3.59 mAHD	3.09 mAHD

7 Properties Affected by Estuarine Planning Levels

7.1 Identifying Affected Properties

Those properties affected by Estuarine Planning Levels (EPLs) have been identified spatially using an 'EPL extent' generated as an area using the EPL calculations described in this report and the Airborne Laser Scanning (ALS) survey for the study area.

Properties have been identified as being affected if they are:

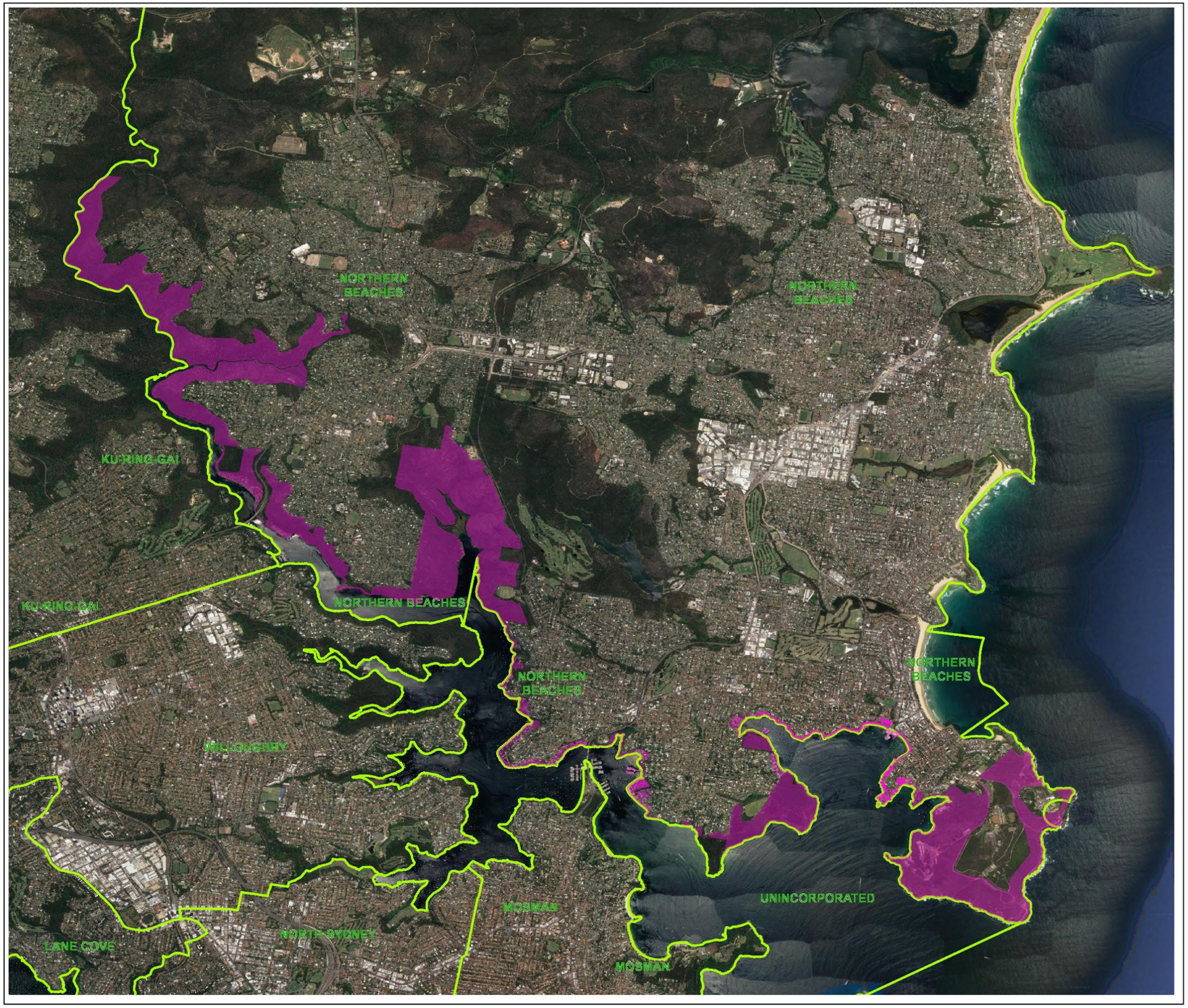
- Entirely or partially within the still water level map extent; and / or
- Entirely or partially within 'Worst Case' 'Maximum' EPL Extent within 40m of the foreshore - this is the highest wave run-up and overtopping level possible at that location. The foreshore type that produces the highest level of wave run up and over topping has been used for this purpose, rather the existing foreshore type.

Sea level rise of 0.9m has been used to identify the at-risk properties (**Section 3.1.1** and **6.2**).

It should be noted that no reduction factor has been applied to the overtopping height. For the purposes of identifying the 40m setback, it has been assumed that the foreshore crest/edge is located at the 0.5mAHD contour (which is approximately the mean high water (MHW) tide level of 0.52 mAHD, as measured at HMAS Penguin within Sydney Harbour for the period 1990-2010, see MHL, 2012). This is relevant as land below the mean high water mark is identified as Crown Land under the *Crown Land Management Act*, 2016 and is under the control of Transport for NSW (formerly the NSW Roads and Maritime Services).

It should be noted that no freeboard has been applied for the purposes of mapping the EPL extent. However, a freeboard of 0.3m will be applied for all planning levels issued to properties (as discussed in **Section 6.5**).

The estuarine inundation risk properties are shown on **Figure 7-1**, 588 land parcels in total. The estuarine inundation risk extent mapping for the affected residential properties are shown on **Figure 7-2** and **Figure 7-3**. The extent shown is for the 0.9m sea level rise scenario.



N
W E
S

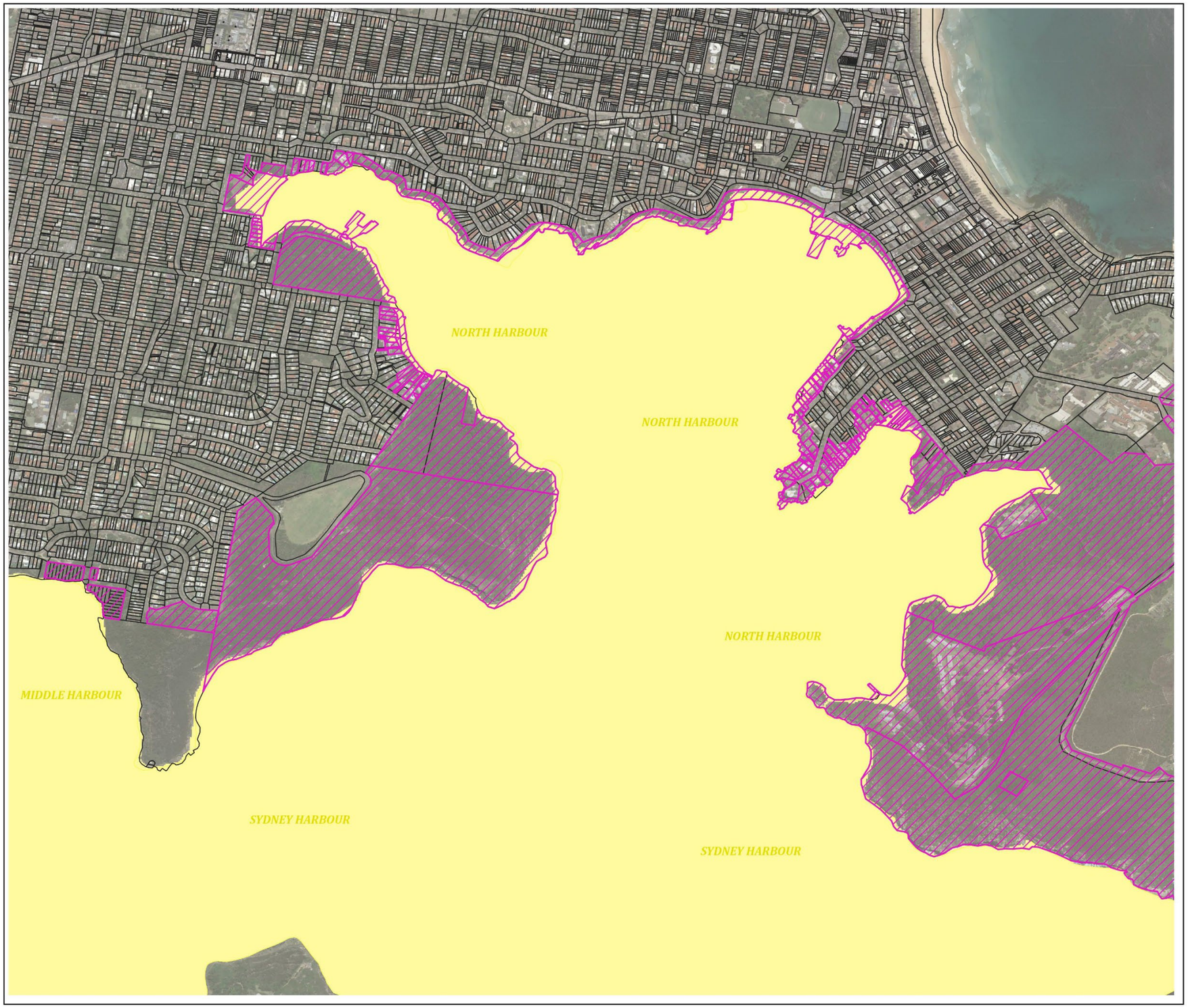
Figure 7-1

Estuarine Risk Properties

Legend
- Estuarine Risk Properties
- Local Government Areas

Scale : 1:30000 @ A3
Date : 29 July 2019
Revision : A
Created by : ERM
Coordinate System : MGA 56

Figure 7-1 Estuarine Inundation Risk Properties



N
W E
S

Figure 7-2

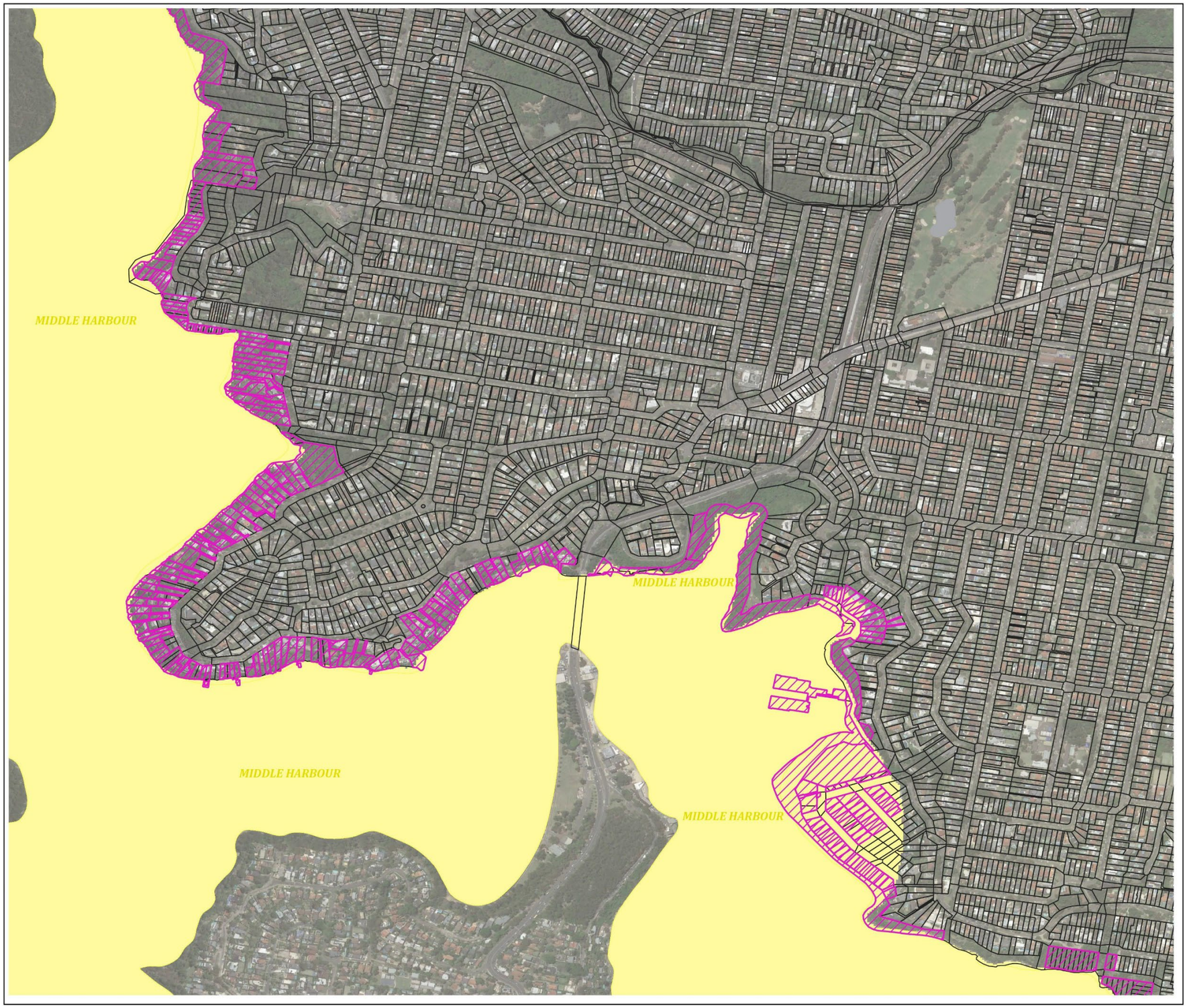
Estuarine Risk 0.9m SLR Extent in Residential Areas

Legend

- Estuarine Risk Properties
- Estuarine Inundation Risk 0.9m SLR

Scale : 1:8000 @ A3
Date : 18 December 2019
Revision : A
Created by : ERM
Coordinate System : MGA 56

Figure 7-2 Estuarine Inundation Risk Extent (Map A)



N
W E
S

Figure 7-3

Estuarine Risk 0.9m SLR Extent in Residential Areas

Legend

- Estuarine Risk Properties
- Estuarine Inundation Risk 0.9m SLR

Scale : 1:8000 @ A3
Date : 18 December 2019
Revision : A
Created by : ERM
Coordinate System : MGA 56

Figure 7-3 Estuarine Inundation Risk Extent (Map B)

7.2 Partially Affected Properties and Foreshore Reserves

Due to the relatively steep topography around the foreshore in the study area, there are a large number of land parcels (properties) where the estuarine inundation risk mapping only impacts the low lying portion of the property and the existing dwelling is located outside of the risk extent. Whilst there would be no estuarine inundation risk associated with the dwelling, the notification would still be present on the property's Section 10.7 planning certificate. This would ensure that any development or works proposed on the affected portion of the property (e.g. boatsheds, jetties or other structures) would consider the impacts of estuarine inundation risk.

A number of private properties are fronted by foreshore reserves or have domestic waterfront tenancy arrangements over Crown Land parcels. Where the estuarine inundation risk mapping is contained within these foreshore land parcels, no notification will be present for the adjacent private property. Where the estuarine inundation risk mapping includes even a small area of the private property, the relevant planning certificate notation would be present.

7.3 Application of Estuarine Planning Levels

The EPL for any proposed development on properties within 40m of the foreshore edge is calculated for the proposed foreshore type (or existing if to remain the same after the development) and the distance of the development from the foreshore edge. The resulting EPL will account for the 'local water level', wave run-up and overtopping and the reduction in the wave height as a result of distance from the foreshore, plus a freeboard of 0.3m, as described in **Sections 6.4 and 6.5**.

The EPL for any proposed development on properties beyond 40m of the foreshore edge will be equal to the 'local water level' at the property location, plus a freeboard of 0.3m.

If the proposed development lies outside the EPL extent, then no EPL or estuarine hazard mitigation measures would be applied to the development.

7.4 Estuarine Inundation Risk Related Development Controls

Estuarine Planning Levels (EPLs) are currently applied as a method for managing risk along the foreshore of Pittwater (in the north of the Northern Beaches LGA). EPLs are applied to this area under the provisions of the Pittwater Local Environment Plan (LEP) 2014. More specifically, Northern Beaches Council's approach to managing this risk is set out in the *Estuarine Risk Management Policy for Development in Pittwater* (within the Pittwater Development Control Plan (DCP) 2018).

At the time of preparation of this study Northern Beaches Council had separate Local Environmental Plans (LEPs) and Development Control Plans (DCPs) operating for the three former LGA regions.

Coastal hazard is managed at the highest level through the *State Environmental Planning Policy (Coastal Management) 2018*. However, the coastal vulnerability provisions for the Northern Beaches LGA are not yet operational as vulnerability mapping was not in place for Middle or North Harbour at the time of the completion of this study.

The *Manly LEP 2013* (Clause 6.10) currently sets the defining provisions for coastal hazards for Middle and North Harbour. These clauses generally aim to reduce the impacts of coastal zone development on the natural coastal processes and manage risk to property and life associated with coastal hazards. *Manly LEP 2013* also contains; *Clause 6.8 Landslide risk*, which applies to properties containing geotechnical issues in North and Middle Harbour as identified in various coastline hazard definitions studies.

The *Manly DCP 2013* does not provide specific controls relating to coastal risk management but does have controls relating to setbacks enforced by the foreshore building line shown on the LEP Foreshore Building Line Map.

The Estuarine Planning Levels derived from this study will inform the planning controls set out in the documents described above and any new planning controls developed for the amalgamated Northern Beaches Council. This may be done in a similar manner to the existing *Pittwater LEP 2014* and *Pittwater 21 DCP*. This will be investigated and discussed further as part of Stage 3.

8 Conclusions and Recommendations

This report provides for identification of land parcels that would potentially have estuarine inundation risk planning controls applied to development proposed within these land parcels. Further this report identifies Estuarine Planning Levels for each of these land parcels.

It is recommended that Council review its current planning process with regards to the application of Estuarine Planning Levels within the study area and notification of estuarine inundation risk on property planning certificates. This would be undertaken as part of Stage 3 of this project.

It is anticipated that community engagement will be an important aspect of future stages of this project.

9 Assumptions and Qualifications

The following assumptions and qualifications apply to this study:

- Storm climatology which processes storm surge and waves has been analysed as a stationary data record based on the available historical data sets for water levels and waves referenced in this report.
- A toe level of -0.5 m AHD was adopted for all shoreline and structure times. The toe level drives the wave run up and overtopping calculations. As such, where the toe level may be deeper than -0.5 m AHD, the EPL's may be non-conservative. Similarly, if a scoured toe level seaward of the edge treatment is higher than -0.5 m AHD, the EPL's may be more conservative.
- The EPL's have been calculated for a select number of edge treatments that comprise the majority of the shoreline area in the Northern Beach Council LGA. If a particular property has an edge treatment that significantly differs from the edge treatments considered in this study, a site specific assessment by a coastal engineer may be required.
- The hydrodynamic model used for the study has been calibrated for 2D and 3D currents at multiple sites around Sydney Harbour for tidally dominated conditions. No specific local wind setup validation has been completed for Sydney Harbour, but appropriate model coefficients are adopted based on similar models that have had site specific calibration.
- The swell penetration model has not been calibrated with data collected within the study area. Comparisons have been made with similar models that have previously been developed for Sydney Harbour.
- No changes to future storm climatology (such as those potentially associated with climate change) have been considered.

10 References

Aldridge J.M., Taylor D.R., Dent J.M. and Watson H. (2018). Stochastic East Coast Low Multi-Hazard Model for Southeastern Australia. Proceedings of AMOS Conference 2018. Sydney, February 2018.

Baird Australia and Manly Hydraulics Laboratory (2017). NSW Coastal Wave Model: State Wide Nearshore Wave Transformation Tool. Prepared by Baird Australia and Manly Hydraulics and Laboratory for Office of Environment and Heritage. Ref: 12359.101.R2.Rev0. 25 January 2017.

Cardno (2015). Pittwater Estuary Mapping of Sea Level Rise Impacts. Prepared for Pittwater Council. Ref: LJ2882/R2658v8. May 2015.

Church, J.A., P.U. Clark, A. Cazenave, J.M. Gregory, S. Jevrejeva, A. Levermann, M.A. Merrifield, G.A. Milne, R.S. Nerem, P.D. Nunn, A.J. Payne, W.T. Pfeffer, D. Stammer and A.S. Unnikrishnan, (2013). Sea Level Change. *Climate Change 2013: The Physical Science Basis.* Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Coastal Engineering Research Centre (1984). Shoreline Protection Manual, 4th edition. U.S. Department of the Army Coastal Engineering Research Centre, Washington, D.C.

Department of Planning (2007). Planning Circular 07-003. New Guideline and Changes to Section 117 Direction and EP&A Regulation on Flood Prone Land. NSW Government.

Department of Environment, Climate Change and Water (2010). Sea Level Rise Policy Statement. NSW Government.

Freewater, P. (2018) Sydney Harbour Estuary Processes Study - Stage 2 Detailed Studies of Vulnerabilities and Opportunities. Report prepared for Greater Sydney Local Land Services, June 2018.

MHL (2012) OEH NSW Tidal Planes Analysis 1990-2010 Harmonic Analysis, Report MHL2053, October 2012.

NSW Government (1990). Coastline Management Manual.

Shand, T. D., Goodwin, I. D., Mole, M. A., Carley, J. T., Browning, S., Coghlan, I. R., Harley, M.D., and Peirson, W. L. (2011). NSW Coastal Inundation Hazard Studies: Coastal Storms and Extreme Waves. Water Research Laboratory, Technical Report 2010/16.

Taylor D. R, Burston J.M, Dent J.M & Garber S.J. (2017). East Coast Lows: A Wind, Rainfall and Inundation Hazard Database Showing Locations Most at Risk. NSW Coastal Conference, 2017.

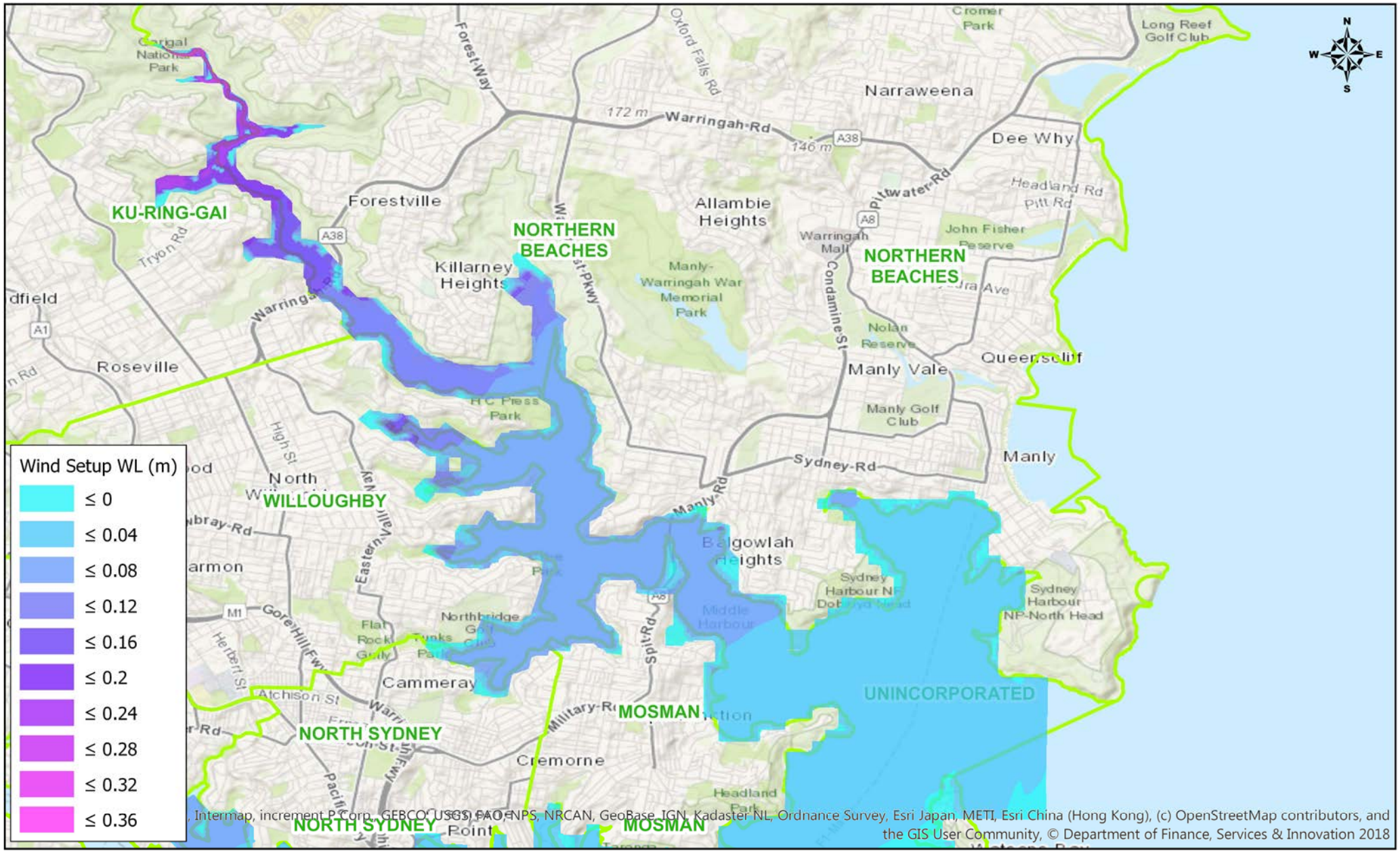
Watson P.J and D.B Lord (2008), Fort Denison Sea Level Rise Vulnerability Study, a report prepared by the Coastal Unit, NSW Department of Environment and Climate Change.

USACE (2002). Coastal Engineering Manual, U.S. Army Corps of Engineers, Engineer Manual 1110-2-1100, Washington D.C.

WRL (2012). Identification of Coastal Hazard Risk Areas to Projected Sea Level Rise for the Manly Local Government Area. Technical Report 2011/19. May 2012.

APPENDIX A

Local Wind and Wave Results



0 750 1,500 2,250 3,000 m

1:80,000

Modelled Wind Setup in Sydney Harbour

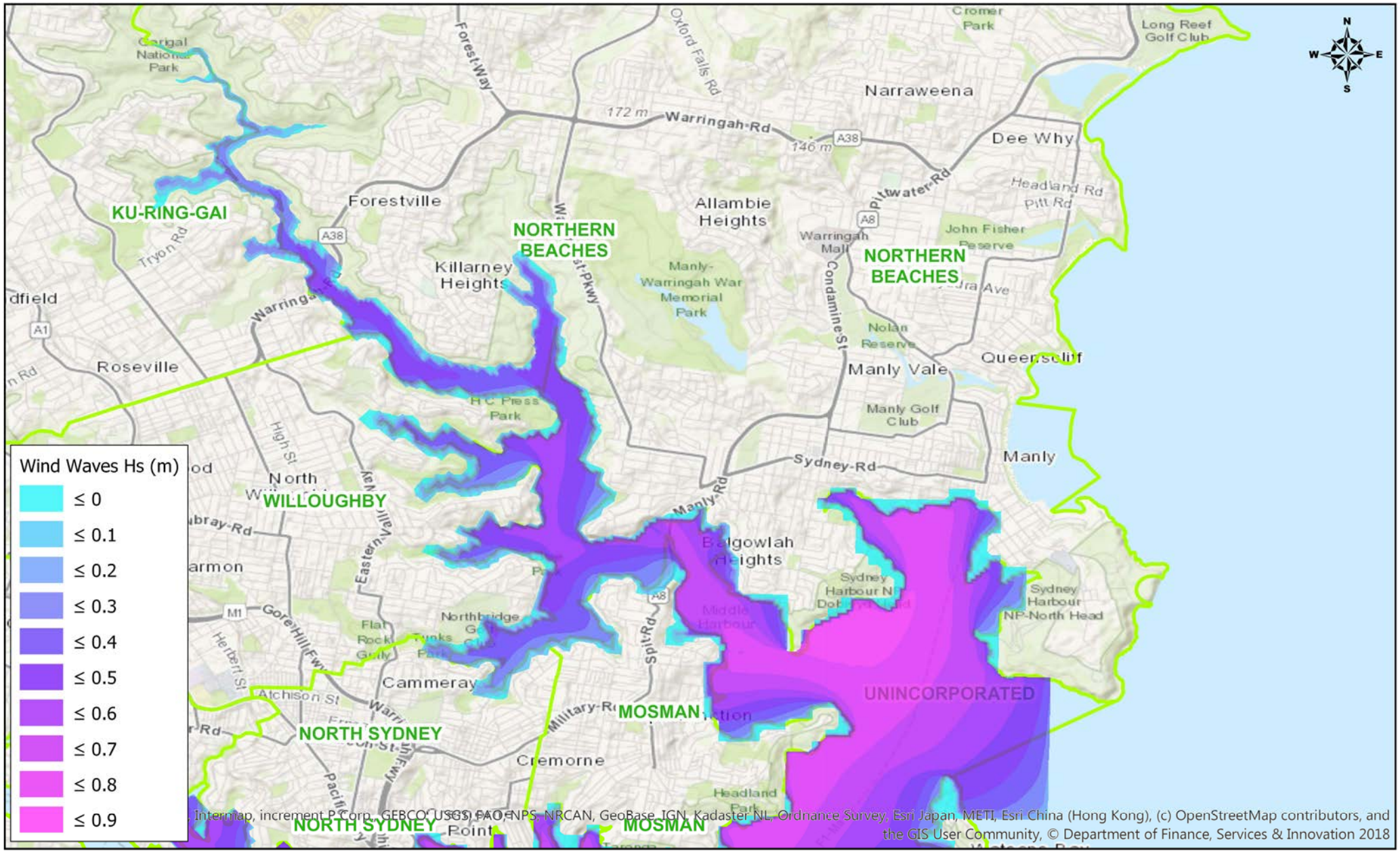
SE Winds 100 year ARI

Imagery: World Topographic Map ESRI
Model Grid Spacing: 50 m
Spatial Reference: Geo (WGS84)

Baird. Rhelm

Map Published: 2019-06-12

SydneyEPL_ModelResultsVisualised.mxd



0 750 1,500 2,250 3,000 m

1:80,000

Modelled Wind Waves in Sydney Harbour

SE Winds 100 year ARI

Imagery: World Topographic Map ESRI
Model Grid Spacing: 50 m
Spatial Reference: Geo (WGS84)

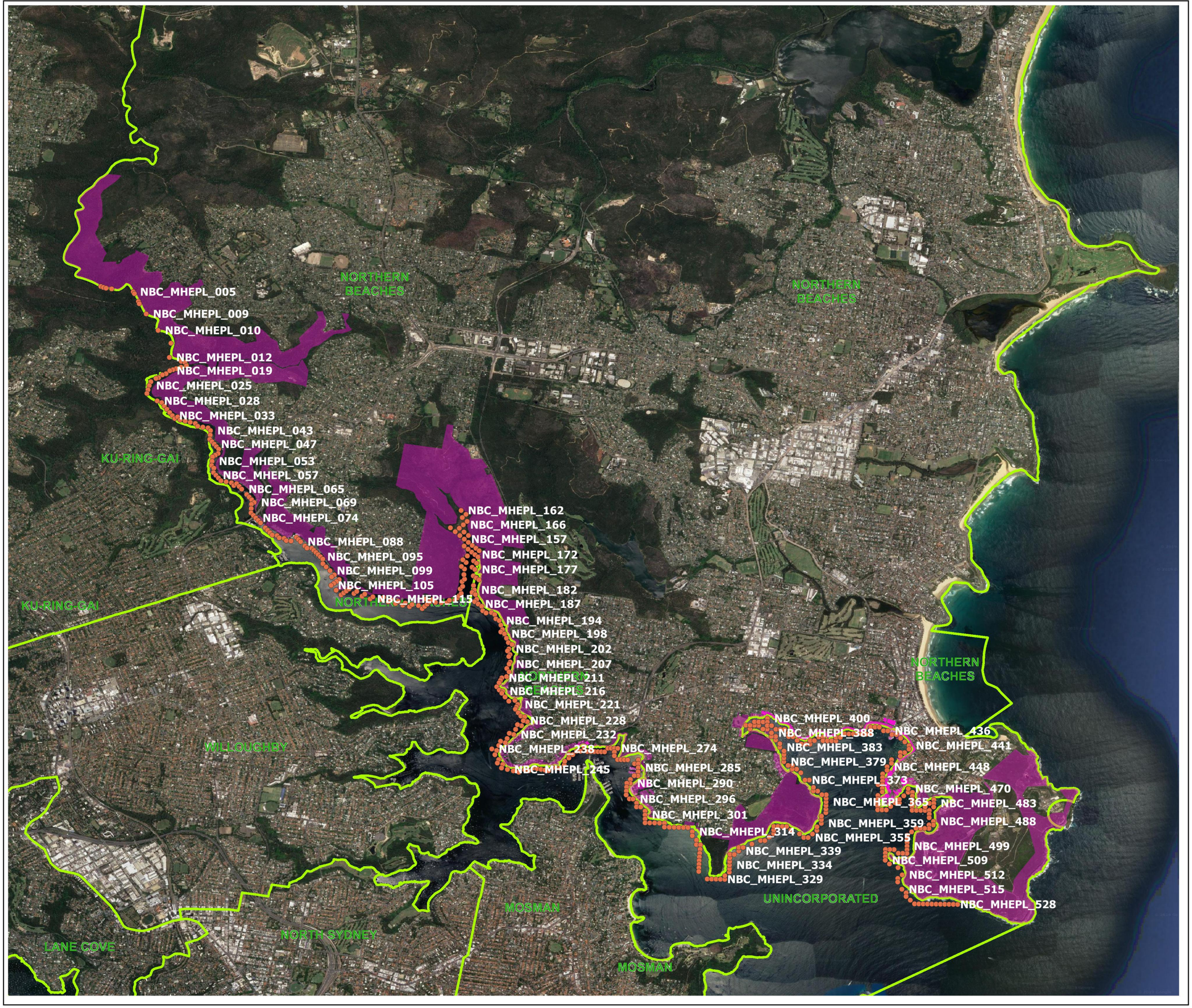
Baird. Rhelm

Map Published: 2019-06-12

SydneyEPL_ModelResultsVisualised.mxd

APPENDIX B

Estuarine Planning Level Database



N

W E

S

Figure B-1

EPL Model Reporting Locations

Legend

- Estuarine Risk Properties
- EPL Model Reporting Locations
- Local Government Areas

Scale : 1:30000 @ A3
Date : 6 August 2019
Revision : A
Created by : ERM
Coordinate System : MGA 56

Rhelm

100yr ARI Planning Levels - 0m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.00** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															REDUCTION FACTORS NOT CALCULATED FOR 2010 LEVELS AS THE 0m SLR LEVELS ARE NOT BEING USED FOR PLANNING PURPOSES							
			Wave						Foreshore Type ##																			
									1					2					3					4					
									Crest Level (mAHD)																			
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0 m Sea Level Projection	0 m Sea Level Projection																							
NBC_MHEPL_001	331865	6264756	0.10	1.00	0.45	1.89	2.19	2.30	2.25	2.27	2.27	2.27	2.27	2.25	2.27	2.27	2.27	2.27	2.25	2.30	2.30	2.30	2.30	2.19							
NBC_MHEPL_002	331895	6264742	0.11	1.00	0.40	1.84	2.14	2.25	2.19	2.22	2.22	2.22	2.22	2.19	2.22	2.22	2.22	2.22	2.19	2.25	2.25	2.25	2.25	2.14							
NBC_MHEPL_003	331926	6264732	0.12	1.13	0.40	1.84	2.14	2.26	2.20	2.23	2.23	2.23	2.23	2.20	2.23	2.23	2.23	2.23	2.20	2.26	2.26	2.26	2.26	2.14							
NBC_MHEPL_004	331991	6264724	0.14	1.13	0.39	1.83	2.13	2.27	2.20	2.23	2.23	2.23	2.23	2.20	2.23	2.23	2.23	2.23	2.20	2.27	2.27	2.27	2.27	2.13							
NBC_MHEPL_005	332243	6264687	0.20	1.28	0.39	1.83	2.13	2.33	2.23	2.27	2.27	2.27	2.27	2.23	2.27	2.27	2.27	2.27	2.23	2.31	2.33	2.33	2.33	2.13							
NBC_MHEPL_006	332257	6264662	0.18	1.28	0.39	1.83	2.13	2.31	2.22	2.26	2.26	2.26	2.26	2.22	2.26	2.26	2.26	2.26	2.22	2.30	2.31	2.31	2.31	2.13							
NBC_MHEPL_007	332305	6264553	0.19	1.13	0.38	1.82	2.12	2.31	2.21	2.26	2.26	2.26	2.26	2.21	2.24	2.24	2.24	2.24	2.21	2.30	2.31	2.31	2.31	2.12							
NBC_MHEPL_008	332316	6264523	0.19	1.28	0.38	1.82	2.12	2.30	2.21	2.25	2.25	2.25	2.25	2.21	2.25	2.25	2.25	2.25	2.21	2.30	2.30	2.30	2.30	2.12							
NBC_MHEPL_009	332399	6264382	0.17	1.28	0.36	1.80	2.10	2.27	2.19	2.23	2.23	2.23	2.23	2.19	2.23	2.23	2.23	2.23	2.19	2.27	2.27	2.27	2.27	2.10							
NBC_MHEPL_010	332541	6264155	0.16	1.28	0.34	1.78	2.08	2.24	2.16	2.20	2.20	2.20	2.20	2.16	2.20	2.20	2.20	2.20	2.16	2.24	2.24	2.24	2.24	2.08							
NBC_MHEPL_011	332693	6263979	0.22	1.13	0.31	1.75	2.05	2.28	2.17	2.22	2.22	2.22	2.22	2.17	2.18	2.18	2.18	2.18	2.17	2.28	2.28	2.28	2.28	2.05							
NBC_MHEPL_012	332679	6263782	0.17	1.45	0.30	1.74	2.04	2.21	2.12	2.16	2.16	2.16	2.16	2.12	2.18	2.18	2.18	2.18	2.12	2.21	2.21	2.21	2.21	2.04							
NBC_MHEPL_013	332816	6263730	0.25	1.28	0.29	1.73	2.03	2.28	2.16	2.21	2.21	2.21	2.21	2.16	2.19	2.19	2.19	2.19	2.16	2.28	2.28	2.28	2.28	2.03							
NBC_MHEPL_014	332860	6263715	0.29	1.45	0.29	1.73	2.03	2.32	2.18	2.24	2.24	2.24	2.24	2.18	2.22	2.22	2.22	2.22	2.18	2.31	2.32	2.32	2.32	2.03							
NBC_MHEPL_015	332878	6263668	0.31	1.45	0.29	1.73	2.03	2.34	2.18	2.25	2.25	2.25	2.25	2.18	2.22	2.22	2.22	2.22	2.18	2.32	2.34	2.34	2.34	2.03							
NBC_MHEPL_016	332816	6263647	0.28	1.45	0.29	1.73	2.03	2.31	2.17	2.23	2.23	2.23	2.23	2.17	2.21	2.21	2.21	2.21	2.17	2.30	2.31	2.31	2.31	2.03							
NBC_MHEPL_017	332759	6263626	0.19	1.65	0.29	1.73	2.03	2.22	2.12	2.17	2.17	2.17	2.17	2.12	2.20	2.20	2.20	2.20	2.12	2.22	2.22	2.22	2.22	2.03							
NBC_MHEPL_018	332723	6263611	0.33	1.65	0.28	1.72	2.02	2.35	2.19	2.26	2.26	2.26	2.26	2.19	2.25	2.25	2.25	2.25	2.19	2.33	2.35	2.35	2.35	2.02							
NBC_MHEPL_019	332687	6263597	0.32	1.65	0.28	1.72	2.02	2.35	2.18	2.26	2.26	2.26	2.26	2.18	2.25	2.25	2.25	2.25	2.18	2.32	2.35	2.35	2.35	2.02							
NBC_MHEPL_020	332643	6263554	0.34	1.65	0.28	1.72	2.02	2.36	2.19	2.26	2.26	2.26	2.26	2.19	2.25	2.25	2.25	2.25	2.19	2.33	2.36	2.36	2.36	2.02							
NBC_MHEPL_021	332602	6263538	0.34	1.65	0.27	1.71	2.01	2.36	2.18	2.26	2.26	2.26	2.26	2.18	2.24	2.24	2.24	2.24	2.18	2.33	2.36	2.36	2.36	2.01							
NBC_MHEPL_022	332558	6263498	0.35	1.65	0.27	1.71	2.01	2.36	2.18	2.26	2.26	2.26	2.26	2.18	2.24	2.24	2.24	2.24	2.18	2.33	2.36	2.36	2.36	2.01							
NBC_MHEPL_023	332529	6263487	0.35	1.65	0.27	1.71	2.01	2.36	2.19	2.26	2.26	2.26	2.26	2.19	2.24	2.24	2.24	2.24	2.19	2.33	2.36	2.36	2.36	2.01							
NBC_MHEPL_024	332469	6263439	0.37	1.87	0.27	1.71	2.01	2.37	2.19	2.27	2.27	2.27	2.27	2.19	2.27	2.27	2.27	2.27	2.19	2.34	2.37	2.37	2.37	2.01							
NBC_MHEPL_025	332451	6263386	0.37	1.65	0.26	1.70	2.00	2.37	2.19	2.27	2.27	2.27	2.27	2.19	2.24	2.24	2.24	2.24	2.19	2.34	2.37	2.37	2.37	2.00							
NBC_MHEPL_026	332438	6263327	0.33	1.87	0.25	1.69	1.99	2.33	2.16	2.23	2.23	2.23	2.23	2.16	2.25	2.25	2.25	2.25	2.16	2.31	2.33	2.33	2.33	1.99							
NBC_MHEPL_027	332426	6263276	0.29	1.65	0.25	1.69	1.99	2.28	2.13	2.20	2.20	2.20	2.20	2.13	2.20	2.20	2.20	2.20	2.13	2.28	2.28	2.28	2.28	1.99							
NBC_MHEPL_028	332548	6263174	0.37	1.65	0.24	1.68	1.98	2.35	2.16	2.24	2.24	2.24	2.24	2.16	2.22	2.22	2.22	2.22	2.16	2.32	2.35	2.35	2.35	1.98							
NBC_MHEPL_029	332600	6263152	0.36	1.65	0.24	1.68	1.98	2.34	2.16	2.24	2.24	2.24	2.24	2.16	2.22	2.22	2.22	2.22	2.16	2.32	2.34	2.34	2.34	1.98							
NBC_MHEPL_030	332632	6263103	0.34	1.65	0.24	1.68	1.98	2.32	2.15	2.22	2.22	2.22	2.22	2.15	2.20	2.20	2.20	2.20	2.15	2.31	2.32	2.32	2.32	1.98							
NBC_MHEPL_031	332662	6263060	0.32	1.65	0.23	1.67	1.97	2.29	2.13	2.20	2.20	2.20	2.20	2.13	2.20	2.20	2.20	2.20	2.13	2.29	2.29	2.29	2.29	1.97							
NBC_MHEPL_032	332696	6263014	0.30	1.65	0.23	1.67	1.97	2.27	2.12	2.19	2.19	2.19	2.19	2.12	2.19	2.19	2.19	2.19	2.12	2.27	2.27	2.27	2.27	1.97							
NBC_MHEPL_033	332727	6262972	0.29	1.45	0.23	1.67	1.97	2.26	2.11	2.18	2.18	2.18	2.18	2.11	2.15	2.15	2.15	2.15	2.11	2.26	2.26	2.26	2.26	1.97							
NBC_MHEPL_034	332757	6262932	0.29	1.65	0.22	1.66	1.96	2.25	2.11	2.17	2.17	2.17	2.17	2.11	2.18	2.18	2.18	2.18	2.11	2.25	2.25	2.25	2.25	1.96							
NBC_MHEPL_035	332788	6262955	0.29	1.65	0.23	1.67	1.97	2.26	2.11	2.18	2.18	2.18	2.18	2.11	2.18	2.18	2.18	2.18	2.11	2.26	2.26	2.26	2.26	1.97							
NBC_MHEPL_036	332818	6262915	0.30	1.65	0.22	1.66	1.96	2.27	2.12	2.18	2.18	2.18	2.18	2.12	2.18	2.18	2.18	2.18	2.12	2.27	2.27	2.27	2.27	1.96							
NBC_MHEPL_037	332877	6262900	0.32	1.65	0.22	1.66	1.96	2.28	2.12	2.19	2.19	2.19	2.19	2.12	2.18	2.18	2.18	2.18	2.12	2.28	2.28	2.28	2.28	1.96							
NBC_MHEPL_038	332936	6262884	0.32	1.65	0.22	1.66	1.96	2.28	2.12	2.19	2.19	2.19	2.19	2.12	2.18	2.18	2.18	2.18	2.12	2.28	2.28	2.28	2.28	1.96							
NBC_MHEPL_039	332996	6262868	0.33	1.65	0.22	1.66	1.96	2.28	2.12	2.19	2.19	2.19	2.19	2.12	2.18	2.18	2.18	2.18	2.12	2.28	2.28	2.28	2.28	1.96							
NBC_MHEPL_040	333024	6262831	0.40	2.11	0.22	1.66	1.96	2.36	2.16	2.24	2.24	2.24	2.24	2.16	2.27	2.27	2.27	2.27	2.16	2.33	2.36	2.36	2.36	1.96							
NBC_MHEPL_041	333084	6262819	0.44	2.11	0.22	1.66	1.96	2.39	2.17	2.27	2.27	2.27	2.27	2.17	2.28	2.28	2.28	2.28	2.17	2.35	2.39	2.39	2.39	1.96							
NBC_MHEPL_042	333144	6262808	0.47	2.11	0.21	1.65	1.95	2.43	2.19	2.30	2.30	2.30	2.30	2.19	2.30	2.30	2.30	2.30	2.19	2.37	2.43	2.43	2.43	1.95							
NBC_MHEPL_043	333174	6262772	0.47	2.11	0.21	1.65	1.95	2.42	2.19	2.29	2.29	2.29	2.29	2.19	2.29	2.29	2.29	2.29	2.19	2.36	2.42	2.42	2.42	1.95							
NBC_MHEPL_044	333171	6262710	0.48	2.11	0.21	1.65	1.95	2.43	2.19	2.29	2.29	2.29	2.29	2.19	2.29	2.29	2.29	2.29	2.19	2.37	2.43	2.43	2.43	1.95							
NBC_MHEPL_045	333167	6262651	0.48	2.11	0.20	1.64	1.94	2.42	2.18	2.29	2.29	2.29	2.29	2.18	2.29	2.29	2.29	2.29	2.18	2.36	2.42	2.42	2.42	1.94							
NBC_MHEPL_046	333194	6262618	0.47	2.11	0.20	1.64	1.94	2.41	2.18	2.28	2.28	2.28	2.28	2.18	2.28	2.28	2.28	2.28	2.18	2.36	2.41	2.41	2.41	1.94							
NBC_MHEPL_047	333220	6262584	0.47	2.11	0.20	1.64	1.94	2.40	2.17	2.27	2.27	2.27	2.27	2.17	2.27	2.27	2.27	2.27	2.17	2.35	2.40	2.40	2.40	1.94							
NBC_MHEPL_048	333246	6262550	0.46	2.11	0.19	1.63	1.93	2.39	2.16	2.26	2.26	2.26	2.26	2.16	2.27	2.27	2.27	2.27	2.16	2.35	2.39	2.39	2.39	1.93							
NBC_MHEPL_049	333272	6262516	0.43	1.87	0.19	1.63	1.93	2.37	2.15	2.25	2.25	2.25	2.25	2.15	2.22	2.22	2.22	2.22	2.15	2.33	2.37	2.37	2.37	1.93							
NBC_MHEPL_050	333268	6262456	0.41	1.87	0.19	1.63	1.93	2.34	2.13	2.23	2.23	2.23	2.23	2.13	2.21	2.21	2.21	2.21	2.13	2.32	2.34	2.34	2.34	1.93							
NBC_MHEPL_051	333236	6262431	0.41	1.87	0.19	1.63	1.93	2.34	2.13	2.22	2.22	2.22	2.22	2.13	2.21	2.21	2.21	2.21	2.13	2.32	2.34	2.34	2.34	1.93							
NBC_MHEPL_052	333204	6262407	0.41	1.87	0.18	1.62	1.92	2.34	2.13	2.22	2.22	2.22	2.22	2.13	2.21	2.21	2.21	2.21	2.13	2.32	2.34	2.34	2.34	1.92							
NBC_MHEPL_053	333199	6262347	0.45	2.11	0.18	1.62	1.92	2.37	2.14	2.24	2.24	2.24	2.24	2.14	2.25	2.25	2.25	2.25	2.14	2.33	2.37	2.37	2.37	1.92							
NBC_MHEPL_054	333194	6262286	0.49	2.40	0.18	1.62	1.92	2.41	2.16	2.27	2.27	2.27	2.27	2.16	2.30	2.30	2.30	2.30	2.16	2.35	2.41	2.41	2.41	1.92							
NBC_MHEPL_055	333222	6262250	0.48	2.11	0.17	1.61	1.91	2.39	2.15	2.26	2.26	2.26	2.26	2.15	2.26	2.26	2.26	2.26	2.15	2.35	2.39	2.39	2.39	1.91							
NBC_MHEPL_056	333219	6262189	0.47	2.11	0.17	1.61	1.91	2.37	2.14	2.24	2.24	2.24	2.24	2.14	2.25	2.25	2.25	2.25	2.14	2.34	2.37	2.37	2.37	1.91							
NBC_MHEPL_057	333248	6262152	0.45	2.11	0.16	1.60	1.90	2.35	2.13	2.23	2.23	2.23	2.23	2.13	2.24	2.24	2.24	2.24	2.13	2.33	2.35	2.35	2.35	1.90							

100yr ARI Planning Levels - 0m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.00** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															REDUCTION FACTORS NOT CALCULATED FOR 2010 LEVELS AS THE 0m SLR LEVELS ARE NOT BEING USED FOR PLANNING PURPOSES							
			Wave						Foreshore Type ##																			
									1					2					3						4			
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	Crest Level (mAHD)																	5m	10m	15m	20m	25m	30m	35m	40m
						0 m Sea Level Projection	0 m Sea Level Projection		1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A								
NBC_MHEPL_058	333277	6262115	0.44	2.11	0.16	1.60	1.90	2.34	2.12	2.22	2.22	2.22	2.22	2.12	2.23	2.23	2.23	2.23	2.12	2.32	2.34	2.34	2.34	1.90								
NBC_MHEPL_059	333307	6262077	0.46	2.11	0.16	1.60	1.90	2.36	2.13	2.23	2.23	2.23	2.23	2.13	2.24	2.24	2.24	2.24	2.13	2.33	2.36	2.36	2.36	1.90								
NBC_MHEPL_060	333368	6262063	0.48	2.40	0.16	1.60	1.90	2.38	2.14	2.24	2.24	2.24	2.24	2.14	2.28	2.28	2.28	2.28	2.14	2.34	2.38	2.38	2.38	1.90								
NBC_MHEPL_061	333429	6262050	0.50	2.40	0.16	1.60	1.90	2.39	2.15	2.26	2.26	2.26	2.26	2.15	2.29	2.29	2.29	2.29	2.15	2.35	2.39	2.39	2.39	1.90								
NBC_MHEPL_062	333459	6262013	0.50	2.40	0.16	1.60	1.90	2.40	2.15	2.26	2.26	2.26	2.26	2.15	2.29	2.29	2.29	2.29	2.15	2.35	2.40	2.40	2.40	1.90								
NBC_MHEPL_063	333490	6262038	0.51	2.40	0.16	1.60	1.90	2.40	2.15	2.26	2.26	2.26	2.26	2.15	2.29	2.29	2.29	2.29	2.15	2.35	2.40	2.40	2.40	1.90								
NBC_MHEPL_064	333520	6262001	0.51	2.40	0.15	1.59	1.89	2.40	2.15	2.26	2.26	2.26	2.26	2.15	2.29	2.29	2.29	2.29	2.15	2.35	2.40	2.40	2.40	1.89								
NBC_MHEPL_065	333550	6261964	0.51	2.11	0.15	1.59	1.89	2.40	2.15	2.26	2.26	2.26	2.26	2.15	2.24	2.24	2.24	2.24	2.15	2.35	2.40	2.40	2.40	1.89								
NBC_MHEPL_066	333609	6261891	0.50	2.11	0.15	1.59	1.89	2.38	2.14	2.24	2.24	2.24	2.24	2.14	2.24	2.24	2.24	2.24	2.14	2.34	2.38	2.38	2.38	1.89								
NBC_MHEPL_067	333639	6261854	0.48	2.11	0.15	1.59	1.89	2.37	2.13	2.23	2.23	2.23	2.23	2.13	2.23	2.23	2.23	2.23	2.13	2.33	2.37	2.37	2.37	1.89								
NBC_MHEPL_068	333668	6261818	0.46	2.11	0.14	1.58	1.88	2.35	2.12	2.22	2.22	2.22	2.22	2.12	2.22	2.22	2.22	2.22	2.12	2.32	2.35	2.35	2.35	1.88								
NBC_MHEPL_069	333698	6261781	0.45	1.87	0.14	1.58	1.88	2.33	2.11	2.20	2.20	2.20	2.20	2.11	2.18	2.18	2.18	2.18	2.11	2.31	2.33	2.33	2.33	1.88								
NBC_MHEPL_070	333667	6261756	0.48	2.11	0.14	1.58	1.88	2.36	2.12	2.23	2.23	2.23	2.23	2.12	2.22	2.22	2.22	2.22	2.12	2.33	2.36	2.36	2.36	1.88								
NBC_MHEPL_071	333665	6261696	0.50	2.11	0.14	1.58	1.88	2.38	2.13	2.24	2.24	2.24	2.24	2.13	2.23	2.23	2.23	2.23	2.13	2.34	2.38	2.38	2.38	1.88								
NBC_MHEPL_072	333664	6261636	0.50	2.11	0.13	1.57	1.87	2.37	2.12	2.23	2.23	2.23	2.23	2.12	2.22	2.22	2.22	2.22	2.12	2.34	2.37	2.37	2.37	1.87								
NBC_MHEPL_073	333692	6261601	0.49	2.11	0.13	1.57	1.87	2.36	2.12	2.23	2.23	2.23	2.23	2.12	2.22	2.22	2.22	2.22	2.12	2.33	2.36	2.36	2.36	1.87								
NBC_MHEPL_074	333720	6261566	0.48	2.11	0.13	1.57	1.87	2.35	2.11	2.22	2.22	2.22	2.22	2.11	2.21	2.21	2.21	2.21	2.11	2.33	2.35	2.35	2.35	1.87								
NBC_MHEPL_075	333748	6261532	0.48	2.11	0.13	1.57	1.87	2.35	2.11	2.21	2.21	2.21	2.21	2.11	2.21	2.21	2.21	2.21	2.11	2.32	2.35	2.35	2.35	1.87								
NBC_MHEPL_076	333777	6261498	0.47	2.11	0.13	1.57	1.87	2.34	2.10	2.21	2.21	2.21	2.21	2.10	2.21	2.21	2.21	2.21	2.10	2.32	2.34	2.34	2.34	1.87								
NBC_MHEPL_077	333833	6261431	0.46	2.11	0.12	1.56	1.86	2.33	2.10	2.20	2.20	2.20	2.20	2.10	2.20	2.20	2.20	2.20	2.10	2.31	2.33	2.33	2.33	1.86								
NBC_MHEPL_078	333860	6261397	0.47	2.11	0.12	1.56	1.86	2.33	2.09	2.20	2.20	2.20	2.20	2.09	2.20	2.20	2.20	2.20	2.09	2.31	2.33	2.33	2.33	1.86								
NBC_MHEPL_079	333888	6261364	0.47	2.11	0.12	1.56	1.86	2.34	2.10	2.20	2.20	2.20	2.20	2.10	2.20	2.20	2.20	2.20	2.10	2.32	2.34	2.34	2.34	1.86								
NBC_MHEPL_080	333915	6261332	0.48	2.11	0.12	1.56	1.86	2.34	2.10	2.21	2.21	2.21	2.21	2.10	2.20	2.20	2.20	2.20	2.10	2.32	2.34	2.34	2.34	1.86								
NBC_MHEPL_081	333971	6261325	0.49	2.11	0.12	1.56	1.86	2.35	2.10	2.21	2.21	2.21	2.21	2.10	2.20	2.20	2.20	2.20	2.10	2.32	2.35	2.35	2.35	1.86								
NBC_MHEPL_082	333998	6261294	0.49	1.87	0.12	1.56	1.86	2.35	2.10	2.21	2.21	2.21	2.21	2.10	2.17	2.17	2.17	2.17	2.10	2.33	2.35	2.35	2.35	1.86								
NBC_MHEPL_083	334054	6261287	0.50	1.87	0.12	1.56	1.86	2.36	2.11	2.22	2.22	2.22	2.22	2.11	2.17	2.17	2.17	2.17	2.11	2.33	2.36	2.36	2.36	1.86								
NBC_MHEPL_084	334080	6261257	0.51	1.87	0.11	1.55	1.85	2.37	2.11	2.22	2.22	2.22	2.22	2.11	2.17	2.17	2.17	2.17	2.11	2.33	2.37	2.37	2.37	1.85								
NBC_MHEPL_085	334135	6261252	0.54	2.11	0.11	1.55	1.85	2.40	2.13	2.24	2.24	2.24	2.24	2.13	2.22	2.22	2.22	2.22	2.13	2.35	2.40	2.40	2.40	1.85								
NBC_MHEPL_086	334197	6261304	0.56	2.11	0.12	1.56	1.86	2.42	2.14	2.26	2.26	2.26	2.26	2.14	2.23	2.23	2.23	2.23	2.14	2.36	2.42	2.42	2.42	1.86								
NBC_MHEPL_087	334222	6261274	0.56	2.11	0.11	1.55	1.85	2.42	2.14	2.26	2.26	2.26	2.26	2.14	2.22	2.22	2.22	2.22	2.14	2.36	2.42	2.42	2.42	1.85								
NBC_MHEPL_088	334247	6261245	0.56	2.40	0.11	1.55	1.85	2.41	2.13	2.26	2.26	2.26	2.26	2.13	2.27	2.27	2.27	2.27	2.13	2.36	2.41	2.41	2.41	1.85								
NBC_MHEPL_089	334297	6261186	0.56	2.40	0.11	1.55	1.85	2.41	2.13	2.25	2.25	2.25	2.25	2.13	2.26	2.26	2.26	2.26	2.13	2.36	2.41	2.41	2.41	1.85								
NBC_MHEPL_090	334322	6261157	0.56	2.40	0.11	1.55	1.85	2.41	2.13	2.25	2.25	2.25	2.25	2.13	2.26	2.26	2.26	2.26	2.13	2.36	2.41	2.41	2.41	1.85								
NBC_MHEPL_091	334378	6261155	0.56	2.40	0.11	1.55	1.85	2.41	2.13	2.26	2.26	2.26	2.26	2.13	2.27	2.27	2.27	2.27	2.13	2.36	2.41	2.41	2.41	1.85								
NBC_MHEPL_092	334403	6261127	0.56	2.40	0.11	1.55	1.85	2.41	2.13	2.25	2.25	2.25	2.25	2.13	2.26	2.26	2.26	2.26	2.13	2.36	2.41	2.41	2.41	1.85								
NBC_MHEPL_093	334428	6261098	0.55	2.40	0.11	1.55	1.85	2.40	2.13	2.25	2.25	2.25	2.25	2.13	2.26	2.26	2.26	2.26	2.13	2.35	2.40	2.40	2.40	1.85								
NBC_MHEPL_094	334453	6261069	0.55	2.40	0.11	1.55	1.85	2.40	2.12	2.25	2.25	2.25	2.25	2.12	2.26	2.26	2.26	2.26	2.12	2.35	2.40	2.40	2.40	1.85								
NBC_MHEPL_095	334480	6261039	0.55	2.40	0.11	1.55	1.85	2.39	2.12	2.24	2.24	2.24	2.24	2.12	2.26	2.26	2.26	2.26	2.12	2.35	2.39	2.39	2.39	1.85								
NBC_MHEPL_096	334508	6261007	0.54	2.40	0.11	1.55	1.85	2.39	2.12	2.24	2.24	2.24	2.24	2.12	2.25	2.25	2.25	2.25	2.12	2.34	2.39	2.39	2.39	1.85								
NBC_MHEPL_097	334510	6260943	0.53	2.11	0.10	1.54	1.84	2.38	2.11	2.23	2.23	2.23	2.23	2.11	2.20	2.20	2.20	2.20	2.11	2.34	2.38	2.38	2.38	1.84								
NBC_MHEPL_098	334549	6260899	0.53	2.11	0.10	1.54	1.84	2.37	2.10	2.22	2.22	2.22	2.22	2.10	2.20	2.20	2.20	2.20	2.10	2.34	2.37	2.37	2.37	1.84								
NBC_MHEPL_099	334594	6260848	0.52	2.11	0.10	1.54	1.84	2.36	2.10	2.22	2.22	2.22	2.22	2.10	2.20	2.20	2.20	2.20	2.10	2.33	2.36	2.36	2.36	1.84								
NBC_MHEPL_100	334646	6260790	0.52	2.11	0.10	1.54	1.84	2.36	2.10	2.21	2.21	2.21	2.21	2.10	2.19	2.19	2.19	2.19	2.10	2.33	2.36	2.36	2.36	1.84								
NBC_MHEPL_101	334615	6260762	0.52	2.11	0.10	1.54	1.84	2.35	2.09	2.21	2.21	2.21	2.21	2.09	2.19	2.19	2.19	2.19	2.09	2.33	2.35	2.35	2.35	1.84								
NBC_MHEPL_102	334703	6260726	0.50	2.11	0.09	1.53	1.83	2.33	2.08	2.19	2.19	2.19	2.19	2.08	2.18	2.18	2.18	2.18	2.08	2.32	2.33	2.33	2.33	1.83								
NBC_MHEPL_103	334672	6260698	0.50	1.87	0.09	1.53	1.83	2.34	2.09	2.20	2.20	2.20	2.20	2.09	2.15	2.15	2.15	2.15	2.09	2.32	2.34	2.34	2.34	1.83								
NBC_MHEPL_104	334641	6260670	0.49	1.87	0.09	1.53	1.83	2.32	2.08	2.19	2.19	2.19	2.19	2.08	2.14	2.14	2.14	2.14	2.08	2.31	2.32	2.32	2.32	1.83								
NBC_MHEPL_105	334611	6260644	0.47	1.87	0.09	1.53	1.83	2.30	2.07	2.17	2.17	2.17	2.17	2.07	2.13	2.13	2.13	2.13	2.07	2.30	2.30	2.30	2.30	1.83								
NBC_MHEPL_106	334671	6260577	0.45	1.87	0.09	1.53	1.83	2.28	2.06	2.15	2.15	2.15	2.15	2.06	2.13	2.13	2.13	2.13	2.06	2.28	2.28	2.28	2.28	1.83								
NBC_MHEPL_107	334729	6260513	0.44	2.11	0.09	1.53	1.83	2.27	2.05	2.15	2.15	2.15	2.15	2.05	2.16	2.16	2.16	2.16	2.05	2.27	2.27	2.27	2.27	1.83								
NBC_MHEPL_108	334759	6260540	0.45	1.87	0.09	1.53	1.83	2.28	2.06	2.15	2.15	2.15	2.15	2.06	2.13	2.13	2.13	2.13	2.06	2.28	2.28	2.28	2.28	1.83								
NBC_MHEPL_109	334789	6260568	0.46	1.87	0.09	1.53	1.83	2.30	2.06	2.17	2.17	2.17	2.17	2.06	2.13	2.13	2.13	2.13	2.06	2.30	2.30	2.30	2.30	1.83								
NBC_MHEPL_110	334820	6260597	0.48	1.87	0.09	1.53	1.83	2.31	2.07	2.18	2.18	2.18	2.18	2.07	2.14	2.14	2.14	2.14	2.07	2.30	2.31	2.31	2.31	1.83								
NBC_MHEPL_111	334878	6260534	0.48	1.87	0.09	1.53	1.83	2.31	2.07	2.17	2.17	2.17	2.17	2.07	2.14	2.14	2.14	2.14	2.07	2.30	2.31	2.31	2.31	1.83								
NBC_MHEPL_112	334910	6260564	0.47	1.87	0.09	1.53	1.83	2.30	2.07	2.17	2.17	2.17	2.17	2.07	2.13	2.13	2.13	2.13	2.07	2.30	2.30	2.30	2.30	1.83								
NBC_MHEPL_113	334972	6260498	0.46	1.87	0.09	1.53	1.83	2.29	2.06	2.16	2.16	2.16	2.16	2.06	2.13	2.13	2.13	2.13	2.06	2.29	2.29	2.29	2.29	1.83								
NBC_MHEPL_114	335004	6260528	0.45	1.87	0.09	1.53	1.83	2.28	2.05	2.15	2.15	2.15	2.15	2.05	2.13	2.13	2.13	2.13	2.05	2.28	2.28	2.28	2.28	1.83								

100yr ARI Planning Levels - 0m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.00** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)																REDUCTION FACTORS NOT CALCULATED FOR 2010 LEVELS AS THE 0m SLR LEVELS ARE NOT BEING USED FOR PLANNING PURPOSES							
			Wave						Foreshore Type ##																				
									1					2					3					4						
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0 m Sea Level Projection	0 m Sea Level Projection																							
NBC_MHEPL_115	335067	6260462	0.44	1.87	0.09	1.53	1.83	2.27	2.05	2.15	2.15	2.15	2.15	2.05	2.12	2.12	2.12	2.12	2.05	2.27	2.27	2.27	2.27	1.83								
NBC_MHEPL_116	335099	6260492	0.45	1.87	0.09	1.53	1.83	2.28	2.06	2.16	2.16	2.16	2.16	2.06	2.13	2.13	2.13	2.13	2.06	2.28	2.28	2.28	2.28	1.83								
NBC_MHEPL_117	335191	6260457	0.47	1.87	0.09	1.53	1.83	2.29	2.06	2.16	2.16	2.16	2.16	2.06	2.13	2.13	2.13	2.13	2.06	2.29	2.29	2.29	2.29	1.83								
NBC_MHEPL_118	335221	6260486	0.47	1.87	0.09	1.53	1.83	2.30	2.06	2.16	2.16	2.16	2.16	2.06	2.13	2.13	2.13	2.13	2.06	2.30	2.30	2.30	2.30	1.83								
NBC_MHEPL_119	335278	6260427	0.45	1.87	0.09	1.53	1.83	2.28	2.06	2.16	2.16	2.16	2.16	2.06	2.13	2.13	2.13	2.13	2.06	2.28	2.28	2.28	2.28	1.83								
NBC_MHEPL_120	335308	6260457	0.45	1.87	0.09	1.53	1.83	2.28	2.05	2.15	2.15	2.15	2.15	2.05	2.13	2.13	2.13	2.13	2.05	2.28	2.28	2.28	2.28	1.83								
NBC_MHEPL_121	335363	6260402	0.45	2.11	0.09	1.53	1.83	2.28	2.05	2.15	2.15	2.15	2.15	2.05	2.16	2.16	2.16	2.16	2.05	2.28	2.28	2.28	2.28	1.83								
NBC_MHEPL_122	335394	6260434	0.46	2.11	0.09	1.53	1.83	2.29	2.06	2.16	2.16	2.16	2.16	2.06	2.16	2.16	2.16	2.16	2.06	2.29	2.29	2.29	2.29	1.83								
NBC_MHEPL_123	335447	6260381	0.45	2.11	0.09	1.53	1.83	2.28	2.06	2.16	2.16	2.16	2.16	2.06	2.16	2.16	2.16	2.16	2.06	2.28	2.28	2.28	2.28	1.83								
NBC_MHEPL_124	335476	6260411	0.45	1.87	0.09	1.53	1.83	2.28	2.05	2.15	2.15	2.15	2.15	2.05	2.12	2.12	2.12	2.12	2.05	2.28	2.28	2.28	2.28	1.83								
NBC_MHEPL_125	335526	6260362	0.46	2.11	0.09	1.53	1.83	2.29	2.06	2.16	2.16	2.16	2.16	2.06	2.16	2.16	2.16	2.16	2.06	2.29	2.29	2.29	2.29	1.83								
NBC_MHEPL_126	335555	6260392	0.47	2.11	0.09	1.53	1.83	2.30	2.06	2.17	2.17	2.17	2.17	2.06	2.17	2.17	2.17	2.17	2.06	2.30	2.30	2.30	2.30	1.83								
NBC_MHEPL_127	335630	6260379	0.48	2.11	0.09	1.53	1.83	2.31	2.07	2.17	2.17	2.17	2.17	2.07	2.17	2.17	2.17	2.17	2.07	2.30	2.31	2.31	2.31	1.83								
NBC_MHEPL_128	335674	6260338	0.47	2.11	0.09	1.53	1.83	2.30	2.06	2.17	2.17	2.17	2.17	2.06	2.17	2.17	2.17	2.17	2.06	2.30	2.30	2.30	2.30	1.83								
NBC_MHEPL_129	335702	6260370	0.44	2.11	0.09	1.53	1.83	2.26	2.05	2.14	2.14	2.14	2.14	2.05	2.15	2.15	2.15	2.15	2.05	2.26	2.26	2.26	2.26	1.83								
NBC_MHEPL_130	335730	6260402	0.46	1.87	0.09	1.53	1.83	2.29	2.06	2.16	2.16	2.16	2.16	2.06	2.13	2.13	2.13	2.13	2.06	2.29	2.29	2.29	2.29	1.83								
NBC_MHEPL_131	335757	6260433	0.47	1.87	0.09	1.53	1.83	2.30	2.06	2.17	2.17	2.17	2.17	2.06	2.13	2.13	2.13	2.13	2.06	2.30	2.30	2.30	2.30	1.83								
NBC_MHEPL_132	335714	6260471	0.48	1.87	0.09	1.53	1.83	2.31	2.07	2.18	2.18	2.18	2.18	2.07	2.14	2.14	2.14	2.14	2.07	2.31	2.31	2.31	2.31	1.83								
NBC_MHEPL_133	335783	6260463	0.50	1.87	0.09	1.53	1.83	2.33	2.08	2.19	2.19	2.19	2.19	2.08	2.14	2.14	2.14	2.14	2.08	2.31	2.33	2.33	2.33	1.83								
NBC_MHEPL_134	335826	6260427	0.48	1.87	0.09	1.53	1.83	2.31	2.07	2.17	2.17	2.17	2.17	2.07	2.13	2.13	2.13	2.13	2.07	2.30	2.31	2.31	2.31	1.83								
NBC_MHEPL_135	335894	6260424	0.50	1.87	0.09	1.53	1.83	2.33	2.08	2.19	2.19	2.19	2.19	2.08	2.14	2.14	2.14	2.14	2.08	2.31	2.33	2.33	2.33	1.83								
NBC_MHEPL_136	335961	6260425	0.53	1.87	0.09	1.53	1.83	2.36	2.10	2.21	2.21	2.21	2.21	2.10	2.15	2.15	2.15	2.15	2.10	2.33	2.36	2.36	2.36	1.83								
NBC_MHEPL_137	335988	6260459	0.57	2.11	0.09	1.53	1.83	2.40	2.12	2.24	2.24	2.24	2.24	2.12	2.20	2.20	2.20	2.20	2.12	2.35	2.40	2.40	2.40	1.83								
NBC_MHEPL_138	336052	6260461	0.61	2.40	0.09	1.53	1.83	2.44	2.13	2.27	2.27	2.27	2.27	2.13	2.26	2.26	2.26	2.26	2.13	2.37	2.44	2.44	2.44	1.83								
NBC_MHEPL_139	336077	6260494	0.64	2.40	0.09	1.53	1.83	2.47	2.15	2.29	2.29	2.29	2.29	2.15	2.27	2.27	2.27	2.27	2.15	2.39	2.47	2.47	2.47	1.83								
NBC_MHEPL_140	336100	6260525	0.68	2.71	0.09	1.53	1.83	2.51	2.17	2.31	2.32	2.32	2.32	2.17	2.33	2.34	2.34	2.34	2.17	2.40	2.51	2.51	2.51	1.83								
NBC_MHEPL_141	336123	6260557	0.70	2.71	0.09	1.53	1.83	2.53	2.18	2.32	2.33	2.33	2.33	2.18	2.34	2.35	2.35	2.35	2.18	2.42	2.53	2.53	2.53	1.83								
NBC_MHEPL_142	336110	6260620	0.70	2.71	0.09	1.53	1.83	2.53	2.18	2.33	2.34	2.34	2.34	2.18	2.34	2.35	2.35	2.35	2.18	2.42	2.53	2.53	2.53	1.83								
NBC_MHEPL_143	336138	6260656	0.71	2.71	0.09	1.53	1.83	2.54	2.19	2.33	2.34	2.34	2.34	2.19	2.34	2.36	2.36	2.36	2.19	2.42	2.54	2.54	2.54	1.83								
NBC_MHEPL_144	336130	6260722	0.70	2.71	0.09	1.53	1.83	2.53	2.18	2.32	2.33	2.33	2.33	2.18	2.34	2.35	2.35	2.35	2.18	2.42	2.53	2.53	2.53	1.83								
NBC_MHEPL_145	336158	6260757	0.70	3.08	0.09	1.53	1.83	2.53	2.18	2.33	2.34	2.34	2.34	2.18	2.37	2.42	2.42	2.42	2.18	2.42	2.53	2.53	2.53	1.83								
NBC_MHEPL_146	336150	6260820	0.68	3.08	0.09	1.53	1.83	2.51	2.17	2.31	2.32	2.32	2.32	2.17	2.37	2.41	2.41	2.41	2.17	2.41	2.51	2.51	2.51	1.83								
NBC_MHEPL_147	336155	6260897	0.69	3.08	0.10	1.54	1.84	2.53	2.18	2.32	2.33	2.33	2.33	2.18	2.37	2.42	2.42	2.42	2.18	2.42	2.53	2.53	2.53	1.84								
NBC_MHEPL_148	336119	6260932	0.68	3.08	0.10	1.54	1.84	2.52	2.18	2.32	2.33	2.33	2.33	2.18	2.37	2.42	2.42	2.42	2.18	2.41	2.52	2.52	2.52	1.84								
NBC_MHEPL_149	336172	6260988	0.67	3.08	0.10	1.54	1.84	2.51	2.17	2.31	2.32	2.32	2.32	2.17	2.37	2.41	2.41	2.41	2.17	2.41	2.51	2.51	2.51	1.84								
NBC_MHEPL_150	336134	6261026	0.71	3.08	0.10	1.54	1.84	2.54	2.19	2.33	2.35	2.35	2.35	2.19	2.38	2.43	2.43	2.43	2.19	2.42	2.54	2.54	2.54	1.84								
NBC_MHEPL_151	336185	6261080	0.74	3.08	0.10	1.54	1.84	2.58	2.21	2.35	2.37	2.37	2.37	2.21	2.39	2.44	2.44	2.44	2.21	2.44	2.58	2.58	2.58	1.84								
NBC_MHEPL_152	336185	6261080	0.74	3.08	0.10	1.54	1.84	2.58	2.21	2.35	2.37	2.37	2.37	2.21	2.39	2.44	2.44	2.44	2.21	2.44	2.58	2.58	2.58	1.84								
NBC_MHEPL_153	336234	6261134	0.74	3.08	0.10	1.54	1.84	2.58	2.21	2.35	2.37	2.37	2.37	2.21	2.39	2.45	2.45	2.45	2.21	2.44	2.58	2.58	2.58	1.84								
NBC_MHEPL_154	336191	6261174	0.72	2.71	0.10	1.54	1.84	2.56	2.20	2.34	2.36	2.36	2.36	2.20	2.35	2.37	2.37	2.37	2.20	2.43	2.56	2.56	2.56	1.84								
NBC_MHEPL_155	336145	6261217	0.70	2.71	0.10	1.54	1.84	2.54	2.19	2.33	2.34	2.34	2.34	2.19	2.34	2.36	2.36	2.36	2.19	2.42	2.54	2.54	2.54	1.84								
NBC_MHEPL_156	336193	6261269	0.66	2.71	0.10	1.54	1.84	2.51	2.17	2.31	2.32	2.32	2.32	2.17	2.33	2.35	2.35	2.35	2.17	2.41	2.51	2.51	2.51	1.84								
NBC_MHEPL_157	336146	6261313	0.57	2.71	0.10	1.54	1.84	2.41	2.13	2.25	2.25	2.25	2.25	2.13	2.31	2.31	2.31	2.31	2.13	2.36	2.41	2.41	2.41	1.84								
NBC_MHEPL_158	336094	6261362	0.54	2.71	0.10	1.54	1.84	2.38	2.11	2.23	2.23	2.23	2.23	2.11	2.30	2.30	2.30	2.30	2.11	2.34	2.38	2.38	2.38	1.84								
NBC_MHEPL_159	336085	6261464	0.52	2.71	0.11	1.55	1.85	2.37	2.11	2.22	2.22	2.22	2.22	2.11	2.30	2.30	2.30	2.30	2.11	2.33	2.37	2.37	2.37	1.85								
NBC_MHEPL_160	336038	6261414	0.48	2.71	0.11	1.55	1.85	2.33	2.09	2.19	2.19	2.19	2.19	2.09	2.28	2.28	2.28	2.28	2.09	2.31	2.33	2.33	2.33	1.85								
NBC_MHEPL_161	335982	6261468	0.42	2.71	0.12	1.56	1.86	2.27	2.06	2.16	2.16	2.16	2.16	2.06	2.26	2.26	2.26	2.26	2.06	2.27	2.27	2.27	2.27	1.86								
NBC_MHEPL_162	336102	6261711	0.50	2.40	0.16	1.60	1.90	2.40	2.15	2.26	2.26	2.26	2.26	2.15	2.29	2.29	2.29	2.29	2.15	2.35	2.40	2.40	2.40	1.90								
NBC_MHEPL_163	336159	6261658	0.50	2.11	0.15	1.59	1.89	2.39	2.14	2.25	2.25	2.25	2.25	2.14	2.24	2.24	2.24	2.24	2.14	2.35	2.39	2.39	2.39	1.89								
NBC_MHEPL_164	336117	6261612	0.52	2.40	0.14	1.58	1.88	2.40	2.14	2.25	2.25	2.25	2.25	2.14	2.28	2.28	2.28	2.28	2.14	2.35	2.40	2.40	2.40	1.88								
NBC_MHEPL_165	336174	6261560	0.51	2.40	0.13	1.57	1.87	2.38	2.13	2.24	2.24	2.24	2.24	2.13	2.27	2.27	2.27	2.27	2.13	2.34	2.38	2.38	2.38	1.87								
NBC_MHEPL_166	336130	6261512	0.55	2.71	0.12	1.56	1.86	2.41	2.14	2.26	2.26	2.26	2.26	2.14	2.31	2.32	2.32	2.32	2.14	2.36	2.41	2.41	2.41	1.86								
NBC_MHEPL_167	336141	6261412	0.58	2.71	0.11	1.55	1.85	2.43	2.14	2.27	2.27	2.27	2.27	2.14	2.31	2.32	2.32	2.32	2.14	2.37	2.43	2.43	2.43	1.85								
NBC_MHEPL_168	336192	6261364	0.62	2.71	0.10	1.54	1.84	2.47	2.16	2.29	2.29	2.29	2.29	2.16	2.32	2.34	2.34	2.34	2.16	2.39	2.47	2.47	2.47	1.84								
NBC_MHEPL_169	336239	6261227	0.72	2.71	0.10	1.54	1.84	2.56	2.20	2.34	2.36	2.36	2.36	2.20	2.35	2.37	2.37	2.37	2.20	2.43	2.56	2.56	2.56	1.84								
NBC_MHEPL_170	336283	6261188	0.71	2.71	0.10	1.54	1.84	2.55	2.20	2.34	2.35	2.35	2.35	2.20	2.34	2.36	2.36	2.36	2.20	2.43	2.55	2.55	2.55	1.84								
NBC_MHEPL_171	336321	6261155	0.65	2.71	0.10	1.54	1.84	2.49	2.17	2.31	2.31	2.31	2.31	2.17	2.33	2.34	2.34	2.34	2.17	2.40	2.49	2.49	2.49	1.84								

100yr ARI Planning Levels - 0m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.00** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)																REDUCTION FACTORS NOT CALCULATED FOR 2010 LEVELS AS THE 0m SLR LEVELS ARE NOT BEING USED FOR PLANNING PURPOSES							
			Wave						Foreshore Type ##																				
									1					2					3					4						
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0 m Sea Level Projection	0 m Sea Level Projection																							
NBC_MHEPL_172	336273	6261099	0.67	2.71	0.10	1.54	1.84	2.51	2.17	2.32	2.32	2.32	2.32	2.17	2.33	2.35	2.35	2.35	2.17	2.41	2.51	2.51	2.51	1.84								
NBC_MHEPL_173	336309	6261068	0.67	2.71	0.10	1.54	1.84	2.50	2.17	2.31	2.32	2.32	2.32	2.17	2.33	2.35	2.35	2.35	2.17	2.40	2.50	2.50	2.50	1.84								
NBC_MHEPL_174	336259	6261012	0.67	2.71	0.10	1.54	1.84	2.50	2.17	2.31	2.32	2.32	2.32	2.17	2.33	2.35	2.35	2.35	2.17	2.40	2.50	2.50	2.50	1.84								
NBC_MHEPL_175	336294	6260982	0.66	2.71	0.10	1.54	1.84	2.49	2.16	2.31	2.31	2.31	2.31	2.16	2.33	2.34	2.34	2.34	2.16	2.40	2.49	2.49	2.49	1.84								
NBC_MHEPL_176	336243	6260923	0.67	2.71	0.10	1.54	1.84	2.51	2.17	2.31	2.32	2.32	2.32	2.17	2.33	2.35	2.35	2.35	2.17	2.40	2.51	2.51	2.51	1.84								
NBC_MHEPL_177	336277	6260894	0.69	2.71	0.10	1.54	1.84	2.52	2.18	2.32	2.33	2.33	2.33	2.18	2.33	2.35	2.35	2.35	2.18	2.41	2.52	2.52	2.52	1.84								
NBC_MHEPL_178	336259	6260804	0.69	2.71	0.09	1.53	1.83	2.53	2.18	2.32	2.33	2.33	2.33	2.18	2.34	2.35	2.35	2.35	2.18	2.42	2.53	2.53	2.53	1.83								
NBC_MHEPL_179	336292	6260776	0.66	2.71	0.09	1.53	1.83	2.50	2.17	2.31	2.31	2.31	2.31	2.17	2.33	2.34	2.34	2.34	2.17	2.40	2.50	2.50	2.50	1.83								
NBC_MHEPL_180	336325	6260750	0.65	2.71	0.09	1.53	1.83	2.48	2.16	2.30	2.30	2.30	2.30	2.16	2.32	2.33	2.33	2.33	2.16	2.39	2.48	2.48	2.48	1.83								
NBC_MHEPL_181	336263	6260670	0.68	2.71	0.09	1.53	1.83	2.51	2.17	2.31	2.32	2.32	2.32	2.17	2.33	2.34	2.34	2.34	2.17	2.41	2.51	2.51	2.51	1.83								
NBC_MHEPL_182	336274	6260608	0.69	2.71	0.09	1.53	1.83	2.52	2.17	2.32	2.33	2.33	2.33	2.17	2.33	2.35	2.35	2.35	2.17	2.41	2.52	2.52	2.52	1.83								
NBC_MHEPL_183	336249	6260573	0.73	3.08	0.09	1.53	1.83	2.56	2.19	2.34	2.35	2.35	2.35	2.19	2.38	2.43	2.43	2.43	2.19	2.43	2.56	2.56	2.56	1.83								
NBC_MHEPL_184	336288	6260545	0.73	3.08	0.09	1.53	1.83	2.56	2.20	2.34	2.36	2.36	2.36	2.20	2.38	2.43	2.43	2.43	2.20	2.43	2.56	2.56	2.56	1.83								
NBC_MHEPL_185	336305	6260480	0.75	3.08	0.09	1.53	1.83	2.58	2.20	2.35	2.37	2.37	2.37	2.20	2.39	2.44	2.44	2.44	2.20	2.44	2.58	2.58	2.58	1.83								
NBC_MHEPL_186	336280	6260445	0.76	3.08	0.09	1.53	1.83	2.59	2.21	2.35	2.37	2.37	2.37	2.21	2.39	2.44	2.44	2.44	2.21	2.45	2.59	2.59	2.59	1.83								
NBC_MHEPL_187	336323	6260414	0.77	3.08	0.09	1.53	1.83	2.60	2.21	2.36	2.38	2.38	2.38	2.21	2.39	2.45	2.45	2.45	2.21	2.45	2.60	2.60	2.60	1.83								
NBC_MHEPL_188	336363	6260383	0.77	3.08	0.09	1.53	1.83	2.60	2.21	2.36	2.38	2.38	2.38	2.21	2.39	2.45	2.45	2.45	2.21	2.45	2.60	2.60	2.60	1.83								
NBC_MHEPL_189	336377	6260320	0.78	3.08	0.09	1.53	1.83	2.61	2.22	2.36	2.39	2.39	2.39	2.22	2.40	2.45	2.45	2.45	2.22	2.46	2.61	2.61	2.61	1.83								
NBC_MHEPL_190	336416	6260291	0.80	3.48	0.09	1.53	1.83	2.63	2.23	2.37	2.40	2.40	2.40	2.23	2.44	2.55	2.55	2.55	2.23	2.47	2.63	2.63	2.63	1.83								
NBC_MHEPL_191	336478	6260297	0.81	3.48	0.09	1.53	1.83	2.64	2.23	2.38	2.41	2.41	2.41	2.23	2.44	2.55	2.55	2.55	2.23	2.47	2.64	2.64	2.64	1.83								
NBC_MHEPL_192	336516	6260271	0.81	3.48	0.09	1.53	1.83	2.64	2.23	2.38	2.41	2.41	2.41	2.23	2.44	2.55	2.55	2.55	2.23	2.47	2.64	2.64	2.64	1.83								
NBC_MHEPL_193	336531	6260211	0.80	3.48	0.09	1.53	1.83	2.63	2.23	2.37	2.40	2.40	2.40	2.23	2.44	2.55	2.55	2.55	2.23	2.47	2.63	2.63	2.63	1.83								
NBC_MHEPL_194	336570	6260186	0.81	3.08	0.09	1.53	1.83	2.63	2.23	2.38	2.41	2.41	2.41	2.23	2.40	2.46	2.46	2.46	2.23	2.47	2.63	2.63	2.63	1.83								
NBC_MHEPL_195	336591	6260125	0.81	3.08	0.08	1.52	1.82	2.64	2.23	2.38	2.41	2.41	2.41	2.23	2.40	2.46	2.46	2.46	2.23	2.47	2.64	2.64	2.64	1.82								
NBC_MHEPL_196	336612	6260063	0.81	3.08	0.08	1.52	1.82	2.64	2.23	2.38	2.41	2.41	2.41	2.23	2.40	2.46	2.46	2.46	2.23	2.47	2.64	2.64	2.64	1.82								
NBC_MHEPL_197	336592	6260029	0.84	3.08	0.08	1.52	1.82	2.66	2.24	2.39	2.43	2.43	2.43	2.24	2.41	2.47	2.47	2.47	2.24	2.48	2.66	2.66	2.66	1.82								
NBC_MHEPL_198	336636	6260003	0.84	3.08	0.08	1.52	1.82	2.66	2.24	2.39	2.43	2.43	2.43	2.24	2.41	2.47	2.47	2.47	2.24	2.48	2.66	2.66	2.66	1.82								
NBC_MHEPL_199	336659	6259943	0.84	3.08	0.08	1.52	1.82	2.66	2.24	2.39	2.42	2.42	2.42	2.24	2.41	2.47	2.47	2.47	2.24	2.48	2.66	2.66	2.66	1.82								
NBC_MHEPL_200	336682	6259883	0.83	3.08	0.08	1.52	1.82	2.65	2.23	2.38	2.42	2.42	2.42	2.23	2.41	2.46	2.46	2.46	2.23	2.48	2.65	2.65	2.65	1.82								
NBC_MHEPL_201	336725	6259857	0.80	3.08	0.08	1.52	1.82	2.62	2.22	2.37	2.40	2.40	2.40	2.22	2.40	2.45	2.45	2.45	2.22	2.46	2.62	2.62	2.62	1.82								
NBC_MHEPL_202	336689	6259794	0.79	3.08	0.08	1.52	1.82	2.61	2.22	2.36	2.39	2.39	2.39	2.22	2.40	2.45	2.45	2.45	2.22	2.46	2.61	2.61	2.61	1.82								
NBC_MHEPL_203	336674	6259766	0.77	2.71	0.08	1.52	1.82	2.59	2.21	2.35	2.37	2.37	2.37	2.21	2.35	2.37	2.37	2.37	2.21	2.45	2.59	2.59	2.59	1.82								
NBC_MHEPL_204	336703	6259716	0.71	2.71	0.08	1.52	1.82	2.53	2.18	2.32	2.33	2.33	2.33	2.18	2.33	2.35	2.35	2.35	2.18	2.42	2.53	2.53	2.53	1.82								
NBC_MHEPL_205	336690	6259689	0.70	2.71	0.08	1.52	1.82	2.52	2.17	2.32	2.32	2.32	2.32	2.17	2.33	2.34	2.34	2.34	2.17	2.41	2.52	2.52	2.52	1.82								
NBC_MHEPL_206	336708	6259612	0.66	2.71	0.08	1.52	1.82	2.48	2.15	2.30	2.30	2.30	2.30	2.15	2.32	2.33	2.33	2.33	2.15	2.39	2.48	2.48	2.48	1.82								
NBC_MHEPL_207	336696	6259584	0.66	2.71	0.08	1.52	1.82	2.48	2.15	2.30	2.30	2.30	2.30	2.15	2.32	2.33	2.33	2.33	2.15	2.39	2.48	2.48	2.48	1.82								
NBC_MHEPL_208	336670	6259522	0.63	2.71	0.08	1.52	1.82	2.45	2.13	2.27	2.27	2.27	2.27	2.13	2.31	2.31	2.31	2.31	2.13	2.38	2.45	2.45	2.45	1.82								
NBC_MHEPL_209	336697	6259475	0.60	2.71	0.08	1.52	1.82	2.42	2.12	2.25	2.25	2.25	2.25	2.12	2.30	2.30	2.30	2.30	2.12	2.36	2.42	2.42	2.42	1.82								
NBC_MHEPL_210	336669	6259409	0.61	3.08	0.08	1.52	1.82	2.42	2.12	2.25	2.25	2.25	2.25	2.12	2.34	2.37	2.37	2.37	2.12	2.36	2.42	2.42	2.42	1.82								
NBC_MHEPL_211	336615	6259391	0.65	3.08	0.08	1.52	1.82	2.47	2.14	2.29	2.29	2.29	2.29	2.14	2.35	2.39	2.39	2.39	2.14	2.39	2.47	2.47	2.47	1.82								
NBC_MHEPL_212	336599	6259355	0.73	3.08	0.08	1.52	1.82	2.55	2.18	2.33	2.34	2.34	2.34	2.18	2.37	2.42	2.42	2.42	2.18	2.43	2.55	2.55	2.55	1.82								
NBC_MHEPL_213	336584	6259321	0.80	3.08	0.08	1.52	1.82	2.61	2.22	2.36	2.39	2.39	2.39	2.22	2.39	2.45	2.45	2.45	2.22	2.46	2.61	2.61	2.61	1.82								
NBC_MHEPL_214	336557	6259265	0.82	3.08	0.07	1.51	1.81	2.64	2.23	2.38	2.41	2.41	2.41	2.23	2.40	2.46	2.46	2.46	2.23	2.47	2.64	2.64	2.64	1.81								
NBC_MHEPL_215	336587	6259221	0.82	3.08	0.07	1.51	1.81	2.63	2.22	2.37	2.40	2.40	2.40	2.22	2.40	2.45	2.45	2.45	2.22	2.47	2.63	2.63	2.63	1.81								
NBC_MHEPL_216	336628	6259205	0.81	3.08	0.08	1.52	1.82	2.62	2.22	2.37	2.40	2.40	2.40	2.22	2.40	2.45	2.45	2.45	2.22	2.46	2.62	2.62	2.62	1.82								
NBC_MHEPL_217	336618	6259177	0.80	3.08	0.07	1.51	1.81	2.62	2.22	2.37	2.39	2.39	2.39	2.22	2.39	2.45	2.45	2.45	2.22	2.46	2.62	2.62	2.62	1.81								
NBC_MHEPL_218	336657	6259126	0.80	3.08	0.07	1.51	1.81	2.61	2.21	2.36	2.39	2.39	2.39	2.21	2.39	2.44	2.44	2.44	2.21	2.46	2.61	2.61	2.61	1.81								
NBC_MHEPL_219	336701	6259068	0.78	3.08	0.07	1.51	1.81	2.59	2.20	2.35	2.37	2.37	2.37	2.20	2.39	2.44	2.44	2.44	2.20	2.45	2.59	2.59	2.59	1.81								
NBC_MHEPL_220	336771	6259079	0.75	2.71	0.07	1.51	1.81	2.56	2.19	2.34	2.35	2.35	2.35	2.19	2.34	2.35	2.35	2.35	2.19	2.43	2.56	2.56	2.56	1.81								
NBC_MHEPL_221	336806	6259023	0.71	2.71	0.07	1.51	1.81	2.53	2.17	2.32	2.33	2.33	2.33	2.17	2.33	2.34	2.34	2.34	2.17	2.42	2.53	2.53	2.53	1.81								
NBC_MHEPL_222	336792	6258989	0.71	2.71	0.07	1.51	1.81	2.52	2.17	2.32	2.32	2.32	2.32	2.17	2.33	2.34	2.34	2.34	2.17	2.41	2.52	2.52	2.52	1.81								
NBC_MHEPL_223	336779	6258957	0.70	2.71	0.07	1.51	1.81	2.51	2.16	2.31	2.31	2.31	2.31	2.16	2.32	2.33	2.33	2.33	2.16	2.41	2.51	2.51	2.51	1.81								
NBC_MHEPL_224	336813	6258909	0.66	2.71	0.07	1.51	1.81	2.47	2.14	2.29	2.29	2.29	2.29	2.14	2.31	2.32	2.32	2.32	2.14	2.39	2.47	2.47	2.47	1.81								
NBC_MHEPL_225	336844	6258864	0.60	2.40	0.07	1.51	1.81	2.41	2.11	2.24	2.24	2.24	2.24	2.11	2.24	2.24	2.24	2.24	2.11	2.36	2.41	2.41	2.41	1.81								
NBC_MHEPL_226	336888	6258851	0.58	2.40	0.07	1.51	1.81	2.39	2.10	2.23	2.23	2.23	2.23	2.10	2.23	2.23	2.23	2.23	2.10	2.34	2.39	2.39	2.39	1.81								
NBC_MHEPL_227	336920	6258786	0.57	2.11	0.07	1.51	1.81	2.38	2.10	2.22	2.22	2.22	2.22	2.10	2.18	2.18	2.18	2.18	2.10	2.34	2.38	2.38	2.38	1.81								
NBC_MHEPL_228	336874	6258799	0.58	2.11	0.07	1.51	1.81	2.39	2.10	2.23	2.23	2.23	2.23	2.10	2.19	2.19	2.19	2.19	2.10	2.35	2.39	2.39	2.39	1.81								

100yr ARI Planning Levels - 0m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.00** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															REDUCTION FACTORS NOT CALCULATED FOR 2010 LEVELS AS THE 0m SLR LEVELS ARE NOT BEING USED FOR PLANNING PURPOSES							
			Wave						Foreshore Type ##																			
									1					2					3					4					
									Crest Level (mAHD)																			
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0 m Sea Level Projection	0 m Sea Level Projection																							
NBC_MHEPL_229	336854	6258728	0.58	2.11	0.07	1.51	1.81	2.39	2.10	2.22	2.22	2.22	2.22	2.10	2.18	2.18	2.18	2.18	2.10	2.34	2.39	2.39	2.39	1.81								
NBC_MHEPL_230	336807	6258743	0.57	2.11	0.07	1.51	1.81	2.38	2.09	2.22	2.22	2.22	2.22	2.09	2.18	2.18	2.18	2.18	2.09	2.34	2.38	2.38	2.38	1.81								
NBC_MHEPL_231	336787	6258677	0.56	2.11	0.07	1.51	1.81	2.37	2.09	2.21	2.21	2.21	2.21	2.09	2.18	2.18	2.18	2.18	2.09	2.33	2.37	2.37	2.37	1.81								
NBC_MHEPL_232	336766	6258604	0.55	2.11	0.07	1.51	1.81	2.36	2.08	2.20	2.20	2.20	2.20	2.08	2.17	2.17	2.17	2.17	2.08	2.33	2.36	2.36	2.36	1.81								
NBC_MHEPL_233	336715	6258621	0.55	2.40	0.07	1.51	1.81	2.36	2.08	2.20	2.20	2.20	2.20	2.08	2.22	2.22	2.22	2.22	2.08	2.33	2.36	2.36	2.36	1.81								
NBC_MHEPL_234	336690	6258548	0.56	2.40	0.07	1.51	1.81	2.37	2.09	2.22	2.22	2.22	2.22	2.09	2.22	2.22	2.22	2.22	2.09	2.34	2.37	2.37	2.37	1.81								
NBC_MHEPL_235	336671	6258489	0.64	2.71	0.07	1.51	1.81	2.45	2.13	2.27	2.27	2.27	2.27	2.13	2.30	2.31	2.31	2.31	2.13	2.38	2.45	2.45	2.45	1.81								
NBC_MHEPL_236	336615	6258509	0.71	2.71	0.07	1.51	1.81	2.52	2.16	2.31	2.32	2.32	2.32	2.16	2.32	2.33	2.33	2.33	2.16	2.41	2.52	2.52	2.52	1.81								
NBC_MHEPL_237	336595	6258449	0.73	2.71	0.07	1.51	1.81	2.54	2.18	2.33	2.34	2.34	2.34	2.18	2.33	2.34	2.34	2.34	2.18	2.42	2.54	2.54	2.54	1.81								
NBC_MHEPL_238	336515	6258400	0.76	2.71	0.07	1.51	1.81	2.57	2.19	2.34	2.36	2.36	2.36	2.19	2.34	2.35	2.35	2.35	2.19	2.44	2.57	2.57	2.57	1.81								
NBC_MHEPL_239	336573	6258380	0.76	2.71	0.07	1.51	1.81	2.57	2.19	2.34	2.35	2.35	2.35	2.19	2.34	2.35	2.35	2.35	2.19	2.44	2.57	2.57	2.57	1.81								
NBC_MHEPL_240	336553	6258320	0.77	2.71	0.07	1.51	1.81	2.58	2.19	2.35	2.36	2.36	2.36	2.19	2.34	2.36	2.36	2.36	2.19	2.44	2.58	2.58	2.58	1.81								
NBC_MHEPL_241	336597	6258254	0.78	2.71	0.07	1.51	1.81	2.59	2.20	2.35	2.37	2.37	2.37	2.20	2.34	2.36	2.36	2.36	2.20	2.45	2.59	2.59	2.59	1.81								
NBC_MHEPL_242	336583	6258205	0.78	2.71	0.07	1.51	1.81	2.59	2.20	2.35	2.37	2.37	2.37	2.20	2.34	2.36	2.36	2.36	2.20	2.45	2.59	2.59	2.59	1.81								
NBC_MHEPL_243	336646	6258187	0.78	2.71	0.07	1.51	1.81	2.59	2.20	2.35	2.37	2.37	2.37	2.20	2.34	2.36	2.36	2.36	2.20	2.45	2.59	2.59	2.59	1.81								
NBC_MHEPL_244	336632	6258136	0.78	2.71	0.07	1.51	1.81	2.59	2.20	2.35	2.37	2.37	2.37	2.20	2.34	2.36	2.36	2.36	2.20	2.45	2.59	2.59	2.59	1.81								
NBC_MHEPL_245	336701	6258118	0.77	2.71	0.07	1.51	1.81	2.58	2.19	2.35	2.37	2.37	2.37	2.19	2.34	2.36	2.36	2.36	2.19	2.44	2.58	2.58	2.58	1.81								
NBC_MHEPL_246	336770	6258099	0.77	2.71	0.07	1.51	1.81	2.58	2.19	2.34	2.36	2.36	2.36	2.19	2.34	2.35	2.35	2.35	2.19	2.44	2.58	2.58	2.58	1.81								
NBC_MHEPL_247	336833	6258082	0.75	2.71	0.07	1.51	1.81	2.56	2.18	2.34	2.35	2.35	2.35	2.18	2.33	2.35	2.35	2.35	2.18	2.43	2.56	2.56	2.56	1.81								
NBC_MHEPL_248	336901	6258115	0.74	2.71	0.07	1.51	1.81	2.55	2.18	2.33	2.34	2.34	2.34	2.18	2.33	2.34	2.34	2.34	2.18	2.43	2.55	2.55	2.55	1.81								
NBC_MHEPL_249	336949	6258104	0.74	2.71	0.07	1.51	1.81	2.55	2.18	2.33	2.34	2.34	2.34	2.18	2.33	2.34	2.34	2.34	2.18	2.43	2.55	2.55	2.55	1.81								
NBC_MHEPL_250	337001	6258143	0.74	2.71	0.07	1.51	1.81	2.55	2.18	2.33	2.34	2.34	2.34	2.18	2.33	2.34	2.34	2.34	2.18	2.43	2.55	2.55	2.55	1.81								
NBC_MHEPL_251	337045	6258134	0.74	2.71	0.07	1.51	1.81	2.55	2.18	2.33	2.34	2.34	2.34	2.18	2.33	2.34	2.34	2.34	2.18	2.43	2.55	2.55	2.55	1.81								
NBC_MHEPL_252	337091	6258125	0.74	2.71	0.07	1.51	1.81	2.54	2.17	2.33	2.34	2.34	2.34	2.17	2.33	2.34	2.34	2.34	2.17	2.42	2.54	2.54	2.54	1.81								
NBC_MHEPL_253	337136	6258117	0.73	2.71	0.07	1.51	1.81	2.54	2.17	2.32	2.33	2.33	2.33	2.17	2.33	2.34	2.34	2.34	2.17	2.42	2.54	2.54	2.54	1.81								
NBC_MHEPL_254	337178	6258109	0.72	2.40	0.07	1.51	1.81	2.53	2.17	2.32	2.32	2.32	2.32	2.17	2.27	2.27	2.27	2.27	2.17	2.42	2.53	2.53	2.53	1.81								
NBC_MHEPL_255	337227	6258153	0.72	2.40	0.07	1.51	1.81	2.52	2.16	2.32	2.32	2.32	2.32	2.16	2.27	2.27	2.27	2.27	2.16	2.41	2.52	2.52	2.52	1.81								
NBC_MHEPL_256	337268	6258148	0.71	2.40	0.06	1.50	1.80	2.52	2.16	2.31	2.32	2.32	2.32	2.16	2.27	2.27	2.27	2.27	2.16	2.41	2.52	2.52	2.52	1.80								
NBC_MHEPL_257	337311	6258143	0.72	2.40	0.06	1.50	1.80	2.53	2.17	2.32	2.32	2.32	2.32	2.17	2.27	2.27	2.27	2.27	2.17	2.42	2.53	2.53	2.53	1.80								
NBC_MHEPL_258	337359	6258191	0.75	2.40	0.07	1.51	1.81	2.55	2.18	2.33	2.34	2.34	2.34	2.18	2.28	2.28	2.28	2.28	2.18	2.43	2.55	2.55	2.55	1.81								
NBC_MHEPL_259	337364	6258242	0.75	2.40	0.07	1.51	1.81	2.56	2.19	2.34	2.35	2.35	2.35	2.19	2.29	2.29	2.29	2.29	2.19	2.43	2.56	2.56	2.56	1.81								
NBC_MHEPL_260	337411	6258289	0.75	2.40	0.07	1.51	1.81	2.56	2.18	2.33	2.35	2.35	2.35	2.18	2.29	2.29	2.29	2.29	2.18	2.43	2.56	2.56	2.56	1.81								
NBC_MHEPL_261	337414	6258339	0.72	2.40	0.07	1.51	1.81	2.53	2.17	2.32	2.33	2.33	2.33	2.17	2.28	2.28	2.28	2.28	2.17	2.42	2.53	2.53	2.53	1.81								
NBC_MHEPL_262	337456	6258337	0.73	2.40	0.07	1.51	1.81	2.54	2.18	2.33	2.34	2.34	2.34	2.18	2.28	2.28	2.28	2.28	2.18	2.42	2.54	2.54	2.54	1.81								
NBC_MHEPL_263	337500	6258387	0.76	2.40	0.07	1.51	1.81	2.57	2.19	2.34	2.36	2.36	2.36	2.19	2.29	2.29	2.29	2.29	2.19	2.44	2.57	2.57	2.57	1.81								
NBC_MHEPL_264	337543	6258385	0.80	2.71	0.07	1.51	1.81	2.61	2.21	2.36	2.39	2.39	2.39	2.21	2.35	2.37	2.37	2.37	2.21	2.46	2.61	2.61	2.61	1.81								
NBC_MHEPL_265	337585	6258436	0.84	2.71	0.08	1.52	1.82	2.65	2.23	2.38	2.42	2.42	2.42	2.23	2.36	2.38	2.38	2.38	2.23	2.48	2.65	2.65	2.65	1.82								
NBC_MHEPL_266	337623	6258383	0.86	2.71	0.07	1.51	1.81	2.68	2.25	2.40	2.44	2.44	2.44	2.25	2.37	2.39	2.39	2.39	2.25	2.49	2.68	2.68	2.68	1.81								
NBC_MHEPL_267	337664	6258384	0.87	2.71	0.07	1.51	1.81	2.68	2.25	2.40	2.44	2.44	2.44	2.25	2.37	2.39	2.39	2.39	2.25	2.50	2.68	2.68	2.68	1.81								
NBC_MHEPL_268	337705	6258383	0.87	3.08	0.07	1.51	1.81	2.68	2.25	2.40	2.44	2.44	2.44	2.25	2.41	2.47	2.47	2.47	2.25	2.49	2.68	2.68	2.68	1.81								
NBC_MHEPL_269	337746	6258383	0.86	3.08	0.07	1.51	1.81	2.67	2.24	2.39	2.43	2.43	2.43	2.24	2.41	2.47	2.47	2.47	2.24	2.49	2.67	2.67	2.67	1.81								
NBC_MHEPL_270	337785	6258382	0.86	3.08	0.07	1.51	1.81	2.67	2.24	2.39	2.43	2.43	2.43	2.24	2.41	2.47	2.47	2.47	2.24	2.49	2.67	2.67	2.67	1.81								
NBC_MHEPL_271	337824	6258382	0.85	3.08	0.07	1.51	1.81	2.66	2.24	2.39	2.43	2.43	2.43	2.24	2.41	2.46	2.46	2.46	2.24	2.49	2.66	2.66	2.66	1.81								
NBC_MHEPL_272	337862	6258433	0.85	3.08	0.07	1.51	1.81	2.67	2.24	2.39	2.43	2.43	2.43	2.24	2.41	2.46	2.46	2.46	2.24	2.49	2.67	2.67	2.67	1.81								
NBC_MHEPL_273	337899	6258433	0.85	3.08	0.07	1.51	1.81	2.66	2.24	2.39	2.43	2.43	2.43	2.24	2.41	2.46	2.46	2.46	2.24	2.49	2.66	2.66	2.66	1.81								
NBC_MHEPL_274	337937	6258433	0.84	3.08	0.07	1.51	1.81	2.65	2.23	2.38	2.42	2.42	2.42	2.23	2.40	2.46	2.46	2.46	2.23	2.48	2.65	2.65	2.65	1.81								
NBC_MHEPL_275	337976	6258433	0.80	2.71	0.07	1.51	1.81	2.62	2.21	2.36	2.39	2.39	2.39	2.21	2.35	2.37	2.37	2.37	2.21	2.46	2.62	2.62	2.62	1.81								
NBC_MHEPL_276	337938	6258381	0.83	2.71	0.07	1.51	1.81	2.64	2.23	2.38	2.41	2.41	2.41	2.23	2.36	2.38	2.38	2.38	2.23	2.47	2.64	2.64	2.64	1.81								
NBC_MHEPL_277	337938	6258329	0.84	2.71	0.07	1.51	1.81	2.65	2.23	2.38	2.41	2.41	2.41	2.23	2.36	2.38	2.38	2.38	2.23	2.48	2.65	2.65	2.65	1.81								
NBC_MHEPL_278	337977	6258276	0.84	2.71	0.07	1.51	1.81	2.65	2.23	2.38	2.41	2.41	2.41	2.23	2.36	2.38	2.38	2.38	2.23	2.48	2.65	2.65	2.65	1.81								
NBC_MHEPL_279	338016	6258276	0.83	2.71	0.07	1.51	1.81	2.64	2.22	2.37	2.40	2.40	2.40	2.22	2.36	2.38	2.38	2.38	2.22	2.47	2.64	2.64	2.64	1.81								
NBC_MHEPL_280	338055	6258276	0.82	2.71	0.07	1.51	1.81	2.63	2.22	2.37	2.40	2.40	2.40	2.22	2.35	2.37	2.37	2.37	2.22	2.47	2.63	2.63	2.63	1.81								
NBC_MHEPL_281	338094	6258276	0.80	2.71	0.07	1.51	1.81	2.61	2.21	2.36	2.38	2.38	2.38	2.21	2.35	2.37	2.37	2.37	2.21	2.46	2.61	2.61	2.61	1.81								
NBC_MHEPL_282	338217	6258276	0.69	2.40	0.08	1.52	1.82	2.50	2.16	2.31	2.31	2.31	2.31	2.16	2.27	2.27	2.27	2.27	2.16	2.40	2.50	2.50	2.50	1.82								
NBC_MHEPL_283	338175	6258222	0.72	2.40	0.07	1.51	1.81	2.53	2.17	2.32	2.33	2.33	2.33	2.17	2.28	2.28	2.28	2.28	2.17	2.42	2.53	2.53	2.53	1.81								
NBC_MHEPL_284	338218	6258222	0.71	2.40	0.07	1.51	1.81	2.52	2.17	2.32	2.33	2.33	2.33	2.17	2.28	2.28	2.28	2.28	2.17	2.41	2.52	2.52	2.52	1.81								
NBC_MHEPL_285	338218	6258167	0.68	2.40	0.07	1.51	1.81	2.49	2.15	2.30	2.30	2.30	2.30	2.15	2.27	2.27	2.27	2.27	2.15	2.40	2.49	2.49	2.49	1.81								

100yr ARI Planning Levels - 0m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.00** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)																REDUCTION FACTORS NOT CALCULATED FOR 2010 LEVELS AS THE 0m SLR LEVELS ARE NOT BEING USED FOR PLANNING PURPOSES							
			Wave						Foreshore Type ##																				
									1					2					3					4						
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0 m Sea Level Projection	0 m Sea Level Projection																							
NBC_MHEPL_286	338218	6258112	0.65	2.40	0.07	1.51	1.81	2.45	2.13	2.27	2.27	2.27	2.27	2.13	2.25	2.25	2.25	2.25	2.13	2.38	2.45	2.45	2.45	1.81							
NBC_MHEPL_287	338217	6258055	0.62	2.40	0.07	1.51	1.81	2.43	2.12	2.26	2.26	2.26	2.26	2.12	2.24	2.24	2.24	2.24	2.12	2.37	2.43	2.43	2.43	1.81							
NBC_MHEPL_288	338174	6258056	0.65	2.40	0.07	1.51	1.81	2.46	2.13	2.27	2.27	2.27	2.27	2.13	2.25	2.25	2.25	2.25	2.13	2.38	2.46	2.46	2.46	1.81							
NBC_MHEPL_289	338131	6258003	0.69	2.40	0.07	1.51	1.81	2.49	2.15	2.30	2.30	2.30	2.30	2.15	2.26	2.26	2.26	2.26	2.15	2.40	2.49	2.49	2.49	1.81							
NBC_MHEPL_290	338129	6257949	0.73	2.71	0.06	1.50	1.80	2.53	2.17	2.32	2.33	2.33	2.33	2.17	2.32	2.34	2.34	2.34	2.17	2.42	2.53	2.53	2.53	1.80							
NBC_MHEPL_291	338090	6257950	0.76	2.71	0.07	1.51	1.81	2.57	2.19	2.34	2.36	2.36	2.36	2.19	2.34	2.35	2.35	2.35	2.19	2.44	2.57	2.57	2.57	1.81							
NBC_MHEPL_292	338088	6257896	0.79	3.08	0.07	1.51	1.81	2.60	2.20	2.35	2.38	2.38	2.38	2.20	2.39	2.43	2.43	2.43	2.20	2.45	2.60	2.60	2.60	1.81							
NBC_MHEPL_293	338087	6257842	0.81	3.08	0.06	1.50	1.80	2.62	2.21	2.36	2.39	2.39	2.39	2.21	2.39	2.44	2.44	2.44	2.21	2.46	2.62	2.62	2.62	1.80							
NBC_MHEPL_294	338085	6257788	0.82	3.08	0.06	1.50	1.80	2.63	2.22	2.37	2.40	2.40	2.40	2.22	2.39	2.44	2.44	2.44	2.22	2.47	2.63	2.63	2.63	1.80							
NBC_MHEPL_295	338123	6257732	0.83	3.08	0.06	1.50	1.80	2.63	2.21	2.37	2.40	2.40	2.40	2.21	2.39	2.44	2.44	2.44	2.21	2.47	2.63	2.63	2.63	1.80							
NBC_MHEPL_296	338165	6257731	0.83	3.08	0.06	1.50	1.80	2.63	2.22	2.37	2.40	2.40	2.40	2.22	2.39	2.44	2.44	2.44	2.22	2.47	2.63	2.63	2.63	1.80							
NBC_MHEPL_297	338208	6257676	0.83	3.08	0.06	1.50	1.80	2.63	2.22	2.37	2.40	2.40	2.40	2.22	2.39	2.44	2.44	2.44	2.22	2.47	2.63	2.63	2.63	1.80							
NBC_MHEPL_298	338207	6257623	0.83	3.08	0.06	1.50	1.80	2.63	2.22	2.37	2.40	2.40	2.40	2.22	2.39	2.44	2.44	2.44	2.22	2.47	2.63	2.63	2.63	1.80							
NBC_MHEPL_299	338257	6257622	0.83	3.08	0.06	1.50	1.80	2.62	2.22	2.37	2.39	2.39	2.39	2.22	2.39	2.44	2.44	2.44	2.22	2.47	2.62	2.62	2.62	1.80							
NBC_MHEPL_300	338309	6257567	0.82	3.08	0.06	1.50	1.80	2.62	2.22	2.36	2.39	2.39	2.39	2.22	2.39	2.44	2.44	2.44	2.22	2.46	2.62	2.62	2.62	1.80							
NBC_MHEPL_301	338309	6257513	0.85	3.08	0.05	1.49	1.79	2.64	2.23	2.37	2.40	2.40	2.40	2.23	2.40	2.44	2.44	2.44	2.23	2.47	2.64	2.64	2.64	1.79							
NBC_MHEPL_302	338310	6257458	0.86	3.08	0.05	1.49	1.79	2.65	2.23	2.38	2.41	2.41	2.41	2.23	2.40	2.45	2.45	2.45	2.24	2.48	2.65	2.65	2.65	1.79							
NBC_MHEPL_303	338311	6257403	0.88	3.08	0.05	1.49	1.79	2.67	2.24	2.39	2.43	2.43	2.43	2.24	2.41	2.46	2.46	2.46	2.25	2.49	2.67	2.67	2.67	1.79							
NBC_MHEPL_304	338365	6257403	0.89	3.08	0.06	1.50	1.80	2.68	2.25	2.39	2.43	2.43	2.43	2.25	2.41	2.46	2.46	2.46	2.25	2.49	2.68	2.68	2.68	1.80							
NBC_MHEPL_305	338421	6257402	0.89	3.08	0.06	1.50	1.80	2.68	2.25	2.40	2.44	2.44	2.44	2.25	2.41	2.46	2.46	2.46	2.25	2.50	2.68	2.68	2.68	1.80							
NBC_MHEPL_306	338478	6257402	0.88	3.08	0.06	1.50	1.80	2.68	2.24	2.40	2.44	2.44	2.44	2.24	2.41	2.46	2.46	2.46	2.24	2.50	2.68	2.68	2.68	1.80							
NBC_MHEPL_307	338536	6257402	0.89	3.08	0.06	1.50	1.80	2.69	2.25	2.40	2.44	2.44	2.44	2.25	2.41	2.47	2.47	2.47	2.25	2.50	2.69	2.69	2.69	1.80							
NBC_MHEPL_308	338536	6257346	0.90	3.08	0.06	1.50	1.80	2.70	2.25	2.40	2.45	2.45	2.45	2.25	2.42	2.47	2.47	2.47	2.25	2.50	2.70	2.70	2.70	1.80							
NBC_MHEPL_309	338593	6257346	0.89	3.08	0.06	1.50	1.80	2.69	2.25	2.40	2.44	2.44	2.44	2.25	2.42	2.47	2.47	2.47	2.25	2.50	2.69	2.69	2.69	1.80							
NBC_MHEPL_310	338649	6257345	0.88	3.08	0.06	1.50	1.80	2.69	2.25	2.40	2.44	2.44	2.44	2.25	2.41	2.47	2.47	2.47	2.25	2.50	2.69	2.69	2.69	1.80							
NBC_MHEPL_311	338704	6257345	0.88	3.08	0.07	1.51	1.81	2.68	2.25	2.40	2.44	2.44	2.44	2.25	2.41	2.47	2.47	2.47	2.25	2.50	2.68	2.68	2.68	1.81							
NBC_MHEPL_312	338757	6257344	0.87	3.08	0.07	1.51	1.81	2.68	2.24	2.40	2.44	2.44	2.44	2.24	2.41	2.47	2.47	2.47	2.24	2.49	2.68	2.68	2.68	1.81							
NBC_MHEPL_313	338809	6257344	0.85	3.08	0.07	1.51	1.81	2.66	2.24	2.39	2.43	2.43	2.43	2.24	2.41	2.46	2.46	2.46	2.24	2.49	2.66	2.66	2.66	1.81							
NBC_MHEPL_314	338861	6257289	0.84	3.08	0.07	1.51	1.81	2.65	2.23	2.38	2.41	2.41	2.41	2.23	2.40	2.46	2.46	2.46	2.23	2.48	2.65	2.65	2.65	1.81							
NBC_MHEPL_315	338862	6257232	0.83	2.71	0.06	1.50	1.80	2.63	2.22	2.37	2.40	2.40	2.40	2.22	2.35	2.37	2.37	2.37	2.22	2.47	2.63	2.63	2.63	1.80							
NBC_MHEPL_316	338912	6257172	0.83	2.71	0.06	1.50	1.80	2.63	2.22	2.37	2.39	2.39	2.39	2.22	2.35	2.36	2.36	2.36	2.22	2.47	2.63	2.63	2.63	1.80							
NBC_MHEPL_317	338910	6257109	0.81	2.71	0.05	1.49	1.79	2.61	2.21	2.36	2.38	2.38	2.38	2.21	2.34	2.36	2.36	2.36	2.21	2.46	2.61	2.61	2.61	1.79							
NBC_MHEPL_318	338958	6257106	0.80	2.71	0.05	1.49	1.79	2.59	2.20	2.35	2.37	2.37	2.37	2.20	2.34	2.35	2.35	2.35	2.20	2.45	2.59	2.59	2.59	1.79							
NBC_MHEPL_319	338955	6257045	0.77	2.71	0.05	1.49	1.79	2.56	2.19	2.33	2.35	2.35	2.35	2.19	2.33	2.34	2.34	2.34	2.19	2.43	2.56	2.56	2.56	1.79							
NBC_MHEPL_320	338951	6256989	0.77	2.71	0.04	1.48	1.78	2.55	2.18	2.33	2.34	2.34	2.34	2.18	2.32	2.33	2.33	2.33	2.18	2.43	2.55	2.55	2.55	1.78							
NBC_MHEPL_321	338949	6256938	0.77	2.71	0.04	1.48	1.78	2.55	2.18	2.33	2.34	2.34	2.34	2.18	2.32	2.33	2.33	2.33	2.18	2.43	2.55	2.55	2.55	1.78							
NBC_MHEPL_322	338947	6256887	0.78	2.71	0.04	1.48	1.78	2.56	2.18	2.33	2.34	2.34	2.34	2.18	2.32	2.33	2.33	2.33	2.19	2.43	2.56	2.56	2.56	1.78							
NBC_MHEPL_323	338946	6256837	0.78	2.71	0.03	1.47	1.77	2.56	2.18	2.33	2.34	2.34	2.34	2.18	2.32	2.32	2.32	2.32	2.19	2.43	2.56	2.56	2.56	1.77							
NBC_MHEPL_324	338945	6256787	0.80	2.71	0.04	1.48	1.78	2.58	2.19	2.34	2.35	2.35	2.35	2.19	2.33	2.33	2.33	2.33	2.20	2.44	2.58	2.58	2.58	1.78							
NBC_MHEPL_325	338945	6256736	0.86	2.71	0.03	1.47	1.77	2.63	2.21	2.36	2.39	2.39	2.39	2.21	2.33	2.34	2.34	2.34	2.22	2.47	2.63	2.63	2.63	1.77							
NBC_MHEPL_326	339045	6256633	0.89	2.71	0.03	1.47	1.77	2.66	2.23	2.38	2.41	2.41	2.41	2.23	2.34	2.36	2.36	2.36	2.24	2.48	2.66	2.66	2.66	1.77							
NBC_MHEPL_327	339096	6256633	0.90	2.71	0.03	1.47	1.77	2.67	2.23	2.38	2.42	2.42	2.42	2.23	2.35	2.36	2.36	2.36	2.24	2.49	2.67	2.67	2.67	1.77							
NBC_MHEPL_328	339147	6256633	0.90	2.71	0.03	1.47	1.77	2.67	2.24	2.38	2.42	2.42	2.42	2.24	2.35	2.36	2.36	2.36	2.24	2.49	2.67	2.67	2.67	1.77							
NBC_MHEPL_329	339198	6256632	0.92	2.71	0.03	1.47	1.77	2.68	2.24	2.39	2.43	2.43	2.43	2.24	2.35	2.36	2.36	2.36	2.25	2.50	2.68	2.68	2.68	1.77							
NBC_MHEPL_330	339248	6256632	0.93	2.71	0.03	1.47	1.77	2.70	2.25	2.40	2.44	2.44	2.44	2.25	2.35	2.37	2.37	2.37	2.26	2.50	2.70	2.70	2.70	1.77							
NBC_MHEPL_331	339249	6256682	0.96	3.08	0.03	1.47	1.77	2.72	2.26	2.41	2.46	2.46	2.46	2.26	2.41	2.46	2.46	2.46	2.27	2.52	2.72	2.72	2.72	1.77							
NBC_MHEPL_332	339300	6256732	0.98	3.08	0.03	1.47	1.77	2.75	2.28	2.42	2.47	2.47	2.47	2.28	2.42	2.47	2.47	2.47	2.28	2.53	2.75	2.75	2.75	1.77							
NBC_MHEPL_333	339300	6256782	0.99	3.08	0.03	1.47	1.77	2.76	2.28	2.43	2.48	2.48	2.48	2.28	2.42	2.47	2.47	2.47	2.29	2.54	2.76	2.76	2.76	1.77							
NBC_MHEPL_334	339301	6256832	0.99	3.08	0.03	1.47	1.77	2.76	2.29	2.43	2.49	2.49	2.49	2.29	2.43	2.47	2.47	2.47	2.29	2.54	2.76	2.76	2.76	1.77							
NBC_MHEPL_335	339301	6256881	0.97	3.08	0.03	1.47	1.77	2.74	2.27	2.42	2.47	2.47	2.47	2.27	2.42	2.47	2.47	2.47	2.28	2.53	2.74	2.74	2.74	1.77							
NBC_MHEPL_336	339302	6256931	0.97	3.08	0.03	1.47	1.77	2.74	2.28	2.42	2.47	2.47	2.47	2.28	2.42	2.47	2.47	2.47	2.28	2.53	2.74	2.74	2.74	1.77							
NBC_MHEPL_337	339302	6256980	1.00	3.08	0.04	1.48	1.78	2.78	2.29	2.44	2.50	2.50	2.50	2.29	2.43	2.48	2.48	2.48	2.30	2.54	2.78	2.78	2.78	1.78							
NBC_MHEPL_338	339353	6256980	1.03	3.08	0.03	1.47	1.77	2.80	2.31	2.45	2.51	2.51	2.51	2.31	2.44	2.49	2.49	2.49	2.31	2.56	2.80	2.80	2.80	1.77							
NBC_MHEPL_339	339403	6257029	1.03	3.48	0.04	1.48	1.78	2.81	2.31	2.45	2.52	2.52	2.52	2.31	2.49	2.59	2.59	2.59	2.31	2.56	2.80	2.81	2.81	1.78							
NBC_MHEPL_340	339404	6257079	1.07	3.48	0.04	1.48	1.78	2.85	2.33	2.48	2.55	2.55	2.55	2.33	2.50	2.61	2.61	2.61	2.33	2.58	2.82	2.85	2.85	1.78							
NBC_MHEPL_341	339454	6257079	1.05	3.48	0.04	1.48	1.78	2.83	2.32	2.47	2.53	2.53	2.53	2.32	2.50	2.60	2.60	2.60	2.32	2.57	2.81	2.83	2.83	1.78							
NBC_MHEPL_342	339554	6257129	1.08	3.48	0.03	1.47	1.77	2.85	2.33	2.48	2.55	2.55	2.55	2.33	2.50	2.61	2.61	2.61	2.34	2.58	2.83	2.85	2.85	1.77							

100yr ARI Planning Levels - 0m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.00** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)																REDUCTION FACTORS NOT CALCULATED FOR 2010 LEVELS AS THE 0m SLR LEVELS ARE NOT BEING USED FOR PLANNING PURPOSES							
			Wave						Foreshore Type ##																				
									1					2					3					4						
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0 m Sea Level Projection	0 m Sea Level Projection																							
NBC_MHEPL_343	339654	6257178	1.13	3.48	0.03	1.47	1.77	2.90	2.36	2.50	2.59	2.59	2.59	2.36	2.52	2.63	2.63	2.63	2.36	2.61	2.85	2.90	2.90	1.77								
NBC_MHEPL_344	339704	6257178	1.17	3.48	0.03	1.47	1.77	2.94	2.38	2.52	2.61	2.61	2.61	2.38	2.54	2.64	2.64	2.64	2.38	2.63	2.87	2.94	2.94	1.77								
NBC_MHEPL_345	339754	6257228	1.19	3.48	0.04	1.48	1.78	2.96	2.39	2.53	2.63	2.63	2.63	2.39	2.54	2.65	2.65	2.65	2.39	2.64	2.88	2.96	2.96	1.78								
NBC_MHEPL_346	339804	6257278	1.15	3.48	0.04	1.48	1.78	2.93	2.37	2.52	2.61	2.61	2.61	2.37	2.53	2.64	2.64	2.64	2.38	2.62	2.87	2.93	2.93	1.78								
NBC_MHEPL_347	339804	6257328	1.14	3.48	0.04	1.48	1.78	2.92	2.37	2.52	2.60	2.60	2.60	2.37	2.53	2.64	2.64	2.64	2.37	2.62	2.86	2.92	2.92	1.78								
NBC_MHEPL_348	339804	6257378	1.13	3.48	0.05	1.49	1.79	2.92	2.37	2.51	2.60	2.60	2.60	2.37	2.53	2.64	2.64	2.64	2.37	2.62	2.86	2.92	2.92	1.79								
NBC_MHEPL_349	339854	6257379	1.17	3.48	0.05	1.49	1.79	2.96	2.39	2.53	2.63	2.63	2.63	2.39	2.55	2.66	2.66	2.66	2.39	2.64	2.88	2.96	2.96	1.79								
NBC_MHEPL_350	339904	6257379	1.17	3.48	0.05	1.49	1.79	2.96	2.39	2.53	2.63	2.63	2.63	2.39	2.55	2.66	2.66	2.66	2.39	2.64	2.88	2.96	2.96	1.79								
NBC_MHEPL_351	339954	6257379	1.22	3.48	0.04	1.48	1.78	3.00	2.41	2.56	2.66	2.66	2.66	2.41	2.56	2.67	2.67	2.67	2.41	2.66	2.90	3.00	3.00	1.78								
NBC_MHEPL_352	340004	6257329	1.23	3.95	0.04	1.48	1.78	3.01	2.42	2.56	2.67	2.67	2.67	2.42	2.61	2.80	2.81	2.81	2.42	2.66	2.91	3.01	3.01	1.78								
NBC_MHEPL_353	340105	6257279	1.20	3.48	0.03	1.47	1.77	2.97	2.39	2.54	2.63	2.63	2.63	2.39	2.54	2.65	2.65	2.65	2.40	2.64	2.89	2.97	2.97	1.77								
NBC_MHEPL_354	340155	6257229	1.33	3.95	0.02	1.46	1.76	3.09	2.45	2.60	2.72	2.72	2.72	2.45	2.64	2.82	2.83	2.83	2.46	2.70	2.95	3.09	3.09	1.76								
NBC_MHEPL_355	340205	6257229	1.37	3.95	0.02	1.46	1.76	3.13	2.47	2.62	2.75	2.75	2.75	2.47	2.65	2.83	2.84	2.84	2.48	2.72	2.97	3.13	3.13	1.76								
NBC_MHEPL_356	340255	6257279	1.40	3.95	0.03	1.47	1.77	3.17	2.49	2.64	2.78	2.78	2.78	2.49	2.67	2.84	2.86	2.86	2.50	2.74	2.99	3.17	3.17	1.77								
NBC_MHEPL_357	340305	6257329	1.44	3.95	0.03	1.47	1.77	3.21	2.51	2.66	2.80	2.81	2.81	2.51	2.68	2.85	2.88	2.88	2.52	2.76	3.01	3.21	3.21	1.77								
NBC_MHEPL_358	340305	6257380	1.44	12.96	0.03	1.47	1.77	4.10	2.53	2.92	3.32	3.71	4.10	2.53	2.89	3.26	3.63	4.00	2.52	2.76	3.01	3.21	3.21	1.77								
NBC_MHEPL_359	340355	6257430	1.44	12.96	0.03	1.47	1.77	4.11	2.53	2.92	3.32	3.71	4.11	2.53	2.89	3.26	3.63	4.00	2.52	2.77	3.01	3.21	3.21	1.77								
NBC_MHEPL_360	340355	6257480	1.44	3.95	0.03	1.47	1.77	3.22	2.52	2.66	2.81	2.81	2.81	2.52	2.69	2.86	2.88	2.88	2.52	2.77	3.01	3.22	3.22	1.77								
NBC_MHEPL_361	340355	6257530	1.44	3.95	0.04	1.48	1.78	3.22	2.52	2.66	2.81	2.81	2.81	2.52	2.69	2.86	2.89	2.89	2.52	2.77	3.01	3.22	3.22	1.78								
NBC_MHEPL_362	340406	6257579	1.44	3.95	0.04	1.48	1.78	3.22	2.52	2.66	2.81	2.81	2.81	2.52	2.69	2.86	2.89	2.89	2.52	2.77	3.01	3.22	3.22	1.78								
NBC_MHEPL_363	340406	6257629	1.44	3.95	0.04	1.48	1.78	3.22	2.52	2.66	2.81	2.81	2.81	2.52	2.69	2.86	2.89	2.89	2.52	2.77	3.01	3.22	3.22	1.78								
NBC_MHEPL_364	340406	6257679	1.44	3.95	0.04	1.48	1.78	3.22	2.52	2.67	2.81	2.82	2.82	2.52	2.69	2.86	2.89	2.89	2.52	2.77	3.01	3.22	3.22	1.78								
NBC_MHEPL_365	340406	6257728	1.36	3.95	0.04	1.48	1.78	3.14	2.48	2.63	2.76	2.76	2.76	2.48	2.66	2.84	2.86	2.86	2.48	2.73	2.97	3.14	3.14	1.78								
NBC_MHEPL_366	340406	6257778	1.30	3.95	0.04	1.48	1.78	3.08	2.45	2.59	2.72	2.72	2.72	2.45	2.64	2.82	2.83	2.83	2.45	2.70	2.94	3.08	3.08	1.78								
NBC_MHEPL_367	340406	6257828	1.22	3.95	0.04	1.48	1.78	3.00	2.41	2.56	2.66	2.66	2.66	2.41	2.61	2.80	2.80	2.80	2.41	2.66	2.90	3.00	3.00	1.78								
NBC_MHEPL_368	340356	6257828	0.94	3.95	0.04	1.48	1.78	2.71	2.26	2.41	2.45	2.45	2.45	2.26	2.50	2.67	2.67	2.67	2.27	2.51	2.71	2.71	2.71	1.78								
NBC_MHEPL_369	340306	6257878	0.78	3.95	0.04	1.48	1.78	2.60	2.19	2.36	2.39	2.39	2.39	2.19	2.44	2.60	2.60	2.60	2.19	2.43	2.56	2.56	2.56	1.78								
NBC_MHEPL_370	340256	6257878	0.79	3.95	0.04	1.48	1.78	2.60	2.19	2.36	2.39	2.39	2.39	2.19	2.45	2.60	2.60	2.60	2.19	2.44	2.57	2.57	2.57	1.78								
NBC_MHEPL_371	340256	6257928	0.84	3.95	0.04	1.48	1.78	2.63	2.22	2.38	2.42	2.42	2.42	2.22	2.46	2.63	2.63	2.63	2.22	2.46	2.62	2.62	2.62	1.78								
NBC_MHEPL_372	340206	6258029	0.80	3.95	0.04	1.48	1.78	2.61	2.20	2.37	2.40	2.40	2.40	2.20	2.45	2.61	2.61	2.61	2.20	2.45	2.59	2.59	2.59	1.78								
NBC_MHEPL_373	340156	6258029	0.72	3.95	0.04	1.48	1.78	2.57	2.16	2.34	2.37	2.37	2.37	2.16	2.43	2.57	2.57	2.57	2.16	2.40	2.50	2.50	2.50	1.78								
NBC_MHEPL_374	340106	6258129	0.89	15.35	0.04	1.48	1.78	3.90	2.25	2.66	3.07	3.48	3.90	2.25	2.62	2.98	3.35	3.49	2.24	2.49	2.67	2.67	2.67	1.78								
NBC_MHEPL_375	340056	6258179	1.01	14.36	0.04	1.48	1.78	3.96	2.31	2.72	3.14	3.55	3.96	2.31	2.68	3.05	3.41	3.73	2.31	2.55	2.80	2.80	2.80	1.78								
NBC_MHEPL_376	340006	6258179	1.08	14.40	0.04	1.48	1.78	3.99	2.34	2.76	3.17	3.58	3.99	2.34	2.71	3.08	3.45	3.81	2.34	2.59	2.83	2.86	2.86	1.78								
NBC_MHEPL_377	340006	6258229	1.45	14.40	0.05	1.49	1.79	4.16	2.54	2.94	3.35	3.76	4.16	2.54	2.90	3.27	3.64	4.01	2.53	2.78	3.02	3.24	3.24	1.79								
NBC_MHEPL_378	339956	6258229	1.45	14.40	0.05	1.49	1.79	4.16	2.54	2.94	3.35	3.76	4.16	2.54	2.90	3.27	3.64	4.01	2.53	2.78	3.02	3.24	3.24	1.79								
NBC_MHEPL_379	339906	6258279	1.45	14.29	0.05	1.49	1.79	4.16	2.54	2.94	3.35	3.76	4.16	2.54	2.90	3.27	3.64	4.01	2.54	2.78	3.03	3.24	3.24	1.79								
NBC_MHEPL_380	339906	6258329	1.45	13.65	0.05	1.49	1.79	4.14	2.54	2.94	3.34	3.74	4.14	2.54	2.90	3.27	3.64	4.01	2.54	2.78	3.03	3.24	3.24	1.79								
NBC_MHEPL_381	339906	6258379	1.45	12.19	0.05	1.49	1.79	4.08	2.54	2.92	3.31	3.69	4.08	2.54	2.91	3.27	3.64	4.01	2.54	2.78	3.03	3.24	3.24	1.79								
NBC_MHEPL_382	339906	6258429	1.45	13.63	0.05	1.49	1.79	4.14	2.54	2.94	3.34	3.74	4.14	2.54	2.91	3.27	3.64	4.01	2.54	2.78	3.03	3.24	3.24	1.79								
NBC_MHEPL_383	339856	6258479	1.45	13.23	0.05	1.49	1.79	4.12	2.54	2.94	3.33	3.73	4.12	2.54	2.91	3.27	3.64	4.01	2.54	2.78	3.03	3.25	3.25	1.79								
NBC_MHEPL_384	339856	6258529	1.46	14.89	0.06	1.50	1.80	4.18	2.54	2.95	3.36	3.77	4.18	2.54	2.91	3.28	3.64	4.01	2.54	2.79	3.03	3.25	3.25	1.80								
NBC_MHEPL_385	339806	6258579	1.46	13.95	0.06	1.50	1.80	4.15	2.54	2.95	3.35	3.75	4.15	2.54	2.91	3.28	3.65	4.01	2.54	2.79	3.03	3.26	3.26	1.80								
NBC_MHEPL_386	339806	6258629	1.46	14.41	0.06	1.50	1.80	4.17	2.53	2.95	3.36	3.76	4.17	2.53	2.91	3.28	3.65	4.01	2.53	2.79	3.04	3.26	3.26	1.80								
NBC_MHEPL_387	339756	6258629	1.46	13.13	0.06	1.50	1.80	4.13	2.53	2.94	3.34	3.73	4.13	2.53	2.91	3.28	3.65	4.01	2.53	2.79	3.04	3.26	3.26	1.80								
NBC_MHEPL_388	339756	6258679	1.46	13.79	0.07	1.51	1.81	4.15	2.54	2.95	3.35	3.75	4.15	2.54	2.92	3.28	3.65	4.02	2.54	2.79	3.04	3.27	3.27	1.81								
NBC_MHEPL_389	339706	6258729	1.46	13.39	0.07	1.51	1.81	4.14	2.54	2.94	3.34	3.74	4.14	2.54	2.92	3.28	3.65	4.02	2.54	2.79	3.04	3.27	3.27	1.81								
NBC_MHEPL_390	339656	6258729	1.46	13.13	0.06	1.50	1.80	4.13	2.54	2.94	3.34	3.73	4.13	2.54	2.91	3.28	3.65	4.02	2.54	2.79	3.04	3.27	3.27	1.80								
NBC_MHEPL_391	339606	6258779	1.47	14.30	0.07	1.51	1.81	4.17	2.54	2.95	3.36	3.77	4.17	2.54	2.92	3.28	3.65	4.02	2.54	2.80	3.04	3.28	3.28	1.81								
NBC_MHEPL_392	339556	6258779	1.47	13.13	0.07	1.51	1.81	4.13	2.54	2.95	3.34	3.73	4.13	2.54	2.92	3.29	3.65	4.02	2.54	2.80	3.04	3.28	3.28	1.81								
NBC_MHEPL_393	339506	6258729	1.45	13.13	0.05	1.49	1.79	4.12	2.54	2.94	3.33	3.73	4.12	2.54	2.91	3.27	3.64	4.01	2.54	2.78	3.03	3.25	3.25	1.79								
NBC_MHEPL_394	339456	6258779	1.42	13.21	0.00	1.44	1.74	4.10	2.51	2.91	3.31	3.70	4.10	2.51	2.87	3.24	3.61	3.98	2.49	2.74	2.98	3.16	3.16	1.74								
NBC_MHEPL_395	339506	6258779	1.47	14.28	0.07	1.51	1.81	4.17	2.55	2.96	3.36	3.77	4.17	2.55	2.92	3.29	3.65	4.02	2.55	2.80	3.05	3.28	3.28	1.81								
NBC_MHEPL_396	339556	6258829	1.47	13.49	0.08	1.52	1.82	4.15	2.56	2.95	3.35	3.75	4.15	2.56	2.92	3.29	3.66	4.03	2.56	2.81	3.05	3.29	3.29	1.82								
NBC_MHEPL_397	339556	6258829	1.47	12.84	0.08	1.52	1.82	4.12	2.56	2.95	3.34	3.73	4.12	2.56	2.92	3.29	3.66	4.03	2.56	2.81	3.05	3.29	3.29	1.82								
NBC_MHEPL_398	339606	6258829	1.47	14.02	0.07	1.51	1.81	4.16	2.55	2.95	3.36	3.76	4.16	2.55	2.92	3.29	3.65	4.02	2.55	2.80	3.05	3.28	3.28	1.81								
NBC_MHEPL_399	339656	6258829	1.47	13.65	0.07	1.51	1.81	4.15	2.54	2.95	3.35	3.75	4.15	2.54	2.92	3.28	3.65	4.02	2.54	2.80	3.04	3.28	3.28	1.81								

100yr ARI Planning Levels - 0m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.00** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															REDUCTION FACTORS NOT CALCULATED FOR 2010 LEVELS AS THE 0m SLR LEVELS ARE NOT BEING USED FOR PLANNING PURPOSES							
			Wave						Foreshore Type ##																			
									1					2					3					4				
									Crest Level (mAHD)																			
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0 m Sea Level Projection	0 m Sea Level Projection																							
NBC_MHEPL_400	339706	6258879	1.47	14.06	0.07	1.51	1.81	4.16	2.55	2.96	3.36	3.76	4.16	2.55	2.92	3.29	3.65	4.02	2.55	2.80	3.05	3.28	3.28	1.81								
NBC_MHEPL_401	339706	6258829	1.47	15.28	0.07	1.51	1.81	4.19	2.54	2.96	3.37	3.78	4.19	2.54	2.92	3.28	3.65	4.02	2.54	2.80	3.04	3.27	3.27	1.81								
NBC_MHEPL_402	339706	6258779	1.46	12.98	0.07	1.51	1.81	4.12	2.54	2.94	3.33	3.73	4.12	2.54	2.92	3.28	3.65	4.02	2.54	2.79	3.04	3.27	3.27	1.81								
NBC_MHEPL_403	339756	6258779	1.46	15.28	0.07	1.51	1.81	4.19	2.54	2.96	3.37	3.78	4.19	2.54	2.92	3.28	3.65	4.02	2.54	2.80	3.04	3.27	3.27	1.81								
NBC_MHEPL_404	339806	6258729	1.46	15.28	0.07	1.51	1.81	4.19	2.54	2.96	3.37	3.78	4.19	2.54	2.92	3.28	3.65	4.02	2.54	2.79	3.04	3.27	3.27	1.81								
NBC_MHEPL_405	339856	6258729	1.46	15.28	0.06	1.50	1.80	4.19	2.54	2.96	3.37	3.78	4.19	2.54	2.91	3.28	3.65	4.02	2.54	2.79	3.04	3.27	3.27	1.80								
NBC_MHEPL_406	339906	6258729	1.46	14.88	0.06	1.50	1.80	4.19	2.54	2.96	3.37	3.78	4.19	2.54	2.91	3.28	3.65	4.02	2.54	2.79	3.04	3.27	3.27	1.80								
NBC_MHEPL_407	339956	6258679	1.46	13.49	0.06	1.50	1.80	4.14	2.53	2.94	3.34	3.74	4.14	2.53	2.91	3.28	3.65	4.01	2.53	2.79	3.04	3.26	3.26	1.80								
NBC_MHEPL_408	339956	6258629	1.46	14.38	0.06	1.50	1.80	4.17	2.54	2.95	3.36	3.76	4.17	2.54	2.91	3.28	3.65	4.01	2.54	2.79	3.03	3.26	3.26	1.80								
NBC_MHEPL_409	340006	6258629	1.46	13.61	0.06	1.50	1.80	4.14	2.54	2.94	3.34	3.74	4.14	2.54	2.91	3.28	3.65	4.01	2.54	2.79	3.03	3.26	3.26	1.80								
NBC_MHEPL_410	340056	6258579	1.46	13.37	0.05	1.49	1.79	4.13	2.54	2.94	3.34	3.73	4.13	2.54	2.91	3.28	3.64	4.01	2.54	2.78	3.03	3.25	3.25	1.79								
NBC_MHEPL_411	340106	6258529	1.45	13.36	0.05	1.49	1.79	4.13	2.54	2.94	3.33	3.73	4.13	2.54	2.91	3.27	3.64	4.01	2.54	2.78	3.03	3.25	3.25	1.79								
NBC_MHEPL_412	340156	6258529	1.45	13.36	0.05	1.49	1.79	4.13	2.54	2.94	3.33	3.73	4.13	2.54	2.91	3.27	3.64	4.01	2.54	2.78	3.03	3.24	3.24	1.79								
NBC_MHEPL_413	340206	6258529	1.45	13.36	0.05	1.49	1.79	4.13	2.54	2.94	3.33	3.73	4.13	2.54	2.91	3.27	3.64	4.01	2.54	2.78	3.03	3.24	3.24	1.79								
NBC_MHEPL_414	340206	6258579	1.45	13.47	0.05	1.49	1.79	4.13	2.54	2.94	3.34	3.74	4.13	2.54	2.91	3.27	3.64	4.01	2.54	2.78	3.03	3.25	3.25	1.79								
NBC_MHEPL_415	340256	6258579	1.46	13.47	0.05	1.49	1.79	4.13	2.54	2.94	3.34	3.74	4.13	2.54	2.91	3.28	3.64	4.01	2.54	2.78	3.03	3.25	3.25	1.79								
NBC_MHEPL_416	340306	6258629	1.46	14.21	0.06	1.50	1.80	4.16	2.54	2.95	3.35	3.76	4.16	2.54	2.91	3.28	3.65	4.01	2.54	2.79	3.03	3.26	3.26	1.80								
NBC_MHEPL_417	340356	6258629	1.46	13.15	0.06	1.50	1.80	4.12	2.54	2.94	3.33	3.73	4.12	2.54	2.91	3.28	3.64	4.01	2.54	2.79	3.03	3.26	3.26	1.80								
NBC_MHEPL_418	340356	6258579	1.46	14.11	0.05	1.49	1.79	4.16	2.54	2.95	3.35	3.75	4.16	2.54	2.91	3.28	3.64	4.01	2.54	2.78	3.03	3.25	3.25	1.79								
NBC_MHEPL_419	340406	6258579	1.46	14.42	0.05	1.49	1.79	4.17	2.54	2.95	3.35	3.76	4.17	2.54	2.91	3.28	3.64	4.01	2.54	2.78	3.03	3.25	3.25	1.79								
NBC_MHEPL_420	340456	6258579	1.46	14.42	0.05	1.49	1.79	4.17	2.54	2.95	3.35	3.76	4.17	2.54	2.91	3.28	3.64	4.01	2.54	2.78	3.03	3.25	3.25	1.79								
NBC_MHEPL_421	340506	6258579	1.46	14.42	0.05	1.49	1.79	4.17	2.54	2.95	3.35	3.76	4.17	2.54	2.91	3.28	3.64	4.01	2.54	2.79	3.03	3.25	3.25	1.79								
NBC_MHEPL_422	340506	6258629	1.46	14.42	0.06	1.50	1.80	4.17	2.54	2.95	3.36	3.76	4.17	2.54	2.91	3.28	3.64	4.01	2.54	2.79	3.03	3.26	3.26	1.80								
NBC_MHEPL_423	340556	6258629	1.46	14.42	0.06	1.50	1.80	4.17	2.54	2.95	3.36	3.76	4.17	2.54	2.91	3.28	3.64	4.01	2.54	2.79	3.03	3.26	3.26	1.80								
NBC_MHEPL_424	340606	6258679	1.46	14.02	0.06	1.50	1.80	4.16	2.53	2.95	3.35	3.75	4.16	2.53	2.91	3.28	3.65	4.01	2.53	2.79	3.03	3.26	3.26	1.80								
NBC_MHEPL_425	340656	6258679	1.46	14.25	0.06	1.50	1.80	4.16	2.54	2.95	3.35	3.76	4.16	2.54	2.91	3.28	3.65	4.01	2.54	2.79	3.03	3.26	3.26	1.80								
NBC_MHEPL_426	340706	6258679	1.46	14.42	0.06	1.50	1.80	4.17	2.54	2.95	3.36	3.76	4.17	2.54	2.91	3.28	3.65	4.01	2.54	2.79	3.03	3.26	3.26	1.80								
NBC_MHEPL_427	340756	6258679	1.46	14.41	0.06	1.50	1.80	4.17	2.54	2.95	3.36	3.76	4.17	2.54	2.91	3.28	3.64	4.01	2.54	2.79	3.03	3.26	3.26	1.80								
NBC_MHEPL_428	340806	6258679	1.46	14.52	0.06	1.50	1.80	4.17	2.54	2.95	3.36	3.76	4.17	2.54	2.91	3.28	3.64	4.01	2.54	2.79	3.03	3.25	3.25	1.80								
NBC_MHEPL_429	340856	6258679	1.46	3.95	0.06	1.50	1.80	3.26	2.54	2.69	2.84	2.85	2.85	2.54	2.71	2.88	2.91	2.91	2.54	2.79	3.03	3.26	3.26	1.80								
NBC_MHEPL_430	340906	6258679	1.41	3.95	0.06	1.50	1.80	3.22	2.51	2.67	2.81	2.82	2.82	2.51	2.69	2.87	2.90	2.90	2.51	2.77	3.01	3.22	3.22	1.80								
NBC_MHEPL_431	340906	6258729	1.33	4.47	0.07	1.51	1.81	3.13	2.47	2.63	2.76	2.76	2.76	2.47	2.70	2.93	3.03	3.03	2.47	2.73	2.97	3.13	3.13	1.81								
NBC_MHEPL_432	340906	6258779	1.30	3.95	0.07	1.51	1.81	3.11	2.46	2.62	2.75	2.75	2.75	2.46	2.66	2.84	2.86	2.86	2.46	2.71	2.96	3.11	3.11	1.81								
NBC_MHEPL_433	340956	6258779	1.33	3.95	0.07	1.51	1.81	3.15	2.48	2.63	2.77	2.77	2.77	2.48	2.67	2.85	2.88	2.88	2.48	2.73	2.98	3.15	3.15	1.81								
NBC_MHEPL_434	341006	6258779	1.38	3.95	0.07	1.51	1.81	3.19	2.50	2.66	2.80	2.80	2.80	2.50	2.69	2.86	2.90	2.90	2.50	2.75	3.00	3.19	3.19	1.81								
NBC_MHEPL_435	341056	6258729	1.26	3.95	0.07	1.51	1.81	3.07	2.44	2.60	2.72	2.72	2.72	2.44	2.64	2.83	2.85	2.85	2.44	2.69	2.94	3.07	3.07	1.81								
NBC_MHEPL_436	341106	6258729	1.05	3.95	0.06	1.50	1.80	2.86	2.33	2.49	2.56	2.56	2.56	2.33	2.56	2.75	2.75	2.75	2.33	2.58	2.83	2.86	2.86	1.80								
NBC_MHEPL_437	341156	6258679	0.56	14.11	0.07	1.51	1.81	3.43	2.09	2.50	2.91	3.32	3.43	2.09	2.46	2.82	2.89	2.89	2.09	2.34	2.37	2.37	2.37	1.81								
NBC_MHEPL_438	341206	6258679	0.51	14.41	0.07	1.51	1.81	3.29	2.07	2.48	2.89	3.29	3.29	2.07	2.43	2.80	2.80	2.80	2.07	2.31	2.32	2.32	2.32	1.81								
NBC_MHEPL_439	341256	6258629	0.94	3.95	0.07	1.51	1.81	2.75	2.28	2.43	2.49	2.49	2.49	2.28	2.52	2.71	2.71	2.71	2.28	2.53	2.75	2.75	2.75	1.81								
NBC_MHEPL_440	341306	6258579	0.87	3.95	0.07	1.51	1.81	2.68	2.24	2.41	2.45	2.45	2.45	2.24	2.49	2.67	2.67	2.67	2.24	2.49	2.68	2.68	2.68	1.81								
NBC_MHEPL_441	341356	6258529	0.81	2.71	0.07	1.51	1.81	2.62	2.21	2.36	2.39	2.39	2.39	2.21	2.35	2.37	2.37	2.37	2.21	2.46	2.62	2.62	2.62	1.81								
NBC_MHEPL_442	341356	6258479	0.73	2.71	0.06	1.50	1.80	2.53	2.17	2.32	2.33	2.33	2.33	2.17	2.32	2.33	2.33	2.33	2.17	2.42	2.53	2.53	2.53	1.80								
NBC_MHEPL_443	341306	6258429	0.74	2.71	0.05	1.49	1.79	2.54	2.17	2.32	2.33	2.33	2.33	2.17	2.32	2.33	2.33	2.33	2.18	2.42	2.54	2.54	2.54	1.79								
NBC_MHEPL_444	341256	6258429	0.69	2.40	0.06	1.50	1.80	2.48	2.15	2.29	2.29	2.29	2.29	2.15	2.25	2.25	2.25	2.25	2.15	2.39	2.48	2.48	2.48	1.80								
NBC_MHEPL_445	341256	6258379	0.68	3.48	0.05	1.49	1.79	2.47	2.14	2.29	2.29	2.29	2.29	2.14	2.38	2.46	2.46	2.46	2.14	2.39	2.47	2.47	2.47	1.79								
NBC_MHEPL_446	341156	6258329	0.77	3.48	0.05	1.49	1.79	2.56	2.19	2.33	2.35	2.35	2.35	2.19	2.41	2.50	2.50	2.50	2.19	2.43	2.56	2.56	2.56	1.79								
NBC_MHEPL_447	341156	6258279	0.80	3.95	0.05	1.49	1.79	2.61	2.20	2.37	2.41	2.41	2.41	2.20	2.45	2.61	2.61	2.61	2.20	2.45	2.59	2.59	2.59	1.79								
NBC_MHEPL_448	341106	6258229	0.83	3.95	0.04	1.48	1.78	2.63	2.22	2.38	2.42	2.42	2.42	2.22	2.46	2.63	2.63	2.63	2.22	2.46	2.61	2.61	2.61	1.78								
NBC_MHEPL_449	341106	6258179	0.88	3.95	0.04	1.48	1.78	2.66	2.24	2.39	2.43	2.43	2.43	2.24	2.48	2.65	2.65	2.65	2.24	2.48	2.66	2.66	2.66	1.78								
NBC_MHEPL_450	341056	6258129	0.97	3.95	0.04	1.48	1.78	2.75	2.28	2.43	2.48	2.48	2.48	2.28	2.51	2.69	2.69	2.69	2.29	2.53	2.75	2.75	2.75	1.78								
NBC_MHEPL_451	341056	6258079	1.03	3.95	0.04	1.48	1.78	2.81	2.32	2.46	2.52	2.52	2.52	2.32	2.54	2.72	2.72	2.72	2.32	2.56	2.81	2.81	2.81	1.78								
NBC_MHEPL_452	341056	6258029	1.06	3.95	0.04	1.48	1.78	2.84	2.33	2.47	2.54	2.54	2.54	2.33	2.55	2.73	2.73	2.73	2.33	2.57	2.82	2.84	2.84	1.78								
NBC_MHEPL_453	341006	6257979	1.09	3.95	0.04	1.48	1.78	2.87	2.35	2.49	2.57	2.57	2.57	2.35	2.56	2.75	2.75	2.75	2.35	2.59	2.84	2.87	2.87	1.78								
NBC_MHEPL_454	341056	6257979	1.05	3.95	0.04	1.48	1.78	2.83	2.32	2.47	2.54	2.54	2.54	2.32	2.54	2.73	2.73	2.73	2.33	2.57	2.82	2.83	2.83	1.78								
NBC_MHEPL_455	341056	6257929	0.93	3.95	0.04	1.48	1.78	2.71	2.27	2.41	2.45	2.45	2.45	2.27	2.50	2.67	2.67	2.67	2.27	2.51	2.71	2.71	2.71	1.78								
NBC_MHEPL_456	341056	6257879	1.09	3.95	0.04	1.48	1.78	2.87	2.34	2.49	2.56	2.56	2.56	2.34	2.55	2.74	2.74	2.74	2.34	2.59	2.83	2.87	2.87	1.78								

100yr ARI Planning Levels - 0m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.00** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)																REDUCTION FACTORS NOT CALCULATED FOR 2010 LEVELS AS THE 0m SLR LEVELS ARE NOT BEING USED FOR PLANNING PURPOSES							
			Wave						Foreshore Type ##																				
									1					2					3					4						
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0 m Sea Level Projection	0 m Sea Level Projection																							
NBC_MHEPL_457	341006	6257828	1.22	3.95	0.04	1.48	1.78	3.00	2.41	2.55	2.66	2.66	2.66	2.41	2.61	2.80	2.80	2.80	2.41	2.66	2.90	3.00	3.00	1.78								
NBC_MHEPL_458	341006	6257778	1.26	3.95	0.04	1.48	1.78	3.04	2.43	2.57	2.68	2.68	2.68	2.43	2.62	2.81	2.82	2.82	2.43	2.67	2.92	3.04	3.04	1.78								
NBC_MHEPL_459	341006	6257728	1.27	3.95	0.04	1.48	1.78	3.05	2.43	2.58	2.69	2.69	2.69	2.43	2.62	2.81	2.82	2.82	2.44	2.68	2.93	3.05	3.05	1.78								
NBC_MHEPL_460	341006	6257679	1.30	3.95	0.04	1.48	1.78	3.08	2.45	2.59	2.71	2.71	2.71	2.45	2.63	2.82	2.83	2.83	2.45	2.70	2.94	3.08	3.08	1.78								
NBC_MHEPL_461	341006	6257629	1.29	3.95	0.03	1.47	1.77	3.06	2.44	2.59	2.70	2.70	2.70	2.44	2.63	2.82	2.82	2.82	2.44	2.69	2.93	3.06	3.06	1.77								
NBC_MHEPL_462	341056	6257629	1.29	3.95	0.03	1.47	1.77	3.06	2.44	2.58	2.70	2.70	2.70	2.44	2.63	2.81	2.82	2.82	2.44	2.69	2.93	3.06	3.06	1.77								
NBC_MHEPL_463	341106	6257629	1.27	3.95	0.04	1.48	1.78	3.05	2.43	2.58	2.69	2.69	2.69	2.43	2.62	2.81	2.82	2.82	2.44	2.68	2.93	3.05	3.05	1.78								
NBC_MHEPL_464	341156	6257679	1.20	3.95	0.04	1.48	1.78	2.97	2.40	2.54	2.64	2.64	2.64	2.40	2.59	2.79	2.79	2.79	2.40	2.64	2.89	2.97	2.97	1.78								
NBC_MHEPL_465	341206	6257729	1.12	3.95	0.04	1.48	1.78	2.90	2.36	2.50	2.59	2.59	2.59	2.36	2.57	2.76	2.76	2.76	2.36	2.61	2.85	2.90	2.90	1.78								
NBC_MHEPL_466	341256	6257729	1.15	3.95	0.04	1.48	1.78	2.93	2.38	2.52	2.61	2.61	2.61	2.38	2.58	2.77	2.77	2.77	2.38	2.62	2.87	2.93	2.93	1.78								
NBC_MHEPL_467	341256	6257779	1.12	3.95	0.04	1.48	1.78	2.90	2.36	2.51	2.59	2.59	2.59	2.36	2.57	2.76	2.76	2.76	2.36	2.61	2.85	2.90	2.90	1.78								
NBC_MHEPL_468	341306	6257829	1.13	3.95	0.05	1.49	1.79	2.92	2.37	2.51	2.60	2.60	2.60	2.37	2.58	2.77	2.77	2.77	2.37	2.61	2.86	2.92	2.92	1.79								
NBC_MHEPL_469	341356	6257879	1.45	14.32	0.05	1.49	1.79	4.16	2.54	2.94	3.35	3.76	4.16	2.54	2.90	3.27	3.64	4.01	2.53	2.78	3.02	3.24	3.24	1.79								
NBC_MHEPL_470	341356	6257929	1.42	14.50	0.05	1.49	1.79	4.16	2.52	2.93	3.34	3.75	4.16	2.52	2.89	3.26	3.63	3.99	2.52	2.77	3.01	3.21	3.21	1.79								
NBC_MHEPL_471	341406	6257879	1.45	14.30	0.05	1.49	1.79	4.16	2.54	2.94	3.35	3.76	4.16	2.54	2.90	3.27	3.64	4.01	2.53	2.78	3.02	3.24	3.24	1.79								
NBC_MHEPL_472	341406	6257829	1.45	14.42	0.04	1.48	1.78	4.16	2.54	2.94	3.35	3.76	4.16	2.54	2.90	3.27	3.64	4.00	2.53	2.78	3.02	3.23	3.23	1.78								
NBC_MHEPL_473	341406	6257779	1.45	13.99	0.04	1.48	1.78	4.15	2.53	2.94	3.34	3.75	4.15	2.53	2.90	3.27	3.64	4.00	2.53	2.77	3.02	3.23	3.23	1.78								
NBC_MHEPL_474	341406	6257729	1.45	14.42	0.04	1.48	1.78	4.16	2.53	2.94	3.35	3.75	4.16	2.53	2.90	3.27	3.63	4.00	2.53	2.77	3.02	3.23	3.23	1.78								
NBC_MHEPL_475	341406	6257679	1.44	14.19	0.04	1.48	1.78	4.15	2.53	2.94	3.34	3.75	4.15	2.53	2.90	3.27	3.63	4.00	2.53	2.77	3.02	3.22	3.22	1.78								
NBC_MHEPL_476	341406	6257629	1.42	3.95	0.04	1.48	1.78	3.20	2.51	2.66	2.80	2.80	2.80	2.51	2.68	2.85	2.88	2.88	2.51	2.76	3.00	3.20	3.20	1.78								
NBC_MHEPL_477	341456	6257629	1.26	3.95	0.04	1.48	1.78	3.04	2.43	2.57	2.69	2.69	2.69	2.43	2.62	2.81	2.82	2.82	2.43	2.68	2.92	3.04	3.04	1.78								
NBC_MHEPL_478	341506	6257629	1.32	3.95	0.04	1.48	1.78	3.10	2.46	2.60	2.73	2.73	2.73	2.46	2.64	2.83	2.84	2.84	2.46	2.71	2.95	3.10	3.10	1.78								
NBC_MHEPL_479	341556	6257629	1.25	3.95	0.04	1.48	1.78	3.03	2.43	2.57	2.68	2.68	2.68	2.43	2.62	2.81	2.81	2.81	2.43	2.67	2.92	3.03	3.03	1.78								
NBC_MHEPL_480	341556	6257679	1.18	3.95	0.04	1.48	1.78	2.96	2.39	2.53	2.63	2.63	2.63	2.39	2.59	2.78	2.78	2.78	2.39	2.63	2.88	2.96	2.96	1.78								
NBC_MHEPL_481	341606	6257729	1.21	14.42	0.04	1.48	1.78	4.06	2.41	2.82	3.24	3.65	4.06	2.41	2.78	3.15	3.51	3.88	2.41	2.65	2.90	2.99	2.99	1.78								
NBC_MHEPL_482	341656	6257779	0.86	14.11	0.04	1.48	1.78	3.88	2.24	2.65	3.06	3.47	3.88	2.24	2.60	2.97	3.34	3.44	2.23	2.48	2.65	2.65	2.65	1.78								
NBC_MHEPL_483	341656	6257729	1.10	3.95	0.04	1.48	1.78	2.88	2.35	2.49	2.57	2.57	2.57	2.35	2.56	2.75	2.75	2.75	2.35	2.60	2.84	2.88	2.88	1.78								
NBC_MHEPL_484	341656	6257679	1.06	3.48	0.04	1.48	1.78	2.84	2.33	2.47	2.54	2.54	2.54	2.33	2.50	2.61	2.61	2.61	2.33	2.57	2.82	2.84	2.84	1.78								
NBC_MHEPL_485	341606	6257629	1.07	3.48	0.04	1.48	1.78	2.85	2.33	2.48	2.55	2.55	2.55	2.33	2.50	2.61	2.61	2.61	2.33	2.58	2.82	2.85	2.85	1.78								
NBC_MHEPL_486	341606	6257579	0.99	3.48	0.04	1.48	1.78	2.77	2.29	2.44	2.49	2.49	2.49	2.29	2.48	2.58	2.58	2.58	2.29	2.54	2.77	2.77	2.77	1.78								
NBC_MHEPL_487	341606	6257529	0.93	3.48	0.04	1.48	1.78	2.71	2.26	2.40	2.45	2.45	2.45	2.26	2.45	2.55	2.55	2.55	2.26	2.51	2.71	2.71	2.71	1.78								
NBC_MHEPL_488	341656	6257479	0.89	3.08	0.03	1.47	1.77	2.67	2.24	2.38	2.42	2.42	2.42	2.24	2.40	2.44	2.44	2.44	2.24	2.49	2.67	2.67	2.67	1.77								
NBC_MHEPL_489	341656	6257429	0.82	3.08	0.03	1.47	1.77	2.59	2.20	2.34	2.36	2.36	2.36	2.20	2.37	2.41	2.41	2.41	2.20	2.45	2.59	2.59	2.59	1.77								
NBC_MHEPL_490	341606	6257429	0.90	3.08	0.03	1.47	1.77	2.67	2.24	2.39	2.42	2.42	2.42	2.24	2.40	2.44	2.44	2.44	2.25	2.49	2.67	2.67	2.67	1.77								
NBC_MHEPL_491	341606	6257379	0.93	3.08	0.03	1.47	1.77	2.71	2.26	2.40	2.44	2.44	2.44	2.26	2.41	2.45	2.45	2.45	2.26	2.51	2.71	2.71	2.71	1.77								
NBC_MHEPL_492	341556	6257379	0.99	3.08	0.03	1.47	1.77	2.77	2.29	2.43	2.49	2.49	2.49	2.29	2.43	2.48	2.48	2.48	2.29	2.54	2.77	2.77	2.77	1.77								
NBC_MHEPL_493	341506	6257379	1.04	3.48	0.03	1.47	1.77	2.82	2.31	2.46	2.52	2.52	2.52	2.31	2.49	2.60	2.60	2.60	2.32	2.56	2.81	2.82	2.82	1.77								
NBC_MHEPL_494	341456	6257379	1.09	3.48	0.03	1.47	1.77	2.86	2.34	2.48	2.56	2.56	2.56	2.34	2.51	2.61	2.61	2.61	2.34	2.59	2.83	2.86	2.86	1.77								
NBC_MHEPL_495	341406	6257329	0.94	3.48	0.03	1.47	1.77	2.71	2.26	2.40	2.45	2.45	2.45	2.26	2.45	2.55	2.55	2.55	2.26	2.51	2.71	2.71	2.71	1.77								
NBC_MHEPL_496	341356	6257279	0.91	3.48	0.03	1.47	1.77	2.68	2.25	2.39	2.43	2.43	2.43	2.25	2.45	2.54	2.54	2.54	2.25	2.50	2.68	2.68	2.68	1.77								
NBC_MHEPL_497	341356	6257229	0.91	3.08	0.03	1.47	1.77	2.68	2.24	2.39	2.43	2.43	2.43	2.24	2.40	2.44	2.44	2.44	2.25	2.49	2.68	2.68	2.68	1.77								
NBC_MHEPL_498	341356	6257179	0.93	3.08	0.03	1.47	1.77	2.70	2.25	2.40	2.44	2.44	2.44	2.25	2.40	2.45	2.45	2.45	2.26	2.50	2.70	2.70	2.70	1.77								
NBC_MHEPL_499	341356	6257129	0.85	3.08	0.03	1.47	1.77	2.62	2.21	2.36	2.38	2.38	2.38	2.21	2.38	2.42	2.42	2.42	2.22	2.46	2.62	2.62	2.62	1.77								
NBC_MHEPL_500	341356	6257078	0.76	2.71	0.03	1.47	1.77	2.53	2.17	2.31	2.32	2.32	2.32	2.17	2.31	2.31	2.31	2.31	2.17	2.42	2.53	2.53	2.53	1.77								
NBC_MHEPL_501	341356	6257028	0.65	2.71	0.03	1.47	1.77	2.42	2.11	2.24	2.24	2.24	2.24	2.11	2.27	2.27	2.27	2.27	2.12	2.36	2.42	2.42	2.42	1.77								
NBC_MHEPL_502	341306	6257028	0.64	2.71	0.03	1.47	1.77	2.41	2.10	2.23	2.23	2.23	2.23	2.10	2.26	2.26	2.26	2.26	2.11	2.35	2.41	2.41	2.41	1.77								
NBC_MHEPL_503	341256	6257028	0.63	2.71	0.03	1.47	1.77	2.39	2.10	2.22	2.22	2.22	2.22	2.10	2.26	2.26	2.26	2.26	2.10	2.35	2.39	2.39	2.39	1.77								
NBC_MHEPL_504	341206	6257079	0.83	3.08	0.03	1.47	1.77	2.60	2.20	2.35	2.37	2.37	2.37	2.20	2.37	2.41	2.41	2.41	2.21	2.45	2.60	2.60	2.60	1.77								
NBC_MHEPL_505	341156	6257079	1.01	3.95	0.03	1.47	1.77	2.78	2.30	2.44	2.50	2.50	2.50	2.30	2.52	2.70	2.70	2.70	2.30	2.55	2.78	2.78	2.78	1.77								
NBC_MHEPL_506	341106	6257079	1.28	3.95	0.03	1.47	1.77	3.05	2.43	2.58	2.69	2.69	2.69	2.43	2.62	2.81	2.81	2.81	2.44	2.68	2.93	3.05	3.05	1.77								
NBC_MHEPL_507	341106	6257029	1.33	3.95	0.03	1.47	1.77	3.09	2.46	2.60	2.72	2.72	2.72	2.46	2.64	2.82	2.83	2.83	2.46	2.70	2.95	3.09	3.09	1.77								
NBC_MHEPL_508	341106	6256978	1.37	3.95	0.03	1.47	1.77	3.14	2.48	2.62	2.75	2.75	2.75	2.48	2.65	2.83	2.85	2.85	2.48	2.73	2.97	3.14	3.14	1.77								
NBC_MHEPL_509	341106	6256928	1.37	3.95	0.02	1.46	1.76	3.14	2.48	2.62	2.75	2.75	2.75	2.48	2.65	2.83	2.85	2.85	2.48	2.73	2.97	3.14	3.14	1.76								
NBC_MHEPL_510	341156	6256878	1.37	3.95	0.02	1.46	1.76	3.14	2.48	2.62	2.75	2.75	2.75	2.48	2.65	2.83	2.85	2.85	2.48	2.73	2.97	3.14	3.14	1.76								
NBC_MHEPL_511	341256	6256828	1.38	3.95	0.02	1.46	1.76	3.14	2.48	2.62	2.75	2.75	2.75	2.48	2.65	2.83	2.84	2.84	2.48	2.73	2.97	3.14	3.14	1.76								
NBC_MHEPL_512	341305	6256728	1.32	3.48	0.02	1.46	1.76	3.07	2.44	2.59	2.71	2.71	2.71	2.44	2.58	2.68	2.68	2.68	2.45	2.69	2.94	3.07	3.07	1.76								
NBC_MHEPL_513	341255	6256679	1.43	3.48	0.02	1.46	1.76	3.18	2.50	2.64	2.78	2.78	2.78	2.50	2.62	2.72	2.72	2.72	2.51	2.75	3.00	3.18	3.18	1.76								

100yr ARI Planning Levels - 0m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.00** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)																	REDUCTION FACTORS NOT CALCULATED FOR 2010 LEVELS AS THE 0m SLR LEVELS ARE NOT BEING USED FOR PLANNING PURPOSES							
			Wave						Foreshore Type ##																					
									1					2					3					4							
									Crest Level (mAHD)																					
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0 m Sea Level Projection	0 m Sea Level Projection																								
NBC_MHEPL_514	341255	6256629	1.43	3.48	0.02	1.46	1.76	3.18	2.50	2.64	2.78	2.78	2.78	2.50	2.62	2.72	2.72	2.72	2.51	2.75	3.00	3.18	3.18	1.76								
NBC_MHEPL_515	341305	6256529	1.43	3.48	0.01	1.45	1.75	3.18	2.49	2.64	2.78	2.78	2.78	2.49	2.61	2.72	2.72	2.72	2.50	2.75	2.99	3.18	3.18	1.75								
NBC_MHEPL_516	341355	6256479	1.43	3.95	0.01	1.45	1.75	3.18	2.50	2.64	2.78	2.78	2.78	2.50	2.67	2.84	2.86	2.86	2.50	2.75	2.99	3.18	3.18	1.75								
NBC_MHEPL_517	341355	6256429	1.43	3.95	0.01	1.45	1.75	3.18	2.50	2.64	2.78	2.78	2.78	2.50	2.67	2.84	2.86	2.86	2.50	2.75	2.99	3.18	3.18	1.75								
NBC_MHEPL_518	341405	6256378	1.42	3.95	0.01	1.45	1.75	3.17	2.49	2.63	2.77	2.77	2.77	2.49	2.66	2.83	2.85	2.85	2.50	2.74	2.99	3.17	3.17	1.75								
NBC_MHEPL_519	341455	6256328	1.40	3.95	0.01	1.45	1.75	3.15	2.48	2.63	2.76	2.76	2.76	2.48	2.66	2.83	2.85	2.85	2.49	2.73	2.98	3.15	3.15	1.75								
NBC_MHEPL_520	341505	6256328	1.37	3.95	0.01	1.45	1.75	3.12	2.47	2.61	2.74	2.74	2.74	2.47	2.64	2.82	2.83	2.83	2.47	2.72	2.96	3.12	3.12	1.75								
NBC_MHEPL_521	341555	6256328	1.34	3.95	0.00	1.44	1.74	3.08	2.45	2.59	2.71	2.71	2.71	2.45	2.63	2.81	2.82	2.82	2.46	2.70	2.95	3.08	3.08	1.74								
NBC_MHEPL_522	341605	6256328	1.32	3.95	0.00	1.44	1.74	3.06	2.44	2.58	2.69	2.69	2.69	2.44	2.62	2.80	2.80	2.80	2.44	2.69	2.93	3.06	3.06	1.74								
NBC_MHEPL_523	341655	6256328	1.26	3.95	0.00	1.44	1.74	3.01	2.41	2.55	2.65	2.65	2.65	2.41	2.60	2.78	2.78	2.78	2.42	2.66	2.91	3.01	3.01	1.74								
NBC_MHEPL_524	341705	6256328	1.25	3.95	0.00	1.44	1.74	2.99	2.40	2.54	2.64	2.64	2.64	2.40	2.59	2.78	2.78	2.78	2.41	2.65	2.90	2.99	2.99	1.74								
NBC_MHEPL_525	341755	6256328	1.22	3.95	0.00	1.44	1.74	2.97	2.39	2.53	2.63	2.63	2.63	2.39	2.59	2.77	2.77	2.77	2.40	2.64	2.89	2.97	2.97	1.74								
NBC_MHEPL_526	341805	6256328	1.24	3.48	0.00	1.44	1.74	2.98	2.39	2.54	2.63	2.63	2.63	2.39	2.54	2.64	2.64	2.64	2.40	2.65	2.89	2.98	2.98	1.74								
NBC_MHEPL_527	341855	6256328	1.29	3.48	0.00	1.44	1.74	3.03	2.42	2.56	2.67	2.67	2.67	2.42	2.56	2.66	2.66	2.66	2.43	2.67	2.92	3.03	3.03	1.74								
NBC_MHEPL_528	341906	6256328	1.30	3.48	0.00	1.44	1.74	3.04	2.42	2.57	2.68	2.68	2.68	2.42	2.56	2.66	2.66	2.66	2.43	2.68	2.92	3.04	3.04	1.74								
NBC_MHEPL_529	341956	6256328	1.28	3.48	0.00	1.44	1.74	3.03	2.41	2.56	2.67	2.67	2.67	2.41	2.55	2.66	2.66	2.66	2.43	2.67	2.92	3.03	3.03	1.74								

100yr ARI Planning Levels - 0.4m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.40** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																				
									1					2					3								4				
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD) 0.4 m Sea Level Projection	Local (Still) Water Level with 0.3m Freeboard (mAHD) 0.4 m Sea Level Projection	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
NBC_MHEPL_070	333667	6261756	0.48	2.11	0.14	1.98	2.28	2.76	2.52	2.53	2.63	2.63	2.63	2.52	2.53	2.62	2.62	2.62	2.52	2.53	2.76	2.76	2.76	2.28	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_071	333665	6261696	0.50	2.11	0.14	1.98	2.28	2.78	2.53	2.54	2.64	2.64	2.64	2.53	2.54	2.63	2.63	2.63	2.53	2.54	2.78	2.78	2.78	2.28	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50
NBC_MHEPL_072	333664	6261636	0.50	2.11	0.13	1.97	2.27	2.77	2.52	2.54	2.63	2.63	2.63	2.52	2.54	2.62	2.62	2.62	2.52	2.54	2.77	2.77	2.77	2.27	0.06	0.12	0.19	0.25	0.31	0.37	0.44	0.50
NBC_MHEPL_073	333692	6261601	0.49	2.11	0.13	1.97	2.27	2.76	2.52	2.53	2.63	2.63	2.63	2.52	2.53	2.62	2.62	2.62	2.52	2.54	2.76	2.76	2.76	2.27	0.06	0.12	0.18	0.25	0.31	0.37	0.43	0.49
NBC_MHEPL_074	333720	6261566	0.48	2.11	0.13	1.97	2.27	2.75	2.51	2.53	2.62	2.62	2.62	2.51	2.53	2.61	2.61	2.61	2.51	2.53	2.75	2.75	2.75	2.27	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_075	333748	6261532	0.48	2.11	0.13	1.97	2.27	2.75	2.51	2.52	2.61	2.61	2.61	2.51	2.52	2.61	2.61	2.61	2.51	2.53	2.75	2.75	2.75	2.27	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_076	333777	6261498	0.47	2.11	0.13	1.97	2.27	2.74	2.50	2.52	2.61	2.61	2.61	2.50	2.52	2.61	2.61	2.61	2.50	2.52	2.74	2.74	2.74	2.27	0.06	0.12	0.18	0.24	0.29	0.35	0.41	0.47
NBC_MHEPL_077	333833	6261431	0.46	2.11	0.12	1.96	2.26	2.73	2.50	2.51	2.60	2.60	2.60	2.50	2.51	2.60	2.60	2.60	2.50	2.52	2.73	2.73	2.73	2.26	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.46
NBC_MHEPL_078	333860	6261397	0.47	2.11	0.12	1.96	2.26	2.73	2.49	2.51	2.60	2.60	2.60	2.49	2.51	2.60	2.60	2.60	2.49	2.52	2.73	2.73	2.73	2.26	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.47
NBC_MHEPL_079	333888	6261364	0.47	2.11	0.12	1.96	2.26	2.74	2.50	2.51	2.60	2.60	2.60	2.50	2.51	2.60	2.60	2.60	2.50	2.52	2.74	2.74	2.74	2.26	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.47
NBC_MHEPL_080	333915	6261332	0.48	2.11	0.12	1.96	2.26	2.74	2.50	2.52	2.61	2.61	2.61	2.50	2.52	2.60	2.60	2.60	2.50	2.52	2.74	2.74	2.74	2.26	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_081	333971	6261325	0.49	2.11	0.12	1.96	2.26	2.75	2.50	2.52	2.61	2.61	2.61	2.50	2.52	2.60	2.60	2.60	2.50	2.53	2.75	2.75	2.75	2.26	0.06	0.12	0.18	0.24	0.31	0.37	0.43	0.49
NBC_MHEPL_082	333998	6261294	0.49	1.87	0.12	1.96	2.26	2.75	2.50	2.52	2.61	2.61	2.61	2.50	2.52	2.57	2.57	2.57	2.50	2.53	2.75	2.75	2.75	2.26	0.06	0.12	0.18	0.25	0.31	0.37	0.43	0.49
NBC_MHEPL_083	334054	6261287	0.50	1.87	0.12	1.96	2.26	2.76	2.51	2.53	2.62	2.62	2.62	2.51	2.52	2.57	2.57	2.57	2.51	2.53	2.76	2.76	2.76	2.26	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50
NBC_MHEPL_084	334080	6261257	0.51	1.87	0.11	1.95	2.25	2.77	2.51	2.53	2.62	2.62	2.62	2.51	2.52	2.57	2.57	2.57	2.51	2.54	2.77	2.77	2.77	2.25	0.06	0.13	0.19	0.26	0.32	0.38	0.45	0.51
NBC_MHEPL_085	334135	6261252	0.54	2.11	0.11	1.95	2.25	2.80	2.53	2.54	2.64	2.64	2.64	2.53	2.54	2.62	2.62	2.62	2.53	2.55	2.80	2.80	2.80	2.25	0.07	0.14	0.20	0.27	0.34	0.41	0.47	0.54
NBC_MHEPL_086	334197	6261304	0.56	2.11	0.12	1.96	2.26	2.82	2.54	2.56	2.66	2.66	2.66	2.54	2.55	2.63	2.63	2.63	2.54	2.56	2.81	2.82	2.82	2.26	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_087	334222	6261274	0.56	2.11	0.11	1.95	2.25	2.82	2.54	2.55	2.66	2.66	2.66	2.54	2.55	2.62	2.62	2.62	2.54	2.56	2.81	2.82	2.82	2.25	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_088	334247	6261245	0.56	2.40	0.11	1.95	2.25	2.81	2.53	2.55	2.66	2.66	2.66	2.53	2.55	2.67	2.67	2.67	2.53	2.56	2.81	2.81	2.81	2.25	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_089	334297	6261186	0.56	2.40	0.11	1.95	2.25	2.81	2.53	2.55	2.65	2.65	2.65	2.53	2.55	2.66	2.66	2.66	2.53	2.56	2.80	2.81	2.81	2.25	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_090	334322	6261157	0.56	2.40	0.11	1.95	2.25	2.81	2.53	2.55	2.65	2.65	2.65	2.53	2.55	2.66	2.66	2.66	2.53	2.56	2.80	2.81	2.81	2.25	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_091	334378	6261155	0.56	2.40	0.11	1.95	2.25	2.81	2.53	2.55	2.66	2.66	2.66	2.53	2.55	2.67	2.67	2.67	2.53	2.56	2.81	2.81	2.81	2.25	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_092	334403	6261127	0.56	2.40	0.11	1.95	2.25	2.81	2.53	2.55	2.65	2.65	2.65	2.53	2.55	2.66	2.66	2.66	2.53	2.56	2.81	2.81	2.81	2.25	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_093	334428	6261098	0.55	2.40	0.11	1.95	2.25	2.80	2.53	2.55	2.65	2.65	2.65	2.53	2.55	2.66	2.66	2.66	2.53	2.56	2.80	2.80	2.80	2.25	0.07	0.14	0.21	0.28	0.35	0.42	0.48	0.55
NBC_MHEPL_094	334453	6261069	0.55	2.40	0.11	1.95	2.25	2.80	2.52	2.54	2.65	2.65	2.65	2.52	2.55	2.66	2.66	2.66	2.52	2.56	2.80	2.80	2.80	2.25	0.07	0.14	0.21	0.28	0.34	0.41	0.48	0.55
NBC_MHEPL_095	334480	6261039	0.55	2.40	0.11	1.95	2.25	2.79	2.52	2.54	2.64	2.64	2.64	2.52	2.54	2.66	2.66	2.66	2.52	2.55	2.79	2.79	2.79	2.25	0.07	0.14	0.21	0.27	0.34	0.41	0.48	0.55
NBC_MHEPL_096	334508	6261007	0.54	2.40	0.11	1.95	2.25	2.79	2.52	2.54	2.64	2.64	2.64	2.52	2.54	2.65	2.65	2.65	2.52	2.55	2.79	2.79	2.79	2.25	0.07	0.14	0.20	0.27	0.34	0.41	0.47	0.54
NBC_MHEPL_097	334510	6260943	0.53	2.11	0.10	1.94	2.24	2.78	2.51	2.53	2.63	2.63	2.63	2.51	2.53	2.60	2.60	2.60	2.51	2.54	2.78	2.78	2.78	2.24	0.07	0.13	0.20	0.27	0.33	0.40	0.47	0.53
NBC_MHEPL_098	334549	6260899	0.53	2.11	0.10	1.94	2.24	2.77	2.50	2.53	2.62	2.62	2.62	2.50	2.52	2.60	2.60	2.60	2.50	2.54	2.77	2.77	2.77	2.24	0.07	0.13	0.20	0.26	0.33	0.40	0.46	0.53
NBC_MHEPL_099	334594	6260848	0.52	2.11	0.10	1.94	2.24	2.76	2.50	2.52	2.62	2.62	2.62	2.50	2.52	2.60	2.60	2.60	2.50	2.54	2.76	2.76	2.76	2.24	0.07	0.13	0.20	0.26	0.33	0.39	0.46	0.52
NBC_MHEPL_100	334646	6260790	0.52	2.11	0.10	1.94	2.24	2.76	2.50	2.52	2.61	2.61	2.61	2.50	2.52	2.59	2.59	2.59	2.50	2.53	2.76	2.76	2.76	2.24	0.07	0.13	0.20	0.26	0.33	0.39	0.46	0.52
NBC_MHEPL_101	334615	6260762	0.52	2.11	0.10	1.94	2.24	2.75	2.49	2.52	2.61	2.61	2.61	2.49	2.52	2.59	2.59	2.59	2.49	2.53	2.75	2.75	2.75	2.24	0.06	0.13	0.19	0.26	0.32	0.39	0.45	0.52
NBC_MHEPL_102	334703	6260726	0.50	2.11	0.09	1.93	2.23	2.73	2.48	2.51	2.59	2.59	2.59	2.48	2.51	2.58	2.58	2.58	2.48	2.52	2.73	2.73	2.73	2.23	0.06	0.12	0.19	0.25	0.31	0.37	0.44	0.50
NBC_MHEPL_103	334672	6260698	0.50	1.87	0.09	1.93	2.23	2.74	2.49	2.51	2.60	2.60	2.60	2.49	2.50	2.55	2.55	2.55	2.49	2.52	2.74	2.74	2.74	2.23	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50
NBC_MHEPL_104	334641	6260670	0.49	1.87	0.09	1.93	2.23	2.72	2.48	2.50	2.59	2.59	2.59	2.48	2.50	2.54	2.54	2.54	2.48	2.52	2.72	2.72	2.72	2.23	0.06	0.12	0.18	0.24	0.31	0.37	0.43	0.49
NBC_MHEPL_105	334611	6260644	0.47	1.87	0.09	1.93	2.23	2.70	2.47	2.49	2.57	2.57	2.57	2.47	2.49	2.53	2.53	2.53	2.47	2.50	2.70	2.70	2.70	2.23	0.06	0.12	0.18	0.23	0.29	0.35	0.41	0.47
NBC_MHEPL_106	334671	6260577	0.45	1.87	0.09	1.93	2.23	2.68	2.46	2.48	2.55	2.55	2.55	2.46	2.48	2.53	2.53	2.53	2.46	2.49	2.68	2.68	2.68	2.23	0.06	0.11	0.17	0.22	0.28	0.34	0.39	0.45
NBC_MHEPL_107	334729	6260513	0.44	2.11	0.09	1.93	2.23	2.67	2.45	2.47	2.55	2.55	2.55	2.45	2.48	2.56	2.56	2.56	2.45	2.49	2.67	2.67	2.67	2.23	0.05	0.11	0.16	0.22	0.27	0.33	0.38	0.44
NBC_MHEPL_108	334759	6260540	0.45	1.87	0.09	1.93	2.23	2.68	2.46	2.48	2.55	2.55	2.55	2.46	2.48	2.53	2.53	2.53	2.46	2.49	2.68	2.68	2.68	2.23	0.06	0.11	0.17	0.22	0.28	0.34	0.39	0.45
NBC_MHEPL_109	334789	6260568	0.46	1.87	0.09	1.93	2.23	2.70	2.46	2.49	2.57	2.57	2.57	2.46	2.48	2.53	2.53	2.53	2.46	2.50	2.70	2.70	2.70	2.23	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.46
NBC_MHEPL_005	332243	6264687	0.20	1.28	0.39	2.23	2.53	2.73	2.63	2.63	2.67	2.67	2.67	2.63	2.63	2.67	2.67	2.67	2.63	2.63	2.73	2.73	2.73	2.53	0.02	0.05	0.07	0.10	0.12	0.15	0.17	0.20
NBC_MHEPL_110	334820	6260597	0.48	1.87	0.09	1.93	2.23	2.71	2.47	2.50	2.58	2.58	2.58	2.47	2.49	2.54	2.54	2.54	2.47	2.51	2.71	2.71	2.71	2.23	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_111	334878	6260534	0.48	1.87	0.09	1.93	2.23	2.71	2.47	2.49	2.57	2.57	2.57	2.47	2.49	2.54	2.54	2.54	2.47	2.51	2.71	2.71	2.71	2.23	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_112	334910	6260564	0.47	1.87	0.09	1.93	2.23	2.70	2.47	2.49	2.57	2.57	2.57	2.47	2.49	2.53	2.53	2.53	2.47	2.51	2.70	2.70	2.70	2.23	0.06	0.12	0.18	0.24	0.30	0.36	0.41	0.47
NBC_MHEPL_113	334972	6260498	0.46	1.87	0.09	1.93	2.23	2.69	2.46	2.49	2.56	2.56	2.56	2.46	2.48	2.53	2.53	2.53	2.46	2.50	2.69	2.69	2.69	2.23	0.06	0.12	0.17	0.23	0.29	0.35	0.40	0.46
NBC_MHEPL_114	335004	6260528	0.45	1.87	0.09	1.93	2.23	2.68	2.45	2.48	2.55	2.55	2.55	2.45	2.47	2.53	2.53	2.53	2.45	2.49	2.68	2.68	2.68	2.23	0.06	0.11	0.17	0.22	0.28	0.34	0.39	0.45
NBC_MHEPL_115	335067	6260462	0.44	1.87	0.09	1.93	2.23	2.67	2.45	2.48	2.55	2.55	2.55	2.45	2.47	2.52	2.52	2.52	2.45	2.49	2.67	2.67	2.67	2.23	0.06	0.11	0.17	0.22	0.28	0.33	0.39	0.44
NBC_MHEPL_116	335099	6260492	0.45	1.87	0.09	1.93	2.23	2.68	2.46	2.48	2.56	2.56	2.56	2.46	2.48	2.53	2.53	2.53	2.46	2.50	2.68	2.68	2.68	2.23	0.06	0.11	0.17	0.23	0.28	0.34	0.40	0.45
NBC_MHEPL_117	335191	6260457	0.47	1.87	0.09	1.93	2.23	2.69	2.46	2.49	2.56	2.56	2.56	2.46	2.48	2.53	2.53	2.53	2.46	2.50	2.69	2.69	2.69	2.23	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.47
NBC_MHEPL_118	335221	6260486	0.47	1.87	0.09	1.93	2.23	2.70	2.46	2.49	2.56	2.56	2.56	2.46	2.48	2.53	2.53	2.53	2.46	2.50	2.70	2.70	2.70	2.23	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.47
NBC_MHEPL_119	335278	6260427	0.45	1.87	0.09	1.93	2.23	2.68	2.46	2.48	2.56	2.56	2.56	2.46	2.48	2.53	2.53	2.53	2.46	2.49	2.68	2.68	2.68	2.23	0.06	0.11	0.17	0.23	0.28	0.34	0.40	0.45
NBC_MHEPL_006	332257	6264662	0.18	1.28	0.39	2.23	2.53	2.71	2.62	2.62	2.66	2.66	2.66	2.62	2.62	2.66	2.66	2.66	2.62	2.62	2.71	2.71	2.71	2.53	0.02	0.05	0.07	0.09	0.11	0.14	0.16	0.18
NBC_MHEPL_120	335308	6260457	0.45	1.87	0.09	1.93	2.23	2.68	2.45	2.48	2.55	2.55	2.55	2.45	2.47	2.53	2.53	2.53	2.45	2.49	2.68	2.68	2.68	2.23	0.06	0.11	0.17	0.23	0.28	0.34	0.39	0.45
NBC_MHEPL_121	335363	6260402	0.45	2.11	0.09	1.93	2.23	2.68	2.45	2.48	2.55	2.55	2.55	2.45	2.48	2.56	2.56	2.56	2.45	2.49	2.68	2.68	2.68	2.23	0.06	0.11	0.17	0.23	0.28	0.34	0.40	0.45

100yr ARI Planning Levels - 0.4m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.40** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																				
									1					2					3					4							
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD) 0.4 m Sea Level Projection	Local (Still) Water Level with 0.3m Freeboard (mAHD) 0.4 m Sea Level Projection	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
NBC_MHEPL_122	335394	6260434	0.46	2.11	0.09	1.93	2.23	2.69	2.46	2.48	2.56	2.56	2.56	2.46	2.48	2.56	2.56	2.56	2.46	2.50	2.69	2.69	2.69	2.23	0.06	0.11	0.17	0.23	0.29	0.34	0.40	0.46
NBC_MHEPL_123	335447	6260381	0.45	2.11	0.09	1.93	2.23	2.68	2.46	2.48	2.56	2.56	2.56	2.46	2.48	2.56	2.56	2.56	2.46	2.50	2.68	2.68	2.68	2.23	0.06	0.11	0.17	0.23	0.28	0.34	0.40	0.45
NBC_MHEPL_124	335476	6260411	0.45	1.87	0.09	1.93	2.23	2.68	2.45	2.48	2.55	2.55	2.55	2.45	2.47	2.52	2.52	2.52	2.45	2.49	2.68	2.68	2.68	2.23	0.06	0.11	0.17	0.23	0.28	0.34	0.39	0.45
NBC_MHEPL_125	335526	6260362	0.46	2.11	0.09	1.93	2.23	2.69	2.46	2.48	2.56	2.56	2.56	2.46	2.48	2.56	2.56	2.56	2.46	2.50	2.69	2.69	2.69	2.23	0.06	0.11	0.17	0.23	0.29	0.34	0.40	0.46
NBC_MHEPL_126	335555	6260392	0.47	2.11	0.09	1.93	2.23	2.70	2.46	2.49	2.57	2.57	2.57	2.46	2.49	2.57	2.57	2.57	2.46	2.50	2.70	2.70	2.70	2.23	0.06	0.12	0.18	0.24	0.30	0.36	0.41	0.47
NBC_MHEPL_127	335630	6260379	0.48	2.11	0.09	1.93	2.23	2.71	2.47	2.49	2.57	2.57	2.57	2.47	2.49	2.57	2.57	2.57	2.47	2.51	2.71	2.71	2.71	2.23	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_128	335674	6260338	0.47	2.11	0.09	1.93	2.23	2.70	2.46	2.49	2.57	2.57	2.57	2.46	2.49	2.57	2.57	2.57	2.46	2.50	2.70	2.70	2.70	2.23	0.06	0.12	0.18	0.24	0.29	0.35	0.41	0.47
NBC_MHEPL_129	335702	6260370	0.44	2.11	0.09	1.93	2.23	2.66	2.45	2.47	2.54	2.54	2.54	2.45	2.47	2.55	2.55	2.55	2.45	2.49	2.66	2.66	2.66	2.23	0.05	0.11	0.16	0.22	0.27	0.33	0.38	0.44
NBC_MHEPL_130	335730	6260402	0.46	1.87	0.09	1.93	2.23	2.69	2.46	2.48	2.56	2.56	2.56	2.46	2.48	2.53	2.53	2.53	2.46	2.50	2.69	2.69	2.69	2.23	0.06	0.11	0.17	0.23	0.29	0.34	0.40	0.46
NBC_MHEPL_131	335757	6260433	0.47	1.87	0.09	1.93	2.23	2.70	2.46	2.49	2.57	2.57	2.57	2.46	2.48	2.53	2.53	2.53	2.46	2.50	2.70	2.70	2.70	2.23	0.06	0.12	0.18	0.24	0.30	0.35	0.41	0.47
NBC_MHEPL_132	335714	6260471	0.48	1.87	0.09	1.93	2.23	2.71	2.47	2.50	2.58	2.58	2.58	2.47	2.49	2.54	2.54	2.54	2.47	2.51	2.71	2.71	2.71	2.23	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_133	335783	6260463	0.50	1.87	0.09	1.93	2.23	2.73	2.48	2.50	2.59	2.59	2.59	2.48	2.50	2.54	2.54	2.54	2.48	2.52	2.73	2.73	2.73	2.23	0.06	0.12	0.19	0.25	0.31	0.37	0.43	0.50
NBC_MHEPL_134	335826	6260427	0.48	1.87	0.09	1.93	2.23	2.71	2.47	2.49	2.57	2.57	2.57	2.47	2.49	2.53	2.53	2.53	2.47	2.51	2.71	2.71	2.71	2.23	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_135	335894	6260424	0.50	1.87	0.09	1.93	2.23	2.73	2.48	2.50	2.59	2.59	2.59	2.48	2.50	2.54	2.54	2.54	2.48	2.52	2.73	2.73	2.73	2.23	0.06	0.12	0.19	0.25	0.31	0.37	0.43	0.50
NBC_MHEPL_136	335961	6260425	0.53	1.87	0.09	1.93	2.23	2.76	2.50	2.52	2.61	2.61	2.61	2.50	2.51	2.55	2.55	2.55	2.50	2.54	2.76	2.76	2.76	2.23	0.07	0.13	0.20	0.27	0.33	0.40	0.47	0.53
NBC_MHEPL_137	335988	6260459	0.57	2.11	0.09	1.93	2.23	2.80	2.52	2.54	2.64	2.64	2.64	2.52	2.54	2.60	2.60	2.60	2.52	2.56	2.80	2.80	2.80	2.23	0.07	0.14	0.21	0.29	0.36	0.43	0.50	0.57
NBC_MHEPL_138	336052	6260461	0.61	2.40	0.09	1.93	2.23	2.84	2.53	2.56	2.67	2.67	2.67	2.53	2.56	2.66	2.66	2.66	2.53	2.57	2.82	2.84	2.84	2.23	0.08	0.15	0.23	0.30	0.38	0.46	0.53	0.61
NBC_MHEPL_139	336077	6260494	0.64	2.40	0.09	1.93	2.23	2.87	2.55	2.58	2.69	2.69	2.69	2.55	2.58	2.67	2.67	2.67	2.55	2.59	2.84	2.87	2.87	2.23	0.08	0.16	0.24	0.32	0.40	0.48	0.56	0.64
NBC_MHEPL_007	332305	6264553	0.19	1.13	0.38	2.22	2.52	2.71	2.61	2.61	2.66	2.66	2.66	2.61	2.61	2.64	2.64	2.64	2.61	2.61	2.71	2.71	2.71	2.52	0.02	0.05	0.07	0.10	0.12	0.14	0.17	0.19
NBC_MHEPL_140	336100	6260525	0.68	2.71	0.09	1.93	2.23	2.91	2.57	2.59	2.72	2.72	2.72	2.57	2.60	2.74	2.74	2.74	2.57	2.61	2.85	2.91	2.91	2.23	0.08	0.17	0.25	0.34	0.42	0.51	0.59	0.68
NBC_MHEPL_141	336123	6260557	0.70	2.71	0.09	1.93	2.23	2.93	2.58	2.61	2.73	2.73	2.73	2.58	2.61	2.75	2.75	2.75	2.58	2.62	2.87	2.93	2.93	2.23	0.09	0.18	0.26	0.35	0.44	0.53	0.61	0.70
NBC_MHEPL_142	336110	6260620	0.70	2.71	0.09	1.93	2.23	2.93	2.58	2.61	2.74	2.74	2.74	2.58	2.61	2.75	2.75	2.75	2.58	2.62	2.87	2.93	2.93	2.23	0.09	0.18	0.26	0.35	0.44	0.53	0.61	0.70
NBC_MHEPL_143	336138	6260656	0.71	2.71	0.09	1.93	2.23	2.94	2.59	2.61	2.74	2.74	2.74	2.59	2.61	2.76	2.76	2.76	2.59	2.63	2.87	2.94	2.94	2.23	0.09	0.18	0.27	0.35	0.44	0.53	0.62	0.71
NBC_MHEPL_144	336130	6260722	0.70	2.71	0.09	1.93	2.23	2.93	2.58	2.61	2.73	2.73	2.73	2.58	2.61	2.75	2.75	2.75	2.58	2.62	2.87	2.93	2.93	2.23	0.09	0.17	0.26	0.35	0.44	0.52	0.61	0.70
NBC_MHEPL_145	336158	6260757	0.70	3.08	0.09	1.93	2.23	2.93	2.58	2.61	2.74	2.74	2.74	2.58	2.62	2.81	2.82	2.82	2.58	2.62	2.87	2.93	2.93	2.23	0.09	0.18	0.26	0.35	0.44	0.53	0.61	0.70
NBC_MHEPL_146	336150	6260820	0.68	3.08	0.09	1.93	2.23	2.91	2.57	2.60	2.72	2.72	2.72	2.57	2.61	2.81	2.81	2.81	2.57	2.61	2.86	2.91	2.91	2.23	0.08	0.17	0.25	0.34	0.42	0.51	0.59	0.68
NBC_MHEPL_147	336155	6260897	0.69	3.08	0.10	1.94	2.24	2.93	2.58	2.61	2.73	2.73	2.73	2.58	2.61	2.81	2.82	2.82	2.58	2.62	2.87	2.93	2.93	2.24	0.09	0.17	0.26	0.35	0.43	0.52	0.61	0.69
NBC_MHEPL_148	336119	6260932	0.68	3.08	0.10	1.94	2.24	2.92	2.58	2.60	2.73	2.73	2.73	2.58	2.61	2.81	2.82	2.82	2.58	2.61	2.86	2.92	2.92	2.24	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.68
NBC_MHEPL_149	336172	6260988	0.67	3.08	0.10	1.94	2.24	2.91	2.57	2.60	2.72	2.72	2.72	2.57	2.60	2.81	2.81	2.81	2.57	2.61	2.85	2.91	2.91	2.24	0.08	0.17	0.25	0.34	0.42	0.50	0.59	0.67
NBC_MHEPL_008	332316	6264523	0.19	1.28	0.38	2.22	2.52	2.70	2.61	2.61	2.65	2.65	2.65	2.61	2.61	2.65	2.65	2.65	2.61	2.61	2.70	2.70	2.70	2.52	0.02	0.05	0.07	0.09	0.12	0.14	0.17	0.19
NBC_MHEPL_150	336134	6261026	0.71	3.08	0.10	1.94	2.24	2.94	2.59	2.62	2.75	2.75	2.75	2.59	2.62	2.82	2.83	2.83	2.59	2.63	2.87	2.94	2.94	2.24	0.09	0.18	0.27	0.35	0.44	0.53	0.62	0.71
NBC_MHEPL_151	336185	6261080	0.74	3.08	0.10	1.94	2.24	2.98	2.61	2.63	2.77	2.77	2.77	2.61	2.64	2.83	2.84	2.84	2.61	2.64	2.89	2.98	2.98	2.24	0.09	0.18	0.28	0.37	0.46	0.55	0.65	0.74
NBC_MHEPL_152	336185	6261080	0.74	3.08	0.10	1.94	2.24	2.98	2.61	2.63	2.77	2.77	2.77	2.61	2.64	2.83	2.84	2.84	2.61	2.64	2.89	2.98	2.98	2.24	0.09	0.18	0.28	0.37	0.46	0.55	0.65	0.74
NBC_MHEPL_153	336234	6261134	0.74	3.08	0.10	1.94	2.24	2.98	2.61	2.64	2.77	2.77	2.77	2.61	2.64	2.83	2.85	2.85	2.61	2.65	2.89	2.98	2.98	2.24	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74
NBC_MHEPL_154	336191	6261174	0.72	2.71	0.10	1.94	2.24	2.96	2.60	2.62	2.76	2.76	2.76	2.60	2.63	2.77	2.77	2.77	2.60	2.64	2.88	2.96	2.96	2.24	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_155	336145	6261217	0.70	2.71	0.10	1.94	2.24	2.94	2.59	2.61	2.74	2.74	2.74	2.59	2.62	2.76	2.76	2.76	2.59	2.63	2.87	2.94	2.94	2.24	0.09	0.17	0.26	0.35	0.44	0.52	0.61	0.70
NBC_MHEPL_156	336193	6261269	0.66	2.71	0.10	1.94	2.24	2.91	2.57	2.60	2.72	2.72	2.72	2.57	2.60	2.75	2.75	2.75	2.57	2.61	2.85	2.91	2.91	2.24	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.66
NBC_MHEPL_157	336146	6261313	0.57	2.71	0.10	1.94	2.24	2.81	2.53	2.55	2.65	2.65	2.65	2.53	2.55	2.71	2.71	2.71	2.53	2.56	2.81	2.81	2.81	2.24	0.07	0.14	0.21	0.28	0.35	0.43	0.50	0.57
NBC_MHEPL_158	336094	6261362	0.54	2.71	0.10	1.94	2.24	2.78	2.51	2.53	2.63	2.63	2.63	2.51	2.54	2.70	2.70	2.70	2.51	2.55	2.78	2.78	2.78	2.24	0.07	0.13	0.20	0.27	0.34	0.40	0.47	0.54
NBC_MHEPL_159	336085	6261464	0.52	2.71	0.11	1.95	2.25	2.77	2.51	2.53	2.62	2.62	2.62	2.51	2.54	2.70	2.70	2.70	2.51	2.54	2.77	2.77	2.77	2.25	0.06	0.13	0.19	0.26	0.32	0.39	0.45	0.52
NBC_MHEPL_160	336038	6261414	0.48	2.71	0.11	1.95	2.25	2.73	2.49	2.51	2.59	2.59	2.59	2.49	2.52	2.68	2.68	2.68	2.49	2.52	2.73	2.73	2.73	2.25	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_161	335982	6261468	0.42	2.71	0.12	1.96	2.26	2.67	2.46	2.48	2.56	2.56	2.56	2.46	2.49	2.66	2.66	2.66	2.46	2.49	2.67	2.67	2.67	2.26	0.05	0.10	0.16	0.21	0.26	0.31	0.37	0.42
NBC_MHEPL_162	336102	6261711	0.50	2.40	0.16	2.00	2.30	2.80	2.55	2.55	2.66	2.66	2.66	2.55	2.55	2.69	2.69	2.69	2.55	2.55	2.80	2.80	2.80	2.30	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50
NBC_MHEPL_163	336159	6261658	0.50	2.11	0.15	1.99	2.29	2.79	2.54	2.55	2.65	2.65	2.65	2.54	2.55	2.64	2.64	2.64	2.54	2.55	2.79	2.79	2.79	2.29	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50
NBC_MHEPL_164	336117	6261612	0.52	2.40	0.14	1.98	2.28	2.80	2.54	2.55	2.65	2.65	2.65	2.54	2.55	2.68	2.68	2.68	2.54	2.55	2.80	2.80	2.80	2.28	0.06	0.13	0.19	0.26	0.32	0.39	0.45	0.52
NBC_MHEPL_165	336174	6261560	0.51	2.40	0.13	1.97	2.27	2.78	2.53	2.54	2.64	2.64	2.64	2.53	2.54	2.67	2.67	2.67	2.53	2.55	2.78	2.78	2.78	2.27	0.06	0.13	0.19	0.26	0.32	0.38	0.45	0.51
NBC_MHEPL_166	336130	6261512	0.55	2.71	0.12	1.96	2.26	2.81	2.54	2.55	2.66	2.66	2.66	2.54	2.56	2.72	2.72	2.72	2.54	2.56	2.81	2.81	2.81	2.26	0.07	0.14	0.21	0.28	0.35	0.42	0.48	0.55
NBC_MHEPL_167	336141	6261412	0.58	2.71	0.11	1.95	2.25	2.83	2.54	2.56	2.67	2.67	2.67	2.54	2.56	2.72	2.72	2.72	2.54	2.57	2.81	2.83	2.83	2.25	0.07	0.15	0.22	0.29	0.36	0.44	0.51	0.58
NBC_MHEPL_168	336192	6261364	0.62	2.71	0.10	1.94	2.24	2.87	2.56	2.58	2.69	2.69	2.69	2.56	2.58	2.74	2.74	2.74	2.56	2.59	2.83	2.87	2.87	2.24	0.08	0.16	0.23	0.31	0.39	0.47	0.55	0.62
NBC_MHEPL_169	336239	6261227	0.72	2.71	0.10	1.94	2.24	2.96	2.60	2.63	2.76	2.76	2.76	2.60	2.63	2.77	2.77	2.77	2.60	2.64	2.88	2.96	2.96	2.24	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_170	336283	6261188	0.71	2.71	0.10	1.94	2.24	2.95	2.60	2.62	2.75	2.75	2.75	2.60	2.62	2.76	2.76	2.76	2.60	2.63	2.88	2.95	2.95	2.24	0.09	0.18	0.27	0.36	0.44	0.53	0.62	0.71
NBC_MHEPL_171	336321	6261155	0.65	2.71	0.10	1.94	2.24	2.89	2.57	2.59	2.71	2.71	2.71	2.57	2.59	2.74	2.74	2.74	2.57	2.60	2.85	2.89	2.89	2.24	0.08	0.16	0.25	0.33	0.41	0.49	0.57	0.65
NBC_MHEPL_172	336273	6261099	0.67	2.71	0.10	1.94	2.24	2.91	2.57	2.60	2.72	2.72	2.72	2.57	2.60	2.75	2.75	2.75	2.57	2.61	2.86	2.91	2.91	2.24	0.08	0.17	0.25	0.34	0.42	0.50	0.59	0.67
NBC_MHEPL_173	336309	6261068	0.67	2.71	0.10	1.94	2.24	2.90	2.57	2.60	2.72	2.72	2.72	2.57	2.60	2.75	2.75	2.75	2.57	2.61	2.85	2.90	2.90	2.24	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.67

100yr ARI Planning Levels - 0.4m Sea Level Rise

##Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.40** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															Reduction Factor							
			Wave						Foreshore Type ##																					
									1					2					3											
									Crest Level (mAHD)																					
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD) 0.4 m Sea Level Projection	Local (Still) Water Level with 0.3m Freeboard (mAHD) 0.4 m Sea Level Projection	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
NBC_MHEPL_009	332399	6264382	0.17	1.28	0.36	2.20	2.50	2.67	2.59	2.59	2.63	2.63	2.63	2.59	2.59	2.63	2.63	2.63	2.59	2.59	2.67	2.67	2.67	2.50	0.02	0.04	0.06	0.08	0.11	0.13	0.15	0.17
NBC_MHEPL_174	336259	6261012	0.67	2.71	0.10	1.94	2.24	2.90	2.57	2.59	2.72	2.72	2.72	2.57	2.60	2.75	2.75	2.75	2.57	2.61	2.85	2.90	2.90	2.24	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.67
NBC_MHEPL_175	336294	6260982	0.66	2.71	0.10	1.94	2.24	2.89	2.56	2.59	2.71	2.71	2.71	2.56	2.59	2.74	2.74	2.74	2.56	2.60	2.85	2.89	2.89	2.24	0.08	0.16	0.25	0.33	0.41	0.49	0.57	0.66
NBC_MHEPL_176	336243	6260923	0.67	2.71	0.10	1.94	2.24	2.91	2.57	2.60	2.72	2.72	2.72	2.57	2.60	2.75	2.75	2.75	2.57	2.61	2.85	2.91	2.91	2.24	0.08	0.17	0.25	0.33	0.42	0.50	0.59	0.67
NBC_MHEPL_177	336277	6260894	0.69	2.71	0.10	1.94	2.24	2.92	2.58	2.60	2.73	2.73	2.73	2.58	2.61	2.75	2.75	2.75	2.58	2.62	2.86	2.92	2.92	2.24	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.69
NBC_MHEPL_178	336259	6260804	0.69	2.71	0.09	1.93	2.23	2.93	2.58	2.61	2.73	2.73	2.73	2.58	2.61	2.75	2.75	2.75	2.58	2.62	2.87	2.93	2.93	2.23	0.09	0.17	0.26	0.35	0.43	0.52	0.61	0.69
NBC_MHEPL_179	336292	6260776	0.66	2.71	0.09	1.93	2.23	2.90	2.57	2.59	2.71	2.71	2.71	2.57	2.59	2.74	2.74	2.74	2.57	2.60	2.85	2.90	2.90	2.23	0.08	0.17	0.25	0.33	0.41	0.50	0.58	0.66
NBC_MHEPL_180	336325	6260750	0.65	2.71	0.09	1.93	2.23	2.88	2.56	2.58	2.70	2.70	2.70	2.56	2.59	2.73	2.73	2.73	2.56	2.60	2.84	2.88	2.88	2.23	0.08	0.16	0.24	0.32	0.40	0.49	0.57	0.65
NBC_MHEPL_181	336263	6260670	0.68	2.71	0.09	1.93	2.23	2.91	2.57	2.60	2.72	2.72	2.72	2.57	2.60	2.74	2.74	2.74	2.57	2.61	2.85	2.91	2.91	2.23	0.08	0.17	0.25	0.34	0.42	0.51	0.59	0.68
NBC_MHEPL_182	336274	6260608	0.69	2.71	0.09	1.93	2.23	2.92	2.57	2.60	2.73	2.73	2.73	2.57	2.60	2.75	2.75	2.75	2.57	2.61	2.86	2.92	2.92	2.23	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.69
NBC_MHEPL_183	336249	6260573	0.73	3.08	0.09	1.93	2.23	2.96	2.59	2.62	2.75	2.75	2.75	2.59	2.63	2.82	2.83	2.83	2.59	2.64	2.88	2.96	2.96	2.23	0.09	0.18	0.27	0.36	0.45	0.55	0.64	0.73
NBC_MHEPL_184	336288	6260545	0.73	3.08	0.09	1.93	2.23	2.96	2.60	2.62	2.76	2.76	2.76	2.60	2.63	2.82	2.83	2.83	2.60	2.64	2.88	2.96	2.96	2.23	0.09	0.18	0.27	0.37	0.46	0.55	0.64	0.73
NBC_MHEPL_185	336305	6260480	0.75	3.08	0.09	1.93	2.23	2.98	2.60	2.63	2.77	2.77	2.77	2.60	2.64	2.82	2.84	2.84	2.60	2.64	2.89	2.98	2.98	2.23	0.09	0.19	0.28	0.37	0.47	0.56	0.65	0.75
NBC_MHEPL_186	336280	6260445	0.76	3.08	0.09	1.93	2.23	2.99	2.61	2.64	2.77	2.77	2.77	2.61	2.64	2.83	2.84	2.84	2.61	2.65	2.89	2.99	2.99	2.23	0.09	0.19	0.28	0.38	0.47	0.57	0.66	0.76
NBC_MHEPL_187	336323	6260414	0.77	3.08	0.09	1.93	2.23	3.00	2.61	2.64	2.78	2.78	2.78	2.61	2.65	2.83	2.85	2.85	2.61	2.66	2.90	3.00	3.00	2.23	0.10	0.19	0.29	0.38	0.48	0.58	0.67	0.77
NBC_MHEPL_188	336363	6260383	0.77	3.08	0.09	1.93	2.23	3.00	2.61	2.64	2.78	2.78	2.78	2.61	2.65	2.83	2.85	2.85	2.61	2.66	2.90	3.00	3.00	2.23	0.10	0.19	0.29	0.39	0.48	0.58	0.67	0.77
NBC_MHEPL_189	336377	6260320	0.78	3.08	0.09	1.93	2.23	3.01	2.62	2.65	2.79	2.79	2.79	2.62	2.65	2.83	2.85	2.85	2.62	2.66	2.91	3.01	3.01	2.23	0.10	0.20	0.29	0.39	0.49	0.59	0.69	0.78
NBC_MHEPL_190	336416	6260291	0.80	3.48	0.09	1.93	2.23	3.03	2.63	2.66	2.80	2.80	2.80	2.63	2.67	2.88	2.95	2.95	2.63	2.67	2.92	3.03	3.03	2.23	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_191	336478	6260297	0.81	3.48	0.09	1.93	2.23	3.04	2.63	2.66	2.81	2.81	2.81	2.63	2.67	2.89	2.95	2.95	2.63	2.68	2.92	3.04	3.04	2.23	0.10	0.20	0.30	0.41	0.51	0.61	0.71	0.81
NBC_MHEPL_192	336516	6260271	0.81	3.48	0.09	1.93	2.23	3.04	2.63	2.66	2.81	2.81	2.81	2.63	2.67	2.89	2.95	2.95	2.63	2.68	2.92	3.04	3.04	2.23	0.10	0.20	0.31	0.41	0.51	0.61	0.71	0.81
NBC_MHEPL_193	336531	6260211	0.80	3.48	0.09	1.93	2.23	3.03	2.63	2.66	2.80	2.80	2.80	2.63	2.67	2.88	2.95	2.95	2.63	2.67	2.92	3.03	3.03	2.23	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_194	336570	6260186	0.81	3.08	0.09	1.93	2.23	3.03	2.63	2.66	2.80	2.81	2.81	2.63	2.66	2.84	2.86	2.86	2.63	2.67	2.92	3.03	3.03	2.23	0.10	0.20	0.30	0.40	0.50	0.61	0.71	0.81
NBC_MHEPL_195	336591	6260125	0.81	3.08	0.08	1.92	2.22	3.04	2.63	2.66	2.81	2.81	2.81	2.63	2.66	2.84	2.86	2.86	2.63	2.68	2.92	3.04	3.04	2.22	0.10	0.20	0.30	0.41	0.51	0.61	0.71	0.81
NBC_MHEPL_196	336612	6260063	0.81	3.08	0.08	1.92	2.22	3.04	2.63	2.66	2.81	2.81	2.81	2.63	2.67	2.84	2.86	2.86	2.63	2.68	2.92	3.04	3.04	2.22	0.10	0.20	0.30	0.41	0.51	0.61	0.71	0.81
NBC_MHEPL_197	336592	6260029	0.84	3.08	0.08	1.92	2.22	3.06	2.64	2.67	2.82	2.83	2.83	2.64	2.68	2.85	2.87	2.87	2.64	2.69	2.93	3.06	3.06	2.22	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_198	336636	6260003	0.84	3.08	0.08	1.92	2.22	3.06	2.64	2.67	2.82	2.83	2.83	2.64	2.68	2.85	2.87	2.87	2.64	2.69	2.93	3.06	3.06	2.22	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_199	336659	6259943	0.84	3.08	0.08	1.92	2.22	3.06	2.64	2.67	2.82	2.82	2.82	2.64	2.68	2.85	2.87	2.87	2.64	2.69	2.93	3.06	3.06	2.22	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_200	336682	6259883	0.83	3.08	0.08	1.92	2.22	3.05	2.63	2.67	2.81	2.82	2.82	2.63	2.67	2.84	2.86	2.86	2.63	2.68	2.93	3.05	3.05	2.22	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_201	336725	6259857	0.80	3.08	0.08	1.92	2.22	3.02	2.62	2.65	2.80	2.80	2.80	2.62	2.66	2.83	2.85	2.85	2.62	2.67	2.91	3.02	3.02	2.22	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_202	336689	6259794	0.79	3.08	0.08	1.92	2.22	3.01	2.62	2.65	2.79	2.79	2.79	2.62	2.65	2.83	2.85	2.85	2.62	2.66	2.91	3.01	3.01	2.22	0.10	0.20	0.30	0.40	0.49	0.59	0.69	0.79
NBC_MHEPL_203	336674	6259766	0.77	2.71	0.08	1.92	2.22	2.99	2.61	2.64	2.77	2.77	2.77	2.61	2.64	2.77	2.77	2.77	2.61	2.65	2.90	2.99	2.99	2.22	0.10	0.19	0.29	0.38	0.48	0.58	0.67	0.77
NBC_MHEPL_204	336703	6259716	0.71	2.71	0.08	1.92	2.22	2.93	2.58	2.61	2.73	2.73	2.73	2.58	2.61	2.75	2.75	2.75	2.58	2.62	2.87	2.93	2.93	2.22	0.09	0.18	0.27	0.36	0.44	0.53	0.62	0.71
NBC_MHEPL_205	336690	6259689	0.70	2.71	0.08	1.92	2.22	2.92	2.57	2.60	2.72	2.72	2.72	2.57	2.60	2.74	2.74	2.74	2.57	2.61	2.86	2.92	2.92	2.22	0.09	0.17	0.26	0.35	0.44	0.52	0.61	0.70
NBC_MHEPL_206	336708	6259612	0.66	2.71	0.08	1.92	2.22	2.88	2.55	2.58	2.70	2.70	2.70	2.55	2.58	2.73	2.73	2.73	2.55	2.60	2.84	2.88	2.88	2.22	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.66
NBC_MHEPL_207	336696	6259584	0.66	2.71	0.08	1.92	2.22	2.88	2.55	2.58	2.70	2.70	2.70	2.55	2.58	2.73	2.73	2.73	2.55	2.60	2.84	2.88	2.88	2.22	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.66
NBC_MHEPL_208	336670	6259522	0.63	2.71	0.08	1.92	2.22	2.85	2.53	2.56	2.67	2.67	2.67	2.53	2.57	2.71	2.71	2.71	2.53	2.58	2.82	2.85	2.85	2.22	0.08	0.16	0.24	0.31	0.39	0.47	0.55	0.63
NBC_MHEPL_209	336697	6259475	0.60	2.71	0.08	1.92	2.22	2.82	2.52	2.55	2.65	2.65	2.65	2.52	2.55	2.70	2.70	2.70	2.52	2.56	2.81	2.82	2.82	2.22	0.07	0.15	0.22	0.30	0.37	0.45	0.52	0.60
NBC_MHEPL_210	336669	6259409	0.61	3.08	0.08	1.92	2.22	2.82	2.52	2.55	2.65	2.65	2.65	2.52	2.56	2.77	2.77	2.77	2.52	2.57	2.81	2.82	2.82	2.22	0.08	0.15	0.23	0.30	0.38	0.45	0.53	0.61
NBC_MHEPL_211	336615	6259391	0.65	3.08	0.08	1.92	2.22	2.87	2.54	2.57	2.69	2.69	2.69	2.54	2.58	2.79	2.79	2.79	2.54	2.59	2.83	2.87	2.87	2.22	0.08	0.16	0.24	0.32	0.41	0.49	0.57	0.65
NBC_MHEPL_212	336599	6259355	0.73	3.08	0.08	1.92	2.22	2.95	2.58	2.61	2.74	2.74	2.74	2.58	2.62	2.81	2.82	2.82	2.58	2.63	2.88	2.95	2.95	2.22	0.09	0.18	0.27	0.37	0.46	0.55	0.64	0.73
NBC_MHEPL_213	336584	6259321	0.80	3.08	0.08	1.92	2.22	3.01	2.62	2.65	2.79	2.79	2.79	2.62	2.65	2.83	2.85	2.85	2.62	2.66	2.91	3.01	3.01	2.22	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_214	336557	6259265	0.82	3.08	0.07	1.91	2.21	3.04	2.63	2.66	2.81	2.81	2.81	2.63	2.66	2.84	2.86	2.86	2.63	2.68	2.92	3.04	3.04	2.21	0.10	0.21	0.31	0.41	0.51	0.62	0.72	0.82
NBC_MHEPL_215	336587	6259221	0.82	3.08	0.07	1.91	2.21	3.03	2.62	2.66	2.80	2.80	2.80	2.62	2.66	2.83	2.85	2.85	2.62	2.67	2.92	3.03	3.03	2.21	0.10	0.20	0.31	0.41	0.51	0.61	0.72	0.82
NBC_MHEPL_216	336628	6259205	0.81	3.08	0.08	1.92	2.22	3.02	2.62	2.65	2.80	2.80	2.80	2.62	2.66	2.83	2.85	2.85	2.62	2.67	2.91	3.02	3.02	2.22	0.10	0.20	0.30	0.40	0.50	0.61	0.71	0.81
NBC_MHEPL_217	336618	6259177	0.80	3.08	0.07	1.91	2.21	3.02	2.62	2.65	2.79	2.79	2.79	2.62	2.65	2.83	2.85	2.85	2.62	2.67	2.91	3.02	3.02	2.21	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_218	336657	6259126	0.80	3.08	0.07	1.91	2.21	3.01	2.61	2.64	2.79	2.79	2.79	2.61	2.65	2.83	2.84	2.84	2.61	2.66	2.91	3.01	3.01	2.21	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_219	336701	6259068	0.78	3.08	0.07	1.91	2.21	2.99	2.60	2.64	2.77	2.77	2.77	2.60	2.64	2.82	2.84	2.84	2.60	2.65	2.90	2.99	2.99	2.21	0.10	0.19	0.29	0.39	0.49	0.58	0.68	0.78
NBC_MHEPL_220	336771	6259079	0.75	2.71	0.07	1.91	2.21	2.96	2.59	2.62	2.75	2.75	2.75	2.59	2.62	2.75	2.75	2.75	2.59	2.64	2.88	2.96	2.96	2.21	0.09	0.19	0.28	0.38	0.47	0.56	0.66	0.75
NBC_MHEPL_221	336806	6259023	0.71	2.71	0.07	1.91	2.21	2.93	2.57	2.60	2.73	2.73	2.73	2.57	2.60	2.74	2.74	2.74	2.57	2.62	2.86	2.93	2.93	2.21	0.09	0.18	0.27	0.36	0.45	0.54	0.62	0.71
NBC_MHEPL_222	336792	6258989	0.71	2.71	0.07	1.91	2.21	2.92	2.57	2.60	2.72	2.72	2.72	2.57	2.60	2.74	2.74	2.74	2.57	2.62	2.86	2.92	2.92	2.21	0.09	0.18	0.27	0.36	0.44	0.53	0.62	0.71
NBC_MHEPL_223	336779	6258957	0.70	2.71	0.07	1.91	2.21	2.91	2.56	2.59	2.71	2.71	2.71	2.56	2.60	2.73	2.73	2.73	2.56	2.61	2.86	2.91	2.91	2.21	0.09	0.17	0.26	0.35	0.44	0.52	0.61	0.70
NBC_MHEPL_224	336813	6258909	0.66	2.71	0.07	1.91	2.21	2.87	2.54	2.57	2.69	2.69	2.69	2.54	2.58	2.72	2.72	2.72	2.54	2.59	2.84	2.87	2.87	2.21	0.08	0.17	0.25	0.33	0.41	0.50	0.58	0.66
NBC_MHEPL_225	336844	6258864	0.60	2.40	0.07	1.91	2.21	2.81	2.51	2.54	2.64	2.64	2.64	2.51	2.54	2.64	2.64	2.64	2.51	2.56	2.81	2.81	2.81	2.21	0.07	0.15	0.22	0.30	0.37	0.45	0.52	0.60
NBC_MHEPL_226	336888	6258851	0.58	2.40	0.07	1.91	2.21	2.79	2.50	2.53	2.63	2.63	2.63	2.50	2.53	2.63	2.63	2.63	2.50	2.55	2.79	2.79	2.79	2.21	0.07	0.14	0.22	0.29	0.36	0.43	0.50	0.58

100yr ARI Planning Levels - 0.4m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.40** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																				
									1					2					3					4						
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD) 0.4 m Sea Level Projection	Local (Still) Water Level with 0.3m Freeboard (mAHD) 0.4 m Sea Level Projection	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
NBC_MHEPL_227	336920	6258786	0.57	2.11	0.07	1.91	2.21	2.78	2.50	2.53	2.62	2.62	2.62	2.50	2.52	2.58	2.58	2.58	2.50	2.55	2.78	2.78	2.78	2.21	0.07	0.14	0.21	0.29	0.36	0.43	0.50	0.57
NBC_MHEPL_228	336874	6258799	0.58	2.11	0.07	1.91	2.21	2.79	2.50	2.53	2.63	2.63	2.63	2.50	2.52	2.59	2.59	2.59	2.50	2.55	2.79	2.79	2.79	2.21	0.07	0.14	0.22	0.29	0.36	0.43	0.51	0.58
NBC_MHEPL_229	336854	6258728	0.58	2.11	0.07	1.91	2.21	2.79	2.50	2.53	2.62	2.62	2.62	2.50	2.52	2.58	2.58	2.58	2.50	2.55	2.79	2.79	2.79	2.21	0.07	0.14	0.22	0.29	0.36	0.43	0.50	0.58
NBC_MHEPL_230	336807	6258743	0.57	2.11	0.07	1.91	2.21	2.78	2.49	2.53	2.62	2.62	2.62	2.49	2.52	2.58	2.58	2.58	2.49	2.54	2.78	2.78	2.78	2.21	0.07	0.14	0.21	0.29	0.36	0.43	0.50	0.57
NBC_MHEPL_231	336787	6258677	0.56	2.11	0.07	1.91	2.21	2.77	2.49	2.52	2.61	2.61	2.61	2.49	2.51	2.58	2.58	2.58	2.49	2.54	2.77	2.77	2.77	2.21	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_232	336766	6258604	0.55	2.11	0.07	1.91	2.21	2.76	2.48	2.52	2.60	2.60	2.60	2.48	2.51	2.57	2.57	2.57	2.48	2.53	2.76	2.76	2.76	2.21	0.07	0.14	0.21	0.27	0.34	0.41	0.48	0.55
NBC_MHEPL_233	336715	6258621	0.55	2.40	0.07	1.91	2.21	2.76	2.48	2.51	2.60	2.60	2.60	2.48	2.52	2.62	2.62	2.62	2.48	2.53	2.76	2.76	2.76	2.21	0.07	0.14	0.20	0.27	0.34	0.41	0.48	0.55
NBC_MHEPL_234	336690	6258548	0.56	2.40	0.07	1.91	2.21	2.77	2.49	2.52	2.62	2.62	2.62	2.49	2.52	2.62	2.62	2.62	2.49	2.54	2.77	2.77	2.77	2.21	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_235	336671	6258489	0.64	2.71	0.07	1.91	2.21	2.85	2.53	2.56	2.67	2.67	2.67	2.53	2.57	2.71	2.71	2.71	2.53	2.58	2.82	2.85	2.85	2.21	0.08	0.16	0.24	0.32	0.40	0.48	0.56	0.64
NBC_MHEPL_236	336615	6258509	0.71	2.71	0.07	1.91	2.21	2.92	2.56	2.60	2.72	2.72	2.72	2.56	2.60	2.73	2.73	2.73	2.56	2.61	2.86	2.92	2.92	2.21	0.09	0.18	0.27	0.35	0.44	0.53	0.62	0.71
NBC_MHEPL_237	336595	6258449	0.73	2.71	0.07	1.91	2.21	2.94	2.58	2.61	2.74	2.74	2.74	2.58	2.61	2.74	2.74	2.74	2.58	2.63	2.87	2.94	2.94	2.21	0.09	0.18	0.28	0.37	0.46	0.55	0.64	0.73
NBC_MHEPL_238	336515	6258400	0.76	2.71	0.07	1.91	2.21	2.97	2.59	2.62	2.76	2.76	2.76	2.59	2.62	2.75	2.75	2.75	2.59	2.64	2.89	2.97	2.97	2.21	0.10	0.19	0.29	0.38	0.48	0.57	0.67	0.76
NBC_MHEPL_239	336573	6258380	0.76	2.71	0.07	1.91	2.21	2.97	2.59	2.62	2.75	2.75	2.75	2.59	2.62	2.75	2.75	2.75	2.59	2.64	2.89	2.97	2.97	2.21	0.09	0.19	0.28	0.38	0.47	0.57	0.66	0.76
NBC_MHEPL_240	336553	6258320	0.77	2.71	0.07	1.91	2.21	2.98	2.59	2.63	2.76	2.76	2.76	2.59	2.63	2.76	2.76	2.76	2.59	2.65	2.89	2.98	2.98	2.21	0.10	0.19	0.29	0.39	0.48	0.58	0.67	0.77
NBC_MHEPL_241	336597	6258254	0.78	2.71	0.07	1.91	2.21	2.99	2.60	2.63	2.77	2.77	2.77	2.60	2.63	2.76	2.76	2.76	2.60	2.65	2.90	2.99	2.99	2.21	0.10	0.19	0.29	0.39	0.49	0.58	0.68	0.78
NBC_MHEPL_242	336583	6258205	0.78	2.71	0.07	1.91	2.21	2.99	2.60	2.63	2.77	2.77	2.77	2.60	2.63	2.76	2.76	2.76	2.60	2.65	2.90	2.99	2.99	2.21	0.10	0.20	0.29	0.39	0.49	0.59	0.68	0.78
NBC_MHEPL_243	336646	6258187	0.78	2.71	0.07	1.91	2.21	2.99	2.60	2.63	2.77	2.77	2.77	2.60	2.63	2.76	2.76	2.76	2.60	2.65	2.90	2.99	2.99	2.21	0.10	0.20	0.29	0.39	0.49	0.59	0.68	0.78
NBC_MHEPL_010	332541	6264155	0.16	1.28	0.34	2.18	2.48	2.64	2.56	2.56	2.60	2.60	2.60	2.56	2.56	2.60	2.60	2.60	2.56	2.56	2.64	2.64	2.64	2.48	0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16
NBC_MHEPL_244	336632	6258136	0.78	2.71	0.07	1.91	2.21	2.99	2.60	2.63	2.77	2.77	2.77	2.60	2.63	2.76	2.76	2.76	2.60	2.65	2.90	2.99	2.99	2.21	0.10	0.20	0.29	0.39	0.49	0.59	0.68	0.78
NBC_MHEPL_245	336701	6258118	0.77	2.71	0.07	1.91	2.21	2.98	2.59	2.63	2.77	2.77	2.77	2.59	2.63	2.76	2.76	2.76	2.59	2.65	2.89	2.98	2.98	2.21	0.10	0.19	0.29	0.39	0.48	0.58	0.68	0.77
NBC_MHEPL_246	336770	6258099	0.77	2.71	0.07	1.91	2.21	2.98	2.59	2.63	2.76	2.76	2.76	2.59	2.63	2.75	2.75	2.75	2.59	2.64	2.89	2.98	2.98	2.21	0.10	0.19	0.29	0.38	0.48	0.58	0.67	0.77
NBC_MHEPL_247	336833	6258082	0.75	2.71	0.07	1.91	2.21	2.96	2.58	2.62	2.75	2.75	2.75	2.58	2.62	2.75	2.75	2.75	2.58	2.64	2.88	2.96	2.96	2.21	0.09	0.19	0.28	0.38	0.47	0.57	0.66	0.75
NBC_MHEPL_248	336901	6258115	0.74	2.71	0.07	1.91	2.21	2.95	2.58	2.61	2.74	2.74	2.74	2.58	2.61	2.74	2.74	2.74	2.58	2.63	2.88	2.95	2.95	2.21	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74
NBC_MHEPL_249	336949	6258104	0.74	2.71	0.07	1.91	2.21	2.95	2.58	2.61	2.74	2.74	2.74	2.58	2.61	2.74	2.74	2.74	2.58	2.63	2.88	2.95	2.95	2.21	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74
NBC_MHEPL_250	337001	6258143	0.74	2.71	0.07	1.91	2.21	2.95	2.58	2.61	2.74	2.74	2.74	2.58	2.61	2.74	2.74	2.74	2.58	2.63	2.88	2.95	2.95	2.21	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74
NBC_MHEPL_251	337045	6258134	0.74	2.71	0.07	1.91	2.21	2.95	2.58	2.61	2.74	2.74	2.74	2.58	2.61	2.74	2.74	2.74	2.58	2.63	2.87	2.95	2.95	2.21	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74
NBC_MHEPL_252	337091	6258125	0.74	2.71	0.07	1.91	2.21	2.94	2.57	2.61	2.74	2.74	2.74	2.57	2.61	2.74	2.74	2.74	2.57	2.63	2.87	2.94	2.94	2.21	0.09	0.18	0.28	0.37	0.46	0.55	0.64	0.74
NBC_MHEPL_253	337136	6258117	0.73	2.71	0.07	1.91	2.21	2.94	2.57	2.61	2.73	2.73	2.73	2.57	2.61	2.74	2.74	2.74	2.57	2.62	2.87	2.94	2.94	2.21	0.09	0.18	0.27	0.37	0.46	0.55	0.64	0.73
NBC_MHEPL_254	337178	6258109	0.72	2.40	0.07	1.91	2.21	2.93	2.57	2.60	2.72	2.72	2.72	2.57	2.59	2.67	2.67	2.67	2.57	2.62	2.86	2.93	2.93	2.21	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_255	337227	6258153	0.72	2.40	0.07	1.91	2.21	2.92	2.56	2.60	2.72	2.72	2.72	2.56	2.59	2.67	2.67	2.67	2.56	2.62	2.86	2.92	2.92	2.21	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_256	337268	6258148	0.71	2.40	0.06	1.90	2.20	2.92	2.56	2.60	2.72	2.72	2.72	2.56	2.59	2.67	2.67	2.67	2.56	2.62	2.86	2.92	2.92	2.20	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.71
NBC_MHEPL_257	337311	6258143	0.72	2.40	0.06	1.90	2.20	2.93	2.57	2.60	2.72	2.72	2.72	2.57	2.59	2.67	2.67	2.67	2.57	2.62	2.86	2.93	2.93	2.20	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_258	337359	6258191	0.75	2.40	0.07	1.91	2.21	2.95	2.58	2.61	2.74	2.74	2.74	2.58	2.61	2.68	2.68	2.68	2.58	2.63	2.88	2.95	2.95	2.21	0.09	0.19	0.28	0.37	0.47	0.56	0.65	0.75
NBC_MHEPL_259	337364	6258242	0.75	2.40	0.07	1.91	2.21	2.96	2.59	2.62	2.75	2.75	2.75	2.59	2.61	2.69	2.69	2.69	2.59	2.64	2.88	2.96	2.96	2.21	0.09	0.19	0.28	0.38	0.47	0.56	0.66	0.75
NBC_MHEPL_260	337411	6258289	0.75	2.40	0.07	1.91	2.21	2.96	2.58	2.62	2.75	2.75	2.75	2.58	2.61	2.69	2.69	2.69	2.58	2.64	2.88	2.96	2.96	2.21	0.09	0.19	0.28	0.37	0.47	0.56	0.65	0.75
NBC_MHEPL_261	337414	6258339	0.72	2.40	0.07	1.91	2.21	2.93	2.57	2.61	2.73	2.73	2.73	2.57	2.60	2.68	2.68	2.68	2.57	2.62	2.87	2.93	2.93	2.21	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_262	337456	6258337	0.73	2.40	0.07	1.91	2.21	2.94	2.58	2.61	2.74	2.74	2.74	2.58	2.60	2.68	2.68	2.68	2.58	2.63	2.87	2.94	2.94	2.21	0.09	0.18	0.27	0.37	0.46	0.55	0.64	0.73
NBC_MHEPL_263	337500	6258387	0.76	2.40	0.07	1.91	2.21	2.97	2.59	2.62	2.76	2.76	2.76	2.59	2.62	2.69	2.69	2.69	2.59	2.64	2.89	2.97	2.97	2.21	0.09	0.19	0.28	0.38	0.47	0.57	0.66	0.76
NBC_MHEPL_264	337543	6258385	0.80	2.71	0.07	1.91	2.21	3.01	2.61	2.65	2.79	2.79	2.79	2.61	2.64	2.77	2.77	2.77	2.61	2.66	2.91	3.01	3.01	2.21	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_265	337585	6258436	0.84	2.71	0.08	1.92	2.22	3.05	2.63	2.67	2.81	2.82	2.82	2.63	2.66	2.78	2.78	2.78	2.63	2.68	2.93	3.05	3.05	2.22	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_266	337623	6258383	0.86	2.71	0.07	1.91	2.21	3.08	2.65	2.68	2.82	2.84	2.84	2.65	2.67	2.79	2.79	2.79	2.65	2.70	2.94	3.08	3.08	2.21	0.11	0.22	0.32	0.43	0.54	0.65	0.76	0.86
NBC_MHEPL_267	337664	6258384	0.87	2.71	0.07	1.91	2.21	3.08	2.65	2.68	2.83	2.84	2.84	2.65	2.68	2.79	2.79	2.79	2.65	2.70	2.95	3.08	3.08	2.21	0.11	0.22	0.33	0.44	0.54	0.65	0.76	0.87
NBC_MHEPL_268	337705	6258383	0.87	3.08	0.07	1.91	2.21	3.08	2.65	2.68	2.83	2.84	2.84	2.65	2.68	2.85	2.87	2.87	2.65	2.70	2.94	3.08	3.08	2.21	0.11	0.22	0.33	0.43	0.54	0.65	0.76	0.87
NBC_MHEPL_269	337746	6258383	0.86	3.08	0.07	1.91	2.21	3.07	2.64	2.68	2.82	2.83	2.83	2.64	2.68	2.85	2.87	2.87	2.64	2.69	2.94	3.07	3.07	2.21	0.11	0.22	0.32	0.43	0.54	0.65	0.75	0.86
NBC_MHEPL_270	337785	6258382	0.86	3.08	0.07	1.91	2.21	3.07	2.64	2.67	2.82	2.83	2.83	2.64	2.68	2.84	2.87	2.87	2.64	2.69	2.94	3.07	3.07	2.21	0.11	0.21	0.32	0.43	0.53	0.64	0.75	0.86
NBC_MHEPL_271	337824	6258382	0.85	3.08	0.07	1.91	2.21	3.06	2.64	2.67	2.82	2.83	2.83	2.64	2.68	2.84	2.86	2.86	2.64	2.69	2.93	3.06	3.06	2.21	0.11	0.21	0.32	0.43	0.53	0.64	0.75	0.85
NBC_MHEPL_272	337862	6258433	0.85	3.08	0.07	1.91	2.21	3.07	2.64	2.67	2.82	2.83	2.83	2.64	2.68	2.84	2.86	2.86	2.64	2.69	2.94	3.07	3.07	2.21	0.11	0.21	0.32	0.43	0.53	0.64	0.75	0.85
NBC_MHEPL_273	337899	6258433	0.85	3.08	0.07	1.91	2.21	3.06	2.64	2.67	2.82	2.83	2.83	2.64	2.68	2.84	2.86	2.86	2.64	2.69	2.93	3.06	3.06	2.21	0.11	0.21	0.32	0.43	0.53	0.64	0.74	0.85
NBC_MHEPL_274	337937	6258433	0.84	3.08	0.07	1.91	2.21	3.05	2.63	2.66	2.81	2.82	2.82	2.63	2.67	2.84	2.86	2.86	2.63	2.68	2.93	3.05	3.05	2.21	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_275	337976	6258433	0.80	2.71	0.07	1.91	2.21	3.02	2.61	2.65	2.79	2.79	2.79	2.61	2.65	2.77	2.77	2.77	2.61	2.66	2.91	3.02	3.02	2.21	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_276	337938	6258381	0.83	2.71	0.07	1.91	2.21	3.04	2.63	2.66	2.81	2.81	2.81	2.63	2.66	2.78	2.78	2.78	2.63	2.68	2.92	3.04	3.04	2.21	0.10	0.21	0.31	0.41	0.52	0.62	0.73	0.83
NBC_MHEPL_277	337938	6258329	0.84	2.71	0.07	1.91	2.21	3.05	2.63	2.66	2.81	2.81	2.81	2.63	2.66	2.78	2.78	2.78	2.63	2.68	2.93	3.05	3.05	2.21	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_278	337977	6258276	0.84	2.71	0.07	1.91	2.21	3.05	2.63	2.66	2.81	2.81	2.81	2.63	2.66	2.78	2.78	2.78	2.63	2.68	2.93	3.05	3.05	2.21	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_279	338016	6258276	0.83	2.71	0.07	1.91	2.21	3.04	2.62	2.66	2.80	2.80	2.80	2.62	2.65	2.78	2.78	2.78	2.62	2.68	2.92	3.04	3.04	2.21	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83

100yr ARI Planning Levels - 0.4m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.40** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)														Reduction Factor							
			Wave						Foreshore Type ##																				
									1					2					3					4						
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD) 0.4 m Sea Level Projection	Local (Still) Water Level with 0.3m Freeboard (mAHD) 0.4 m Sea Level Projection	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
NBC_MHEPL_280	338055	6258276	0.82	2.71	0.07	1.91	2.21	3.03	2.62	2.65	2.80	2.80	2.80	2.62	2.65	2.77	2.77	2.77	2.62	2.67	2.91	3.03	3.03	2.21	0.10	0.20	0.31	0.41	0.51	0.61	0.71	0.82
NBC_MHEPL_281	338094	6258276	0.80	2.71	0.07	1.91	2.21	3.01	2.61	2.64	2.78	2.78	2.78	2.61	2.64	2.77	2.77	2.77	2.61	2.66	2.91	3.01	3.01	2.21	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_282	338217	6258276	0.69	2.40	0.08	1.92	2.22	2.90	2.56	2.59	2.71	2.71	2.71	2.56	2.59	2.67	2.67	2.67	2.56	2.61	2.85	2.90	2.90	2.22	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.69
NBC_MHEPL_283	338175	6258222	0.72	2.40	0.07	1.91	2.21	2.93	2.57	2.60	2.73	2.73	2.73	2.57	2.60	2.68	2.68	2.68	2.57	2.62	2.87	2.93	2.93	2.21	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_284	338218	6258222	0.71	2.40	0.07	1.91	2.21	2.92	2.57	2.60	2.73	2.73	2.73	2.57	2.59	2.68	2.68	2.68	2.57	2.62	2.86	2.92	2.92	2.21	0.09	0.18	0.27	0.36	0.45	0.54	0.62	0.71
NBC_MHEPL_285	338218	6258167	0.68	2.40	0.07	1.91	2.21	2.89	2.55	2.58	2.70	2.70	2.70	2.55	2.58	2.67	2.67	2.67	2.55	2.60	2.85	2.89	2.89	2.21	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.68
NBC_MHEPL_286	338218	6258112	0.65	2.40	0.07	1.91	2.21	2.85	2.53	2.56	2.67	2.67	2.67	2.53	2.56	2.65	2.65	2.65	2.53	2.58	2.83	2.85	2.85	2.21	0.08	0.16	0.24	0.32	0.40	0.48	0.56	0.65
NBC_MHEPL_287	338217	6258055	0.62	2.40	0.07	1.91	2.21	2.83	2.52	2.55	2.66	2.66	2.66	2.52	2.55	2.64	2.64	2.64	2.52	2.57	2.82	2.83	2.83	2.21	0.08	0.16	0.23	0.31	0.39	0.47	0.55	0.62
NBC_MHEPL_288	338174	6258056	0.65	2.40	0.07	1.91	2.21	2.86	2.53	2.57	2.67	2.67	2.67	2.53	2.56	2.65	2.65	2.65	2.53	2.58	2.83	2.86	2.86	2.21	0.08	0.16	0.24	0.33	0.41	0.49	0.57	0.65
NBC_MHEPL_289	338131	6258003	0.69	2.40	0.07	1.91	2.21	2.89	2.55	2.58	2.70	2.70	2.70	2.55	2.58	2.66	2.66	2.66	2.55	2.60	2.85	2.89	2.89	2.21	0.09	0.17	0.26	0.34	0.43	0.52	0.60	0.69
NBC_MHEPL_290	338129	6257949	0.73	2.71	0.06	1.90	2.20	2.93	2.57	2.60	2.73	2.73	2.73	2.57	2.60	2.74	2.74	2.74	2.57	2.62	2.87	2.93	2.93	2.20	0.09	0.18	0.27	0.36	0.45	0.54	0.64	0.73
NBC_MHEPL_291	338090	6257950	0.76	2.71	0.07	1.91	2.21	2.97	2.59	2.62	2.76	2.76	2.76	2.59	2.62	2.75	2.75	2.75	2.59	2.64	2.89	2.97	2.97	2.21	0.10	0.19	0.29	0.38	0.48	0.57	0.67	0.76
NBC_MHEPL_011	332693	6263979	0.22	1.13	0.31	2.15	2.45	2.68	2.57	2.57	2.62	2.62	2.62	2.57	2.57	2.58	2.58	2.58	2.57	2.57	2.68	2.68	2.68	2.45	0.03	0.06	0.08	0.11	0.14	0.17	0.20	0.22
NBC_MHEPL_292	338088	6257896	0.79	3.08	0.07	1.91	2.21	3.00	2.60	2.64	2.78	2.78	2.78	2.60	2.64	2.82	2.83	2.83	2.60	2.66	2.90	3.00	3.00	2.21	0.10	0.20	0.30	0.40	0.50	0.59	0.69	0.79
NBC_MHEPL_293	338087	6257842	0.81	3.08	0.06	1.90	2.20	3.02	2.61	2.65	2.79	2.79	2.79	2.61	2.65	2.83	2.84	2.84	2.61	2.67	2.91	3.02	3.02	2.20	0.10	0.20	0.30	0.41	0.51	0.61	0.71	0.81
NBC_MHEPL_294	338085	6257788	0.82	3.08	0.06	1.90	2.20	3.03	2.62	2.65	2.80	2.80	2.80	2.62	2.66	2.83	2.84	2.84	2.62	2.67	2.92	3.03	3.03	2.20	0.10	0.21	0.31	0.41	0.51	0.62	0.72	0.82
NBC_MHEPL_295	338123	6257732	0.83	3.08	0.06	1.90	2.20	3.03	2.61	2.65	2.80	2.80	2.80	2.61	2.66	2.83	2.84	2.84	2.61	2.67	2.92	3.03	3.03	2.20	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_296	338165	6257731	0.83	3.08	0.06	1.90	2.20	3.03	2.61	2.65	2.80	2.80	2.80	2.61	2.66	2.83	2.84	2.84	2.61	2.67	2.92	3.03	3.03	2.20	0.10	0.21	0.31	0.42	0.52	0.62	0.73	0.83
NBC_MHEPL_297	338208	6257676	0.83	3.08	0.06	1.90	2.20	3.03	2.61	2.65	2.80	2.80	2.80	2.61	2.66	2.83	2.84	2.84	2.61	2.67	2.92	3.03	3.03	2.20	0.10	0.21	0.31	0.41	0.52	0.62	0.73	0.83
NBC_MHEPL_298	338207	6257623	0.83	3.08	0.06	1.90	2.20	3.03	2.61	2.65	2.80	2.80	2.80	2.61	2.66	2.83	2.84	2.84	2.61	2.67	2.92	3.03	3.03	2.20	0.10	0.21	0.31	0.42	0.52	0.62	0.73	0.83
NBC_MHEPL_299	338257	6257622	0.83	3.08	0.06	1.90	2.20	3.02	2.61	2.65	2.79	2.79	2.79	2.61	2.65	2.83	2.84	2.84	2.61	2.67	2.91	3.02	3.02	2.20	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_300	338309	6257567	0.82	3.08	0.06	1.90	2.20	3.02	2.61	2.65	2.79	2.79	2.79	2.61	2.65	2.82	2.84	2.84	2.61	2.67	2.91	3.02	3.02	2.20	0.10	0.20	0.31	0.41	0.51	0.61	0.72	0.82
NBC_MHEPL_301	338309	6257513	0.85	3.08	0.05	1.89	2.19	3.04	2.62	2.66	2.80	2.80	2.80	2.62	2.66	2.83	2.84	2.84	2.62	2.68	2.92	3.04	3.04	2.19	0.11	0.21	0.32	0.42	0.53	0.63	0.74	0.85
NBC_MHEPL_302	338310	6257458	0.86	3.08	0.05	1.89	2.19	3.05	2.62	2.66	2.81	2.81	2.81	2.62	2.67	2.83	2.85	2.85	2.62	2.68	2.93	3.05	3.05	2.19	0.11	0.21	0.32	0.43	0.54	0.64	0.75	0.86
NBC_MHEPL_303	338311	6257403	0.88	3.08	0.05	1.89	2.19	3.07	2.63	2.67	2.82	2.83	2.83	2.63	2.68	2.84	2.86	2.86	2.63	2.69	2.94	3.07	3.07	2.19	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.88
NBC_MHEPL_304	338365	6257403	0.89	3.08	0.06	1.90	2.20	3.08	2.64	2.68	2.82	2.83	2.83	2.64	2.68	2.84	2.86	2.86	2.64	2.70	2.94	3.08	3.08	2.20	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.89
NBC_MHEPL_305	338421	6257402	0.89	3.08	0.06	1.90	2.20	3.08	2.64	2.68	2.83	2.84	2.84	2.64	2.68	2.84	2.86	2.86	2.64	2.70	2.94	3.08	3.08	2.20	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.89
NBC_MHEPL_306	338478	6257402	0.88	3.08	0.06	1.90	2.20	3.08	2.64	2.68	2.83	2.84	2.84	2.64	2.68	2.84	2.86	2.86	2.64	2.70	2.94	3.08	3.08	2.20	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.88
NBC_MHEPL_307	338536	6257402	0.89	3.08	0.06	1.90	2.20	3.09	2.65	2.68	2.83	2.84	2.84	2.65	2.69	2.85	2.87	2.87	2.65	2.70	2.95	3.09	3.09	2.20	0.11	0.22	0.33	0.44	0.55	0.67	0.78	0.89
NBC_MHEPL_308	338536	6257346	0.90	3.08	0.06	1.90	2.20	3.10	2.65	2.69	2.83	2.85	2.85	2.65	2.69	2.85	2.87	2.87	2.65	2.71	2.95	3.10	3.10	2.20	0.11	0.22	0.34	0.45	0.56	0.67	0.78	0.90
NBC_MHEPL_309	338593	6257346	0.89	3.08	0.06	1.90	2.20	3.09	2.65	2.69	2.83	2.84	2.84	2.65	2.69	2.85	2.87	2.87	2.65	2.70	2.95	3.09	3.09	2.20	0.11	0.22	0.33	0.45	0.56	0.67	0.78	0.89
NBC_MHEPL_310	338649	6257345	0.88	3.08	0.06	1.90	2.20	3.09	2.65	2.68	2.83	2.84	2.84	2.65	2.69	2.85	2.87	2.87	2.65	2.70	2.95	3.09	3.09	2.20	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.88
NBC_MHEPL_311	338704	6257345	0.88	3.08	0.07	1.91	2.21	3.08	2.65	2.68	2.83	2.84	2.84	2.65	2.68	2.85	2.87	2.87	2.65	2.70	2.94	3.08	3.08	2.21	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.88
NBC_MHEPL_312	338757	6257344	0.87	3.08	0.07	1.91	2.21	3.08	2.64	2.68	2.83	2.84	2.84	2.64	2.68	2.85	2.87	2.87	2.64	2.70	2.94	3.08	3.08	2.21	0.11	0.22	0.33	0.43	0.54	0.65	0.76	0.87
NBC_MHEPL_313	338809	6257344	0.85	3.08	0.07	1.91	2.21	3.06	2.64	2.67	2.82	2.83	2.83	2.64	2.68	2.84	2.86	2.86	2.64	2.69	2.93	3.06	3.06	2.21	0.11	0.21	0.32	0.43	0.53	0.64	0.74	0.85
NBC_MHEPL_314	338861	6257289	0.84	3.08	0.07	1.91	2.21	3.05	2.63	2.66	2.81	2.81	2.81	2.63	2.67	2.84	2.86	2.86	2.63	2.68	2.93	3.05	3.05	2.21	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_315	338862	6257232	0.83	2.71	0.06	1.90	2.20	3.03	2.62	2.66	2.80	2.80	2.80	2.62	2.65	2.77	2.77	2.77	2.62	2.67	2.92	3.03	3.03	2.20	0.10	0.21	0.31	0.42	0.52	0.62	0.73	0.83
NBC_MHEPL_316	338912	6257172	0.83	2.71	0.06	1.90	2.20	3.03	2.61	2.65	2.79	2.79	2.79	2.61	2.65	2.76	2.76	2.76	2.61	2.67	2.92	3.03	3.03	2.20	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_317	338910	6257109	0.81	2.71	0.05	1.89	2.19	3.01	2.60	2.64	2.78	2.78	2.78	2.60	2.64	2.76	2.76	2.76	2.60	2.66	2.91	3.01	3.01	2.19	0.10	0.20	0.31	0.41	0.51	0.61	0.71	0.81
NBC_MHEPL_318	338958	6257106	0.80	2.71	0.05	1.89	2.19	2.99	2.59	2.63	2.77	2.77	2.77	2.59	2.63	2.75	2.75	2.75	2.59	2.65	2.90	2.99	2.99	2.19	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_319	338955	6257045	0.77	2.71	0.05	1.89	2.19	2.96	2.58	2.62	2.75	2.75	2.75	2.58	2.61	2.74	2.74	2.74	2.58	2.64	2.88	2.96	2.96	2.19	0.10	0.19	0.29	0.39	0.48	0.58	0.68	0.77
NBC_MHEPL_320	338951	6256989	0.77	2.71	0.04	1.88	2.18	2.95	2.57	2.61	2.74	2.74	2.74	2.57	2.61	2.73	2.73	2.73	2.57	2.63	2.88	2.95	2.95	2.18	0.10	0.19	0.29	0.38	0.48	0.58	0.67	0.77
NBC_MHEPL_321	338949	6256938	0.77	2.71	0.04	1.88	2.18	2.95	2.57	2.61	2.74	2.74	2.74	2.57	2.61	2.73	2.73	2.73	2.57	2.63	2.88	2.95	2.95	2.18	0.10	0.19	0.29	0.39	0.48	0.58	0.68	0.77
NBC_MHEPL_322	338947	6256887	0.78	2.71	0.04	1.88	2.18	2.96	2.57	2.61	2.74	2.74	2.74	2.57	2.61	2.73	2.73	2.73	2.57	2.63	2.88	2.96	2.96	2.18	0.10	0.19	0.29	0.39	0.49	0.58	0.68	0.78
NBC_MHEPL_323	338946	6256837	0.78	2.71	0.03	1.87	2.17	2.96	2.56	2.61	2.74	2.74	2.74	2.56	2.61	2.72	2.72	2.72	2.56	2.63	2.88	2.96	2.96	2.17	0.10	0.20	0.29	0.39	0.49	0.59	0.68	0.78
NBC_MHEPL_324	338945	6256787	0.80	2.71	0.04	1.88	2.18	2.98	2.58	2.62	2.75	2.75	2.75	2.58	2.62	2.73	2.73	2.73	2.58	2.65	2.89	2.98	2.98	2.18	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_325	338945	6256736	0.86	2.71	0.03	1.87	2.17	3.03	2.60	2.64	2.79	2.79	2.79	2.60	2.64	2.74	2.74	2.74	2.60	2.67	2.92	3.03	3.03	2.17	0.11	0.22	0.32	0.43	0.54	0.65	0.76	0.86
NBC_MHEPL_326	339045	6256633	0.89	2.71	0.03	1.87	2.17	3.06	2.62	2.66	2.81	2.81	2.81	2.62	2.65	2.76	2.76	2.76	2.62	2.69	2.93	3.06	3.06	2.17	0.11	0.22	0.33	0.45	0.56	0.67	0.78	0.89
NBC_MHEPL_327	339096	6256633	0.90	2.71	0.03	1.87	2.17	3.07	2.62	2.67	2.81	2.82	2.82	2.62	2.66	2.76	2.76	2.76	2.62	2.69	2.94	3.07	3.07	2.17	0.11	0.22	0.34	0.45	0.56	0.67	0.79	0.90
NBC_MHEPL_328	339147	6256633	0.90	2.71	0.03	1.87	2.17	3.07	2.62	2.67	2.81	2.82	2.82	2.62	2.66	2.76	2.76	2.76	2.62	2.69	2.94	3.07	3.07	2.17	0.11	0.23	0.34	0.45	0.56	0.68	0.79	0.90
NBC_MHEPL_329	339198	6256632	0.92	2.71	0.03	1.87	2.17	3.08	2.62	2.67	2.82	2.83	2.83	2.62	2.66	2.76	2.76	2.76	2.62	2.70	2.94	3.08	3.08	2.17	0.11	0.23	0.34	0.46	0.57	0.69	0.80	0.92
NBC_MHEPL_330	339248	6256632	0.93	2.71	0.03	1.87	2.17	3.10	2.63	2.68	2.83	2.84	2.84	2.63	2.67	2.77	2.77	2.77	2.63	2.71	2.95	3.10	3.10	2.17	0.12	0.23	0.35	0.47	0.58	0.70	0.82	0.93
NBC_MHEPL_012	332679	6263782	0.17	1.45	0.30	2.14	2.44	2.61	2.52	2.52	2.56	2.56	2.56	2.52	2.52	2.58	2.58	2.58	2.52	2.52	2.61	2.61	2.61	2.44	0.02	0.04	0.07	0.09	0.11	0.13	0.15	0.17
NBC_MHEPL_331	339249	6256682	0.96	3.08	0.03	1.87	2.17	3.12	2.65	2.69	2.84	2.86	2.86	2.65	2.69	2.84	2.86	2.86	2.65	2.72	2.97	3.12	3.12	2.17	0.12	0.24	0.36	0.48	0.60	0.72	0.84	0.96

100yr ARI Planning Levels - 0.4m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.40** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)														Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																			
									1					2				3				4							
									Crest Level (mAHD)																			
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD) 0.4 m Sea Level Projection	Local (Still) Water Level with 0.3m Freeboard (mAHD) 0.4 m Sea Level Projection	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
NBC_MHEPL_332	339300	6256732	0.98	3.08	0.03	1.87	2.17	3.15	2.66	2.71	2.85	2.87	2.87	2.66	2.70	2.85	2.87	2.87	2.66	2.73	2.98	3.15	3.15	2.17	0.12	0.24	0.37	0.49	0.61	0.73	0.86	0.98
NBC_MHEPL_333	339300	6256782	0.99	3.08	0.03	1.87	2.17	3.16	2.67	2.71	2.86	2.88	2.88	2.67	2.71	2.85	2.87	2.87	2.67	2.74	2.98	3.16	3.16	2.17	0.12	0.25	0.37	0.50	0.62	0.75	0.87	0.99
NBC_MHEPL_334	339301	6256832	0.99	3.08	0.03	1.87	2.17	3.16	2.67	2.72	2.86	2.89	2.89	2.67	2.71	2.85	2.87	2.87	2.67	2.74	2.99	3.16	3.16	2.17	0.12	0.25	0.37	0.50	0.62	0.75	0.87	0.99
NBC_MHEPL_335	339301	6256881	0.97	3.08	0.03	1.87	2.17	3.14	2.66	2.70	2.85	2.87	2.87	2.66	2.70	2.85	2.87	2.87	2.66	2.73	2.97	3.14	3.14	2.17	0.12	0.24	0.36	0.49	0.61	0.73	0.85	0.97
NBC_MHEPL_336	339302	6256931	0.97	3.08	0.03	1.87	2.17	3.14	2.66	2.71	2.85	2.87	2.87	2.66	2.71	2.85	2.87	2.87	2.66	2.73	2.98	3.14	3.14	2.17	0.12	0.24	0.36	0.48	0.61	0.73	0.85	0.97
NBC_MHEPL_337	339302	6256980	1.00	3.08	0.04	1.88	2.18	3.18	2.68	2.72	2.87	2.90	2.90	2.68	2.72	2.86	2.88	2.88	2.68	2.75	2.99	3.18	3.18	2.18	0.12	0.25	0.37	0.50	0.62	0.75	0.87	1.00
NBC_MHEPL_338	339353	6256980	1.03	3.08	0.03	1.87	2.17	3.20	2.69	2.73	2.88	2.91	2.91	2.69	2.73	2.87	2.89	2.89	2.69	2.76	3.00	3.20	3.20	2.17	0.13	0.26	0.39	0.51	0.64	0.77	0.90	1.03
NBC_MHEPL_339	339403	6257029	1.03	3.48	0.04	1.88	2.18	3.21	2.69	2.74	2.88	2.92	2.92	2.69	2.75	2.92	2.99	2.99	2.69	2.76	3.01	3.21	3.21	2.18	0.13	0.26	0.39	0.51	0.64	0.77	0.90	1.03
NBC_MHEPL_340	339404	6257079	1.07	3.48	0.04	1.88	2.18	3.25	2.71	2.76	2.91	2.95	2.95	2.71	2.77	2.94	3.01	3.01	2.71	2.78	3.03	3.25	3.25	2.18	0.13	0.27	0.40	0.53	0.67	0.80	0.93	1.07
NBC_MHEPL_341	339454	6257079	1.05	3.48	0.04	1.88	2.18	3.23	2.70	2.75	2.89	2.93	2.93	2.70	2.76	2.93	3.00	3.00	2.70	2.77	3.02	3.23	3.23	2.18	0.13	0.26	0.39	0.52	0.66	0.79	0.92	1.05
NBC_MHEPL_342	339554	6257129	1.08	3.48	0.03	1.87	2.17	3.25	2.71	2.76	2.91	2.95	2.95	2.71	2.77	2.94	3.01	3.01	2.71	2.78	3.03	3.25	3.25	2.17	0.13	0.27	0.40	0.54	0.67	0.81	0.94	1.08
NBC_MHEPL_343	339654	6257178	1.13	3.48	0.03	1.87	2.17	3.30	2.74	2.79	2.93	2.99	2.99	2.74	2.79	2.95	3.03	3.03	2.74	2.81	3.06	3.30	3.30	2.17	0.14	0.28	0.42	0.56	0.71	0.85	0.99	1.13
NBC_MHEPL_344	339704	6257178	1.17	3.48	0.03	1.87	2.17	3.34	2.76	2.81	2.95	3.01	3.01	2.76	2.81	2.97	3.04	3.04	2.76	2.83	3.08	3.32	3.34	2.17	0.15	0.29	0.44	0.58	0.73	0.88	1.02	1.17
NBC_MHEPL_345	339754	6257228	1.19	3.48	0.04	1.88	2.18	3.36	2.77	2.82	2.96	3.03	3.03	2.77	2.82	2.97	3.05	3.05	2.77	2.84	3.09	3.33	3.36	2.18	0.15	0.30	0.44	0.59	0.74	0.89	1.04	1.19
NBC_MHEPL_346	339804	6257278	1.15	3.48	0.04	1.88	2.18	3.33	2.75	2.80	2.95	3.01	3.01	2.75	2.80	2.96	3.04	3.04	2.75	2.82	3.07	3.31	3.33	2.18	0.14	0.29	0.43	0.58	0.72	0.86	1.01	1.15
NBC_MHEPL_347	339804	6257328	1.14	3.48	0.04	1.88	2.18	3.32	2.75	2.80	2.94	3.00	3.00	2.75	2.80	2.96	3.04	3.04	2.75	2.82	3.07	3.31	3.32	2.18	0.14	0.29	0.43	0.57	0.71	0.86	1.00	1.14
NBC_MHEPL_348	339804	6257378	1.13	3.48	0.05	1.89	2.19	3.32	2.75	2.80	2.94	3.00	3.00	2.75	2.80	2.96	3.04	3.04	2.75	2.82	3.06	3.31	3.32	2.19	0.14	0.28	0.43	0.57	0.71	0.85	0.99	1.13
NBC_MHEPL_349	339854	6257379	1.17	3.48	0.05	1.89	2.19	3.36	2.77	2.82	2.96	3.03	3.03	2.77	2.82	2.98	3.06	3.06	2.77	2.84	3.09	3.33	3.36	2.19	0.15	0.29	0.44	0.59	0.73	0.88	1.03	1.17
NBC_MHEPL_350	339904	6257379	1.17	3.48	0.05	1.89	2.19	3.36	2.77	2.82	2.96	3.03	3.03	2.77	2.82	2.98	3.06	3.06	2.77	2.84	3.09	3.33	3.36	2.19	0.15	0.29	0.44	0.59	0.73	0.88	1.03	1.17
NBC_MHEPL_351	339954	6257379	1.22	3.48	0.04	1.88	2.18	3.40	2.79	2.84	2.98	3.06	3.06	2.79	2.84	2.99	3.07	3.07	2.79	2.86	3.11	3.35	3.40	2.18	0.15	0.30	0.46	0.61	0.76	0.91	1.06	1.22
NBC_MHEPL_352	340004	6257329	1.23	3.95	0.04	1.88	2.18	3.41	2.80	2.84	2.99	3.07	3.07	2.80	2.86	3.05	3.21	3.21	2.80	2.87	3.11	3.36	3.41	2.18	0.15	0.31	0.46	0.62	0.77	0.92	1.08	1.23
NBC_MHEPL_353	340105	6257279	1.20	3.48	0.03	1.87	2.17	3.37	2.77	2.82	2.97	3.03	3.03	2.77	2.82	2.98	3.05	3.05	2.77	2.85	3.09	3.34	3.37	2.17	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20
NBC_MHEPL_354	340155	6257229	1.33	3.95	0.02	1.86	2.16	3.49	2.83	2.88	3.03	3.12	3.12	2.83	2.89	3.07	3.23	3.23	2.83	2.91	3.15	3.40	3.49	2.16	0.17	0.33	0.50	0.67	0.83	1.00	1.17	1.33
NBC_MHEPL_355	340205	6257229	1.37	3.95	0.02	1.86	2.16	3.53	2.85	2.90	3.05	3.15	3.15	2.85	2.91	3.09	3.24	3.24	2.85	2.93	3.17	3.42	3.53	2.16	0.17	0.34	0.52	0.69	0.86	1.03	1.20	1.37
NBC_MHEPL_013	332816	6263730	0.25	1.28	0.29	2.13	2.43	2.68	2.56	2.56	2.61	2.61	2.61	2.56	2.56	2.59	2.59	2.59	2.56	2.56	2.68	2.68	2.68	2.43	0.03	0.06	0.09	0.12	0.16	0.19	0.22	0.25
NBC_MHEPL_356	340255	6257279	1.40	3.95	0.03	1.87	2.17	3.57	2.87	2.92	3.07	3.18	3.18	2.87	2.93	3.10	3.26	3.26	2.87	2.95	3.19	3.44	3.57	2.17	0.18	0.35	0.53	0.70	0.88	1.05	1.23	1.40
NBC_MHEPL_357	340305	6257329	1.46	3.95	0.03	1.87	2.17	3.63	2.90	2.95	3.10	3.22	3.22	2.90	2.96	3.13	3.29	3.29	2.90	2.98	3.22	3.47	3.63	2.17	0.18	0.37	0.55	0.73	0.91	1.10	1.28	1.46
NBC_MHEPL_358	340305	6257380	1.73	12.96	0.03	1.87	2.17	4.30	3.04	3.15	3.54	3.92	4.30	3.04	3.15	3.52	3.88	4.25	3.04	3.12	3.36	3.61	3.85	2.17	0.27	0.53	0.80	1.07	1.33	1.60	1.87	2.13
NBC_MHEPL_359	340355	6257430	1.73	12.96	0.03	1.87	2.17	4.31	3.04	3.15	3.54	3.92	4.31	3.04	3.15	3.52	3.88	4.25	3.04	3.12	3.36	3.61	3.85	2.17	0.27	0.53	0.80	1.07	1.33	1.60	1.87	2.13
NBC_MHEPL_360	340355	6257480	1.73	3.95	0.03	1.87	2.17	3.85	3.04	3.09	3.24	3.39	3.42	3.04	3.09	3.23	3.37	3.39	3.04	3.12	3.36	3.61	3.85	2.17	0.21	0.42	0.63	0.84	1.05	1.26	1.47	1.68
NBC_MHEPL_361	340355	6257530	1.67	3.95	0.04	1.88	2.18	3.82	3.01	3.06	3.21	3.36	3.38	3.01	3.06	3.21	3.35	3.37	3.01	3.09	3.33	3.58	3.82	2.18	0.21	0.41	0.62	0.82	1.03	1.24	1.44	1.65
NBC_MHEPL_362	340406	6257579	1.67	3.95	0.04	1.88	2.18	3.82	3.01	3.06	3.21	3.35	3.38	3.01	3.06	3.21	3.35	3.37	3.01	3.09	3.33	3.58	3.82	2.18	0.21	0.41	0.62	0.82	1.03	1.24	1.44	1.65
NBC_MHEPL_363	340406	6257629	1.63	3.95	0.04	1.88	2.18	3.80	2.99	3.04	3.19	3.34	3.35	2.99	3.05	3.19	3.34	3.36	2.99	3.07	3.31	3.56	3.80	2.18	0.20	0.41	0.61	0.81	1.02	1.22	1.42	1.63
NBC_MHEPL_364	340406	6257679	1.45	3.95	0.04	1.88	2.18	3.63	2.90	2.95	3.10	3.22	3.22	2.90	2.96	3.13	3.29	3.29	2.90	2.98	3.22	3.47	3.63	2.18	0.18	0.36	0.54	0.73	0.91	1.09	1.27	1.45
NBC_MHEPL_365	340406	6257728	1.36	3.95	0.04	1.88	2.18	3.54	2.86	2.91	3.05	3.16	3.16	2.86	2.92	3.09	3.26	3.26	2.86	2.93	3.18	3.42	3.54	2.18	0.17	0.34	0.51	0.68	0.85	1.02	1.19	1.36
NBC_MHEPL_014	332860	6263715	0.29	1.45	0.29	2.13	2.43	2.72	2.58	2.58	2.64	2.64	2.64	2.58	2.58	2.62	2.62	2.62	2.58	2.58	2.72	2.72	2.72	2.43	0.04	0.07	0.11	0.14	0.18	0.21	0.25	0.29
NBC_MHEPL_366	340406	6257778	1.30	3.95	0.04	1.88	2.18	3.48	2.83	2.88	3.02	3.12	3.12	2.83	2.89	3.07	3.23	3.23	2.83	2.90	3.15	3.39	3.48	2.18	0.16	0.33	0.49	0.65	0.81	0.98	1.14	1.30
NBC_MHEPL_367	340406	6257828	1.22	3.95	0.04	1.88	2.18	3.40	2.79	2.84	2.98	3.06	3.06	2.79	2.85	3.05	3.20	3.20	2.79	2.86	3.11	3.35	3.40	2.18	0.15	0.31	0.46	0.61	0.77	0.92	1.07	1.22
NBC_MHEPL_368	340356	6257828	0.94	3.95	0.04	1.88	2.18	3.11	2.64	2.69	2.84	2.85	2.85	2.64	2.71	2.94	3.07	3.07	2.64	2.71	2.96	3.11	3.11	2.18	0.12	0.23	0.35	0.47	0.59	0.70	0.82	0.94
NBC_MHEPL_369	340306	6257878	0.78	3.95	0.04	1.88	2.18	3.00	2.57	2.62	2.79	2.79	2.79	2.57	2.64	2.90	3.00	3.00	2.57	2.64	2.88	2.96	2.96	2.18	0.10	0.20	0.31	0.41	0.51	0.61	0.71	0.82
NBC_MHEPL_370	340256	6257878	0.79	3.95	0.04	1.88	2.18	3.00	2.57	2.62	2.79	2.79	2.79	2.57	2.64	2.90	3.00	3.00	2.57	2.64	2.88	2.97	2.97	2.18	0.10	0.20	0.31	0.41	0.51	0.61	0.72	0.82
NBC_MHEPL_371	340256	6257928	0.84	3.95	0.04	1.88	2.18	3.03	2.60	2.65	2.81	2.82	2.82	2.60	2.67	2.91	3.03	3.03	2.60	2.67	2.91	3.02	3.02	2.18	0.11	0.21	0.32	0.42	0.53	0.63	0.74	0.85
NBC_MHEPL_372	340206	6258029	0.80	3.95	0.04	1.88	2.18	3.01	2.58	2.63	2.80	2.80	2.80	2.58	2.65	2.90	3.01	3.01	2.58	2.65	2.89	2.99	2.99	2.18	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_373	340156	6258029	0.72	3.95	0.04	1.88	2.18	2.97	2.54	2.59	2.77	2.77	2.77	2.54	2.61	2.88	2.97	2.97	2.54	2.61	2.85	2.90	2.90	2.18	0.10	0.20	0.29	0.39	0.49	0.59	0.69	0.79
NBC_MHEPL_015	332878	6263668	0.31	1.45	0.29	2.13	2.43	2.74	2.58	2.58	2.65	2.65	2.65	2.58	2.58	2.62	2.62	2.62	2.58	2.58	2.74	2.74	2.74	2.43	0.04	0.08	0.12	0.15	0.19	0.23	0.27	0.31
NBC_MHEPL_374	340106	6258129	0.89	15.35	0.04	1.88	2.18	3.97	2.63	2.73	3.14	3.55	3.97	2.63	2.72	3.09	3.46	3.82	2.63	2.69	2.94	3.07	3.07	2.18	0.22	0.45	0.67	0.89	1.11	1.34	1.56	1.78
NBC_MHEPL_375	340056	6258179	1.01	14.36	0.04	1.88	2.18	4.03	2.69	2.80	3.21	3.62	4.03	2.69	2.79	3.15	3.52	3.89	2.69	2.76	3.00	3.20	3.20	2.18	0.23	0.46	0.69	0.92	1.15	1.38	1.61	1.85
NBC_MHEPL_376	340006	6258179	1.08	14.40	0.04	1.88	2.18	4.06	2.72	2.83	3.24	3.65	4.06	2.72	2.82	3.18	3.55	3.92	2.72	2.79	3.03	3.26	3.26	2.18	0.23	0.47	0.70	0.94	1.17	1.41	1.64	1.88
NBC_MHEPL_377	340006	6258229	1.46	14.40	0.05	1.89	2.19	4.24	2.92	3.02	3.43	3.84	4.24	2.92	3.01	3.38	3.75	4.11	2.92	2.99	3.23	3.48	3.64	2.19	0.26	0.51	0.77	1.03	1.28	1.54	1.80	2.05
NBC_MHEPL_378	339956	6258229	1.74	14.40	0.05	1.89	2.19	4.36	3.06	3.17	3.56	3.96	4.36	3.06	3.16	3.53	3.89	4.26	3.06	3.13	3.38	3.62	3.87	2.19	0.27	0.54	0.81	1.09	1.36	1.63	1.90	2.17
NBC_MHEPL_379	339906	6258279	1.74	14.29	0.05	1.89	2.19	4.36	3.06	3.17	3.56	3.96	4.36	3.06	3.16	3.53	3.89	4.26	3.06	3.13	3.38	3.62	3.87	2.19	0.27	0.54	0.81	1.08	1.35	1.63	1.90	2.17
NBC_MHEPL_380	339906	6258329	1.74	13.65	0.05	1.89	2.19	4.34	3.06	3.17	3.56	3.95	4.34	3.06	3.16	3.53	3.89	4.26	3.06	3.13	3.38	3.62	3.87	2.19	0.27	0.54	0.81	1.07	1.34	1.61	1.88	2.15
NBC_MHEPL_381	339906	6258379	1.74	12.19	0.05	1.89	2.19	4.28	3.06	3.16	3.54	3.91	4.28	3.06	3.16	3.53	3.89	4.26	3.06	3.13	3.38	3.62	3.87	2.19	0.26	0.52	0.79	1.05	1.31	1.57	1.83	2.09
NBC_MHEPL_382	339906	6258429	1.75	13.63	0.05	1.89	2.19	4.34	3.06	3.17	3.56	3.95	4.34	3.06	3.16	3.53	3.90	4.26	3.06	3.13	3.38	3.62	3.87	2.19	0.27	0.54	0.80	1.07	1.34	1.61	1.88	2.15

100yr ARI Planning Levels - 0.4m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.40** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)														Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																			
									1					2					3					4						
									Crest Level (mAHD)																			
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD) 0.4 m Sea Level Projection	Local (Still) Water Level with 0.3m Freeboard (mAHD) 0.4 m Sea Level Projection	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
NBC_MHEPL_383	339856	6258479	1.75	13.23	0.05	1.89	2.19	4.32	3.07	3.17	3.55	3.94	4.32	3.07	3.16	3.53	3.90	4.26	3.07	3.14	3.38	3.63	3.87	2.19	0.27	0.53	0.80	1.07	1.33	1.60	1.87	2.13
NBC_MHEPL_016	332816	6263647	0.28	1.45	0.29	2.13	2.43	2.71	2.57	2.57	2.63	2.63	2.63	2.57	2.57	2.61	2.61	2.61	2.57	2.57	2.71	2.71	2.71	2.43	0.03	0.07	0.10	0.14	0.17	0.21	0.24	0.28
NBC_MHEPL_384	339856	6258529	1.75	14.89	0.06	1.90	2.20	4.38	3.07	3.17	3.57	3.97	4.38	3.07	3.16	3.53	3.90	4.27	3.07	3.14	3.38	3.63	3.87	2.20	0.27	0.55	0.82	1.09	1.36	1.64	1.91	2.18
NBC_MHEPL_385	339806	6258579	1.75	13.95	0.06	1.90	2.20	4.35	3.08	3.17	3.56	3.96	4.35	3.08	3.17	3.53	3.90	4.27	3.08	3.14	3.39	3.63	3.88	2.20	0.27	0.54	0.81	1.08	1.34	1.61	1.88	2.15
NBC_MHEPL_386	339806	6258629	1.75	14.41	0.06	1.90	2.20	4.37	3.08	3.17	3.57	3.97	4.37	3.08	3.17	3.54	3.90	4.27	3.08	3.14	3.39	3.63	3.88	2.20	0.27	0.54	0.81	1.08	1.35	1.62	1.89	2.16
NBC_MHEPL_387	339756	6258629	1.75	13.13	0.06	1.90	2.20	4.33	3.08	3.17	3.56	3.94	4.33	3.08	3.17	3.54	3.90	4.27	3.08	3.14	3.39	3.63	3.88	2.20	0.27	0.53	0.80	1.06	1.33	1.59	1.86	2.12
NBC_MHEPL_388	339756	6258679	1.76	13.79	0.07	1.91	2.21	4.35	3.08	3.17	3.57	3.96	4.35	3.08	3.17	3.54	3.90	4.27	3.08	3.15	3.39	3.64	3.88	2.21	0.27	0.54	0.80	1.07	1.34	1.61	1.88	2.14
NBC_MHEPL_389	339706	6258729	1.76	13.39	0.07	1.91	2.21	4.34	3.08	3.17	3.56	3.95	4.34	3.08	3.17	3.54	3.90	4.27	3.08	3.15	3.39	3.64	3.88	2.21	0.27	0.53	0.80	1.07	1.33	1.60	1.86	2.13
NBC_MHEPL_390	339656	6258729	1.76	13.13	0.06	1.90	2.20	4.33	3.08	3.17	3.56	3.94	4.33	3.08	3.17	3.54	3.90	4.27	3.08	3.15	3.39	3.64	3.88	2.20	0.27	0.53	0.80	1.06	1.33	1.59	1.86	2.12
NBC_MHEPL_391	339606	6258779	1.76	14.30	0.07	1.91	2.21	4.37	3.09	3.18	3.57	3.97	4.37	3.09	3.17	3.54	3.91	4.27	3.09	3.15	3.40	3.64	3.89	2.21	0.27	0.54	0.81	1.08	1.35	1.62	1.89	2.16
NBC_MHEPL_392	339556	6258779	1.76	13.13	0.07	1.91	2.21	4.33	3.09	3.18	3.56	3.95	4.33	3.09	3.17	3.54	3.91	4.28	3.09	3.15	3.40	3.64	3.89	2.21	0.26	0.53	0.79	1.06	1.32	1.59	1.85	2.12
NBC_MHEPL_393	339506	6258729	1.75	13.13	0.05	1.89	2.19	4.32	3.07	3.17	3.55	3.94	4.32	3.07	3.16	3.53	3.90	4.26	3.07	3.14	3.38	3.63	3.87	2.19	0.27	0.53	0.80	1.06	1.33	1.60	1.86	2.13
NBC_MHEPL_017	332759	6263626	0.19	1.65	0.29	2.13	2.43	2.62	2.52	2.52	2.57	2.57	2.57	2.52	2.52	2.60	2.60	2.60	2.52	2.52	2.62	2.62	2.62	2.43	0.02	0.05	0.07	0.10	0.12	0.15	0.17	0.19
NBC_MHEPL_394	339456	6258779	1.71	13.21	0.00	1.84	2.14	4.30	2.99	3.14	3.52	3.91	4.30	2.99	3.13	3.50	3.86	4.23	2.99	3.09	3.33	3.58	3.82	2.14	0.27	0.54	0.81	1.08	1.35	1.62	1.89	2.16
NBC_MHEPL_395	339506	6258779	1.76	14.28	0.07	1.91	2.21	4.37	3.09	3.18	3.58	3.97	4.37	3.09	3.18	3.54	3.91	4.28	3.09	3.15	3.40	3.64	3.89	2.21	0.27	0.54	0.81	1.08	1.35	1.62	1.89	2.15
NBC_MHEPL_396	339556	6258829	1.77	13.49	0.08	1.92	2.22	4.35	3.10	3.18	3.57	3.96	4.35	3.10	3.18	3.55	3.91	4.28	3.10	3.16	3.40	3.65	3.89	2.22	0.27	0.53	0.80	1.06	1.33	1.60	1.86	2.13
NBC_MHEPL_397	339556	6258829	1.77	12.84	0.08	1.92	2.22	4.32	3.10	3.18	3.56	3.94	4.32	3.10	3.18	3.55	3.91	4.28	3.10	3.16	3.40	3.65	3.89	2.22	0.26	0.53	0.79	1.05	1.32	1.58	1.84	2.11
NBC_MHEPL_398	339606	6258829	1.76	14.02	0.07	1.91	2.21	4.36	3.09	3.18	3.57	3.97	4.36	3.09	3.18	3.54	3.91	4.28	3.09	3.15	3.40	3.64	3.89	2.21	0.27	0.54	0.81	1.07	1.34	1.61	1.88	2.15
NBC_MHEPL_399	339656	6258829	1.76	13.65	0.07	1.91	2.21	4.35	3.09	3.18	3.57	3.96	4.35	3.09	3.17	3.54	3.91	4.27	3.09	3.15	3.40	3.64	3.89	2.21	0.27	0.53	0.80	1.07	1.34	1.60	1.87	2.14
NBC_MHEPL_400	339706	6258879	1.76	14.06	0.07	1.91	2.21	4.36	3.09	3.18	3.57	3.97	4.36	3.09	3.18	3.54	3.91	4.28	3.09	3.15	3.40	3.64	3.89	2.21	0.27	0.54	0.81	1.07	1.34	1.61	1.88	2.15
NBC_MHEPL_401	339706	6258829	1.76	15.28	0.07	1.91	2.21	4.39	3.09	3.18	3.58	3.99	4.39	3.09	3.17	3.54	3.91	4.27	3.09	3.15	3.39	3.64	3.88	2.21	0.27	0.55	0.82	1.09	1.37	1.64	1.91	2.18
NBC_MHEPL_402	339706	6258779	1.76	12.98	0.07	1.91	2.21	4.32	3.08	3.17	3.56	3.94	4.32	3.08	3.17	3.54	3.90	4.27	3.08	3.15	3.39	3.64	3.88	2.21	0.26	0.53	0.79	1.06	1.32	1.59	1.85	2.12
NBC_MHEPL_403	339756	6258779	1.76	15.28	0.07	1.91	2.21	4.39	3.09	3.18	3.58	3.99	4.39	3.09	3.17	3.54	3.91	4.27	3.09	3.15	3.39	3.64	3.88	2.21	0.27	0.55	0.82	1.09	1.37	1.64	1.91	2.18
NBC_MHEPL_018	332723	6263611	0.33	1.65	0.28	2.12	2.42	2.75	2.59	2.59	2.66	2.66	2.66	2.59	2.59	2.65	2.65	2.65	2.59	2.59	2.75	2.75	2.75	2.42	0.04	0.08	0.12	0.16	0.20	0.25	0.29	0.33
NBC_MHEPL_404	339806	6258729	1.76	15.28	0.07	1.91	2.21	4.39	3.08	3.18	3.58	3.99	4.39	3.08	3.17	3.54	3.90	4.27	3.08	3.15	3.39	3.64	3.88	2.21	0.27	0.55	0.82	1.09	1.37	1.64	1.91	2.19
NBC_MHEPL_405	339856	6258729	1.76	15.28	0.06	1.90	2.20	4.39	3.08	3.18	3.58	3.99	4.39	3.08	3.17	3.54	3.90	4.27	3.08	3.15	3.39	3.64	3.88	2.20	0.27	0.55	0.82	1.09	1.37	1.64	1.91	2.19
NBC_MHEPL_406	339906	6258729	1.76	14.88	0.06	1.90	2.20	4.38	3.08	3.18	3.58	3.98	4.38	3.08	3.17	3.54	3.90	4.27	3.08	3.15	3.39	3.64	3.88	2.20	0.27	0.54	0.82	1.09	1.36	1.63	1.90	2.18
NBC_MHEPL_407	339956	6258679	1.75	13.49	0.06	1.90	2.20	4.34	3.08	3.17	3.56	3.95	4.34	3.08	3.17	3.54	3.90	4.27	3.08	3.14	3.39	3.63	3.88	2.20	0.27	0.53	0.80	1.07	1.34	1.60	1.87	2.14
NBC_MHEPL_408	339956	6258629	1.75	14.38	0.06	1.90	2.20	4.36	3.07	3.17	3.57	3.97	4.36	3.07	3.17	3.53	3.90	4.27	3.07	3.14	3.39	3.63	3.88	2.20	0.27	0.54	0.81	1.08	1.35	1.62	1.89	2.16
NBC_MHEPL_409	340006	6258629	1.75	13.61	0.06	1.90	2.20	4.34	3.07	3.17	3.56	3.95	4.34	3.07	3.17	3.53	3.90	4.27	3.07	3.14	3.39	3.63	3.88	2.20	0.27	0.54	0.80	1.07	1.34	1.61	1.87	2.14
NBC_MHEPL_410	340056	6258579	1.75	13.37	0.05	1.89	2.19	4.33	3.07	3.17	3.56	3.94	4.33	3.07	3.16	3.53	3.90	4.26	3.07	3.14	3.38	3.63	3.87	2.19	0.27	0.53	0.80	1.07	1.34	1.60	1.87	2.14
NBC_MHEPL_411	340106	6258529	1.75	13.36	0.05	1.89	2.19	4.33	3.06	3.17	3.55	3.94	4.33	3.06	3.16	3.53	3.90	4.26	3.06	3.14	3.38	3.63	3.87	2.19	0.27	0.53	0.80	1.07	1.34	1.60	1.87	2.14
NBC_MHEPL_412	340156	6258529	1.75	13.36	0.05	1.89	2.19	4.33	3.06	3.17	3.55	3.94	4.33	3.06	3.16	3.53	3.90	4.26	3.06	3.13	3.38	3.62	3.87	2.19	0.27	0.53	0.80	1.07	1.34	1.60	1.87	2.14
NBC_MHEPL_413	340206	6258529	1.75	13.36	0.05	1.89	2.19	4.33	3.06	3.17	3.55	3.94	4.33	3.06	3.16	3.53	3.90	4.26	3.06	3.13	3.38	3.62	3.87	2.19	0.27	0.53	0.80	1.07	1.34	1.60	1.87	2.14
NBC_MHEPL_019	332687	6263597	0.32	1.65	0.28	2.12	2.42	2.75	2.58	2.58	2.66	2.66	2.66	2.58	2.58	2.65	2.65	2.65	2.58	2.58	2.75	2.75	2.75	2.42	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32
NBC_MHEPL_414	340206	6258579	1.75	13.47	0.05	1.89	2.19	4.33	3.07	3.17	3.56	3.94	4.33	3.07	3.16	3.53	3.90	4.26	3.07	3.14	3.38	3.63	3.87	2.19	0.27	0.54	0.80	1.07	1.34	1.61	1.87	2.14
NBC_MHEPL_415	340256	6258579	1.75	13.47	0.05	1.89	2.19	4.33	3.07	3.17	3.56	3.95	4.33	3.07	3.16	3.53	3.90	4.26	3.07	3.14	3.38	3.63	3.87	2.19	0.27	0.53	0.80	1.07	1.34	1.60	1.87	2.14
NBC_MHEPL_416	340306	6258629	1.75	14.21	0.06	1.90	2.20	4.36	3.07	3.17	3.57	3.96	4.36	3.07	3.17	3.53	3.90	4.27	3.07	3.14	3.39	3.63	3.88	2.20	0.27	0.54	0.81	1.08	1.35	1.62	1.89	2.16
NBC_MHEPL_417	340356	6258629	1.75	13.15	0.06	1.90	2.20	4.32	3.07	3.17	3.55	3.94	4.32	3.07	3.17	3.53	3.90	4.27	3.07	3.14	3.39	3.63	3.88	2.20	0.27	0.53	0.80	1.06	1.33	1.59	1.86	2.13
NBC_MHEPL_418	340356	6258579	1.75	14.11	0.05	1.89	2.19	4.35	3.07	3.17	3.56	3.96	4.35	3.07	3.16	3.53	3.90	4.26	3.07	3.14	3.38	3.63	3.87	2.19	0.27	0.54	0.81	1.08	1.35	1.62	1.89	2.16
NBC_MHEPL_419	340406	6258579	1.75	14.42	0.05	1.89	2.19	4.36	3.07	3.17	3.57	3.97	4.36	3.07	3.16	3.53	3.90	4.26	3.07	3.14	3.38	3.63	3.87	2.19	0.27	0.54	0.81	1.08	1.36	1.63	1.90	2.17
NBC_MHEPL_420	340456	6258579	1.75	14.42	0.05	1.89	2.19	4.36	3.07	3.17	3.57	3.97	4.36	3.07	3.16	3.53	3.90	4.27	3.07	3.14	3.38	3.63	3.87	2.19	0.27	0.54	0.81	1.08	1.36	1.63	1.90	2.17
NBC_MHEPL_421	340506	6258579	1.75	14.42	0.05	1.89	2.19	4.36	3.07	3.17	3.57	3.97	4.36	3.07	3.16	3.53	3.90	4.27	3.07	3.14	3.38	3.63	3.87	2.19	0.27	0.54	0.81	1.08	1.36	1.63	1.90	2.17
NBC_MHEPL_422	340506	6258629	1.75	14.42	0.06	1.90	2.20	4.36	3.07	3.17	3.57	3.97	4.36	3.07	3.17	3.53	3.90	4.27	3.07	3.14	3.39	3.63	3.88	2.20	0.27	0.54	0.81	1.08	1.35	1.63	1.90	2.17
NBC_MHEPL_423	340556	6258629	1.75	14.42	0.06	1.90	2.20	4.36	3.07	3.17	3.57	3.97	4.36	3.07	3.17	3.53	3.90	4.27	3.07	3.14	3.39	3.63	3.88	2.20	0.27	0.54	0.81	1.08	1.35	1.63	1.90	2.17
NBC_MHEPL_020	332643	6263554	0.34	1.65	0.28	2.12	2.42	2.76	2.59	2.59	2.66	2.66	2.66	2.59	2.59	2.65	2.65	2.65	2.59	2.59	2.76	2.76	2.76	2.42	0.04	0.09	0.13	0.17	0.21	0.26	0.30	0.34
NBC_MHEPL_424	340606	6258679	1.75	14.02	0.06	1.90	2.20	4.35	3.08	3.17	3.57	3.96	4.35	3.08	3.17	3.53	3.90	4.27	3.08	3.14	3.39	3.63	3.88	2.20	0.27	0.54	0.81	1.08	1.35	1.62	1.88	2.15
NBC_MHEPL_425	340656	6258679	1.75	14.25	0.06	1.90	2.20	4.36	3.08	3.17	3.57	3.96	4.36	3.08	3.17	3.53	3.90	4.27	3.08	3.14	3.39	3.63	3.88	2.20	0.27	0.54	0.81	1.08	1.35	1.62	1.89	2.16
NBC_MHEPL_426	340706	6258679	1.75	14.42	0.06	1.90	2.20	4.36	3.07	3.17	3.57	3.97	4.36	3.07	3.17	3.53	3.90	4.27	3.07	3.14	3.39	3.63	3.88	2.20	0.27	0.54	0.81	1.08	1.35	1.62	1.90	2.17
NBC_MHEPL_427	340756	6258679	1.75	14.41	0.06	1.90	2.20	4.36	3.07	3.17	3.57	3.97	4.36	3.07	3.17	3.53	3.90	4.27	3.07	3.14	3.39	3.63	3.88	2.20	0.27	0.54	0.81	1.08	1.35	1.62	1.90	2.17
NBC_MHEPL_428	340806	6258679	1.75	14.52	0.06	1.90	2.20	4.37	3.07	3.17	3.57	3.97	4.37	3.07	3.16	3.53	3.90	4.27	3.07	3.14	3.38	3.63	3.87	2.20	0.27	0.54	0.81	1.09	1.36	1.63	1.90	2.17
NBC_MHEPL_429	340856	6258679	1.53	3.95	0.06	1.90	2.20	3.73	2.96	3.01	3.16	3.30	3.30	2.96	3.01	3.17	3.33	3.34	2.96	3.03	3.27	3.52	3.73	2.20	0.19	0.38	0.57	0.77	0.96	1.15	1.34	1.53
NBC_MHEPL_430	340906	6258679	1.41	3.95	0.06	1.90	2.20	3.62	2.91	2.95	3.10	3.22	3.22	2.91	2.96	3.13	3.30	3.30	2.91	2.97	3.22	3.46	3.62	2.20	0.18	0.35	0.53	0.71	0.88	1.06	1.24	1.41
NBC_MHEPL_431	340906	6258729	1.33	4.47	0.07	1.91	2.21	3.53	2.87	2.91	3.06	3.16	3.16	2.87	2.93	3.15	3.37	3.43	2.87	2.93	3.17	3.42	3.53	2.21	0.17	0.33	0.50	0.66	0.83	1.00	1.16	1.33

100yr ARI Planning Levels - 0.4m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.40** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)														Reduction Factor							
			Wave						Foreshore Type ##																				
									1					2					3				4							
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0.4 m Sea Level Projection	0.4 m Sea Level Projection																								
NBC_MHEPL_432	340906	6258779	1.30	3.95	0.07	1.91	2.21	3.51	2.86	2.90	3.05	3.15	3.15	2.86	2.91	3.09	3.26	3.26	2.86	2.92	3.16	3.41	3.51	2.21	0.16	0.33	0.49	0.65	0.81	0.98	1.14	1.30
NBC_MHEPL_433	340956	6258779	1.33	3.95	0.07	1.91	2.21	3.55	2.88	2.92	3.06	3.17	3.17	2.88	2.92	3.10	3.28	3.28	2.88	2.94	3.18	3.43	3.55	2.21	0.17	0.33	0.50	0.67	0.83	1.00	1.17	1.33
NBC_MHEPL_021	332602	6263538	0.34	1.65	0.27	2.11	2.41	2.76	2.58	2.58	2.66	2.66	2.66	2.58	2.58	2.64	2.64	2.64	2.58	2.58	2.76	2.76	2.76	2.41	0.04	0.09	0.13	0.17	0.21	0.26	0.30	0.34
NBC_MHEPL_434	341006	6258779	1.38	3.95	0.07	1.91	2.21	3.59	2.90	2.94	3.09	3.20	3.20	2.90	2.95	3.12	3.30	3.30	2.90	2.96	3.20	3.45	3.59	2.21	0.17	0.35	0.52	0.69	0.86	1.04	1.21	1.38
NBC_MHEPL_435	341056	6258729	1.26	3.95	0.07	1.91	2.21	3.47	2.84	2.88	3.02	3.12	3.12	2.84	2.89	3.08	3.25	3.25	2.84	2.90	3.14	3.39	3.47	2.21	0.16	0.32	0.47	0.63	0.79	0.95	1.11	1.26
NBC_MHEPL_436	341106	6258729	1.05	3.95	0.06	1.90	2.20	3.26	2.73	2.77	2.92	2.96	2.96	2.73	2.78	3.00	3.15	3.15	2.73	2.79	3.03	3.26	3.26	2.20	0.13	0.26	0.40	0.53	0.66	0.79	0.92	1.05
NBC_MHEPL_437	341156	6258679	0.56	14.11	0.07	1.91	2.21	3.81	2.49	2.57	2.98	3.39	3.81	2.49	2.56	2.93	3.29	3.29	2.49	2.54	2.77	2.77	2.77	2.21	0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60
NBC_MHEPL_438	341206	6258679	0.51	14.41	0.07	1.91	2.21	3.69	2.47	2.55	2.96	3.37	3.69	2.47	2.54	2.91	3.20	3.20	2.47	2.52	2.72	2.72	2.72	2.21	0.19	0.37	0.56	0.74	0.93	1.11	1.30	1.48
NBC_MHEPL_439	341256	6258629	0.94	3.95	0.07	1.91	2.21	3.15	2.68	2.72	2.86	2.89	2.89	2.68	2.73	2.96	3.11	3.11	2.68	2.73	2.98	3.15	3.15	2.21	0.12	0.23	0.35	0.47	0.59	0.70	0.82	0.94
NBC_MHEPL_440	341306	6258579	0.87	3.95	0.07	1.91	2.21	3.08	2.64	2.68	2.84	2.85	2.85	2.64	2.70	2.94	3.07	3.07	2.64	2.70	2.94	3.08	3.08	2.21	0.11	0.22	0.33	0.44	0.54	0.65	0.76	0.87
NBC_MHEPL_441	341356	6258529	0.81	2.71	0.07	1.91	2.21	3.02	2.61	2.65	2.79	2.79	2.79	2.61	2.64	2.77	2.77	2.77	2.61	2.67	2.91	3.02	3.02	2.21	0.10	0.20	0.30	0.40	0.51	0.61	0.71	0.81
NBC_MHEPL_442	341356	6258479	0.73	2.71	0.06	1.90	2.20	2.93	2.56	2.60	2.73	2.73	2.73	2.56	2.60	2.73	2.73	2.73	2.56	2.62	2.87	2.93	2.93	2.20	0.09	0.18	0.28	0.37	0.46	0.55	0.64	0.73
NBC_MHEPL_022	332558	6263498	0.35	1.65	0.27	2.11	2.41	2.76	2.58	2.58	2.66	2.66	2.66	2.58	2.58	2.64	2.64	2.64	2.58	2.58	2.76	2.76	2.76	2.41	0.04	0.09	0.13	0.17	0.22	0.26	0.30	0.35
NBC_MHEPL_443	341306	6258429	0.74	2.71	0.05	1.89	2.19	2.94	2.57	2.60	2.73	2.73	2.73	2.57	2.60	2.73	2.73	2.73	2.57	2.62	2.87	2.94	2.94	2.19	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74
NBC_MHEPL_444	341256	6258429	0.69	2.40	0.06	1.90	2.20	2.88	2.54	2.58	2.69	2.69	2.69	2.54	2.57	2.65	2.65	2.65	2.54	2.60	2.84	2.88	2.88	2.20	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.69
NBC_MHEPL_445	341256	6258379	0.68	3.48	0.05	1.89	2.19	2.87	2.53	2.57	2.69	2.69	2.69	2.53	2.59	2.83	2.86	2.86	2.53	2.59	2.84	2.87	2.87	2.19	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.68
NBC_MHEPL_446	341156	6258329	0.77	3.48	0.05	1.89	2.19	2.96	2.58	2.62	2.75	2.75	2.75	2.58	2.63	2.85	2.90	2.90	2.58	2.64	2.88	2.96	2.96	2.19	0.10	0.19	0.29	0.39	0.48	0.58	0.68	0.77
NBC_MHEPL_447	341156	6258279	0.80	3.95	0.05	1.89	2.19	3.01	2.59	2.63	2.80	2.81	2.81	2.59	2.65	2.90	3.01	3.01	2.59	2.65	2.89	2.99	2.99	2.19	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_448	341106	6258229	0.83	3.95	0.04	1.88	2.18	3.03	2.60	2.65	2.81	2.82	2.82	2.60	2.67	2.91	3.03	3.03	2.60	2.66	2.91	3.01	3.01	2.18	0.11	0.21	0.32	0.42	0.53	0.63	0.74	0.84
NBC_MHEPL_449	341106	6258179	0.88	3.95	0.04	1.88	2.18	3.06	2.62	2.67	2.82	2.83	2.83	2.62	2.69	2.93	3.05	3.05	2.62	2.69	2.93	3.06	3.06	2.18	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.88
NBC_MHEPL_450	341056	6258129	0.97	3.95	0.04	1.88	2.18	3.15	2.67	2.71	2.86	2.88	2.88	2.67	2.73	2.96	3.09	3.09	2.67	2.73	2.98	3.15	3.15	2.18	0.12	0.24	0.36	0.48	0.61	0.73	0.85	0.97
NBC_MHEPL_451	341056	6258079	1.03	3.95	0.04	1.88	2.18	3.21	2.70	2.74	2.89	2.92	2.92	2.70	2.76	2.98	3.12	3.12	2.70	2.77	3.01	3.21	3.21	2.18	0.13	0.26	0.39	0.51	0.64	0.77	0.90	1.03
NBC_MHEPL_001	331865	6264756	0.10	1.00	0.45	2.29	2.59	2.70	2.65	2.65	2.67	2.67	2.67	2.65	2.65	2.67	2.67	2.67	2.65	2.65	2.70	2.70	2.70	2.59	0.01	0.03	0.04	0.05	0.07	0.08	0.09	0.10
NBC_MHEPL_023	332529	6263487	0.35	1.65	0.27	2.11	2.41	2.76	2.59	2.59	2.66	2.66	2.66	2.59	2.59	2.64	2.64	2.64	2.59	2.59	2.76	2.76	2.76	2.41	0.04	0.09	0.13	0.18	0.22	0.27	0.31	0.35
NBC_MHEPL_452	341056	6258029	1.06	3.95	0.04	1.88	2.18	3.24	2.71	2.76	2.90	2.94	2.94	2.71	2.77	2.99	3.13	3.13	2.71	2.78	3.02	3.24	3.24	2.18	0.13	0.26	0.40	0.53	0.66	0.79	0.92	1.06
NBC_MHEPL_453	341006	6257979	1.09	3.95	0.04	1.88	2.18	3.27	2.73	2.77	2.92	2.97	2.97	2.73	2.79	3.00	3.15	3.15	2.73	2.80	3.04	3.27	3.27	2.18	0.14	0.27	0.41	0.55	0.68	0.82	0.95	1.09
NBC_MHEPL_454	341056	6257979	1.05	3.95	0.04	1.88	2.18	3.23	2.71	2.75	2.90	2.94	2.94	2.71	2.77	2.99	3.13	3.13	2.71	2.77	3.02	3.23	3.23	2.18	0.13	0.26	0.39	0.52	0.65	0.79	0.92	1.05
NBC_MHEPL_455	341056	6257929	0.93	3.95	0.04	1.88	2.18	3.11	2.65	2.69	2.84	2.85	2.85	2.65	2.71	2.95	3.07	3.07	2.65	2.71	2.96	3.11	3.11	2.18	0.12	0.23	0.35	0.47	0.58	0.70	0.81	0.93
NBC_MHEPL_456	341056	6257879	1.09	3.95	0.04	1.88	2.18	3.27	2.72	2.77	2.91	2.96	2.96	2.72	2.78	3.00	3.14	3.14	2.72	2.79	3.04	3.27	3.27	2.18	0.14	0.27	0.41	0.54	0.68	0.81	0.95	1.09
NBC_MHEPL_457	341006	6257828	1.22	3.95	0.04	1.88	2.18	3.40	2.79	2.84	2.98	3.06	3.06	2.79	2.85	3.04	3.20	3.20	2.79	2.86	3.11	3.35	3.40	2.18	0.15	0.30	0.46	0.61	0.76	0.91	1.07	1.22
NBC_MHEPL_458	341006	6257778	1.26	3.95	0.04	1.88	2.18	3.44	2.81	2.85	3.00	3.08	3.08	2.81	2.87	3.06	3.22	3.22	2.81	2.88	3.12	3.37	3.44	2.18	0.16	0.31	0.47	0.63	0.78	0.94	1.10	1.26
NBC_MHEPL_459	341006	6257728	1.27	3.95	0.04	1.88	2.18	3.45	2.81	2.86	3.01	3.09	3.09	2.81	2.87	3.06	3.22	3.22	2.81	2.89	3.13	3.38	3.45	2.18	0.16	0.32	0.48	0.64	0.79	0.95	1.11	1.27
NBC_MHEPL_460	341006	6257679	1.30	3.95	0.04	1.88	2.18	3.48	2.83	2.87	3.02	3.11	3.11	2.83	2.88	3.07	3.23	3.23	2.83	2.90	3.14	3.39	3.48	2.18	0.16	0.32	0.49	0.65	0.81	0.97	1.14	1.30
NBC_MHEPL_461	341006	6257629	1.29	3.95	0.03	1.87	2.17	3.46	2.82	2.87	3.01	3.10	3.10	2.82	2.88	3.07	3.22	3.22	2.82	2.89	3.14	3.38	3.46	2.17	0.16	0.32	0.48	0.64	0.81	0.97	1.13	1.29
NBC_MHEPL_024	332469	6263439	0.37	1.87	0.27	2.11	2.41	2.77	2.59	2.59	2.67	2.67	2.67	2.59	2.59	2.67	2.67	2.67	2.59	2.59	2.77	2.77	2.77	2.41	0.05	0.09	0.14	0.18	0.23	0.28	0.32	0.37
NBC_MHEPL_462	341056	6257629	1.29	3.95	0.03	1.87	2.17	3.46	2.82	2.87	3.01	3.10	3.10	2.82	2.88	3.06	3.22	3.22	2.82	2.89	3.14	3.38	3.46	2.17	0.16	0.32	0.48	0.64	0.80	0.96	1.13	1.29
NBC_MHEPL_463	341106	6257629	1.27	3.95	0.04	1.88	2.18	3.45	2.81	2.86	3.01	3.09	3.09	2.81	2.87	3.06	3.22	3.22	2.81	2.89	3.13	3.38	3.45	2.18	0.16	0.32	0.48	0.64	0.80	0.96	1.12	1.27
NBC_MHEPL_464	341156	6257679	1.20	3.95	0.04	1.88	2.18	3.37	2.77	2.82	2.97	3.04	3.04	2.77	2.84	3.03	3.19	3.19	2.77	2.85	3.09	3.34	3.37	2.18	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20
NBC_MHEPL_465	341206	6257729	1.12	3.95	0.04	1.88	2.18	3.30	2.74	2.79	2.93	2.99	2.99	2.74	2.80	3.01	3.16	3.16	2.74	2.81	3.06	3.30	3.30	2.18	0.14	0.28	0.42	0.56	0.70	0.84	0.98	1.12
NBC_MHEPL_466	341256	6257729	1.15	3.95	0.04	1.88	2.18	3.33	2.76	2.80	2.95	3.01	3.01	2.76	2.82	3.02	3.17	3.17	2.76	2.83	3.07	3.32	3.33	2.18	0.14	0.29	0.43	0.58	0.72	0.86	1.01	1.15
NBC_MHEPL_467	341256	6257779	1.12	3.95	0.04	1.88	2.18	3.30	2.74	2.79	2.93	2.99	2.99	2.74	2.80	3.01	3.16	3.16	2.74	2.81	3.06	3.30	3.30	2.18	0.14	0.28	0.42	0.56	0.70	0.84	0.98	1.12
NBC_MHEPL_468	341306	6257829	1.13	3.95	0.05	1.89	2.19	3.32	2.75	2.80	2.94	3.00	3.00	2.75	2.81	3.02	3.17	3.17	2.75	2.82	3.06	3.31	3.32	2.19	0.14	0.28	0.42	0.57	0.71	0.85	0.99	1.13
NBC_MHEPL_469	341356	6257879	1.61	14.32	0.05	1.89	2.19	4.30	2.99	3.10	3.50	3.90	4.30	2.99	3.09	3.46	3.83	4.19	2.99	3.06	3.31	3.55	3.80	2.19	0.26	0.53	0.79	1.06	1.32	1.58	1.85	2.11
NBC_MHEPL_470	341356	6257929	1.42	14.50	0.05	1.89	2.19	4.23	2.90	3.01	3.41	3.82	4.23	2.90	3.00	3.36	3.73	4.10	2.90	2.97	3.22	3.46	3.61	2.19	0.25	0.51	0.76	1.02	1.27	1.53	1.78	2.04
NBC_MHEPL_025	332451	6263386	0.37	1.65	0.26	2.10	2.40	2.77	2.59	2.59	2.67	2.67	2.67	2.59	2.59	2.64	2.64	2.64	2.59	2.59	2.77	2.77	2.77	2.40	0.05	0.09	0.14	0.19	0.23	0.28	0.32	0.37
NBC_MHEPL_471	341406	6257879	1.51	14.30	0.05	1.89	2.19	4.26	2.94	3.05	3.45	3.86	4.26	2.94	3.04	3.41	3.78	4.14	2.94	3.01	3.26	3.50	3.70	2.19	0.26	0.52	0.78	1.04	1.30	1.55	1.81	2.07
NBC_MHEPL_472	341406	6257829	1.59	14.42	0.04	1.88	2.18	4.29	2.98	3.09	3.49	3.89	4.29	2.98	3.08	3.45	3.81	4.18	2.98	3.05	3.30	3.54	3.77	2.18	0.26	0.53	0.79	1.05	1.32	1.58	1.85	2.11
NBC_MHEPL_473	341406	6257779	1.56	13.99	0.04	1.88	2.18	4.27	2.96	3.07	3.47	3.87	4.27	2.96	3.06	3.43	3.80	4.16	2.96	3.03	3.28	3.52	3.74	2.18	0.26	0.52	0.78	1.04	1.30	1.57	1.83	2.09
NBC_MHEPL_474	341406	6257729	1.59	14.42	0.04	1.88	2.18	4.30	2.98	3.09	3.49	3.89	4.30	2.98	3.08	3.45	3.81	4.18	2.98	3.05	3.30	3.54	3.77	2.18	0.26	0.53	0.79	1.06	1.32	1.59	1.85	2.11
NBC_MHEPL_475	341406	6257679	1.59	14.19	0.04	1.88	2.18	4.29	2.97	3.09	3.49	3.89	4.29	2.97	3.08	3.45	3.81	4.18	2.97	3.05	3.29	3.54	3.77	2.18	0.26	0.53	0.79	1.05	1.32	1.58	1.85	2.11
NBC_MHEPL_476	341406	6257629	1.42	3.95	0.04	1.88	2.18	3.60	2.89	2.94	3.08	3.20	3.20	2.89	2.94	3.12	3.28	3.28	2.89	2.96	3.21	3.45	3.60	2.18	0.18	0.36	0.53	0.71	0.89	1.07	1.24	1.42
NBC_MHEPL_477	341456	6257629	1.26	3.95	0.04	1.88	2.18	3.44	2.81	2.86	3.00	3.09	3.09	2.81	2.87	3.06	3.22	3.22	2.81	2.88	3.13	3.37	3.44	2.18	0.16	0.32	0.47	0.63	0.79	0.95	1.11	1.26
NBC_MHEPL_478	341506	6257629	1.32	3.95	0.04	1.88	2.18	3.50	2.84	2.89	3.03	3.13	3.13	2.84	2.90	3.08	3.24	3.24	2.84	2.91	3.16	3.40	3.50	2.18	0.16	0.33	0.49	0.66	0.82	0.99	1.15	1.32
NBC_MHEPL_479	341556	6257629	1.25	3.95	0.04	1.88	2.18	3.43	2.81	2.85	3.00	3.08	3.08	2.81	2.86	3.06	3.21	3.21	2.81	2.88	3.12	3.37	3.43	2.18	0.16	0.31	0.47	0.63	0.78	0.94	1.10	1.25

100yr ARI Planning Levels - 0.4m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.40** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)														Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																			
									1					2					3				4							
									Crest Level (mAHD)																			
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD) 0.4 m Sea Level Projection	Local (Still) Water Level with 0.3m Freeboard (mAHD) 0.4 m Sea Level Projection	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
NBC_MHEPL_480	341556	6257679	1.18	3.95	0.04	1.88	2.18	3.36	2.77	2.81	2.96	3.03	3.03	2.77	2.83	3.03	3.18	3.18	2.77	2.84	3.08	3.33	3.36	2.18	0.15	0.29	0.44	0.59	0.74	0.88	1.03	1.18
NBC_MHEPL_481	341606	6257729	1.21	14.42	0.04	1.88	2.18	4.13	2.79	2.90	3.31	3.72	4.13	2.79	2.88	3.25	3.62	3.99	2.79	2.86	3.10	3.35	3.39	2.18	0.24	0.49	0.73	0.97	1.22	1.46	1.70	1.95
NBC_MHEPL_482	341656	6257779	0.86	14.11	0.04	1.88	2.18	3.95	2.62	2.72	3.13	3.54	3.95	2.62	2.71	3.08	3.44	3.81	2.62	2.68	2.93	3.05	3.05	2.18	0.22	0.44	0.66	0.89	1.11	1.33	1.55	1.77
NBC_MHEPL_483	341656	6257729	1.10	3.95	0.04	1.88	2.18	3.28	2.73	2.78	2.92	2.97	2.97	2.73	2.79	3.00	3.15	3.15	2.73	2.80	3.04	3.28	3.28	2.18	0.14	0.27	0.41	0.55	0.69	0.82	0.96	1.10
NBC_MHEPL_484	341656	6257679	1.06	3.48	0.04	1.88	2.18	3.24	2.71	2.75	2.90	2.94	2.94	2.71	2.76	2.94	3.01	3.01	2.71	2.78	3.02	3.24	3.24	2.18	0.13	0.26	0.40	0.53	0.66	0.79	0.92	1.06
NBC_MHEPL_485	341606	6257629	1.07	3.48	0.04	1.88	2.18	3.25	2.71	2.76	2.90	2.95	2.95	2.71	2.77	2.94	3.01	3.01	2.71	2.78	3.03	3.25	3.25	2.18	0.13	0.27	0.40	0.53	0.67	0.80	0.93	1.07
NBC_MHEPL_486	341606	6257579	0.99	3.48	0.04	1.88	2.18	3.17	2.67	2.72	2.86	2.89	2.89	2.67	2.73	2.91	2.98	2.98	2.67	2.74	2.99	3.17	3.17	2.18	0.12	0.25	0.37	0.50	0.62	0.74	0.87	0.99
NBC_MHEPL_487	341606	6257529	0.93	3.48	0.04	1.88	2.18	3.11	2.64	2.69	2.83	2.85	2.85	2.64	2.70	2.89	2.95	2.95	2.64	2.71	2.96	3.11	3.11	2.18	0.12	0.23	0.35	0.47	0.58	0.70	0.82	0.93
NBC_MHEPL_488	341656	6257479	0.89	3.08	0.03	1.87	2.17	3.07	2.62	2.67	2.81	2.82	2.82	2.62	2.67	2.83	2.84	2.84	2.62	2.69	2.94	3.07	3.07	2.17	0.11	0.22	0.33	0.45	0.56	0.67	0.78	0.89
NBC_MHEPL_489	341656	6257429	0.82	3.08	0.03	1.87	2.17	2.99	2.58	2.63	2.76	2.76	2.76	2.58	2.63	2.81	2.81	2.81	2.58	2.65	2.90	2.99	2.99	2.17	0.10	0.20	0.31	0.41	0.51	0.61	0.72	0.82
NBC_MHEPL_490	341606	6257429	0.90	3.08	0.03	1.87	2.17	3.07	2.62	2.67	2.82	2.82	2.82	2.62	2.67	2.83	2.84	2.84	2.62	2.69	2.94	3.07	3.07	2.17	0.11	0.23	0.34	0.45	0.56	0.68	0.79	0.90
NBC_MHEPL_026	332438	6263327	0.33	1.87	0.25	2.09	2.39	2.73	2.56	2.56	2.63	2.63	2.63	2.56	2.56	2.65	2.65	2.65	2.56	2.56	2.73	2.73	2.73	2.39	0.04	0.08	0.12	0.17	0.21	0.25	0.29	0.33
NBC_MHEPL_491	341606	6257379	0.93	3.08	0.03	1.87	2.17	3.11	2.64	2.69	2.83	2.84	2.84	2.64	2.69	2.84	2.85	2.85	2.64	2.71	2.96	3.11	3.11	2.17	0.12	0.23	0.35	0.47	0.58	0.70	0.82	0.93
NBC_MHEPL_492	341556	6257379	0.99	3.08	0.03	1.87	2.17	3.17	2.67	2.72	2.86	2.89	2.89	2.67	2.72	2.86	2.88	2.88	2.67	2.74	2.99	3.17	3.17	2.17	0.12	0.25	0.37	0.50	0.62	0.75	0.87	0.99
NBC_MHEPL_493	341506	6257379	1.04	3.48	0.03	1.87	2.17	3.22	2.69	2.74	2.89	2.92	2.92	2.69	2.75	2.93	3.00	3.00	2.69	2.77	3.01	3.22	3.22	2.17	0.13	0.26	0.39	0.52	0.65	0.78	0.91	1.04
NBC_MHEPL_494	341456	6257379	1.09	3.48	0.03	1.87	2.17	3.26	2.72	2.77	2.91	2.96	2.96	2.72	2.77	2.94	3.01	3.01	2.72	2.79	3.04	3.26	3.26	2.17	0.14	0.27	0.41	0.55	0.68	0.82	0.95	1.09
NBC_MHEPL_495	341406	6257329	0.94	3.48	0.03	1.87	2.17	3.11	2.64	2.69	2.83	2.85	2.85	2.64	2.70	2.89	2.95	2.95	2.64	2.71	2.96	3.11	3.11	2.17	0.12	0.23	0.35	0.47	0.59	0.70	0.82	0.94
NBC_MHEPL_496	341356	6257279	0.91	3.48	0.03	1.87	2.17	3.08	2.63	2.67	2.82	2.83	2.83	2.63	2.69	2.88	2.94	2.94	2.63	2.70	2.94	3.08	3.08	2.17	0.11	0.23	0.34	0.46	0.57	0.69	0.80	0.91
NBC_MHEPL_497	341356	6257229	0.91	3.08	0.03	1.87	2.17	3.08	2.63	2.67	2.82	2.83	2.83	2.63	2.67	2.83	2.84	2.84	2.63	2.70	2.94	3.08	3.08	2.17	0.11	0.23	0.34	0.46	0.57	0.68	0.80	0.91
NBC_MHEPL_498	341356	6257179	0.93	3.08	0.03	1.87	2.17	3.10	2.63	2.68	2.83	2.84	2.84	2.63	2.68	2.83	2.85	2.85	2.63	2.71	2.95	3.10	3.10	2.17	0.12	0.23	0.35	0.46	0.58	0.69	0.81	0.93
NBC_MHEPL_499	341356	6257129	0.85	3.08	0.03	1.87	2.17	3.02	2.60	2.64	2.78	2.78	2.78	2.60	2.65	2.81	2.82	2.82	2.60	2.67	2.91	3.02	3.02	2.17	0.11	0.21	0.32	0.43	0.53	0.64	0.75	0.85
NBC_MHEPL_500	341356	6257078	0.76	2.71	0.03	1.87	2.17	2.93	2.55	2.59	2.72	2.72	2.72	2.55	2.59	2.71	2.71	2.71	2.55	2.62	2.87	2.93	2.93	2.17	0.10	0.19	0.29	0.38	0.48	0.57	0.67	0.76
NBC_MHEPL_027	332426	6263276	0.29	1.65	0.25	2.09	2.39	2.68	2.53	2.53	2.60	2.60	2.60	2.53	2.53	2.60	2.60	2.60	2.53	2.53	2.68	2.68	2.68	2.39	0.04	0.07	0.11	0.14	0.18	0.22	0.25	0.29
NBC_MHEPL_501	341356	6257028	0.65	2.71	0.03	1.87	2.17	2.82	2.49	2.54	2.64	2.64	2.64	2.49	2.54	2.67	2.67	2.67	2.49	2.56	2.81	2.82	2.82	2.17	0.08	0.16	0.24	0.33	0.41	0.49	0.57	0.65
NBC_MHEPL_502	341306	6257028	0.64	2.71	0.03	1.87	2.17	2.81	2.49	2.53	2.63	2.63	2.63	2.49	2.54	2.66	2.66	2.66	2.49	2.56	2.80	2.81	2.81	2.17	0.08	0.16	0.24	0.32	0.40	0.48	0.56	0.64
NBC_MHEPL_503	341256	6257028	0.63	2.71	0.03	1.87	2.17	2.79	2.48	2.53	2.62	2.62	2.62	2.48	2.53	2.66	2.66	2.66	2.48	2.55	2.79	2.79	2.79	2.17	0.08	0.16	0.24	0.31	0.39	0.47	0.55	0.63
NBC_MHEPL_504	341206	6257079	0.83	3.08	0.03	1.87	2.17	3.00	2.58	2.63	2.77	2.77	2.77	2.58	2.64	2.81	2.81	2.81	2.58	2.66	2.90	3.00	3.00	2.17	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.83
NBC_MHEPL_505	341156	6257079	1.01	3.95	0.03	1.87	2.17	3.18	2.68	2.72	2.87	2.90	2.90	2.68	2.74	2.97	3.10	3.10	2.68	2.75	2.99	3.18	3.18	2.17	0.13	0.25	0.38	0.51	0.63	0.76	0.89	1.01
NBC_MHEPL_506	341106	6257079	1.28	3.95	0.03	1.87	2.17	3.45	2.81	2.86	3.00	3.09	3.09	2.81	2.87	3.06	3.21	3.21	2.81	2.88	3.13	3.37	3.45	2.17	0.16	0.32	0.48	0.64	0.80	0.96	1.12	1.28
NBC_MHEPL_507	341106	6257029	1.33	3.95	0.03	1.87	2.17	3.49	2.83	2.88	3.03	3.12	3.12	2.83	2.89	3.07	3.23	3.23	2.83	2.91	3.15	3.40	3.49	2.17	0.17	0.33	0.50	0.66	0.83	0.99	1.16	1.33
NBC_MHEPL_508	341106	6256978	1.37	3.95	0.03	1.87	2.17	3.54	2.85	2.90	3.05	3.15	3.15	2.85	2.91	3.09	3.25	3.25	2.85	2.93	3.18	3.42	3.54	2.17	0.17	0.34	0.51	0.68	0.86	1.03	1.20	1.37
NBC_MHEPL_509	341106	6256928	1.37	3.95	0.02	1.86	2.16	3.54	2.85	2.90	3.05	3.15	3.15	2.85	2.91	3.09	3.25	3.25	2.85	2.93	3.18	3.42	3.54	2.16	0.17	0.34	0.51	0.69	0.86	1.03	1.20	1.37
NBC_MHEPL_510	341156	6256878	1.37	3.95	0.02	1.86	2.16	3.54	2.85	2.90	3.05	3.15	3.15	2.85	2.91	3.09	3.25	3.25	2.85	2.93	3.18	3.42	3.54	2.16	0.17	0.34	0.51	0.69	0.86	1.03	1.20	1.37
NBC_MHEPL_511	341256	6256828	1.38	3.95	0.02	1.86	2.16	3.54	2.85	2.90	3.05	3.15	3.15	2.85	2.91	3.09	3.24	3.24	2.85	2.93	3.18	3.42	3.54	2.16	0.17	0.34	0.52	0.69	0.86	1.03	1.20	1.38
NBC_MHEPL_512	341305	6256728	1.32	3.48	0.02	1.86	2.16	3.47	2.82	2.87	3.02	3.11	3.11	2.82	2.87	3.00	3.08	3.08	2.82	2.90	3.14	3.39	3.47	2.16	0.16	0.33	0.49	0.66	0.82	0.99	1.15	1.32
NBC_MHEPL_513	341255	6256679	1.52	3.48	0.02	1.86	2.16	3.68	2.92	2.97	3.12	3.25	3.25	2.92	2.96	3.07	3.15	3.15	2.92	3.00	3.25	3.49	3.68	2.16	0.19	0.38	0.57	0.76	0.95	1.14	1.33	1.52
NBC_MHEPL_514	341255	6256629	1.45	3.48	0.02	1.86	2.16	3.61	2.88	2.94	3.08	3.20	3.20	2.88	2.93	3.05	3.13	3.13	2.88	2.97	3.21	3.46	3.61	2.16	0.18	0.36	0.54	0.72	0.91	1.09	1.27	1.45
NBC_MHEPL_515	341305	6256529	1.55	3.48	0.01	1.85	2.15	3.71	2.93	2.99	3.14	3.27	3.27	2.93	2.98	3.08	3.16	3.16	2.93	3.02	3.26	3.51	3.71	2.15	0.19	0.39	0.58	0.78	0.97	1.17	1.36	1.55
NBC_MHEPL_516	341355	6256479	1.52	3.95	0.01	1.85	2.15	3.68	2.92	2.97	3.12	3.25	3.25	2.92	2.98	3.14	3.30	3.30	2.92	3.00	3.25	3.49	3.68	2.15	0.19	0.38	0.57	0.76	0.95	1.14	1.33	1.52
NBC_MHEPL_517	341355	6256429	1.46	3.95	0.01	1.85	2.15	3.62	2.89	2.94	3.09	3.21	3.21	2.89	2.95	3.12	3.27	3.27	2.89	2.97	3.22	3.46	3.62	2.15	0.18	0.37	0.55	0.73	0.91	1.10	1.28	1.46
NBC_MHEPL_518	341405	6256378	1.44	3.95	0.01	1.85	2.15	3.59	2.87	2.93	3.07	3.19	3.19	2.87	2.94	3.10	3.26	3.26	2.87	2.96	3.20	3.45	3.59	2.15	0.18	0.36	0.54	0.72	0.90	1.08	1.26	1.44
NBC_MHEPL_519	341455	6256328	1.40	3.95	0.01	1.85	2.15	3.55	2.85	2.91	3.05	3.16	3.16	2.85	2.92	3.09	3.25	3.25	2.85	2.94	3.18	3.43	3.55	2.15	0.18	0.35	0.53	0.70	0.88	1.05	1.23	1.40
NBC_MHEPL_520	341505	6256328	1.37	3.95	0.01	1.85	2.15	3.52	2.83	2.89	3.04	3.14	3.14	2.83	2.90	3.08	3.23	3.23	2.83	2.92	3.17	3.41	3.52	2.15	0.17	0.34	0.51	0.69	0.86	1.03	1.20	1.37
NBC_MHEPL_521	341555	6256328	1.34	3.95	0.00	1.84	2.14	3.48	2.81	2.87	3.02	3.11	3.11	2.81	2.88	3.07	3.22	3.22	2.81	2.90	3.15	3.39	3.48	2.14	0.17	0.33	0.50	0.67	0.84	1.00	1.17	1.34
NBC_MHEPL_522	341605	6256328	1.32	3.95	0.00	1.84	2.14	3.46	2.80	2.86	3.01	3.09	3.09	2.80	2.87	3.06	3.20	3.20	2.80	2.89	3.14	3.38	3.46	2.14	0.16	0.33	0.49	0.66	0.82	0.99	1.15	1.32
NBC_MHEPL_523	341655	6256328	1.26	3.95	0.00	1.84	2.14	3.41	2.78	2.83	2.98	3.05	3.05	2.78	2.85	3.04	3.18	3.18	2.78	2.86	3.11	3.35	3.41	2.14	0.16	0.32	0.47	0.63	0.79	0.95	1.11	1.26
NBC_MHEPL_524	341705	6256328	1.25	3.95	0.00	1.84	2.14	3.39	2.77	2.83	2.97	3.04	3.04	2.77	2.84	3.03	3.18	3.18	2.77	2.86	3.10	3.35	3.39	2.14	0.16	0.31	0.47	0.62	0.78	0.94	1.09	1.25
NBC_MHEPL_525	341755	6256328	1.22	3.95	0.00	1.84	2.14	3.37	2.76	2.81	2.96	3.03	3.03	2.76	2.83	3.02	3.17	3.17	2.76	2.84	3.09	3.33	3.37	2.14	0.15	0.31	0.46	0.61	0.76	0.92	1.07	1.22
NBC_MHEPL_028	332548	6263174	0.37	1.65	0.24	2.08	2.38	2.75	2.56	2.56	2.64	2.64	2.64	2.56	2.56	2.62	2.62	2.62	2.56	2.56	2.75	2.75	2.75	2.38	0.05	0.09	0.14	0.18	0.23	0.27	0.32	0.37
NBC_MHEPL_526	341805	6256328	1.24	3.48	0.00	1.84	2.14	3.38	2.76	2.82	2.97	3.03	3.03	2.76	2.82	2.97	3.04	3.04	2.76	2.85	3.10	3.34	3.38	2.14	0.15	0.31	0.46	0.62	0.77	0.93	1.08	1.24
NBC_MHEPL_527	341855	6256328	1.29	3.48	0.00	1.84	2.14	3.43	2.79	2.85	2.99	3.07	3.07	2.79	2.85	2.99	3.06	3.06	2.79	2.88	3.12	3.37	3.43	2.14	0.16	0.32	0.48	0.64	0.81	0.97	1.13	1.29
NBC_MHEPL_528	341906	6256328	1.30	3.48	0.00	1.84	2.14	3.44	2.79	2.85	3.00	3.08	3.08	2.79	2.85	2.99	3.06	3.06	2.79	2.88	3.13	3.37	3.44	2.14	0.16	0.32	0.49	0.65	0.81	0.97	1.14	1.30
NBC_MHEPL_529	341956	6256328	1.28	3.48	0.00	1.84	2.14	3.43	2.78	2.84	2.99	3.07	3.07	2.78	2.84	2.98	3.06	3.06	2.78	2.87	3.12	3.36	3.43	2.14	0.16	0.32	0.48	0.64	0.80	0.96	1.12	1.28
NBC_MHEPL_029	332600	6263152	0.36	1.65	0.24	2.08	2.38	2.74	2.56	2.56	2.64	2.64	2.64	2.56	2.56	2.62	2.62	2.62	2.56	2.56	2.74	2.74	2.74	2.38	0.05	0.09	0.14	0.18	0.23	0.27	0.32	0.36

100yr ARI Planning Levels - 0.4m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.40** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave			Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	Foreshore Type ##																			
									1					2					3											
									Crest Level (mAHD)																					
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	0.4 m Sea Level Projection	0.4 m Sea Level Projection		1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
NBC_MHEPL_002	331895	6264742	0.11	1.00	0.40	2.24	2.54	2.65	2.59	2.59	2.62	2.62	2.62	2.59	2.59	2.62	2.62	2.62	2.59	2.59	2.65	2.65	2.65	2.54	0.01	0.03	0.04	0.05	0.07	0.08	0.10	0.11
NBC_MHEPL_030	332632	6263103	0.34	1.65	0.24	2.08	2.38	2.72	2.55	2.55	2.62	2.62	2.62	2.55	2.55	2.60	2.60	2.60	2.55	2.55	2.72	2.72	2.72	2.38	0.04	0.09	0.13	0.17	0.21	0.26	0.30	0.34
NBC_MHEPL_031	332662	6263060	0.32	1.65	0.23	2.07	2.37	2.69	2.53	2.53	2.60	2.60	2.60	2.53	2.53	2.60	2.60	2.60	2.53	2.53	2.69	2.69	2.69	2.37	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32
NBC_MHEPL_032	332696	6263014	0.30	1.65	0.23	2.07	2.37	2.67	2.52	2.52	2.59	2.59	2.59	2.52	2.52	2.59	2.59	2.59	2.52	2.52	2.67	2.67	2.67	2.37	0.04	0.08	0.11	0.15	0.19	0.23	0.27	0.30
NBC_MHEPL_033	332727	6262972	0.29	1.45	0.23	2.07	2.37	2.66	2.51	2.51	2.58	2.58	2.58	2.51	2.51	2.55	2.55	2.55	2.51	2.51	2.66	2.66	2.66	2.37	0.04	0.07	0.11	0.15	0.18	0.22	0.26	0.29
NBC_MHEPL_034	332757	6262932	0.29	1.65	0.22	2.06	2.36	2.65	2.51	2.51	2.57	2.57	2.57	2.51	2.51	2.58	2.58	2.58	2.51	2.51	2.65	2.65	2.65	2.36	0.04	0.07	0.11	0.14	0.18	0.22	0.25	0.29
NBC_MHEPL_035	332788	6262955	0.29	1.65	0.23	2.07	2.37	2.66	2.51	2.51	2.58	2.58	2.58	2.51	2.51	2.58	2.58	2.58	2.51	2.51	2.66	2.66	2.66	2.37	0.04	0.07	0.11	0.15	0.18	0.22	0.26	0.29
NBC_MHEPL_036	332818	6262915	0.30	1.65	0.22	2.06	2.36	2.67	2.52	2.52	2.58	2.58	2.58	2.52	2.52	2.58	2.58	2.58	2.52	2.52	2.67	2.67	2.67	2.36	0.04	0.08	0.11	0.15	0.19	0.23	0.27	0.30
NBC_MHEPL_037	332877	6262900	0.32	1.65	0.22	2.06	2.36	2.68	2.52	2.52	2.59	2.59	2.59	2.52	2.52	2.58	2.58	2.58	2.52	2.52	2.68	2.68	2.68	2.36	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32
NBC_MHEPL_038	332936	6262884	0.32	1.65	0.22	2.06	2.36	2.68	2.52	2.52	2.59	2.59	2.59	2.52	2.52	2.58	2.58	2.58	2.52	2.52	2.68	2.68	2.68	2.36	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32
NBC_MHEPL_039	332996	6262868	0.33	1.65	0.22	2.06	2.36	2.68	2.52	2.52	2.59	2.59	2.59	2.52	2.52	2.58	2.58	2.58	2.52	2.52	2.68	2.68	2.68	2.36	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.33
NBC_MHEPL_003	331926	6264732	0.12	1.13	0.40	2.24	2.54	2.66	2.60	2.60	2.63	2.63	2.63	2.60	2.60	2.63	2.63	2.63	2.60	2.60	2.66	2.66	2.66	2.54	0.02	0.03	0.05	0.06	0.08	0.09	0.11	0.12
NBC_MHEPL_040	333024	6262831	0.40	2.11	0.22	2.06	2.36	2.76	2.56	2.56	2.64	2.64	2.64	2.56	2.56	2.67	2.67	2.67	2.56	2.56	2.76	2.76	2.76	2.36	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
NBC_MHEPL_041	333084	6262819	0.44	2.11	0.22	2.06	2.36	2.79	2.57	2.57	2.67	2.67	2.67	2.57	2.57	2.68	2.68	2.68	2.57	2.57	2.79	2.79	2.79	2.36	0.05	0.11	0.16	0.22	0.27	0.33	0.38	0.44
NBC_MHEPL_042	333144	6262808	0.47	2.11	0.21	2.05	2.35	2.83	2.59	2.59	2.70	2.70	2.70	2.59	2.59	2.70	2.70	2.70	2.59	2.59	2.81	2.83	2.83	2.35	0.06	0.12	0.18	0.24	0.30	0.35	0.41	0.47
NBC_MHEPL_043	333174	6262772	0.47	2.11	0.21	2.05	2.35	2.82	2.59	2.59	2.69	2.69	2.69	2.59	2.59	2.69	2.69	2.69	2.59	2.59	2.81	2.82	2.82	2.35	0.06	0.12	0.18	0.24	0.30	0.35	0.41	0.47
NBC_MHEPL_044	333171	6262710	0.48	2.11	0.21	2.05	2.35	2.83	2.59	2.59	2.69	2.69	2.69	2.59	2.59	2.69	2.69	2.69	2.59	2.59	2.81	2.83	2.83	2.35	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_045	333167	6262651	0.48	2.11	0.20	2.04	2.34	2.82	2.58	2.58	2.69	2.69	2.69	2.58	2.58	2.69	2.69	2.69	2.58	2.58	2.81	2.82	2.82	2.34	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_046	333194	6262618	0.47	2.11	0.20	2.04	2.34	2.81	2.58	2.58	2.68	2.68	2.68	2.58	2.58	2.68	2.68	2.68	2.58	2.58	2.81	2.81	2.81	2.34	0.06	0.12	0.18	0.24	0.29	0.35	0.41	0.47
NBC_MHEPL_047	333220	6262584	0.47	2.11	0.20	2.04	2.34	2.80	2.57	2.57	2.67	2.67	2.67	2.57	2.57	2.67	2.67	2.67	2.57	2.57	2.80	2.80	2.80	2.34	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.47
NBC_MHEPL_048	333246	6262550	0.46	2.11	0.19	2.03	2.33	2.79	2.56	2.56	2.66	2.66	2.66	2.56	2.56	2.67	2.67	2.67	2.56	2.56	2.79	2.79	2.79	2.33	0.06	0.11	0.17	0.23	0.29	0.34	0.40	0.46
NBC_MHEPL_049	333272	6262516	0.43	1.87	0.19	2.03	2.33	2.77	2.55	2.55	2.65	2.65	2.65	2.55	2.55	2.62	2.62	2.62	2.55	2.55	2.77	2.77	2.77	2.33	0.05	0.11	0.16	0.22	0.27	0.33	0.38	0.43
NBC_MHEPL_004	331991	6264724	0.14	1.13	0.39	2.23	2.53	2.67	2.60	2.60	2.63	2.63	2.63	2.60	2.60	2.63	2.63	2.63	2.60	2.60	2.67	2.67	2.67	2.53	0.02	0.03	0.05	0.07	0.09	0.10	0.12	0.14
NBC_MHEPL_050	333268	6262456	0.41	1.87	0.19	2.03	2.33	2.74	2.53	2.53	2.63	2.63	2.63	2.53	2.53	2.61	2.61	2.61	2.53	2.53	2.74	2.74	2.74	2.33	0.05	0.10	0.15	0.21	0.26	0.31	0.36	0.41
NBC_MHEPL_051	333236	6262431	0.41	1.87	0.19	2.03	2.33	2.74	2.53	2.53	2.62	2.62	2.62	2.53	2.53	2.61	2.61	2.61	2.53	2.53	2.74	2.74	2.74	2.33	0.05	0.10	0.15	0.21	0.26	0.31	0.36	0.41
NBC_MHEPL_052	333204	6262407	0.41	1.87	0.18	2.02	2.32	2.74	2.53	2.53	2.62	2.62	2.62	2.53	2.53	2.61	2.61	2.61	2.53	2.53	2.74	2.74	2.74	2.32	0.05	0.10	0.15	0.21	0.26	0.31	0.36	0.41
NBC_MHEPL_053	333199	6262347	0.45	2.11	0.18	2.02	2.32	2.77	2.54	2.54	2.64	2.64	2.64	2.54	2.54	2.65	2.65	2.65	2.54	2.54	2.77	2.77	2.77	2.32	0.06	0.11	0.17	0.22	0.28	0.33	0.39	0.45
NBC_MHEPL_054	333194	6262286	0.49	2.40	0.18	2.02	2.32	2.81	2.56	2.56	2.67	2.67	2.67	2.56	2.56	2.70	2.70	2.70	2.56	2.56	2.80	2.81	2.81	2.32	0.06	0.12	0.18	0.24	0.31	0.37	0.43	0.49
NBC_MHEPL_055	333222	6262250	0.48	2.11	0.17	2.01	2.31	2.79	2.55	2.55	2.66	2.66	2.66	2.55	2.55	2.66	2.66	2.66	2.55	2.55	2.79	2.79	2.79	2.31	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_056	333219	6262189	0.47	2.11	0.17	2.01	2.31	2.77	2.54	2.54	2.64	2.64	2.64	2.54	2.54	2.65	2.65	2.65	2.54	2.54	2.77	2.77	2.77	2.31	0.06	0.12	0.18	0.23	0.29	0.35	0.41	0.47
NBC_MHEPL_057	333248	6262152	0.45	2.11	0.16	2.00	2.30	2.75	2.53	2.53	2.63	2.63	2.63	2.53	2.53	2.64	2.64	2.64	2.53	2.53	2.75	2.75	2.75	2.30	0.06	0.11	0.17	0.22	0.28	0.34	0.39	0.45
NBC_MHEPL_058	333277	6262115	0.44	2.11	0.16	2.00	2.30	2.74	2.52	2.52	2.62	2.62	2.62	2.52	2.52	2.63	2.63	2.63	2.52	2.52	2.74	2.74	2.74	2.30	0.05	0.11	0.16	0.22	0.27	0.33	0.38	0.44
NBC_MHEPL_059	333307	6262077	0.46	2.11	0.16	2.00	2.30	2.76	2.53	2.53	2.63	2.63	2.63	2.53	2.53	2.64	2.64	2.64	2.53	2.53	2.76	2.76	2.76	2.30	0.06	0.11	0.17	0.23	0.29	0.34	0.40	0.46
NBC_MHEPL_060	333368	6262063	0.48	2.40	0.16	2.00	2.30	2.78	2.54	2.54	2.64	2.64	2.64	2.54	2.54	2.68	2.68	2.68	2.54	2.54	2.78	2.78	2.78	2.30	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_061	333429	6262050	0.50	2.40	0.16	2.00	2.30	2.79	2.55	2.55	2.66	2.66	2.66	2.55	2.55	2.69	2.69	2.69	2.55	2.55	2.79	2.79	2.79	2.30	0.06	0.12	0.19	0.25	0.31	0.37	0.43	0.50
NBC_MHEPL_062	333459	6262013	0.50	2.40	0.16	2.00	2.30	2.80	2.55	2.55	2.66	2.66	2.66	2.55	2.55	2.69	2.69	2.69	2.55	2.55	2.80	2.80	2.80	2.30	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50
NBC_MHEPL_063	333490	6262038	0.51	2.40	0.16	2.00	2.30	2.80	2.55	2.56	2.66	2.66	2.66	2.55	2.56	2.69	2.69	2.69	2.55	2.56	2.80	2.80	2.80	2.30	0.06	0.13	0.19	0.25	0.32	0.38	0.44	0.51
NBC_MHEPL_064	333520	6262001	0.51	2.40	0.15	1.99	2.29	2.80	2.55	2.56	2.66	2.66	2.66	2.55	2.56	2.69	2.69	2.69	2.55	2.56	2.80	2.80	2.80	2.29	0.06	0.13	0.19	0.25	0.32	0.38	0.44	0.51
NBC_MHEPL_065	333550	6261964	0.51	2.11	0.15	1.99	2.29	2.80	2.55	2.55	2.66	2.66	2.66	2.55	2.55	2.64	2.64	2.64	2.55	2.55	2.80	2.80	2.80	2.29	0.06	0.13	0.19	0.25	0.32	0.38	0.44	0.51
NBC_MHEPL_066	333609	6261891	0.50	2.11	0.15	1.99	2.29	2.78	2.54	2.54	2.64	2.64	2.64	2.54	2.54	2.64	2.64	2.64	2.54	2.55	2.78	2.78	2.78	2.29	0.06	0.12	0.19	0.25	0.31	0.37	0.43	0.50
NBC_MHEPL_067	333639	6261854	0.48	2.11	0.15	1.99	2.29	2.77	2.53	2.54	2.63	2.63	2.63	2.53	2.54	2.63	2.63	2.63	2.53	2.54	2.77	2.77	2.77	2.29	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_068	333668	6261818	0.46	2.11	0.14	1.98	2.28	2.75	2.52	2.53	2.62	2.62	2.62	2.52	2.53	2.62	2.62	2.62	2.52	2.53	2.75	2.75	2.75	2.28	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.46
NBC_MHEPL_069	333698	6261781	0.45	1.87	0.14	1.98	2.28	2.73	2.51	2.52	2.60	2.60	2.60	2.51	2.51	2.58	2.58	2.58	2.51	2.52	2.73	2.73	2.73	2.28	0.06	0.11	0.17	0.22	0.28	0.34	0.39	0.45

100yr ARI Planning Levels - 0.9m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.90** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																				
									1					2					3					4						
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0.9 m Sea Level Projection	0.9 m Sea Level Projection																								
NBC_MHEPL_070	333667	6261756	0.48	2.11	0.14	2.48	2.78	3.26	3.02	3.02	3.03	3.13	3.13	3.02	3.02	3.03	3.12	3.12	3.02	3.02	3.03	3.26	3.26	2.78	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_071	333665	6261696	0.50	2.11	0.14	2.48	2.78	3.28	3.03	3.03	3.04	3.14	3.14	3.03	3.03	3.04	3.13	3.13	3.03	3.03	3.04	3.28	3.28	2.78	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50
NBC_MHEPL_072	333664	6261636	0.50	2.11	0.13	2.47	2.77	3.27	3.02	3.02	3.04	3.13	3.13	3.02	3.02	3.04	3.12	3.12	3.02	3.02	3.04	3.27	3.27	2.77	0.06	0.12	0.19	0.25	0.31	0.37	0.44	0.50
NBC_MHEPL_073	333692	6261601	0.49	2.11	0.13	2.47	2.77	3.26	3.02	3.02	3.03	3.13	3.13	3.02	3.02	3.03	3.12	3.12	3.02	3.02	3.04	3.26	3.26	2.77	0.06	0.12	0.18	0.25	0.31	0.37	0.43	0.49
NBC_MHEPL_074	333720	6261566	0.48	2.11	0.13	2.47	2.77	3.25	3.01	3.01	3.03	3.12	3.12	3.01	3.01	3.03	3.11	3.11	3.01	3.01	3.03	3.25	3.25	2.77	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_075	333748	6261532	0.48	2.11	0.13	2.47	2.77	3.25	3.01	3.01	3.02	3.11	3.11	3.01	3.01	3.02	3.11	3.11	3.01	3.01	3.03	3.25	3.25	2.77	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_076	333777	6261498	0.47	2.11	0.13	2.47	2.77	3.24	3.00	3.00	3.02	3.11	3.11	3.00	3.00	3.02	3.11	3.11	3.00	3.00	3.02	3.24	3.24	2.77	0.06	0.12	0.18	0.24	0.29	0.35	0.41	0.47
NBC_MHEPL_077	333833	6261431	0.46	2.11	0.12	2.46	2.76	3.23	3.00	3.00	3.01	3.10	3.10	3.00	3.00	3.01	3.10	3.10	3.00	3.00	3.02	3.23	3.23	2.76	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.46
NBC_MHEPL_078	333860	6261397	0.47	2.11	0.12	2.46	2.76	3.23	2.99	2.99	3.01	3.10	3.10	2.99	2.99	3.01	3.10	3.10	2.99	2.99	3.02	3.23	3.23	2.76	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.47
NBC_MHEPL_079	333888	6261364	0.47	2.11	0.12	2.46	2.76	3.24	3.00	3.00	3.01	3.10	3.10	3.00	3.00	3.01	3.10	3.10	3.00	3.00	3.02	3.24	3.24	2.76	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.47
NBC_MHEPL_080	333915	6261332	0.48	2.11	0.12	2.46	2.76	3.24	3.00	3.00	3.02	3.11	3.11	3.00	3.00	3.02	3.10	3.10	3.00	3.00	3.02	3.24	3.24	2.76	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_081	333971	6261325	0.49	2.11	0.12	2.46	2.76	3.25	3.00	3.00	3.02	3.11	3.11	3.00	3.00	3.02	3.10	3.10	3.00	3.00	3.03	3.25	3.25	2.76	0.06	0.12	0.18	0.24	0.31	0.37	0.43	0.49
NBC_MHEPL_082	333998	6261294	0.49	1.87	0.12	2.46	2.76	3.25	3.00	3.00	3.02	3.11	3.11	3.00	3.00	3.02	3.07	3.07	3.00	3.00	3.03	3.25	3.25	2.76	0.06	0.12	0.18	0.25	0.31	0.37	0.43	0.49
NBC_MHEPL_083	334054	6261287	0.50	1.87	0.12	2.46	2.76	3.26	3.01	3.01	3.03	3.12	3.12	3.01	3.01	3.02	3.07	3.07	3.01	3.01	3.03	3.26	3.26	2.76	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50
NBC_MHEPL_084	334080	6261257	0.51	1.87	0.11	2.45	2.75	3.27	3.01	3.01	3.03	3.12	3.12	3.01	3.01	3.02	3.07	3.07	3.01	3.01	3.04	3.27	3.27	2.75	0.06	0.13	0.19	0.26	0.32	0.38	0.45	0.51
NBC_MHEPL_085	334135	6261252	0.54	2.11	0.11	2.45	2.75	3.30	3.03	3.03	3.04	3.14	3.14	3.03	3.03	3.04	3.12	3.12	3.03	3.03	3.05	3.30	3.30	2.75	0.07	0.14	0.20	0.27	0.34	0.41	0.47	0.54
NBC_MHEPL_086	334197	6261304	0.56	2.11	0.12	2.46	2.76	3.32	3.04	3.04	3.06	3.16	3.16	3.04	3.04	3.05	3.13	3.13	3.04	3.04	3.06	3.31	3.32	2.76	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_087	334222	6261274	0.56	2.11	0.11	2.45	2.75	3.32	3.04	3.04	3.05	3.16	3.16	3.04	3.04	3.05	3.12	3.12	3.04	3.04	3.06	3.31	3.32	2.75	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_088	334247	6261245	0.56	2.40	0.11	2.45	2.75	3.31	3.03	3.03	3.05	3.16	3.16	3.03	3.03	3.05	3.17	3.17	3.03	3.03	3.06	3.31	3.31	2.75	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_089	334297	6261186	0.56	2.40	0.11	2.45	2.75	3.31	3.03	3.03	3.05	3.15	3.15	3.03	3.03	3.05	3.16	3.16	3.03	3.03	3.06	3.30	3.31	2.75	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_090	334322	6261157	0.56	2.40	0.11	2.45	2.75	3.31	3.03	3.03	3.05	3.15	3.15	3.03	3.03	3.05	3.16	3.16	3.03	3.03	3.06	3.30	3.31	2.75	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_091	334378	6261155	0.56	2.40	0.11	2.45	2.75	3.31	3.03	3.03	3.05	3.16	3.16	3.03	3.03	3.05	3.17	3.17	3.03	3.03	3.06	3.31	3.31	2.75	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_092	334403	6261127	0.56	2.40	0.11	2.45	2.75	3.31	3.03	3.03	3.05	3.15	3.15	3.03	3.03	3.05	3.16	3.16	3.03	3.03	3.06	3.31	3.31	2.75	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_093	334428	6261098	0.55	2.40	0.11	2.45	2.75	3.30	3.03	3.03	3.05	3.15	3.15	3.03	3.03	3.05	3.16	3.16	3.03	3.03	3.06	3.30	3.30	2.75	0.07	0.14	0.21	0.28	0.35	0.42	0.48	0.55
NBC_MHEPL_094	334453	6261069	0.55	2.40	0.11	2.45	2.75	3.30	3.02	3.02	3.04	3.15	3.15	3.02	3.02	3.05	3.16	3.16	3.02	3.02	3.06	3.30	3.30	2.75	0.07	0.14	0.21	0.28	0.34	0.41	0.48	0.55
NBC_MHEPL_095	334480	6261039	0.55	2.40	0.11	2.45	2.75	3.29	3.02	3.02	3.04	3.14	3.14	3.02	3.02	3.04	3.16	3.16	3.02	3.02	3.05	3.29	3.29	2.75	0.07	0.14	0.21	0.27	0.34	0.41	0.48	0.55
NBC_MHEPL_096	334508	6261007	0.54	2.40	0.11	2.45	2.75	3.29	3.02	3.02	3.04	3.14	3.14	3.02	3.02	3.04	3.15	3.15	3.02	3.02	3.05	3.29	3.29	2.75	0.07	0.14	0.20	0.27	0.34	0.41	0.47	0.54
NBC_MHEPL_097	334510	6260943	0.53	2.11	0.10	2.44	2.74	3.28	3.01	3.01	3.03	3.13	3.13	3.01	3.01	3.03	3.10	3.10	3.01	3.01	3.04	3.28	3.28	2.74	0.07	0.13	0.20	0.27	0.33	0.40	0.47	0.53
NBC_MHEPL_098	334549	6260899	0.53	2.11	0.10	2.44	2.74	3.27	3.00	3.00	3.03	3.12	3.12	3.00	3.00	3.02	3.10	3.10	3.00	3.00	3.04	3.27	3.27	2.74	0.07	0.13	0.20	0.26	0.33	0.40	0.46	0.53
NBC_MHEPL_099	334594	6260848	0.52	2.11	0.10	2.44	2.74	3.26	3.00	3.00	3.02	3.12	3.12	3.00	3.00	3.02	3.10	3.10	3.00	3.00	3.04	3.26	3.26	2.74	0.07	0.13	0.20	0.26	0.33	0.39	0.46	0.52
NBC_MHEPL_100	334646	6260790	0.52	2.11	0.10	2.44	2.74	3.26	3.00	3.00	3.02	3.11	3.11	3.00	3.00	3.02	3.09	3.09	3.00	3.00	3.03	3.26	3.26	2.74	0.07	0.13	0.20	0.26	0.33	0.39	0.46	0.52
NBC_MHEPL_101	334615	6260762	0.52	2.11	0.10	2.44	2.74	3.25	2.99	2.99	3.02	3.11	3.11	2.99	2.99	3.02	3.09	3.09	2.99	2.99	3.03	3.25	3.25	2.74	0.06	0.13	0.19	0.26	0.32	0.39	0.45	0.52
NBC_MHEPL_102	334703	6260726	0.50	2.11	0.09	2.43	2.73	3.23	2.98	2.98	3.01	3.09	3.09	2.98	2.98	3.01	3.08	3.08	2.98	2.98	3.02	3.23	3.23	2.73	0.06	0.12	0.19	0.25	0.31	0.37	0.44	0.50
NBC_MHEPL_103	334672	6260698	0.50	1.87	0.09	2.43	2.73	3.24	2.99	2.99	3.01	3.10	3.10	2.99	2.99	3.00	3.05	3.05	2.99	2.99	3.02	3.24	3.24	2.73	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50
NBC_MHEPL_104	334641	6260670	0.49	1.87	0.09	2.43	2.73	3.22	2.98	2.98	3.00	3.09	3.09	2.98	2.98	3.00	3.04	3.04	2.98	2.98	3.02	3.22	3.22	2.73	0.06	0.12	0.18	0.24	0.31	0.37	0.43	0.49
NBC_MHEPL_105	334611	6260644	0.47	1.87	0.09	2.43	2.73	3.20	2.97	2.97	2.99	3.07	3.07	2.97	2.97	2.99	3.03	3.03	2.97	2.97	3.00	3.20	3.20	2.73	0.06	0.12	0.18	0.23	0.29	0.35	0.41	0.47
NBC_MHEPL_106	334671	6260577	0.45	1.87	0.09	2.43	2.73	3.18	2.96	2.96	2.98	3.05	3.05	2.96	2.96	2.98	3.03	3.03	2.96	2.96	2.99	3.18	3.18	2.73	0.06	0.11	0.17	0.22	0.28	0.34	0.39	0.45
NBC_MHEPL_107	334729	6260513	0.44	2.11	0.09	2.43	2.73	3.17	2.95	2.95	2.97	3.05	3.05	2.95	2.95	2.98	3.06	3.06	2.95	2.95	2.99	3.17	3.17	2.73	0.05	0.11	0.16	0.22	0.27	0.33	0.38	0.44
NBC_MHEPL_108	334759	6260540	0.45	1.87	0.09	2.43	2.73	3.18	2.96	2.96	2.98	3.05	3.05	2.96	2.96	2.98	3.03	3.03	2.96	2.96	2.99	3.18	3.18	2.73	0.06	0.11	0.17	0.22	0.28	0.34	0.39	0.45
NBC_MHEPL_109	334789	6260568	0.46	1.87	0.09	2.43	2.73	3.20	2.96	2.96	2.99	3.07	3.07	2.96	2.96	2.98	3.03	3.03	2.96	2.96	3.00	3.20	3.20	2.73	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.46
NBC_MHEPL_005	332243	6264687	0.20	1.28	0.39	2.73	3.03	3.23	3.13	3.13	3.13	3.17	3.17	3.13	3.13	3.13	3.17	3.17	3.13	3.13	3.13	3.23	3.23	3.03	0.02	0.05	0.07	0.10	0.12	0.15	0.17	0.20
NBC_MHEPL_110	334820	6260597	0.48	1.87	0.09	2.43	2.73	3.21	2.97	2.97	3.00	3.08	3.08	2.97	2.97	2.99	3.04	3.04	2.97	2.97	3.01	3.21	3.21	2.73	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_111	334878	6260534	0.48	1.87	0.09	2.43	2.73	3.21	2.97	2.97	2.99	3.07	3.07	2.97	2.97	2.99	3.04	3.04	2.97	2.97	3.01	3.21	3.21	2.73	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_112	334910	6260564	0.47	1.87	0.09	2.43	2.73	3.20	2.97	2.97	2.99	3.07	3.07	2.97	2.97	2.99	3.03	3.03	2.97	2.97	3.01	3.20	3.20	2.73	0.06	0.12	0.18	0.24	0.30	0.36	0.41	0.47
NBC_MHEPL_113	334972	6260498	0.46	1.87	0.09	2.43	2.73	3.19	2.96	2.96	2.99	3.06	3.06	2.96	2.96	2.98	3.03	3.03	2.96	2.96	3.00	3.19	3.19	2.73	0.06	0.12	0.17	0.23	0.29	0.35	0.40	0.46
NBC_MHEPL_114	335004	6260528	0.45	1.87	0.09	2.43	2.73	3.18	2.95	2.95	2.98	3.05	3.05	2.95	2.95	2.97	3.03	3.03	2.95	2.95	2.99	3.18	3.18	2.73	0.06	0.11	0.17	0.22	0.28	0.34	0.39	0.45
NBC_MHEPL_115	335067	6260462	0.44	1.87	0.09	2.43	2.73	3.17	2.95	2.95	2.98	3.05	3.05	2.95	2.95	2.97	3.02	3.02	2.95	2.95	2.99	3.17	3.17	2.73	0.06	0.11	0.17	0.22	0.28	0.33	0.39	0.44
NBC_MHEPL_116	335099	6260492	0.45	1.87	0.09	2.43	2.73	3.18	2.96	2.96	2.98	3.06	3.06	2.96	2.96	2.98	3.03	3.03	2.96	2.96	3.00	3.18	3.18	2.73	0.06	0.11	0.17	0.23	0.28	0.34	0.40	0.45
NBC_MHEPL_117	335191	6260457	0.47	1.87	0.09	2.43	2.73	3.19	2.96	2.96	2.99	3.06	3.06	2.96	2.96	2.98	3.03	3.03	2.96	2.96	3.00	3.19	3.19	2.73	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.47
NBC_MHEPL_118	335221	6260486	0.47	1.87	0.09	2.43	2.73	3.20	2.96	2.96	2.99	3.06	3.06	2.96	2.96	2.98	3.03	3.03	2.96	2.96	3.00	3.20	3.20	2.73	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.47
NBC_MHEPL_119	335278	6260427	0.45	1.87	0.09	2.43	2.73	3.18	2.96	2.96	2.98	3.06	3.06	2.96	2.96	2.98	3.03	3.03	2.96	2.96	2.99	3.18	3.18	2.73	0.06	0.11	0.17	0.23	0.28	0.34	0.40	0.45
NBC_MHEPL_006	332257	6264662	0.18	1.28	0.39	2.73	3.03	3.21	3.12	3.12	3.12	3.16	3.16	3.12	3.12	3.12	3.16	3.16	3.12	3.12	3.12	3.21	3.21	3.03	0.02	0.05	0.07	0.09	0.11	0.14	0.16	0.18
NBC_MHEPL_120	335308	6260457	0.45	1.87	0.09	2.43	2.73	3.18	2.95	2.95	2.98	3.05	3.05	2.95	2.95	2.97	3.03	3.03	2.95	2.95	2.99	3.18	3.18	2.73	0.06	0.11	0.17	0.23	0.28	0.34	0.39	0.45
NBC_MHEPL_121	335363	6260402	0.45	2.11	0.09	2.43	2.73	3.18	2.95	2.95	2.98	3.05	3.05	2.95	2.95	2.98	3.06	3.06	2.95	2.95	2.99	3.18	3.18	2.73	0.06	0.11	0.17	0.23	0.28	0.34	0.40	0.45
NBC_MHEPL_122	335394	6260434	0.46	2.11	0.09	2.43	2.73	3.19	2.96	2.96	2.98	3.06	3.06	2.96	2.96	2.98	3.06	3.06	2.96	2.96	3.00	3.19	3.19	2.73	0.06	0.11	0.17	0.23	0.29	0.34	0.40	0.46
NBC_MHEPL_123	335447	6260381	0.45	2.11	0.09	2.43	2.73	3.18	2.96	2.96	2.98	3.06	3.06	2.96	2.96	2.98	3.06	3.06	2.96	2.96	3.00	3.18	3.18	2.73	0.06	0.11	0.17	0.23	0.28	0.34	0.40	0.45

100yr ARI Planning Levels - 0.9m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.90** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)														Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave					Foreshore Type ##																				
								1					2					3					4							
								Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0.9 m Sea Level Projection	0.9 m Sea Level Projection																							
NBC_MHEPL_124	335476	6260411	0.45	1.87	0.09	2.43	2.73	3.18	2.95	2.95	2.98	3.05	3.05	2.95	2.95	2.97	3.02	3.02	2.95	2.95	2.99	3.18	3.18	2.73	0.06	0.11	0.17	0.23	0.28	0.34	0.39	0.45
NBC_MHEPL_125	335526	6260362	0.46	2.11	0.09	2.43	2.73	3.19	2.96	2.96	2.98	3.06	3.06	2.96	2.96	2.98	3.06	3.06	2.96	2.96	3.00	3.19	3.19	2.73	0.06	0.11	0.17	0.23	0.29	0.34	0.40	0.46
NBC_MHEPL_126	335555	6260392	0.47	2.11	0.09	2.43	2.73	3.20	2.96	2.96	2.99	3.07	3.07	2.96	2.96	2.99	3.07	3.07	2.96	2.96	3.00	3.20	3.20	2.73	0.06	0.12	0.18	0.24	0.30	0.36	0.41	0.47
NBC_MHEPL_127	335630	6260379	0.48	2.11	0.09	2.43	2.73	3.21	2.97	2.97	2.99	3.07	3.07	2.97	2.97	2.99	3.07	3.07	2.97	2.97	3.01	3.21	3.21	2.73	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_128	335674	6260338	0.47	2.11	0.09	2.43	2.73	3.20	2.96	2.96	2.99	3.07	3.07	2.96	2.96	2.99	3.07	3.07	2.96	2.96	3.00	3.20	3.20	2.73	0.06	0.12	0.18	0.24	0.29	0.35	0.41	0.47
NBC_MHEPL_129	335702	6260370	0.44	2.11	0.09	2.43	2.73	3.16	2.95	2.95	2.97	3.04	3.04	2.95	2.95	2.97	3.05	3.05	2.95	2.95	2.99	3.16	3.16	2.73	0.05	0.11	0.16	0.22	0.27	0.33	0.38	0.44
NBC_MHEPL_130	335730	6260402	0.46	1.87	0.09	2.43	2.73	3.19	2.96	2.96	2.98	3.06	3.06	2.96	2.96	2.98	3.03	3.03	2.96	2.96	3.00	3.19	3.19	2.73	0.06	0.11	0.17	0.23	0.29	0.34	0.40	0.46
NBC_MHEPL_131	335757	6260433	0.47	1.87	0.09	2.43	2.73	3.20	2.96	2.96	2.99	3.07	3.07	2.96	2.96	2.98	3.03	3.03	2.96	2.96	3.00	3.20	3.20	2.73	0.06	0.12	0.18	0.24	0.30	0.35	0.41	0.47
NBC_MHEPL_132	335714	6260471	0.48	1.87	0.09	2.43	2.73	3.21	2.97	2.97	3.00	3.08	3.08	2.97	2.97	2.99	3.04	3.04	2.97	2.97	3.01	3.21	3.21	2.73	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_133	335783	6260463	0.50	1.87	0.09	2.43	2.73	3.23	2.98	2.98	3.00	3.09	3.09	2.98	2.98	3.00	3.04	3.04	2.98	2.98	3.02	3.23	3.23	2.73	0.06	0.12	0.19	0.25	0.31	0.37	0.43	0.50
NBC_MHEPL_134	335826	6260427	0.48	1.87	0.09	2.43	2.73	3.21	2.97	2.97	2.99	3.07	3.07	2.97	2.97	2.99	3.03	3.03	2.97	2.97	3.01	3.21	3.21	2.73	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_135	335894	6260424	0.50	1.87	0.09	2.43	2.73	3.23	2.98	2.98	3.00	3.09	3.09	2.98	2.98	3.00	3.04	3.04	2.98	2.98	3.02	3.23	3.23	2.73	0.06	0.12	0.19	0.25	0.31	0.37	0.43	0.50
NBC_MHEPL_136	335961	6260425	0.53	1.87	0.09	2.43	2.73	3.26	3.00	3.00	3.02	3.11	3.11	3.00	3.00	3.01	3.05	3.05	3.00	3.00	3.04	3.26	3.26	2.73	0.07	0.13	0.20	0.27	0.33	0.40	0.47	0.53
NBC_MHEPL_137	335988	6260459	0.57	2.11	0.09	2.43	2.73	3.30	3.02	3.02	3.04	3.14	3.14	3.02	3.02	3.04	3.10	3.10	3.02	3.02	3.06	3.30	3.30	2.73	0.07	0.14	0.21	0.29	0.36	0.43	0.50	0.57
NBC_MHEPL_138	336052	6260461	0.61	2.40	0.09	2.43	2.73	3.34	3.03	3.03	3.06	3.17	3.17	3.03	3.03	3.06	3.16	3.16	3.03	3.03	3.07	3.32	3.34	2.73	0.08	0.15	0.23	0.30	0.38	0.46	0.53	0.61
NBC_MHEPL_139	336077	6260494	0.64	2.40	0.09	2.43	2.73	3.37	3.05	3.05	3.08	3.19	3.19	3.05	3.05	3.08	3.17	3.17	3.05	3.05	3.09	3.34	3.37	2.73	0.08	0.16	0.24	0.32	0.40	0.48	0.56	0.64
NBC_MHEPL_007	332305	6264553	0.19	1.13	0.38	2.72	3.02	3.21	3.11	3.11	3.11	3.16	3.16	3.11	3.11	3.11	3.14	3.14	3.11	3.11	3.11	3.21	3.21	3.02	0.02	0.05	0.07	0.10	0.12	0.14	0.17	0.19
NBC_MHEPL_140	336100	6260525	0.68	2.71	0.09	2.43	2.73	3.41	3.07	3.07	3.09	3.22	3.22	3.07	3.07	3.10	3.24	3.24	3.07	3.07	3.11	3.35	3.41	2.73	0.08	0.17	0.25	0.34	0.42	0.51	0.59	0.68
NBC_MHEPL_141	336123	6260557	0.70	2.71	0.09	2.43	2.73	3.43	3.08	3.08	3.11	3.23	3.23	3.08	3.08	3.11	3.25	3.25	3.08	3.08	3.12	3.37	3.43	2.73	0.09	0.18	0.26	0.35	0.44	0.53	0.61	0.70
NBC_MHEPL_142	336110	6260620	0.70	2.71	0.09	2.43	2.73	3.43	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.11	3.25	3.25	3.08	3.08	3.12	3.37	3.43	2.73	0.09	0.18	0.26	0.35	0.44	0.53	0.61	0.70
NBC_MHEPL_143	336138	6260656	0.71	2.71	0.09	2.43	2.73	3.44	3.09	3.09	3.11	3.24	3.24	3.09	3.09	3.11	3.26	3.26	3.09	3.09	3.13	3.37	3.44	2.73	0.09	0.18	0.27	0.35	0.44	0.53	0.62	0.71
NBC_MHEPL_144	336130	6260722	0.70	2.71	0.09	2.43	2.73	3.43	3.08	3.08	3.11	3.23	3.23	3.08	3.08	3.11	3.25	3.25	3.08	3.08	3.12	3.37	3.43	2.73	0.09	0.17	0.26	0.35	0.44	0.52	0.61	0.70
NBC_MHEPL_145	336158	6260757	0.70	3.08	0.09	2.43	2.73	3.43	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.12	3.31	3.32	3.08	3.08	3.12	3.37	3.43	2.73	0.09	0.18	0.26	0.35	0.44	0.53	0.61	0.70
NBC_MHEPL_146	336150	6260820	0.68	3.08	0.09	2.43	2.73	3.41	3.07	3.07	3.10	3.22	3.22	3.07	3.07	3.11	3.31	3.31	3.07	3.07	3.11	3.36	3.41	2.73	0.08	0.17	0.25	0.34	0.42	0.51	0.59	0.68
NBC_MHEPL_147	336155	6260897	0.69	3.08	0.10	2.44	2.74	3.43	3.08	3.08	3.11	3.23	3.23	3.08	3.08	3.11	3.31	3.32	3.08	3.08	3.12	3.37	3.43	2.74	0.09	0.17	0.26	0.35	0.43	0.52	0.61	0.69
NBC_MHEPL_148	336119	6260932	0.68	3.08	0.10	2.44	2.74	3.42	3.08	3.08	3.10	3.23	3.23	3.08	3.08	3.11	3.31	3.32	3.08	3.08	3.11	3.36	3.42	2.74	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.68
NBC_MHEPL_149	336172	6260988	0.67	3.08	0.10	2.44	2.74	3.41	3.07	3.07	3.10	3.22	3.22	3.07	3.07	3.10	3.31	3.31	3.07	3.07	3.11	3.35	3.41	2.74	0.08	0.17	0.25	0.34	0.42	0.50	0.59	0.67
NBC_MHEPL_008	332316	6264523	0.19	1.28	0.38	2.72	3.02	3.20	3.11	3.11	3.11	3.15	3.15	3.11	3.11	3.11	3.15	3.15	3.11	3.11	3.11	3.20	3.20	3.02	0.02	0.05	0.07	0.09	0.12	0.14	0.17	0.19
NBC_MHEPL_150	336134	6261026	0.71	3.08	0.10	2.44	2.74	3.44	3.09	3.09	3.12	3.25	3.25	3.09	3.09	3.12	3.32	3.33	3.09	3.09	3.13	3.37	3.44	2.74	0.09	0.18	0.27	0.35	0.44	0.53	0.62	0.71
NBC_MHEPL_151	336185	6261080	0.74	3.08	0.10	2.44	2.74	3.48	3.11	3.11	3.13	3.27	3.27	3.11	3.11	3.14	3.33	3.34	3.11	3.11	3.14	3.39	3.48	2.74	0.09	0.18	0.28	0.37	0.46	0.55	0.65	0.74
NBC_MHEPL_152	336185	6261080	0.74	3.08	0.10	2.44	2.74	3.48	3.11	3.11	3.13	3.27	3.27	3.11	3.11	3.14	3.33	3.34	3.11	3.11	3.14	3.39	3.48	2.74	0.09	0.18	0.28	0.37	0.46	0.55	0.65	0.74
NBC_MHEPL_153	336234	6261134	0.74	3.08	0.10	2.44	2.74	3.48	3.11	3.11	3.14	3.27	3.27	3.11	3.11	3.14	3.33	3.35	3.11	3.11	3.15	3.39	3.48	2.74	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74
NBC_MHEPL_154	336191	6261174	0.72	2.71	0.10	2.44	2.74	3.46	3.10	3.10	3.12	3.26	3.26	3.10	3.10	3.13	3.27	3.27	3.10	3.10	3.14	3.38	3.46	2.74	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_155	336145	6261217	0.70	2.71	0.10	2.44	2.74	3.44	3.09	3.09	3.11	3.24	3.24	3.09	3.09	3.12	3.26	3.26	3.09	3.09	3.13	3.37	3.44	2.74	0.09	0.17	0.26	0.35	0.44	0.52	0.61	0.70
NBC_MHEPL_156	336193	6261269	0.66	2.71	0.10	2.44	2.74	3.41	3.07	3.07	3.10	3.22	3.22	3.07	3.07	3.10	3.25	3.25	3.07	3.07	3.11	3.35	3.41	2.74	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.66
NBC_MHEPL_157	336146	6261313	0.57	2.71	0.10	2.44	2.74	3.31	3.03	3.03	3.05	3.15	3.15	3.03	3.03	3.05	3.21	3.21	3.03	3.03	3.06	3.31	3.31	2.74	0.07	0.14	0.21	0.28	0.35	0.43	0.50	0.57
NBC_MHEPL_158	336094	6261362	0.54	2.71	0.10	2.44	2.74	3.28	3.01	3.01	3.03	3.13	3.13	3.01	3.01	3.04	3.20	3.20	3.01	3.01	3.05	3.28	3.28	2.74	0.07	0.13	0.20	0.27	0.34	0.40	0.47	0.54
NBC_MHEPL_159	336085	6261464	0.52	2.71	0.11	2.45	2.75	3.27	3.01	3.01	3.03	3.12	3.12	3.01	3.01	3.04	3.20	3.20	3.01	3.01	3.04	3.27	3.27	2.75	0.06	0.13	0.19	0.26	0.32	0.39	0.45	0.52
NBC_MHEPL_160	336038	6261414	0.48	2.71	0.11	2.45	2.75	3.23	2.99	2.99	3.01	3.09	3.09	2.99	2.99	3.02	3.18	3.18	2.99	2.99	3.02	3.23	3.23	2.75	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_161	335982	6261468	0.42	2.71	0.12	2.46	2.76	3.17	2.96	2.96	2.98	3.06	3.06	2.96	2.96	2.99	3.16	3.16	2.96	2.96	2.99	3.17	3.17	2.76	0.05	0.10	0.16	0.21	0.26	0.31	0.37	0.42
NBC_MHEPL_162	336102	6261711	0.50	2.40	0.16	2.50	2.80	3.30	3.05	3.05	3.05	3.16	3.16	3.05	3.05	3.05	3.19	3.19	3.05	3.05	3.05	3.30	3.30	2.80	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50
NBC_MHEPL_163	336159	6261658	0.50	2.11	0.15	2.49	2.79	3.29	3.04	3.04	3.05	3.15	3.15	3.04	3.04	3.05	3.14	3.14	3.04	3.04	3.05	3.29	3.29	2.79	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50
NBC_MHEPL_164	336117	6261612	0.52	2.40	0.14	2.48	2.78	3.30	3.04	3.04	3.05	3.15	3.15	3.04	3.04	3.05	3.18	3.18	3.04	3.04	3.05	3.30	3.30	2.78	0.06	0.13	0.19	0.26	0.32	0.39	0.45	0.52
NBC_MHEPL_165	336174	6261560	0.51	2.40	0.13	2.47	2.77	3.28	3.03	3.03	3.04	3.14	3.14	3.03	3.03	3.04	3.17	3.17	3.03	3.03	3.05	3.28	3.28	2.77	0.06	0.13	0.19	0.26	0.32	0.38	0.45	0.51
NBC_MHEPL_166	336130	6261512	0.55	2.71	0.12	2.46	2.76	3.31	3.04	3.04	3.05	3.16	3.16	3.04	3.04	3.06	3.22	3.22	3.04	3.04	3.06	3.31	3.31	2.76	0.07	0.14	0.21	0.28	0.35	0.42	0.48	0.55
NBC_MHEPL_167	336141	6261412	0.58	2.71	0.11	2.45	2.75	3.33	3.04	3.04	3.06	3.17	3.17	3.04	3.04	3.06	3.22	3.22	3.04	3.04	3.07	3.31	3.33	2.75	0.07	0.15	0.22	0.29	0.36	0.44	0.51	0.58
NBC_MHEPL_168	336192	6261364	0.62	2.71	0.10	2.44	2.74	3.37	3.06	3.06	3.08	3.19	3.19	3.06	3.06	3.08	3.24	3.24	3.06	3.06	3.09	3.33	3.37	2.74	0.08	0.16	0.23	0.31	0.39	0.47	0.55	0.62
NBC_MHEPL_169	336239	6261227	0.72	2.71	0.10	2.44	2.74	3.46	3.10	3.10	3.13	3.26	3.26	3.10	3.10	3.13	3.27	3.27	3.10	3.10	3.14	3.38	3.46	2.74	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_170	336283	6261188	0.71	2.71	0.10	2.44	2.74	3.45	3.10	3.10	3.12	3.25	3.25	3.10	3.10	3.12	3.26	3.26	3.10	3.10	3.13	3.38	3.45	2.74	0.09	0.18	0.27	0.36	0.44	0.53	0.62	0.71
NBC_MHEPL_171	336321	6261155	0.65	2.71	0.10	2.44	2.74	3.39	3.07	3.07	3.09	3.21	3.21	3.07	3.07	3.09	3.24	3.24	3.07	3.07	3.10	3.35	3.39	2.74	0.08	0.16	0.25	0.33	0.41	0.49	0.57	0.65
NBC_MHEPL_172	336273	6261099	0.67	2.71	0.10	2.44	2.74	3.41	3.07	3.07	3.10	3.22	3.22	3.07	3.07	3.10	3.25	3.25	3.07	3.07	3.11	3.36	3.41	2.74	0.08	0.17	0.25	0.34	0.42	0.50	0.59	0.67
NBC_MHEPL_173	336309	6261068	0.67	2.71	0.10	2.44	2.74	3.40	3.07	3.07	3.10	3.22	3.22	3.07	3.07	3.10	3.25	3.25	3.07	3.07	3.11	3.35	3.40	2.74	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.67
NBC_MHEPL_009	332399	6264382	0.17	1.28	0.36	2.70	3.00	3.17	3.09	3.09	3.09	3.13	3.13	3.09	3.09	3.09	3.13	3.13	3.09	3.09	3.09	3.17	3.17	3.00	0.02	0.04	0.06	0.08	0.11	0.13	0.15	0.17
NBC_MHEPL_174	336259	6261012	0.67	2.71	0.10	2.44	2.74	3.40	3.07	3.07	3.09	3.22	3.22	3.07	3.07	3.10	3.25	3.25	3.07	3.07	3.11	3.35	3.40	2.74	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.67
NBC_MHEPL_175	336294	6260982	0.66	2.71	0.10	2.44	2.74	3.39	3.06	3.06	3.09	3.21	3.21	3.06	3.06	3.09	3.24	3.24	3.06	3.06	3.10	3.35	3.39	2.74	0.08	0.16	0.25	0.33	0.41	0.49	0.57	0.66
NBC_MHEPL_176	336243	6260923	0.67	2.71	0.10	2.44	2.74	3.41	3.07	3.07	3.10	3.22	3.22	3.07	3.07	3.10	3.25	3.25	3.07	3.07	3.11	3.35	3.41	2.74	0.08	0.17	0.25	0.33	0.42	0.50	0.59	0.67

100yr ARI Planning Levels - 0.9m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.90** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)														Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																			
									1					2				3				4							
									Crest Level (mAHD)																			
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0.9 m Sea Level Projection	0.9 m Sea Level Projection																							
NBC_MHEPL_177	336277	6260894	0.69	2.71	0.10	2.44	2.74	3.42	3.08	3.08	3.10	3.23	3.23	3.08	3.08	3.11	3.25	3.25	3.08	3.08	3.12	3.36	3.42	2.74	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.69
NBC_MHEPL_178	336259	6260804	0.69	2.71	0.09	2.43	2.73	3.43	3.08	3.08	3.11	3.23	3.23	3.08	3.08	3.11	3.25	3.25	3.08	3.08	3.12	3.37	3.43	2.73	0.09	0.17	0.26	0.35	0.43	0.52	0.61	0.69
NBC_MHEPL_179	336292	6260776	0.66	2.71	0.09	2.43	2.73	3.40	3.07	3.07	3.09	3.21	3.21	3.07	3.07	3.09	3.24	3.24	3.07	3.07	3.10	3.35	3.40	2.73	0.08	0.17	0.25	0.33	0.41	0.50	0.58	0.66
NBC_MHEPL_180	336325	6260750	0.65	2.71	0.09	2.43	2.73	3.38	3.06	3.06	3.08	3.20	3.20	3.06	3.06	3.09	3.23	3.23	3.06	3.06	3.10	3.34	3.38	2.73	0.08	0.16	0.24	0.32	0.40	0.49	0.57	0.65
NBC_MHEPL_181	336263	6260670	0.68	2.71	0.09	2.43	2.73	3.41	3.07	3.07	3.10	3.22	3.22	3.07	3.07	3.10	3.24	3.24	3.07	3.07	3.11	3.35	3.41	2.73	0.08	0.17	0.25	0.34	0.42	0.51	0.59	0.68
NBC_MHEPL_182	336274	6260608	0.69	2.71	0.09	2.43	2.73	3.42	3.07	3.07	3.10	3.23	3.23	3.07	3.07	3.10	3.25	3.25	3.07	3.07	3.11	3.36	3.42	2.73	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.69
NBC_MHEPL_183	336249	6260573	0.73	3.08	0.09	2.43	2.73	3.46	3.09	3.09	3.12	3.25	3.25	3.09	3.09	3.13	3.32	3.33	3.09	3.09	3.14	3.38	3.46	2.73	0.09	0.18	0.27	0.36	0.45	0.55	0.64	0.73
NBC_MHEPL_184	336288	6260545	0.73	3.08	0.09	2.43	2.73	3.46	3.10	3.10	3.12	3.26	3.26	3.10	3.10	3.13	3.32	3.33	3.10	3.10	3.14	3.38	3.46	2.73	0.09	0.18	0.27	0.37	0.46	0.55	0.64	0.73
NBC_MHEPL_185	336305	6260480	0.75	3.08	0.09	2.43	2.73	3.48	3.10	3.10	3.13	3.27	3.27	3.10	3.10	3.14	3.32	3.34	3.10	3.10	3.14	3.39	3.48	2.73	0.09	0.19	0.28	0.37	0.47	0.56	0.65	0.75
NBC_MHEPL_186	336280	6260445	0.76	3.08	0.09	2.43	2.73	3.49	3.11	3.11	3.14	3.27	3.27	3.11	3.11	3.14	3.33	3.34	3.11	3.11	3.15	3.39	3.49	2.73	0.09	0.19	0.28	0.38	0.47	0.57	0.66	0.76
NBC_MHEPL_187	336323	6260414	0.77	3.08	0.09	2.43	2.73	3.50	3.11	3.11	3.14	3.28	3.28	3.11	3.11	3.15	3.33	3.35	3.11	3.11	3.16	3.40	3.50	2.73	0.10	0.19	0.29	0.38	0.48	0.58	0.67	0.77
NBC_MHEPL_188	336363	6260383	0.77	3.08	0.09	2.43	2.73	3.50	3.11	3.11	3.14	3.28	3.28	3.11	3.11	3.15	3.33	3.35	3.11	3.11	3.16	3.40	3.50	2.73	0.10	0.19	0.29	0.39	0.48	0.58	0.67	0.77
NBC_MHEPL_189	336377	6260320	0.78	3.08	0.09	2.43	2.73	3.51	3.12	3.12	3.15	3.29	3.29	3.12	3.12	3.15	3.33	3.35	3.12	3.12	3.16	3.41	3.51	2.73	0.10	0.20	0.29	0.39	0.49	0.59	0.69	0.78
NBC_MHEPL_190	336416	6260291	0.80	3.48	0.09	2.43	2.73	3.53	3.13	3.13	3.16	3.30	3.30	3.13	3.13	3.17	3.38	3.45	3.13	3.13	3.17	3.42	3.53	2.73	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_191	336478	6260297	0.81	3.48	0.09	2.43	2.73	3.54	3.13	3.13	3.16	3.31	3.31	3.13	3.13	3.17	3.39	3.45	3.13	3.13	3.18	3.42	3.54	2.73	0.10	0.20	0.30	0.41	0.51	0.61	0.71	0.81
NBC_MHEPL_192	336516	6260271	0.81	3.48	0.09	2.43	2.73	3.54	3.13	3.13	3.16	3.31	3.31	3.13	3.13	3.17	3.39	3.45	3.13	3.13	3.18	3.42	3.54	2.73	0.10	0.20	0.31	0.41	0.51	0.61	0.71	0.81
NBC_MHEPL_193	336531	6260211	0.80	3.48	0.09	2.43	2.73	3.53	3.13	3.13	3.16	3.30	3.30	3.13	3.13	3.17	3.38	3.45	3.13	3.13	3.17	3.42	3.53	2.73	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_194	336570	6260186	0.81	3.08	0.09	2.43	2.73	3.53	3.13	3.13	3.16	3.30	3.31	3.13	3.13	3.16	3.34	3.36	3.13	3.13	3.17	3.42	3.53	2.73	0.10	0.20	0.30	0.40	0.50	0.61	0.71	0.81
NBC_MHEPL_195	336591	6260125	0.81	3.08	0.08	2.42	2.72	3.54	3.13	3.13	3.16	3.31	3.31	3.13	3.13	3.16	3.34	3.36	3.13	3.13	3.18	3.42	3.54	2.72	0.10	0.20	0.30	0.41	0.51	0.61	0.71	0.81
NBC_MHEPL_196	336612	6260063	0.81	3.08	0.08	2.42	2.72	3.54	3.13	3.13	3.16	3.31	3.31	3.13	3.13	3.17	3.34	3.36	3.13	3.13	3.18	3.42	3.54	2.72	0.10	0.20	0.30	0.41	0.51	0.61	0.71	0.81
NBC_MHEPL_197	336592	6260029	0.84	3.08	0.08	2.42	2.72	3.56	3.14	3.14	3.17	3.32	3.33	3.14	3.14	3.18	3.35	3.37	3.14	3.14	3.19	3.43	3.56	2.72	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_198	336636	6260003	0.84	3.08	0.08	2.42	2.72	3.56	3.14	3.14	3.17	3.32	3.33	3.14	3.14	3.18	3.35	3.37	3.14	3.14	3.19	3.43	3.56	2.72	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_199	336659	6259943	0.84	3.08	0.08	2.42	2.72	3.56	3.14	3.14	3.17	3.32	3.32	3.14	3.14	3.18	3.35	3.37	3.14	3.14	3.19	3.43	3.56	2.72	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_200	336682	6259883	0.83	3.08	0.08	2.42	2.72	3.55	3.13	3.13	3.17	3.31	3.32	3.13	3.13	3.17	3.34	3.36	3.13	3.13	3.18	3.43	3.55	2.72	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_201	336725	6259857	0.80	3.08	0.08	2.42	2.72	3.52	3.12	3.12	3.15	3.30	3.30	3.12	3.12	3.16	3.33	3.35	3.12	3.12	3.17	3.41	3.52	2.72	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_202	336689	6259794	0.79	3.08	0.08	2.42	2.72	3.51	3.12	3.12	3.15	3.29	3.29	3.12	3.12	3.15	3.33	3.35	3.12	3.12	3.16	3.41	3.51	2.72	0.10	0.20	0.30	0.40	0.49	0.59	0.69	0.79
NBC_MHEPL_203	336674	6259766	0.77	2.71	0.08	2.42	2.72	3.49	3.11	3.11	3.14	3.27	3.27	3.11	3.11	3.14	3.27	3.27	3.11	3.11	3.15	3.40	3.49	2.72	0.10	0.19	0.29	0.38	0.48	0.58	0.67	0.77
NBC_MHEPL_204	336703	6259716	0.71	2.71	0.08	2.42	2.72	3.43	3.08	3.08	3.11	3.23	3.23	3.08	3.08	3.11	3.25	3.25	3.08	3.08	3.12	3.37	3.43	2.72	0.09	0.18	0.27	0.36	0.44	0.53	0.62	0.71
NBC_MHEPL_205	336690	6259689	0.70	2.71	0.08	2.42	2.72	3.42	3.07	3.07	3.10	3.22	3.22	3.07	3.07	3.10	3.24	3.24	3.07	3.07	3.11	3.36	3.42	2.72	0.09	0.17	0.26	0.35	0.44	0.52	0.61	0.70
NBC_MHEPL_206	336708	6259612	0.66	2.71	0.08	2.42	2.72	3.38	3.05	3.05	3.08	3.20	3.20	3.05	3.05	3.08	3.23	3.23	3.05	3.05	3.10	3.34	3.38	2.72	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.66
NBC_MHEPL_207	336696	6259584	0.66	2.71	0.08	2.42	2.72	3.38	3.05	3.05	3.08	3.20	3.20	3.05	3.05	3.08	3.23	3.23	3.05	3.05	3.10	3.34	3.38	2.72	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.66
NBC_MHEPL_208	336670	6259522	0.63	2.71	0.08	2.42	2.72	3.35	3.03	3.03	3.06	3.17	3.17	3.03	3.03	3.07	3.21	3.21	3.03	3.03	3.08	3.32	3.35	2.72	0.08	0.16	0.24	0.31	0.39	0.47	0.55	0.63
NBC_MHEPL_209	336697	6259475	0.60	2.71	0.08	2.42	2.72	3.32	3.02	3.02	3.05	3.15	3.15	3.02	3.02	3.05	3.20	3.20	3.02	3.02	3.06	3.31	3.32	2.72	0.07	0.15	0.22	0.30	0.37	0.45	0.52	0.60
NBC_MHEPL_210	336669	6259409	0.61	3.08	0.08	2.42	2.72	3.32	3.02	3.02	3.05	3.15	3.15	3.02	3.02	3.06	3.27	3.27	3.02	3.02	3.07	3.31	3.32	2.72	0.08	0.15	0.23	0.30	0.38	0.45	0.53	0.61
NBC_MHEPL_211	336615	6259391	0.65	3.08	0.08	2.42	2.72	3.37	3.04	3.04	3.07	3.19	3.19	3.04	3.04	3.08	3.29	3.29	3.04	3.04	3.09	3.33	3.37	2.72	0.08	0.16	0.24	0.32	0.41	0.49	0.57	0.65
NBC_MHEPL_212	336599	6259355	0.73	3.08	0.08	2.42	2.72	3.45	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.12	3.31	3.32	3.08	3.08	3.13	3.38	3.45	2.72	0.09	0.18	0.27	0.37	0.46	0.55	0.64	0.73
NBC_MHEPL_213	336584	6259321	0.80	3.08	0.08	2.42	2.72	3.51	3.12	3.12	3.15	3.29	3.29	3.12	3.12	3.15	3.33	3.35	3.12	3.12	3.16	3.41	3.51	2.72	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_214	336557	6259265	0.82	3.08	0.07	2.41	2.71	3.54	3.13	3.13	3.16	3.31	3.31	3.13	3.13	3.16	3.34	3.36	3.13	3.13	3.18	3.42	3.54	2.71	0.10	0.21	0.31	0.41	0.51	0.62	0.72	0.82
NBC_MHEPL_215	336587	6259221	0.82	3.08	0.07	2.41	2.71	3.53	3.12	3.12	3.16	3.30	3.30	3.12	3.12	3.16	3.33	3.35	3.12	3.12	3.17	3.42	3.53	2.71	0.10	0.20	0.31	0.41	0.51	0.61	0.72	0.82
NBC_MHEPL_216	336628	6259205	0.81	3.08	0.08	2.42	2.72	3.52	3.12	3.12	3.15	3.30	3.30	3.12	3.12	3.16	3.33	3.35	3.12	3.12	3.17	3.41	3.52	2.72	0.10	0.20	0.30	0.40	0.50	0.61	0.71	0.81
NBC_MHEPL_217	336618	6259177	0.80	3.08	0.07	2.41	2.71	3.52	3.12	3.12	3.15	3.29	3.29	3.12	3.12	3.15	3.33	3.35	3.12	3.12	3.17	3.41	3.52	2.71	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_218	336657	6259126	0.80	3.08	0.07	2.41	2.71	3.51	3.11	3.11	3.14	3.29	3.29	3.11	3.11	3.15	3.33	3.34	3.11	3.11	3.16	3.41	3.51	2.71	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_219	336701	6259068	0.78	3.08	0.07	2.41	2.71	3.49	3.10	3.10	3.14	3.27	3.27	3.10	3.10	3.14	3.32	3.34	3.10	3.10	3.15	3.40	3.49	2.71	0.10	0.19	0.29	0.39	0.49	0.58	0.68	0.78
NBC_MHEPL_220	336771	6259079	0.75	2.71	0.07	2.41	2.71	3.46	3.09	3.09	3.12	3.25	3.25	3.09	3.09	3.12	3.25	3.25	3.09	3.09	3.14	3.38	3.46	2.71	0.09	0.19	0.28	0.38	0.47	0.56	0.66	0.75
NBC_MHEPL_221	336806	6259023	0.71	2.71	0.07	2.41	2.71	3.43	3.07	3.07	3.10	3.23	3.23	3.07	3.07	3.10	3.24	3.24	3.07	3.07	3.12	3.36	3.43	2.71	0.09	0.18	0.27	0.36	0.45	0.54	0.62	0.71
NBC_MHEPL_222	336792	6258989	0.71	2.71	0.07	2.41	2.71	3.42	3.07	3.07	3.10	3.22	3.22	3.07	3.07	3.10	3.24	3.24	3.07	3.07	3.12	3.36	3.42	2.71	0.09	0.18	0.27	0.36	0.44	0.53	0.62	0.71
NBC_MHEPL_223	336779	6258957	0.70	2.71	0.07	2.41	2.71	3.41	3.06	3.06	3.09	3.21	3.21	3.06	3.06	3.10	3.23	3.23	3.06	3.06	3.11	3.36	3.41	2.71	0.09	0.17	0.26	0.35	0.44	0.52	0.61	0.70
NBC_MHEPL_224	336813	6258909	0.66	2.71	0.07	2.41	2.71	3.37	3.04	3.04	3.07	3.19	3.19	3.04	3.04	3.08	3.22	3.22	3.04	3.04	3.09	3.34	3.37	2.71	0.08	0.17	0.25	0.33	0.41	0.50	0.58	0.66
NBC_MHEPL_225	336844	6258864	0.60	2.40	0.07	2.41	2.71	3.31	3.01	3.01	3.04	3.14	3.14	3.01	3.01	3.04	3.14	3.14	3.01	3.01	3.06	3.31	3.31	2.71	0.07	0.15	0.22	0.30	0.37	0.45	0.52	0.60
NBC_MHEPL_226	336888	6258851	0.58	2.40	0.07	2.41	2.71	3.29	3.00	3.00	3.03	3.13	3.13	3.00	3.00	3.03	3.13	3.13	3.00	3.00	3.05	3.29	3.29	2.71	0.07	0.14	0.22	0.29	0.36	0.43	0.50	0.58
NBC_MHEPL_227	336920	6258786	0.57	2.11	0.07	2.41	2.71	3.28	3.00	3.00	3.03	3.12	3.12	3.00	3.00	3.02	3.08	3.08	3.00	3.00	3.05	3.28	3.28	2.71	0.07	0.14	0.21	0.29	0.36	0.43	0.50	0.57
NBC_MHEPL_228	336874	6258799	0.58	2.11	0.07	2.41	2.71	3.29	3.00	3.00	3.03	3.13	3.13	3.00	3.00	3.02	3.09	3.09	3.00	3.00	3.05	3.29	3.29	2.71	0.07	0.14	0.22	0.29	0.36	0.43	0.51	0.58
NBC_MHEPL_229	336854	6258728	0.58	2.11	0.07	2.41	2.71	3.29	3.00	3.00	3.03	3.12	3.12	3.00	3.00	3.02	3.08	3.08	3.00	3.00	3.05	3.29	3.29	2.71	0.07	0.14	0.22	0.29	0.36	0.43	0.50	0.58
NBC_MHEPL_230	336807	6258743	0.57	2.11	0.07	2.41	2.71	3.28	2.99	2.99	3.03	3.12	3.12	2.99	2.99	3.02	3.08	3.08	2.99	2.99	3.04	3.28	3.28	2.71	0.07	0.14	0.21	0.29	0.36	0.43	0.50	0.57
NBC_MHEPL_231	336787	6258677	0.56	2.11	0.07	2.41	2.71	3.27	2.99	2.99	3.02	3.11	3.11	2.99	2.99	3.01	3.08	3.08	2.99	2.99	3.04	3.27	3.27	2.71	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_232	336766	6258604	0.55	2.11	0.07	2.41	2.71	3.26	2.98	2.98	3.02	3.10	3.10	2.98	2.98	3.01	3.07	3.07	2.98	2.98	3.03	3.26	3.26	2.71	0.07	0.14	0.21	0.27	0.34	0.41	0.48	0.55

100yr ARI Planning Levels - 0.9m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.90** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)														Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																			
									1					2				3				4							
									Crest Level (mAHD)																			
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0.9 m Sea Level Projection	0.9 m Sea Level Projection																							
NBC_MHEPL_233	336715	6258621	0.55	2.40	0.07	2.41	2.71	3.26	2.98	2.98	3.01	3.10	3.10	2.98	2.98	3.02	3.12	3.12	2.98	2.98	3.03	3.26	3.26	2.71	0.07	0.14	0.20	0.27	0.34	0.41	0.48	0.55
NBC_MHEPL_234	336690	6258548	0.56	2.40	0.07	2.41	2.71	3.27	2.99	2.99	3.02	3.12	3.12	2.99	2.99	3.02	3.12	3.12	2.99	2.99	3.04	3.27	3.27	2.71	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56
NBC_MHEPL_235	336671	6258489	0.64	2.71	0.07	2.41	2.71	3.35	3.03	3.03	3.06	3.17	3.17	3.03	3.03	3.07	3.21	3.21	3.03	3.03	3.08	3.32	3.35	2.71	0.08	0.16	0.24	0.32	0.40	0.48	0.56	0.64
NBC_MHEPL_236	336615	6258509	0.71	2.71	0.07	2.41	2.71	3.42	3.06	3.06	3.10	3.22	3.22	3.06	3.06	3.10	3.23	3.23	3.06	3.06	3.11	3.36	3.42	2.71	0.09	0.18	0.27	0.35	0.44	0.53	0.62	0.71
NBC_MHEPL_237	336595	6258449	0.73	2.71	0.07	2.41	2.71	3.44	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.13	3.37	3.44	2.71	0.09	0.18	0.28	0.37	0.46	0.55	0.64	0.73
NBC_MHEPL_238	336515	6258400	0.76	2.71	0.07	2.41	2.71	3.47	3.09	3.09	3.12	3.26	3.26	3.09	3.09	3.12	3.25	3.25	3.09	3.09	3.14	3.39	3.47	2.71	0.10	0.19	0.29	0.38	0.48	0.57	0.67	0.76
NBC_MHEPL_239	336573	6258380	0.76	2.71	0.07	2.41	2.71	3.47	3.09	3.09	3.12	3.25	3.25	3.09	3.09	3.12	3.25	3.25	3.09	3.09	3.14	3.39	3.47	2.71	0.09	0.19	0.28	0.38	0.47	0.57	0.66	0.76
NBC_MHEPL_240	336553	6258320	0.77	2.71	0.07	2.41	2.71	3.48	3.09	3.09	3.13	3.26	3.26	3.09	3.09	3.13	3.26	3.26	3.09	3.09	3.15	3.39	3.48	2.71	0.10	0.19	0.29	0.39	0.48	0.58	0.67	0.77
NBC_MHEPL_241	336597	6258254	0.78	2.71	0.07	2.41	2.71	3.49	3.10	3.10	3.13	3.27	3.27	3.10	3.10	3.13	3.26	3.26	3.10	3.10	3.15	3.40	3.49	2.71	0.10	0.19	0.29	0.39	0.49	0.58	0.68	0.78
NBC_MHEPL_242	336583	6258205	0.78	2.71	0.07	2.41	2.71	3.49	3.10	3.10	3.13	3.27	3.27	3.10	3.10	3.13	3.26	3.26	3.10	3.10	3.15	3.40	3.49	2.71	0.10	0.20	0.29	0.39	0.49	0.59	0.68	0.78
NBC_MHEPL_243	336646	6258187	0.78	2.71	0.07	2.41	2.71	3.49	3.10	3.10	3.13	3.27	3.27	3.10	3.10	3.13	3.26	3.26	3.10	3.10	3.15	3.40	3.49	2.71	0.10	0.20	0.29	0.39	0.49	0.59	0.68	0.78
NBC_MHEPL_010	332541	6264155	0.16	1.28	0.34	2.68	2.98	3.14	3.06	3.06	3.06	3.10	3.10	3.06	3.06	3.06	3.10	3.10	3.06	3.06	3.06	3.14	3.14	2.98	0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16
NBC_MHEPL_244	336632	6258136	0.78	2.71	0.07	2.41	2.71	3.49	3.10	3.10	3.13	3.27	3.27	3.10	3.10	3.13	3.26	3.26	3.10	3.10	3.15	3.40	3.49	2.71	0.10	0.20	0.29	0.39	0.49	0.59	0.68	0.78
NBC_MHEPL_245	336701	6258118	0.77	2.71	0.07	2.41	2.71	3.48	3.09	3.09	3.13	3.27	3.27	3.09	3.09	3.13	3.26	3.26	3.09	3.09	3.15	3.39	3.48	2.71	0.10	0.19	0.29	0.39	0.48	0.58	0.68	0.77
NBC_MHEPL_246	336770	6258099	0.77	2.71	0.07	2.41	2.71	3.48	3.09	3.09	3.13	3.26	3.26	3.09	3.09	3.13	3.25	3.25	3.09	3.09	3.14	3.39	3.48	2.71	0.10	0.19	0.29	0.38	0.48	0.58	0.67	0.77
NBC_MHEPL_247	336833	6258082	0.75	2.71	0.07	2.41	2.71	3.46	3.08	3.08	3.12	3.25	3.25	3.08	3.08	3.12	3.25	3.25	3.08	3.08	3.14	3.38	3.46	2.71	0.09	0.19	0.28	0.38	0.47	0.57	0.66	0.75
NBC_MHEPL_248	336901	6258115	0.74	2.71	0.07	2.41	2.71	3.45	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.13	3.38	3.45	2.71	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74
NBC_MHEPL_249	336949	6258104	0.74	2.71	0.07	2.41	2.71	3.45	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.13	3.38	3.45	2.71	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74
NBC_MHEPL_250	337001	6258143	0.74	2.71	0.07	2.41	2.71	3.45	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.13	3.38	3.45	2.71	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74
NBC_MHEPL_251	337045	6258134	0.74	2.71	0.07	2.41	2.71	3.45	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.13	3.37	3.45	2.71	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74
NBC_MHEPL_252	337091	6258125	0.74	2.71	0.07	2.41	2.71	3.44	3.07	3.07	3.11	3.24	3.24	3.07	3.07	3.11	3.24	3.24	3.07	3.07	3.13	3.37	3.44	2.71	0.09	0.18	0.28	0.37	0.46	0.55	0.64	0.74
NBC_MHEPL_253	337136	6258117	0.73	2.71	0.07	2.41	2.71	3.44	3.07	3.07	3.11	3.23	3.23	3.07	3.07	3.11	3.24	3.24	3.07	3.07	3.12	3.37	3.44	2.71	0.09	0.18	0.27	0.37	0.46	0.55	0.64	0.73
NBC_MHEPL_254	337178	6258109	0.72	2.40	0.07	2.41	2.71	3.43	3.07	3.07	3.10	3.22	3.22	3.07	3.07	3.09	3.17	3.17	3.07	3.07	3.12	3.36	3.43	2.71	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_255	337227	6258153	0.72	2.40	0.07	2.41	2.71	3.42	3.06	3.06	3.10	3.22	3.22	3.06	3.06	3.09	3.17	3.17	3.06	3.06	3.12	3.36	3.42	2.71	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_256	337268	6258148	0.71	2.40	0.06	2.40	2.70	3.42	3.06	3.06	3.10	3.22	3.22	3.06	3.06	3.09	3.17	3.17	3.06	3.06	3.12	3.36	3.42	2.70	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.71
NBC_MHEPL_257	337311	6258143	0.72	2.40	0.06	2.40	2.70	3.43	3.07	3.07	3.10	3.22	3.22	3.07	3.07	3.09	3.17	3.17	3.07	3.07	3.12	3.36	3.43	2.70	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_258	337359	6258191	0.75	2.40	0.07	2.41	2.71	3.45	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.11	3.18	3.18	3.08	3.08	3.13	3.38	3.45	2.71	0.09	0.19	0.28	0.37	0.47	0.56	0.65	0.75
NBC_MHEPL_259	337364	6258242	0.75	2.40	0.07	2.41	2.71	3.46	3.09	3.09	3.12	3.25	3.25	3.09	3.09	3.11	3.19	3.19	3.09	3.09	3.14	3.38	3.46	2.71	0.09	0.19	0.28	0.38	0.47	0.56	0.66	0.75
NBC_MHEPL_260	337411	6258289	0.75	2.40	0.07	2.41	2.71	3.46	3.08	3.08	3.12	3.25	3.25	3.08	3.08	3.11	3.19	3.19	3.08	3.08	3.14	3.38	3.46	2.71	0.09	0.19	0.28	0.37	0.47	0.56	0.65	0.75
NBC_MHEPL_261	337414	6258339	0.72	2.40	0.07	2.41	2.71	3.43	3.07	3.07	3.11	3.23	3.23	3.07	3.07	3.10	3.18	3.18	3.07	3.07	3.12	3.37	3.43	2.71	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_262	337456	6258337	0.73	2.40	0.07	2.41	2.71	3.44	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.10	3.18	3.18	3.08	3.08	3.13	3.37	3.44	2.71	0.09	0.18	0.27	0.37	0.46	0.55	0.64	0.73
NBC_MHEPL_263	337500	6258387	0.76	2.40	0.07	2.41	2.71	3.47	3.09	3.09	3.12	3.26	3.26	3.09	3.09	3.12	3.19	3.19	3.09	3.09	3.14	3.39	3.47	2.71	0.09	0.19	0.28	0.38	0.47	0.57	0.66	0.76
NBC_MHEPL_264	337543	6258385	0.80	2.71	0.07	2.41	2.71	3.51	3.11	3.11	3.15	3.29	3.29	3.11	3.11	3.14	3.27	3.27	3.11	3.11	3.16	3.41	3.51	2.71	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_265	337585	6258436	0.84	2.71	0.08	2.42	2.72	3.55	3.13	3.13	3.17	3.31	3.32	3.13	3.13	3.16	3.28	3.28	3.13	3.13	3.18	3.43	3.55	2.72	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_266	337623	6258383	0.86	2.71	0.07	2.41	2.71	3.58	3.15	3.15	3.18	3.32	3.34	3.15	3.15	3.17	3.29	3.29	3.15	3.15	3.20	3.44	3.58	2.71	0.11	0.22	0.32	0.43	0.54	0.65	0.76	0.86
NBC_MHEPL_267	337664	6258384	0.87	2.71	0.07	2.41	2.71	3.58	3.15	3.15	3.18	3.33	3.34	3.15	3.15	3.18	3.29	3.29	3.15	3.15	3.20	3.45	3.58	2.71	0.11	0.22	0.33	0.44	0.54	0.65	0.76	0.87
NBC_MHEPL_268	337705	6258383	0.87	3.08	0.07	2.41	2.71	3.58	3.15	3.15	3.18	3.33	3.34	3.15	3.15	3.18	3.35	3.37	3.15	3.15	3.20	3.44	3.58	2.71	0.11	0.22	0.33	0.43	0.54	0.65	0.76	0.87
NBC_MHEPL_269	337746	6258383	0.86	3.08	0.07	2.41	2.71	3.57	3.14	3.14	3.18	3.32	3.33	3.14	3.14	3.18	3.35	3.37	3.14	3.14	3.19	3.44	3.57	2.71	0.11	0.22	0.32	0.43	0.54	0.65	0.75	0.86
NBC_MHEPL_270	337785	6258382	0.86	3.08	0.07	2.41	2.71	3.57	3.14	3.14	3.17	3.32	3.33	3.14	3.14	3.18	3.34	3.37	3.14	3.14	3.19	3.44	3.57	2.71	0.11	0.21	0.32	0.43	0.53	0.64	0.75	0.86
NBC_MHEPL_271	337824	6258382	0.85	3.08	0.07	2.41	2.71	3.56	3.14	3.14	3.17	3.32	3.33	3.14	3.14	3.18	3.34	3.36	3.14	3.14	3.19	3.43	3.56	2.71	0.11	0.21	0.32	0.43	0.53	0.64	0.75	0.85
NBC_MHEPL_272	337862	6258433	0.85	3.08	0.07	2.41	2.71	3.57	3.14	3.14	3.17	3.32	3.33	3.14	3.14	3.18	3.34	3.36	3.14	3.14	3.19	3.44	3.57	2.71	0.11	0.21	0.32	0.43	0.53	0.64	0.75	0.85
NBC_MHEPL_273	337899	6258433	0.85	3.08	0.07	2.41	2.71	3.56	3.14	3.14	3.17	3.32	3.33	3.14	3.14	3.18	3.34	3.36	3.14	3.14	3.19	3.43	3.56	2.71	0.11	0.21	0.32	0.43	0.53	0.64	0.74	0.85
NBC_MHEPL_274	337937	6258433	0.84	3.08	0.07	2.41	2.71	3.55	3.13	3.13	3.16	3.31	3.32	3.13	3.13	3.17	3.34	3.36	3.13	3.13	3.18	3.43	3.55	2.71	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_275	337976	6258433	0.80	2.71	0.07	2.41	2.71	3.52	3.11	3.11	3.15	3.29	3.29	3.11	3.11	3.15	3.27	3.27	3.11	3.11	3.16	3.41	3.52	2.71	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_276	337938	6258381	0.83	2.71	0.07	2.41	2.71	3.54	3.13	3.13	3.16	3.31	3.31	3.13	3.13	3.16	3.28	3.28	3.13	3.13	3.18	3.42	3.54	2.71	0.10	0.21	0.31	0.41	0.52	0.62	0.73	0.83
NBC_MHEPL_277	337938	6258329	0.84	2.71	0.07	2.41	2.71	3.55	3.13	3.13	3.16	3.31	3.31	3.13	3.13	3.16	3.28	3.28	3.13	3.13	3.18	3.43	3.55	2.71	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_278	337977	6258276	0.84	2.71	0.07	2.41	2.71	3.55	3.13	3.13	3.16	3.31	3.31	3.13	3.13	3.16	3.28	3.28	3.13	3.13	3.18	3.43	3.55	2.71	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_279	338016	6258276	0.83	2.71	0.07	2.41	2.71	3.54	3.12	3.12	3.16	3.30	3.30	3.12	3.12	3.15	3.28	3.28	3.12	3.12	3.18	3.42	3.54	2.71	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_280	338055	6258276	0.82	2.71	0.07	2.41	2.71	3.53	3.12	3.12	3.15	3.30	3.30	3.12	3.12	3.15	3.27	3.27	3.12	3.12	3.17	3.41	3.53	2.71	0.10	0.20	0.31	0.41	0.51	0.61	0.71	0.82
NBC_MHEPL_281	338094	6258276	0.80	2.71	0.07	2.41	2.71	3.51	3.11	3.11	3.14	3.28	3.28	3.11	3.11	3.14	3.27	3.27	3.11	3.11	3.16	3.41	3.51	2.71	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_282	338217	6258276	0.69	2.40	0.08	2.42	2.72	3.40	3.06	3.06	3.09	3.21	3.21	3.06	3.06	3.09	3.17	3.17	3.06	3.06	3.11	3.35	3.40	2.72	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.69
NBC_MHEPL_283	338175	6258222	0.72	2.40	0.07	2.41	2.71	3.43	3.07	3.07	3.10	3.23	3.23	3.07	3.07	3.10	3.18	3.18	3.07	3.07	3.12	3.37	3.43	2.71	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72
NBC_MHEPL_284	338218	6258222	0.71	2.40	0.07	2.41	2.71	3.42	3.07	3.07	3.10	3.23	3.23	3.07	3.07	3.09	3.18	3.18	3.07	3.07	3.12	3.36	3.42	2.71	0.09	0.18	0.27	0.36	0.45	0.54	0.62	0.71
NBC_MHEPL_285	338218	6258167	0.68	2.40	0.07	2.41	2.71	3.39	3.05	3.05	3.08	3.20	3.20	3.05	3.05	3.08	3.17	3.17	3.05	3.05	3.10	3.35	3.39	2.71	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.68
NBC_MHEPL_286	338218	6258112	0.65	2.40	0.07	2.41	2.71	3.35	3.03	3.03	3.06	3.17	3.17	3.03	3.03	3.06	3.15	3.15	3.03	3.03	3.08	3.33	3.35	2.71	0.08	0.16	0.24	0.32	0.40	0.48	0.56	0.65
NBC_MHEPL_287	338217	6258055	0.62	2.40	0.07	2.41	2.71	3.33	3.02	3.02	3.05	3.16	3.16	3.02	3.02	3.05	3.14	3.14	3.02	3.02	3.07	3.32	3.33	2.71	0.08	0.16	0.23	0.31	0.39	0.47	0.55	0.62

100yr ARI Planning Levels - 0.9m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.90** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																				
									1					2					3					4						
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0.9 m Sea Level Projection	0.9 m Sea Level Projection																								
NBC_MHEPL_288	338174	6258056	0.65	2.40	0.07	2.41	2.71	3.36	3.03	3.03	3.07	3.17	3.17	3.03	3.03	3.06	3.15	3.15	3.03	3.03	3.08	3.33	3.36	2.71	0.08	0.16	0.24	0.33	0.41	0.49	0.57	0.65
NBC_MHEPL_289	338131	6258003	0.69	2.40	0.07	2.41	2.71	3.39	3.05	3.05	3.08	3.20	3.20	3.05	3.05	3.08	3.16	3.16	3.05	3.05	3.10	3.35	3.39	2.71	0.09	0.17	0.26	0.34	0.43	0.52	0.60	0.69
NBC_MHEPL_290	338129	6257949	0.73	2.71	0.06	2.40	2.70	3.43	3.07	3.07	3.10	3.23	3.23	3.07	3.07	3.10	3.24	3.24	3.07	3.07	3.12	3.37	3.43	2.70	0.09	0.18	0.27	0.36	0.45	0.54	0.64	0.73
NBC_MHEPL_291	338090	6257950	0.76	2.71	0.07	2.41	2.71	3.47	3.09	3.09	3.12	3.26	3.26	3.09	3.09	3.12	3.25	3.25	3.09	3.09	3.14	3.39	3.47	2.71	0.10	0.19	0.29	0.38	0.48	0.57	0.67	0.76
NBC_MHEPL_011	332693	6263979	0.22	1.13	0.31	2.65	2.95	3.18	3.07	3.07	3.07	3.12	3.12	3.07	3.07	3.07	3.08	3.08	3.07	3.07	3.07	3.18	3.18	2.95	0.03	0.06	0.08	0.11	0.14	0.17	0.20	0.22
NBC_MHEPL_292	338088	6257896	0.79	3.08	0.07	2.41	2.71	3.50	3.10	3.10	3.14	3.28	3.28	3.10	3.10	3.14	3.32	3.33	3.10	3.10	3.16	3.40	3.50	2.71	0.10	0.20	0.30	0.40	0.50	0.59	0.69	0.79
NBC_MHEPL_293	338087	6257842	0.81	3.08	0.06	2.40	2.70	3.52	3.11	3.11	3.15	3.29	3.29	3.11	3.11	3.15	3.33	3.34	3.11	3.11	3.17	3.41	3.52	2.70	0.10	0.20	0.30	0.41	0.51	0.61	0.71	0.81
NBC_MHEPL_294	338085	6257788	0.82	3.08	0.06	2.40	2.70	3.53	3.12	3.12	3.15	3.30	3.30	3.12	3.12	3.16	3.33	3.34	3.12	3.12	3.17	3.42	3.53	2.70	0.10	0.21	0.31	0.41	0.51	0.62	0.72	0.82
NBC_MHEPL_295	338123	6257732	0.83	3.08	0.06	2.40	2.70	3.53	3.11	3.11	3.15	3.30	3.30	3.11	3.11	3.16	3.33	3.34	3.11	3.11	3.17	3.42	3.53	2.70	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_296	338165	6257731	0.83	3.08	0.06	2.40	2.70	3.53	3.11	3.11	3.15	3.30	3.30	3.11	3.11	3.16	3.33	3.34	3.11	3.11	3.17	3.42	3.53	2.70	0.10	0.21	0.31	0.42	0.52	0.62	0.73	0.83
NBC_MHEPL_297	338208	6257676	0.83	3.08	0.06	2.40	2.70	3.53	3.11	3.11	3.15	3.30	3.30	3.11	3.11	3.16	3.33	3.34	3.11	3.11	3.17	3.42	3.53	2.70	0.10	0.21	0.31	0.41	0.52	0.62	0.73	0.83
NBC_MHEPL_298	338207	6257623	0.83	3.08	0.06	2.40	2.70	3.53	3.11	3.11	3.15	3.30	3.30	3.11	3.11	3.16	3.33	3.34	3.11	3.11	3.17	3.42	3.53	2.70	0.10	0.21	0.31	0.42	0.52	0.62	0.73	0.83
NBC_MHEPL_299	338257	6257622	0.83	3.08	0.06	2.40	2.70	3.52	3.11	3.11	3.15	3.29	3.29	3.11	3.11	3.15	3.33	3.34	3.11	3.11	3.17	3.41	3.52	2.70	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_300	338309	6257567	0.82	3.08	0.06	2.40	2.70	3.52	3.11	3.11	3.15	3.29	3.29	3.11	3.11	3.15	3.32	3.34	3.11	3.11	3.17	3.41	3.52	2.70	0.10	0.20	0.31	0.41	0.51	0.61	0.72	0.82
NBC_MHEPL_301	338309	6257513	0.85	3.08	0.05	2.39	2.69	3.54	3.12	3.12	3.16	3.30	3.30	3.12	3.12	3.16	3.33	3.34	3.12	3.12	3.18	3.42	3.54	2.69	0.11	0.21	0.32	0.42	0.53	0.63	0.74	0.85
NBC_MHEPL_302	338310	6257458	0.86	3.08	0.05	2.39	2.69	3.55	3.12	3.12	3.16	3.31	3.31	3.12	3.12	3.17	3.33	3.35	3.12	3.12	3.18	3.43	3.55	2.69	0.11	0.21	0.32	0.43	0.54	0.64	0.75	0.86
NBC_MHEPL_303	338311	6257403	0.88	3.08	0.05	2.39	2.69	3.57	3.13	3.13	3.17	3.32	3.33	3.13	3.13	3.18	3.34	3.36	3.13	3.13	3.19	3.44	3.57	2.69	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.88
NBC_MHEPL_304	338365	6257403	0.89	3.08	0.06	2.40	2.70	3.58	3.14	3.14	3.18	3.32	3.33	3.14	3.14	3.18	3.34	3.36	3.14	3.14	3.20	3.44	3.58	2.70	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.89
NBC_MHEPL_305	338421	6257402	0.89	3.08	0.06	2.40	2.70	3.58	3.14	3.14	3.18	3.33	3.34	3.14	3.14	3.18	3.34	3.36	3.14	3.14	3.20	3.44	3.58	2.70	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.89
NBC_MHEPL_306	338478	6257402	0.88	3.08	0.06	2.40	2.70	3.58	3.14	3.14	3.18	3.33	3.34	3.14	3.14	3.18	3.34	3.36	3.14	3.14	3.20	3.44	3.58	2.70	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.88
NBC_MHEPL_307	338536	6257402	0.89	3.08	0.06	2.40	2.70	3.59	3.15	3.15	3.18	3.33	3.34	3.15	3.15	3.19	3.35	3.37	3.15	3.15	3.20	3.45	3.59	2.70	0.11	0.22	0.33	0.44	0.55	0.67	0.78	0.89
NBC_MHEPL_308	338536	6257346	0.90	3.08	0.06	2.40	2.70	3.60	3.15	3.15	3.19	3.33	3.35	3.15	3.15	3.19	3.35	3.37	3.15	3.15	3.21	3.45	3.60	2.70	0.11	0.22	0.34	0.45	0.56	0.67	0.78	0.90
NBC_MHEPL_309	338593	6257346	0.89	3.08	0.06	2.40	2.70	3.59	3.15	3.15	3.19	3.33	3.34	3.15	3.15	3.19	3.35	3.37	3.15	3.15	3.20	3.45	3.59	2.70	0.11	0.22	0.33	0.45	0.56	0.67	0.78	0.89
NBC_MHEPL_310	338649	6257345	0.88	3.08	0.06	2.40	2.70	3.59	3.15	3.15	3.18	3.33	3.34	3.15	3.15	3.19	3.35	3.37	3.15	3.15	3.20	3.45	3.59	2.70	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.88
NBC_MHEPL_311	338704	6257345	0.88	3.08	0.07	2.41	2.71	3.58	3.15	3.15	3.18	3.33	3.34	3.15	3.15	3.18	3.35	3.37	3.15	3.15	3.20	3.44	3.58	2.71	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.88
NBC_MHEPL_312	338757	6257344	0.87	3.08	0.07	2.41	2.71	3.58	3.14	3.14	3.18	3.33	3.34	3.14	3.14	3.18	3.35	3.37	3.14	3.14	3.20	3.44	3.58	2.71	0.11	0.22	0.33	0.43	0.54	0.65	0.76	0.87
NBC_MHEPL_313	338809	6257344	0.85	3.08	0.07	2.41	2.71	3.56	3.14	3.14	3.17	3.32	3.33	3.14	3.14	3.18	3.34	3.36	3.14	3.14	3.19	3.43	3.56	2.71	0.11	0.21	0.32	0.43	0.53	0.64	0.74	0.85
NBC_MHEPL_314	338861	6257289	0.84	3.08	0.07	2.41	2.71	3.55	3.13	3.13	3.16	3.31	3.31	3.13	3.13	3.17	3.34	3.36	3.13	3.13	3.18	3.43	3.55	2.71	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.84
NBC_MHEPL_315	338862	6257232	0.83	2.71	0.06	2.40	2.70	3.53	3.12	3.12	3.16	3.30	3.30	3.12	3.12	3.15	3.27	3.27	3.12	3.12	3.17	3.42	3.53	2.70	0.10	0.21	0.31	0.42	0.52	0.62	0.73	0.83
NBC_MHEPL_316	338912	6257172	0.83	2.71	0.06	2.40	2.70	3.53	3.11	3.11	3.15	3.29	3.29	3.11	3.11	3.15	3.26	3.26	3.11	3.11	3.17	3.42	3.53	2.70	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_317	338910	6257109	0.81	2.71	0.05	2.39	2.69	3.51	3.10	3.10	3.14	3.28	3.28	3.10	3.10	3.14	3.26	3.26	3.10	3.10	3.16	3.41	3.51	2.69	0.10	0.20	0.31	0.41	0.51	0.61	0.71	0.81
NBC_MHEPL_318	338958	6257106	0.80	2.71	0.05	2.39	2.69	3.49	3.09	3.09	3.13	3.27	3.27	3.09	3.09	3.13	3.25	3.25	3.09	3.09	3.15	3.40	3.49	2.69	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_319	338955	6257045	0.77	2.71	0.05	2.39	2.69	3.46	3.08	3.08	3.12	3.25	3.25	3.08	3.08	3.11	3.24	3.24	3.08	3.08	3.14	3.38	3.46	2.69	0.10	0.19	0.29	0.39	0.48	0.58	0.68	0.77
NBC_MHEPL_320	338951	6256989	0.77	2.71	0.04	2.38	2.68	3.45	3.07	3.07	3.11	3.24	3.24	3.07	3.07	3.11	3.23	3.23	3.07	3.07	3.13	3.38	3.45	2.68	0.10	0.19	0.29	0.38	0.48	0.58	0.67	0.77
NBC_MHEPL_321	338949	6256938	0.77	2.71	0.04	2.38	2.68	3.45	3.07	3.07	3.11	3.24	3.24	3.07	3.07	3.11	3.23	3.23	3.07	3.07	3.13	3.38	3.45	2.68	0.10	0.19	0.29	0.39	0.48	0.58	0.68	0.77
NBC_MHEPL_322	338947	6256887	0.78	2.71	0.04	2.38	2.68	3.46	3.07	3.07	3.11	3.24	3.24	3.07	3.07	3.11	3.23	3.23	3.07	3.07	3.13	3.38	3.46	2.68	0.10	0.19	0.29	0.39	0.49	0.58	0.68	0.78
NBC_MHEPL_323	338946	6256837	0.78	2.71	0.03	2.37	2.67	3.46	3.06	3.06	3.11	3.24	3.24	3.06	3.06	3.11	3.22	3.22	3.06	3.06	3.13	3.38	3.46	2.67	0.10	0.20	0.29	0.39	0.49	0.59	0.68	0.78
NBC_MHEPL_324	338945	6256787	0.80	2.71	0.04	2.38	2.68	3.48	3.08	3.08	3.12	3.25	3.25	3.08	3.08	3.12	3.23	3.23	3.08	3.08	3.15	3.39	3.48	2.68	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
NBC_MHEPL_325	338945	6256736	0.86	2.71	0.03	2.37	2.67	3.53	3.10	3.10	3.14	3.29	3.29	3.10	3.10	3.14	3.24	3.24	3.10	3.10	3.17	3.42	3.53	2.67	0.11	0.22	0.32	0.43	0.54	0.65	0.76	0.86
NBC_MHEPL_326	339045	6256633	0.89	2.71	0.03	2.37	2.67	3.56	3.12	3.12	3.16	3.31	3.31	3.12	3.12	3.15	3.26	3.26	3.12	3.12	3.19	3.43	3.56	2.67	0.11	0.22	0.33	0.45	0.56	0.67	0.78	0.89
NBC_MHEPL_327	339096	6256633	0.90	2.71	0.03	2.37	2.67	3.57	3.12	3.12	3.17	3.31	3.32	3.12	3.12	3.16	3.26	3.26	3.12	3.12	3.19	3.44	3.57	2.67	0.11	0.22	0.34	0.45	0.56	0.67	0.79	0.90
NBC_MHEPL_328	339147	6256633	0.90	2.71	0.03	2.37	2.67	3.57	3.12	3.12	3.17	3.31	3.32	3.12	3.12	3.16	3.26	3.26	3.12	3.12	3.19	3.44	3.57	2.67	0.11	0.23	0.34	0.45	0.56	0.68	0.79	0.90
NBC_MHEPL_329	339198	6256632	0.92	2.71	0.03	2.37	2.67	3.58	3.12	3.12	3.17	3.32	3.33	3.12	3.12	3.16	3.26	3.26	3.12	3.12	3.20	3.44	3.58	2.67	0.11	0.23	0.34	0.46	0.57	0.69	0.80	0.92
NBC_MHEPL_330	339248	6256632	0.93	2.71	0.03	2.37	2.67	3.60	3.13	3.13	3.18	3.33	3.34	3.13	3.13	3.17	3.27	3.27	3.13	3.13	3.21	3.45	3.60	2.67	0.12	0.23	0.35	0.47	0.58	0.70	0.82	0.93
NBC_MHEPL_012	332679	6263782	0.17	1.45	0.30	2.64	2.94	3.11	3.02	3.02	3.02	3.06	3.06	3.02	3.02	3.02	3.08	3.08	3.02	3.02	3.02	3.11	3.11	2.94	0.02	0.04	0.07	0.09	0.11	0.13	0.15	0.17
NBC_MHEPL_331	339249	6256682	0.96	3.08	0.03	2.37	2.67	3.62	3.15	3.15	3.19	3.34	3.36	3.15	3.15	3.19	3.34	3.36	3.15	3.15	3.22	3.47	3.62	2.67	0.12	0.24	0.36	0.48	0.60	0.72	0.84	0.96
NBC_MHEPL_332	339300	6256732	0.98	3.08	0.03	2.37	2.67	3.65	3.16	3.16	3.21	3.35	3.37	3.16	3.16	3.20	3.35	3.37	3.16	3.16	3.23	3.48	3.65	2.67	0.12	0.24	0.37	0.49	0.61	0.73	0.86	0.98
NBC_MHEPL_333	339300	6256782	0.99	3.08	0.03	2.37	2.67	3.66	3.17	3.17	3.21	3.36	3.38	3.17	3.17	3.21	3.35	3.37	3.17	3.17	3.24	3.48	3.66	2.67	0.12	0.25	0.37	0.50	0.62	0.75	0.87	0.99
NBC_MHEPL_334	339301	6256832	0.99	3.08	0.03	2.37	2.67	3.66	3.17	3.17	3.22	3.36	3.39	3.17	3.17	3.21	3.35	3.37	3.17	3.17	3.24	3.49	3.66	2.67	0.12	0.25	0.37	0.50	0.62	0.75	0.87	0.99
NBC_MHEPL_335	339301	6256881	0.97	3.08	0.03	2.37	2.67	3.64	3.16	3.16	3.20	3.35	3.37	3.16	3.16	3.20	3.35	3.37	3.16	3.16	3.23	3.47	3.64	2.67	0.12	0.24	0.36	0.49	0.61	0.73	0.85	0.97
NBC_MHEPL_336	339302	6256931	0.97	3.08	0.03	2.37	2.67	3.64	3.16	3.16	3.21	3.35	3.37	3.16	3.16	3.21	3.35	3.37	3.16	3.16	3.23	3.48	3.64	2.67	0.12	0.24	0.36	0.48	0.61	0.73	0.85	0.97
NBC_MHEPL_337	339302	6256980	1.00	3.08	0.04	2.38	2.68	3.68	3.18	3.18	3.22	3.37	3.40	3.18	3.18	3.22	3.36	3.38	3.18	3.18	3.25	3.49	3.68	2.68	0.12	0.25	0.37	0.50	0.62	0.75	0.87	1.00
NBC_MHEPL_338	339353	6256980	1.03	3.08	0.03	2.37	2.67	3.70	3.19	3.19	3.23	3.38	3.41	3.19	3.19	3.23	3.37	3.39	3.19	3.19	3.26	3.50	3.70	2.67	0.13	0.26	0.39	0.51	0.64	0.77	0.90	1.03
NBC_MHEPL_339	339403	6257029	1.03	3.48	0.04	2.38	2.68	3.71	3.19	3.19	3.24	3.38	3.42	3.19	3.19	3.25	3.42	3.49	3.19	3.19	3.26	3.51	3.71	2.68	0.13	0.26	0.39	0.51	0.64	0.77	0.90	1.03
NBC_MHEPL_340	339404	6257079	1.07	3.48	0.04	2.38	2.68	3.75	3.21	3.21	3.26	3.41	3.45	3.21	3.21	3.27	3.44	3.51	3.21	3.21	3.28	3.53	3.75	2.68	0.13	0.27	0.40	0.53	0.67	0.80	0.93	1.07
NBC_MHEPL_341	339454	6257079	1.05	3.48	0.04	2.38	2.68	3.73	3.20	3.20	3.25	3.39	3.43	3.20	3.20	3.26	3.43	3.50	3.20	3.20	3.27	3.52	3.73	2.68	0.13	0.26	0.39	0.52	0.66	0.79	0.92	1.05

100yr ARI Planning Levels - 0.9m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.90** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)														Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																			
									1					2				3				4							
									Crest Level (mAHD)																			
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0.9 m Sea Level Projection	0.9 m Sea Level Projection																							
NBC_MHEPL_342	339554	6257129	1.08	3.48	0.03	2.37	2.67	3.75	3.21	3.21	3.26	3.41	3.45	3.21	3.21	3.27	3.44	3.51	3.21	3.21	3.28	3.53	3.75	2.67	0.13	0.27	0.40	0.54	0.67	0.81	0.94	1.08
NBC_MHEPL_343	339654	6257178	1.13	3.48	0.03	2.37	2.67	3.80	3.24	3.24	3.29	3.43	3.49	3.24	3.24	3.29	3.45	3.53	3.24	3.24	3.31	3.56	3.80	2.67	0.14	0.28	0.42	0.56	0.70	0.85	0.99	1.13
NBC_MHEPL_344	339704	6257178	1.17	3.48	0.03	2.37	2.67	3.82	3.26	3.26	3.31	3.45	3.51	3.26	3.26	3.31	3.47	3.54	3.26	3.26	3.33	3.58	3.82	2.67	0.14	0.29	0.43	0.57	0.72	0.86	1.00	1.15
NBC_MHEPL_345	339754	6257228	1.19	3.48	0.04	2.38	2.68	3.83	3.27	3.27	3.32	3.46	3.53	3.27	3.27	3.32	3.47	3.55	3.27	3.27	3.34	3.59	3.83	2.68	0.14	0.29	0.43	0.58	0.72	0.87	1.01	1.16
NBC_MHEPL_346	339804	6257278	1.15	3.48	0.04	2.38	2.68	3.81	3.25	3.25	3.30	3.45	3.51	3.25	3.25	3.30	3.46	3.54	3.25	3.25	3.32	3.57	3.81	2.68	0.14	0.28	0.43	0.57	0.71	0.85	1.00	1.14
NBC_MHEPL_347	339804	6257328	1.14	3.48	0.04	2.38	2.68	3.81	3.25	3.25	3.30	3.44	3.50	3.25	3.25	3.30	3.46	3.54	3.25	3.25	3.32	3.57	3.81	2.68	0.14	0.28	0.42	0.57	0.71	0.85	0.99	1.13
NBC_MHEPL_348	339804	6257378	1.13	3.48	0.05	2.39	2.69	3.81	3.25	3.25	3.30	3.44	3.50	3.25	3.25	3.30	3.46	3.54	3.25	3.25	3.32	3.56	3.81	2.69	0.14	0.28	0.42	0.56	0.70	0.84	0.98	1.12
NBC_MHEPL_349	339854	6257379	1.17	3.48	0.05	2.39	2.69	3.83	3.27	3.27	3.32	3.46	3.53	3.27	3.27	3.32	3.48	3.56	3.27	3.27	3.34	3.59	3.83	2.69	0.14	0.29	0.43	0.57	0.72	0.86	1.00	1.14
NBC_MHEPL_350	339904	6257379	1.17	3.48	0.05	2.39	2.69	3.83	3.27	3.27	3.32	3.46	3.53	3.27	3.27	3.32	3.48	3.56	3.27	3.27	3.34	3.59	3.83	2.69	0.14	0.29	0.43	0.57	0.72	0.86	1.00	1.15
NBC_MHEPL_351	339954	6257379	1.22	3.48	0.04	2.38	2.68	3.85	3.29	3.29	3.34	3.48	3.56	3.29	3.29	3.34	3.49	3.57	3.29	3.29	3.36	3.61	3.85	2.68	0.15	0.29	0.44	0.58	0.73	0.87	1.02	1.17
NBC_MHEPL_352	340004	6257329	1.23	3.95	0.04	2.38	2.68	3.86	3.30	3.30	3.34	3.49	3.57	3.30	3.30	3.36	3.55	3.71	3.30	3.30	3.37	3.61	3.86	2.68	0.15	0.29	0.44	0.59	0.74	0.88	1.03	1.18
NBC_MHEPL_353	340105	6257279	1.20	3.48	0.03	2.37	2.67	3.84	3.27	3.27	3.32	3.47	3.53	3.27	3.27	3.32	3.48	3.55	3.27	3.27	3.35	3.59	3.84	2.67	0.15	0.29	0.44	0.58	0.73	0.88	1.02	1.17
NBC_MHEPL_354	340155	6257229	1.33	3.95	0.02	2.36	2.66	3.90	3.33	3.33	3.38	3.53	3.62	3.33	3.33	3.39	3.57	3.73	3.33	3.33	3.41	3.65	3.90	2.66	0.15	0.31	0.46	0.62	0.77	0.93	1.08	1.24
NBC_MHEPL_355	340205	6257229	1.37	3.95	0.02	2.36	2.66	3.92	3.35	3.35	3.40	3.55	3.65	3.35	3.35	3.41	3.59	3.74	3.35	3.35	3.43	3.67	3.92	2.66	0.16	0.31	0.47	0.63	0.79	0.94	1.10	1.26
NBC_MHEPL_013	332816	6263730	0.25	1.28	0.29	2.63	2.93	3.18	3.06	3.06	3.06	3.11	3.11	3.06	3.06	3.06	3.09	3.09	3.06	3.06	3.06	3.18	3.18	2.93	0.03	0.06	0.09	0.12	0.16	0.19	0.22	0.25
NBC_MHEPL_356	340255	6257279	1.40	3.95	0.03	2.37	2.67	3.94	3.37	3.37	3.42	3.57	3.68	3.37	3.37	3.43	3.60	3.76	3.37	3.37	3.45	3.69	3.94	2.67	0.16	0.32	0.48	0.64	0.79	0.95	1.11	1.27
NBC_MHEPL_357	340305	6257329	1.46	3.95	0.03	2.37	2.67	3.97	3.40	3.40	3.45	3.60	3.72	3.40	3.40	3.46	3.63	3.79	3.40	3.40	3.48	3.72	3.97	2.67	0.16	0.32	0.49	0.65	0.81	0.97	1.14	1.30
NBC_MHEPL_358	340305	6257380	2.10	12.96	0.03	2.37	2.67	4.58	3.72	3.72	3.84	4.21	4.58	3.72	3.72	3.84	4.20	4.57	3.72	3.72	3.80	4.05	4.29	2.67	0.24	0.48	0.72	0.95	1.19	1.43	1.67	1.91
NBC_MHEPL_359	340355	6257430	2.10	12.96	0.03	2.37	2.67	4.58	3.72	3.72	3.84	4.21	4.58	3.72	3.72	3.84	4.20	4.57	3.72	3.72	3.81	4.05	4.30	2.67	0.24	0.48	0.72	0.95	1.19	1.43	1.67	1.91
NBC_MHEPL_360	340355	6257480	1.77	3.95	0.03	2.37	2.67	4.13	3.56	3.56	3.61	3.76	3.90	3.56	3.56	3.61	3.74	3.88	3.56	3.56	3.64	3.88	4.13	2.67	0.18	0.36	0.55	0.73	0.91	1.09	1.27	1.45
NBC_MHEPL_361	340355	6257530	1.67	3.95	0.04	2.38	2.68	4.08	3.51	3.51	3.56	3.71	3.86	3.51	3.51	3.56	3.71	3.85	3.51	3.51	3.59	3.83	4.08	2.68	0.18	0.35	0.53	0.70	0.88	1.05	1.23	1.40
NBC_MHEPL_362	340406	6257579	1.67	3.95	0.04	2.38	2.68	4.08	3.51	3.51	3.56	3.71	3.85	3.51	3.51	3.56	3.71	3.85	3.51	3.51	3.59	3.83	4.08	2.68	0.18	0.35	0.53	0.70	0.88	1.05	1.23	1.40
NBC_MHEPL_363	340406	6257629	1.63	3.95	0.04	2.38	2.68	4.06	3.49	3.49	3.54	3.69	3.84	3.49	3.49	3.55	3.69	3.84	3.49	3.49	3.57	3.81	4.06	2.68	0.17	0.35	0.52	0.69	0.86	1.04	1.21	1.38
NBC_MHEPL_364	340406	6257679	1.45	3.95	0.04	2.38	2.68	3.97	3.40	3.40	3.45	3.60	3.72	3.40	3.40	3.46	3.63	3.79	3.40	3.40	3.48	3.72	3.97	2.68	0.16	0.32	0.48	0.65	0.81	0.97	1.13	1.29
NBC_MHEPL_365	340406	6257728	1.36	3.95	0.04	2.38	2.68	3.92	3.36	3.36	3.41	3.55	3.66	3.36	3.36	3.42	3.59	3.76	3.36	3.36	3.43	3.68	3.92	2.68	0.16	0.31	0.47	0.62	0.78	0.93	1.09	1.25
NBC_MHEPL_014	332860	6263715	0.29	1.45	0.29	2.63	2.93	3.22	3.08	3.08	3.08	3.14	3.14	3.08	3.08	3.08	3.12	3.12	3.08	3.08	3.08	3.22	3.22	2.93	0.04	0.07	0.11	0.14	0.18	0.21	0.25	0.29
NBC_MHEPL_366	340406	6257778	1.30	3.95	0.04	2.38	2.68	3.89	3.33	3.33	3.38	3.52	3.62	3.33	3.33	3.39	3.57	3.73	3.33	3.33	3.40	3.65	3.89	2.68	0.15	0.30	0.45	0.61	0.76	0.91	1.06	1.21
NBC_MHEPL_367	340406	6257828	1.22	3.95	0.04	2.38	2.68	3.85	3.29	3.29	3.34	3.48	3.56	3.29	3.29	3.35	3.55	3.70	3.29	3.29	3.36	3.61	3.85	2.68	0.15	0.29	0.44	0.59	0.73	0.88	1.03	1.17
NBC_MHEPL_368	340356	6257828	0.94	3.95	0.04	2.38	2.68	3.61	3.14	3.14	3.19	3.34	3.35	3.14	3.14	3.21	3.44	3.57	3.14	3.14	3.21	3.46	3.61	2.68	0.12	0.23	0.35	0.47	0.59	0.70	0.82	0.94
NBC_MHEPL_369	340306	6257878	0.78	3.95	0.04	2.38	2.68	3.50	3.07	3.07	3.12	3.29	3.29	3.07	3.07	3.14	3.40	3.50	3.07	3.07	3.14	3.38	3.46	2.68	0.10	0.20	0.31	0.41	0.51	0.61	0.71	0.82
NBC_MHEPL_370	340256	6257878	0.79	3.95	0.04	2.38	2.68	3.50	3.07	3.07	3.12	3.29	3.29	3.07	3.07	3.14	3.40	3.50	3.07	3.07	3.14	3.38	3.47	2.68	0.10	0.20	0.31	0.41	0.51	0.61	0.72	0.82
NBC_MHEPL_371	340256	6257928	0.84	3.95	0.04	2.38	2.68	3.53	3.10	3.10	3.15	3.31	3.32	3.10	3.10	3.17	3.41	3.53	3.10	3.10	3.17	3.41	3.52	2.68	0.11	0.21	0.32	0.42	0.53	0.63	0.74	0.85
NBC_MHEPL_372	340206	6258029	0.80	3.95	0.04	2.38	2.68	3.51	3.08	3.08	3.13	3.30	3.30	3.08	3.08	3.15	3.40	3.51	3.08	3.08	3.15	3.39	3.49	2.68	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_373	340156	6258029	0.72	3.95	0.04	2.38	2.68	3.47	3.04	3.04	3.09	3.27	3.27	3.04	3.04	3.11	3.38	3.47	3.04	3.04	3.11	3.35	3.40	2.68	0.10	0.20	0.29	0.39	0.49	0.59	0.69	0.79
NBC_MHEPL_015	332878	6263668	0.31	1.45	0.29	2.63	2.93	3.24	3.08	3.08	3.08	3.15	3.15	3.08	3.08	3.08	3.12	3.12	3.08	3.08	3.08	3.24	3.24	2.93	0.04	0.08	0.12	0.15	0.19	0.23	0.27	0.31
NBC_MHEPL_374	340106	6258129	0.89	15.35	0.04	2.38	2.68	4.05	3.13	3.13	3.23	3.64	4.05	3.13	3.13	3.22	3.59	3.96	3.13	3.13	3.19	3.44	3.57	2.68	0.17	0.34	0.51	0.69	0.86	1.03	1.20	1.37
NBC_MHEPL_375	340056	6258179	1.01	14.36	0.04	2.38	2.68	4.12	3.19	3.19	3.30	3.71	4.12	3.19	3.19	3.29	3.65	4.02	3.19	3.19	3.26	3.50	3.70	2.68	0.18	0.36	0.54	0.72	0.90	1.08	1.25	1.43
NBC_MHEPL_376	340006	6258179	1.08	14.40	0.04	2.38	2.68	4.15	3.22	3.22	3.33	3.74	4.15	3.22	3.22	3.32	3.68	4.05	3.22	3.22	3.29	3.53	3.76	2.68	0.18	0.37	0.55	0.73	0.92	1.10	1.28	1.47
NBC_MHEPL_377	340006	6258229	1.46	14.40	0.05	2.39	2.69	4.34	3.42	3.42	3.52	3.93	4.34	3.42	3.42	3.51	3.88	4.25	3.42	3.42	3.49	3.73	3.98	2.69	0.21	0.41	0.62	0.82	1.03	1.24	1.44	1.65
NBC_MHEPL_378	339956	6258229	2.11	14.40	0.05	2.39	2.69	4.62	3.74	3.74	3.85	4.24	4.62	3.74	3.74	3.85	4.21	4.58	3.74	3.74	3.82	4.06	4.31	2.69	0.24	0.48	0.73	0.97	1.21	1.45	1.69	1.94
NBC_MHEPL_379	339906	6258279	2.11	14.29	0.05	2.39	2.69	4.62	3.74	3.74	3.85	4.24	4.62	3.74	3.74	3.85	4.21	4.58	3.74	3.74	3.82	4.06	4.31	2.69	0.24	0.48	0.73	0.97	1.21	1.45	1.69	1.93
NBC_MHEPL_380	339906	6258329	2.11	13.65	0.05	2.39	2.69	4.61	3.74	3.74	3.85	4.23	4.61	3.74	3.74	3.85	4.21	4.58	3.74	3.74	3.82	4.06	4.31	2.69	0.24	0.48	0.72	0.96	1.20	1.44	1.68	1.92
NBC_MHEPL_381	339906	6258379	2.11	12.19	0.05	2.39	2.69	4.58	3.74	3.74	3.85	4.21	4.57	3.74	3.74	3.85	4.21	4.58	3.74	3.74	3.82	4.06	4.31	2.69	0.24	0.47	0.71	0.95	1.18	1.42	1.65	1.89
NBC_MHEPL_382	339906	6258429	2.11	13.63	0.05	2.39	2.69	4.61	3.75	3.75	3.85	4.23	4.61	3.75	3.75	3.85	4.21	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.72	0.96	1.20	1.44	1.68	1.92
NBC_MHEPL_383	339856	6258479	2.11	13.23	0.05	2.39	2.69	4.60	3.75	3.75	3.85	4.23	4.60	3.75	3.75	3.85	4.22	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.72	0.95	1.19	1.43	1.67	1.91
NBC_MHEPL_016	332816	6263647	0.28	1.45	0.29	2.63	2.93	3.21	3.07	3.07	3.07	3.13	3.13	3.07	3.07	3.07	3.11	3.11	3.07	3.07	3.07	3.21	3.21	2.93	0.03	0.07	0.10	0.14	0.17	0.21	0.24	0.28
NBC_MHEPL_384	339856	6258529	2.11	14.89	0.06	2.40	2.70	4.64	3.75	3.75	3.86	4.25	4.64	3.75	3.75	3.85	4.22	4.58	3.75	3.75	3.82	4.07	4.31	2.70	0.24	0.49	0.73	0.97	1.21	1.46	1.70	1.94
NBC_MHEPL_385	339806	6258579	2.12	13.95	0.06	2.40	2.70	4.62	3.76	3.76	3.86	4.24	4.62	3.76	3.76	3.85	4.22	4.59	3.76	3.76	3.83	4.07	4.32	2.70	0.24	0.48	0.72	0.96	1.20	1.44	1.68	1.92
NBC_MHEPL_386	339806	6258629	2.12	14.41	0.06	2.40	2.70	4.63	3.76	3.76	3.86	4.25	4.63	3.76	3.76	3.85	4.22	4.59	3.76	3.76	3.83	4.08	4.32	2.70	0.24	0.48	0.72	0.97	1.21	1.45	1.69	1.93
NBC_MHEPL_387	339756	6258629	2.12	13.13	0.06	2.40	2.70	4.60	3.76	3.76	3.86	4.23	4.60	3.76	3.76	3.85	4.22	4.59	3.76	3.76	3.83	4.08	4.32	2.70	0.24	0.48	0.71	0.95	1.19	1.43	1.66	1.90
NBC_MHEPL_388	339756	6258679	2.12	13.79	0.07	2.41	2.71	4.62	3.77	3.77	3.86	4.24	4.62	3.77	3.77	3.86	4.22	4.59	3.77	3.77	3.83	4.08	4.32	2.71	0.24	0.48	0.72	0.96	1.20	1.44	1.68	1.92
NBC_MHEPL_389	339706	6258729	2.12	13.39	0.07	2.41	2.71	4.61	3.77	3.77	3.86	4.23	4.61	3.77	3.77	3.86	4.22	4.59	3.77	3.77	3.83	4.08	4.32	2.71	0.24	0.48	0.71	0.95	1.19	1.43	1.67	1.91
NBC_MHEPL_390	339656	6258729	2.12	13.13	0.06	2.40	2.70	4.60	3.76	3.76	3.86	4.23	4.60	3.76	3.76	3.86	4.22	4.59	3.76	3.76	3.83	4.08	4.32	2.70	0.24	0.47	0.71	0.95	1.19	1.42	1.66	1.90
NBC_MHEPL_391	339606	6258779	2.12	14.30	0.07	2.41	2.71	4.63	3.77	3.77	3.86	4.25	4.63	3.77	3.77	3.86	4.23	4.59	3.77	3.77	3.84	4.08	4.33	2.71	0.24	0.48	0.72	0.96	1.20	1.44	1.68	1.92
NBC_MHEPL_392	339556	6258779	2.13	13.13	0.07	2.41	2.71	4.61	3.77	3.77	3.86	4.23	4.61	3.77	3.77	3.86	4.23	4.59	3.77	3.77	3.84	4.08	4.33	2.71	0.24	0.47	0.71	0.95	1.19	1.42	1.66	1.90
NBC_MHEPL_393	339506	6258729	2.11	13.13	0.05	2.39	2.69	4.60	3.75	3.75	3.85	4.22	4.60	3.75	3.75	3.85	4.22	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.71	0.95	1.19	1.43	1.67	1.90

100yr ARI Planning Levels - 0.9m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.90** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																				
									1					2					3					4						
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0.9 m Sea Level Projection	0.9 m Sea Level Projection																								
NBC_MHEPL_017	332759	6263626	0.19	1.65	0.29	2.63	2.93	3.12	3.02	3.02	3.02	3.07	3.07	3.02	3.02	3.02	3.10	3.10	3.02	3.02	3.02	3.12	3.12	2.93	0.02	0.05	0.07	0.10	0.12	0.15	0.17	0.19
NBC_MHEPL_394	339456	6258779	2.07	13.21	0.00	2.34	2.64	4.57	3.68	3.68	3.82	4.19	4.57	3.68	3.68	3.81	4.18	4.55	3.68	3.68	3.78	4.02	4.27	2.64	0.24	0.48	0.72	0.96	1.21	1.45	1.69	1.93
NBC_MHEPL_395	339506	6258779	2.13	14.28	0.07	2.41	2.71	4.64	3.78	3.78	3.86	4.25	4.64	3.78	3.78	3.86	4.23	4.60	3.78	3.78	3.84	4.09	4.33	2.71	0.24	0.48	0.72	0.96	1.20	1.44	1.68	1.92
NBC_MHEPL_396	339556	6258829	2.13	13.49	0.08	2.42	2.72	4.62	3.78	3.78	3.87	4.24	4.62	3.78	3.78	3.87	4.23	4.60	3.78	3.78	3.85	4.09	4.34	2.72	0.24	0.48	0.71	0.95	1.19	1.43	1.66	1.90
NBC_MHEPL_397	339556	6258829	2.13	12.84	0.08	2.42	2.72	4.60	3.78	3.78	3.87	4.23	4.60	3.78	3.78	3.87	4.23	4.60	3.78	3.78	3.85	4.09	4.34	2.72	0.24	0.47	0.71	0.94	1.18	1.41	1.65	1.89
NBC_MHEPL_398	339606	6258829	2.13	14.02	0.07	2.41	2.71	4.63	3.78	3.78	3.86	4.25	4.63	3.78	3.78	3.86	4.23	4.60	3.78	3.78	3.84	4.09	4.33	2.71	0.24	0.48	0.72	0.96	1.20	1.44	1.68	1.92
NBC_MHEPL_399	339656	6258829	2.12	13.65	0.07	2.41	2.71	4.62	3.77	3.77	3.86	4.24	4.62	3.77	3.77	3.86	4.23	4.59	3.77	3.77	3.84	4.08	4.33	2.71	0.24	0.48	0.72	0.96	1.19	1.43	1.67	1.91
NBC_MHEPL_400	339706	6258879	2.13	14.06	0.07	2.41	2.71	4.63	3.78	3.78	3.86	4.25	4.63	3.78	3.78	3.86	4.23	4.60	3.78	3.78	3.84	4.09	4.33	2.71	0.24	0.48	0.72	0.96	1.20	1.44	1.68	1.92
NBC_MHEPL_401	339706	6258829	2.12	15.28	0.07	2.41	2.71	4.65	3.77	3.77	3.86	4.26	4.65	3.77	3.77	3.86	4.22	4.59	3.77	3.77	3.83	4.08	4.32	2.71	0.24	0.49	0.73	0.97	1.22	1.46	1.70	1.95
NBC_MHEPL_402	339706	6258779	2.12	12.98	0.07	2.41	2.71	4.60	3.77	3.77	3.86	4.23	4.60	3.77	3.77	3.86	4.22	4.59	3.77	3.77	3.83	4.08	4.32	2.71	0.24	0.47	0.71	0.95	1.18	1.42	1.66	1.89
NBC_MHEPL_403	339756	6258779	2.12	15.28	0.07	2.41	2.71	4.65	3.77	3.77	3.86	4.26	4.65	3.77	3.77	3.86	4.22	4.59	3.77	3.77	3.83	4.08	4.32	2.71	0.24	0.49	0.73	0.97	1.22	1.46	1.70	1.95
NBC_MHEPL_018	332723	6263611	0.33	1.65	0.28	2.62	2.92	3.25	3.09	3.09	3.09	3.16	3.16	3.09	3.09	3.09	3.15	3.15	3.09	3.09	3.09	3.25	3.25	2.92	0.04	0.08	0.12	0.16	0.20	0.25	0.29	0.33
NBC_MHEPL_404	339806	6258729	1.94	15.28	0.07	2.41	2.71	4.57	3.67	3.67	3.77	4.17	4.57	3.67	3.67	3.76	4.13	4.50	3.67	3.67	3.74	3.99	4.23	2.71	0.23	0.47	0.70	0.93	1.16	1.40	1.63	1.86
NBC_MHEPL_405	339856	6258729	1.88	15.28	0.06	2.40	2.70	4.54	3.64	3.64	3.74	4.14	4.54	3.64	3.64	3.73	4.10	4.47	3.64	3.64	3.71	3.95	4.20	2.70	0.23	0.46	0.69	0.92	1.15	1.38	1.61	1.84
NBC_MHEPL_406	339906	6258729	2.12	14.88	0.06	2.40	2.70	4.64	3.76	3.76	3.86	4.25	4.64	3.76	3.76	3.86	4.22	4.59	3.76	3.76	3.83	4.08	4.32	2.70	0.24	0.48	0.73	0.97	1.21	1.45	1.70	1.94
NBC_MHEPL_407	339956	6258679	2.12	13.49	0.06	2.40	2.70	4.61	3.76	3.76	3.86	4.23	4.61	3.76	3.76	3.85	4.22	4.59	3.76	3.76	3.83	4.08	4.32	2.70	0.24	0.48	0.72	0.95	1.19	1.43	1.67	1.91
NBC_MHEPL_408	339956	6258629	2.12	14.38	0.06	2.40	2.70	4.63	3.76	3.76	3.86	4.24	4.63	3.76	3.76	3.85	4.22	4.59	3.76	3.76	3.83	4.07	4.32	2.70	0.24	0.48	0.72	0.97	1.21	1.45	1.69	1.93
NBC_MHEPL_409	340006	6258629	2.12	13.61	0.06	2.40	2.70	4.61	3.76	3.76	3.85	4.23	4.61	3.76	3.76	3.85	4.22	4.59	3.76	3.76	3.83	4.07	4.32	2.70	0.24	0.48	0.72	0.96	1.20	1.44	1.67	1.91
NBC_MHEPL_410	340056	6258579	2.11	13.37	0.05	2.39	2.69	4.60	3.75	3.75	3.85	4.23	4.60	3.75	3.75	3.85	4.22	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.72	0.95	1.19	1.43	1.67	1.91
NBC_MHEPL_411	340106	6258529	2.11	13.36	0.05	2.39	2.69	4.60	3.75	3.75	3.85	4.23	4.60	3.75	3.75	3.85	4.22	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.72	0.96	1.19	1.43	1.67	1.91
NBC_MHEPL_412	340156	6258529	2.11	13.36	0.05	2.39	2.69	4.60	3.75	3.75	3.85	4.23	4.60	3.75	3.75	3.85	4.21	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.72	0.96	1.19	1.43	1.67	1.91
NBC_MHEPL_413	340206	6258529	2.11	13.36	0.05	2.39	2.69	4.60	3.75	3.75	3.85	4.23	4.60	3.75	3.75	3.85	4.21	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.72	0.96	1.19	1.43	1.67	1.91
NBC_MHEPL_019	332687	6263597	0.32	1.65	0.28	2.62	2.92	3.25	3.08	3.08	3.08	3.16	3.16	3.08	3.08	3.08	3.15	3.15	3.08	3.08	3.08	3.25	3.25	2.92	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32
NBC_MHEPL_414	340206	6258579	2.11	13.47	0.05	2.39	2.69	4.61	3.75	3.75	3.85	4.23	4.61	3.75	3.75	3.85	4.22	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.72	0.96	1.20	1.44	1.67	1.91
NBC_MHEPL_415	340256	6258579	2.11	13.47	0.05	2.39	2.69	4.61	3.75	3.75	3.85	4.23	4.61	3.75	3.75	3.85	4.22	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.72	0.96	1.20	1.43	1.67	1.91
NBC_MHEPL_416	340306	6258629	2.12	14.21	0.06	2.40	2.70	4.63	3.76	3.76	3.86	4.24	4.63	3.76	3.76	3.85	4.22	4.59	3.76	3.76	3.83	4.07	4.32	2.70	0.24	0.48	0.72	0.96	1.20	1.45	1.69	1.93
NBC_MHEPL_417	340356	6258629	2.12	13.15	0.06	2.40	2.70	4.60	3.76	3.76	3.85	4.23	4.60	3.76	3.76	3.85	4.22	4.59	3.76	3.76	3.83	4.07	4.32	2.70	0.24	0.48	0.71	0.95	1.19	1.43	1.66	1.90
NBC_MHEPL_418	340356	6258579	2.11	14.11	0.05	2.39	2.69	4.62	3.75	3.75	3.85	4.24	4.62	3.75	3.75	3.85	4.22	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.72	0.96	1.20	1.45	1.69	1.93
NBC_MHEPL_419	340406	6258579	2.11	14.42	0.05	2.39	2.69	4.63	3.75	3.75	3.85	4.24	4.63	3.75	3.75	3.85	4.22	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.73	0.97	1.21	1.45	1.69	1.93
NBC_MHEPL_420	340456	6258579	2.11	14.42	0.05	2.39	2.69	4.63	3.75	3.75	3.85	4.24	4.63	3.75	3.75	3.85	4.22	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.73	0.97	1.21	1.45	1.69	1.93
NBC_MHEPL_421	340506	6258579	2.11	14.42	0.05	2.39	2.69	4.63	3.75	3.75	3.85	4.24	4.63	3.75	3.75	3.85	4.22	4.58	3.75	3.75	3.82	4.07	4.31	2.69	0.24	0.48	0.73	0.97	1.21	1.45	1.69	1.93
NBC_MHEPL_422	340506	6258629	2.11	14.42	0.06	2.40	2.70	4.63	3.75	3.75	3.85	4.24	4.63	3.75	3.75	3.85	4.22	4.58	3.75	3.75	3.82	4.07	4.31	2.70	0.24	0.48	0.72	0.97	1.21	1.45	1.69	1.93
NBC_MHEPL_423	340556	6258629	2.12	14.42	0.06	2.40	2.70	4.63	3.75	3.75	3.86	4.24	4.63	3.75	3.75	3.85	4.22	4.59	3.75	3.75	3.83	4.07	4.32	2.70	0.24	0.48	0.72	0.97	1.21	1.45	1.69	1.93
NBC_MHEPL_020	332643	6263554	0.34	1.65	0.28	2.62	2.92	3.26	3.09	3.09	3.09	3.16	3.16	3.09	3.09	3.09	3.15	3.15	3.09	3.09	3.09	3.26	3.26	2.92	0.04	0.09	0.13	0.17	0.21	0.26	0.30	0.34
NBC_MHEPL_424	340606	6258679	1.93	14.02	0.06	2.40	2.70	4.54	3.66	3.66	3.76	4.15	4.54	3.66	3.66	3.76	4.12	4.49	3.66	3.66	3.73	3.98	4.22	2.70	0.23	0.46	0.69	0.92	1.15	1.38	1.61	1.84
NBC_MHEPL_425	340656	6258679	1.93	14.25	0.06	2.40	2.70	4.54	3.67	3.67	3.76	4.15	4.54	3.67	3.67	3.76	4.13	4.49	3.67	3.67	3.73	3.98	4.22	2.70	0.23	0.46	0.69	0.92	1.15	1.38	1.61	1.84
NBC_MHEPL_426	340706	6258679	1.81	14.42	0.06	2.40	2.70	4.49	3.60	3.60	3.70	4.10	4.49	3.60	3.60	3.70	4.06	4.43	3.60	3.60	3.67	3.92	4.16	2.70	0.22	0.45	0.67	0.90	1.12	1.35	1.57	1.80
NBC_MHEPL_427	340756	6258679	1.83	14.41	0.06	2.40	2.70	4.50	3.61	3.61	3.71	4.11	4.50	3.61	3.61	3.71	4.08	4.44	3.61	3.61	3.68	3.93	4.17	2.70	0.23	0.45	0.68	0.90	1.13	1.35	1.58	1.81
NBC_MHEPL_428	340806	6258679	1.77	14.52	0.06	2.40	2.70	4.48	3.58	3.58	3.68	4.08	4.48	3.58	3.58	3.68	4.04	4.41	3.58	3.58	3.65	3.90	4.14	2.70	0.22	0.45	0.67	0.89	1.11	1.34	1.56	1.78
NBC_MHEPL_429	340856	6258679	1.53	3.95	0.06	2.40	2.70	4.02	3.46	3.46	3.51	3.66	3.80	3.46	3.46	3.51	3.67	3.83	3.46	3.46	3.53	3.77	4.02	2.70	0.17	0.33	0.50	0.66	0.83	0.99	1.16	1.32
NBC_MHEPL_430	340906	6258679	1.41	3.95	0.06	2.40	2.70	3.96	3.41	3.41	3.45	3.60	3.72	3.41	3.41	3.46	3.63	3.80	3.41	3.41	3.47	3.72	3.96	2.70	0.16	0.31	0.47	0.63	0.79	0.94	1.10	1.26
NBC_MHEPL_431	340906	6258729	1.33	4.47	0.07	2.41	2.71	3.92	3.37	3.37	3.41	3.56	3.66	3.37	3.37	3.43	3.65	3.87	3.37	3.37	3.43	3.67	3.92	2.71	0.15	0.30	0.46	0.61	0.76	0.91	1.06	1.21
NBC_MHEPL_432	340906	6258779	1.30	3.95	0.07	2.41	2.71	3.91	3.36	3.36	3.40	3.55	3.65	3.36	3.36	3.41	3.59	3.76	3.36	3.36	3.42	3.66	3.91	2.71	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20
NBC_MHEPL_433	340956	6258779	1.33	3.95	0.07	2.41	2.71	3.93	3.38	3.38	3.42	3.56	3.67	3.38	3.38	3.42	3.60	3.78	3.38	3.38	3.44	3.68	3.93	2.71	0.15	0.30	0.46	0.61	0.76	0.91	1.06	1.21
NBC_MHEPL_021	332602	6263538	0.34	1.65	0.27	2.61	2.91	3.26	3.08	3.08	3.08	3.16	3.16	3.08	3.08	3.08	3.14	3.14	3.08	3.08	3.08	3.26	3.26	2.91	0.04	0.09	0.13	0.17	0.21	0.26	0.30	0.34
NBC_MHEPL_434	341006	6258779	1.38	3.95	0.07	2.41	2.71	3.95	3.40	3.40	3.44	3.59	3.70	3.40	3.40	3.45	3.62	3.80	3.40	3.40	3.46	3.70	3.95	2.71	0.15	0.31	0.46	0.62	0.77	0.93	1.08	1.24
NBC_MHEPL_435	341056	6258729	1.26	3.95	0.07	2.41	2.71	3.89	3.34	3.34	3.38	3.52	3.62	3.34	3.34	3.39	3.58	3.75	3.34	3.34	3.40	3.64	3.89	2.71	0.15	0.30	0.44	0.59	0.74	0.89	1.03	1.18
NBC_MHEPL_436	341106	6258729	1.05	3.95	0.06	2.40	2.70	3.76	3.23	3.23	3.27	3.42	3.46	3.23	3.23	3.28	3.50	3.65	3.23	3.23	3.29	3.53	3.76	2.70	0.13	0.26	0.40	0.53	0.66	0.79	0.92	1.05
NBC_MHEPL_437	341156	6258679	0.56	14.11	0.07	2.41	2.71	3.89	2.99	2.99	3.07	3.48	3.89	2.99	2.99	3.06	3.43	3.79	2.99	2.99	3.04	3.27	3.27	2.71	0.15	0.30	0.44	0.59	0.74	0.89	1.04	1.19
NBC_MHEPL_438	341206	6258679	0.51	14.41	0.07	2.41	2.71	3.87	2.97	2.97	3.05	3.46	3.87	2.97	2.97	3.04	3.41	3.70	2.97	2.97	3.02	3.22	3.22	2.71	0.15	0.29	0.44	0.58	0.73	0.87	1.02	1.16
NBC_MHEPL_439	341256	6258629	0.94	3.95	0.07	2.41	2.71	3.65	3.18	3.18	3.22	3.36	3.39	3.18	3.18	3.23	3.46	3.61	3.18	3.18	3.23	3.48	3.65	2.71	0.12	0.23	0.35	0.47	0.59	0.70	0.82	0.94
NBC_MHEPL_440	341306	6258579	0.87	3.95	0.07	2.41	2.71	3.58	3.14	3.14	3.18	3.34	3.35	3.14	3.14	3.20	3.44	3.57	3.14	3.14	3.20	3.44	3.58	2.71	0.11	0.22	0.33	0.44	0.54	0.65	0.76	0.87
NBC_MHEPL_441	341356	6258529	0.81	2.71	0.07	2.41	2.71	3.52	3.11	3.11	3.15	3.29	3.29	3.11	3.11	3.14	3.27	3.27	3.11	3.11	3.17	3.41	3.52	2.71	0.10	0.20	0.30	0.40	0.51	0.61	0.71	0.81
NBC_MHEPL_442	341356	6258479	0.73	2.71	0.06	2.40	2.70	3.43	3.06	3.06	3.10	3.23	3.23	3.06	3.06	3.10	3.23	3.23	3.06	3.06	3.12	3.37	3.43	2.70	0.09	0.18	0.28	0.37	0.46	0.55	0.64	0.73
NBC_MHEPL_022	332558	6263498	0.35	1.65	0.27	2.61	2.91	3.26	3.08	3.08	3.08	3.16	3.16	3.08	3.08	3.08	3.14	3.14	3.08	3.08	3.08	3.26	3.26	2.91	0.04	0.09	0.13	0.17	0.22	0.26	0.30	0.35
NBC_MHEPL_443	341306	6258429	0.74	2.71	0.05	2.39	2.69	3.44	3.07	3.07	3.10	3.23	3.23	3.07	3.07	3.10	3.23	3.23	3.07	3.07	3.12	3.37	3.44	2.69	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74

100yr ARI Planning Levels - 0.9m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.90** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)														Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																			
									1					2					3				4						
									Crest Level (mAHD)																			
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0.9 m Sea Level Projection	0.9 m Sea Level Projection																							
NBC_MHEPL_444	341256	6258429	0.69	2.40	0.06	2.40	2.70	3.38	3.04	3.04	3.08	3.19	3.19	3.04	3.04	3.07	3.15	3.15	3.04	3.04	3.10	3.34	3.38	2.70	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.69
NBC_MHEPL_445	341256	6258379	0.68	3.48	0.05	2.39	2.69	3.37	3.03	3.03	3.07	3.19	3.19	3.03	3.03	3.09	3.33	3.36	3.03	3.03	3.09	3.34	3.37	2.69	0.09	0.17	0.26	0.34	0.43	0.51	0.60	0.68
NBC_MHEPL_446	341156	6258329	0.77	3.48	0.05	2.39	2.69	3.46	3.08	3.08	3.12	3.25	3.25	3.08	3.08	3.13	3.35	3.40	3.08	3.08	3.14	3.38	3.46	2.69	0.10	0.19	0.29	0.39	0.48	0.58	0.68	0.77
NBC_MHEPL_447	341156	6258279	0.80	3.95	0.05	2.39	2.69	3.51	3.09	3.09	3.13	3.30	3.31	3.09	3.09	3.15	3.40	3.51	3.09	3.09	3.15	3.39	3.49	2.69	0.10	0.21	0.31	0.41	0.52	0.62	0.72	0.83
NBC_MHEPL_448	341106	6258229	0.83	3.95	0.04	2.38	2.68	3.53	3.10	3.10	3.15	3.31	3.32	3.10	3.10	3.17	3.41	3.53	3.10	3.10	3.16	3.41	3.51	2.68	0.11	0.21	0.32	0.42	0.53	0.63	0.74	0.84
NBC_MHEPL_449	341106	6258179	0.88	3.95	0.04	2.38	2.68	3.56	3.12	3.12	3.17	3.32	3.33	3.12	3.12	3.19	3.43	3.55	3.12	3.12	3.19	3.43	3.56	2.68	0.11	0.22	0.33	0.44	0.55	0.66	0.77	0.88
NBC_MHEPL_450	341056	6258129	0.97	3.95	0.04	2.38	2.68	3.65	3.17	3.17	3.21	3.36	3.38	3.17	3.17	3.23	3.46	3.59	3.17	3.17	3.23	3.48	3.65	2.68	0.12	0.24	0.36	0.48	0.61	0.73	0.85	0.97
NBC_MHEPL_451	341056	6258079	1.03	3.95	0.04	2.38	2.68	3.71	3.20	3.20	3.24	3.39	3.42	3.20	3.20	3.26	3.48	3.62	3.20	3.20	3.27	3.51	3.71	2.68	0.13	0.26	0.39	0.51	0.64	0.77	0.90	1.03
NBC_MHEPL_001	331865	6264756	0.10	1.00	0.45	2.79	3.09	3.20	3.15	3.15	3.15	3.17	3.17	3.15	3.15	3.15	3.17	3.17	3.15	3.15	3.15	3.20	3.20	3.09	0.01	0.03	0.04	0.05	0.07	0.08	0.09	0.10
NBC_MHEPL_023	332529	6263487	0.35	1.65	0.27	2.61	2.91	3.26	3.09	3.09	3.09	3.16	3.16	3.09	3.09	3.09	3.14	3.14	3.09	3.09	3.09	3.26	3.26	2.91	0.04	0.09	0.13	0.18	0.22	0.27	0.31	0.35
NBC_MHEPL_452	341056	6258029	1.06	3.95	0.04	2.38	2.68	3.74	3.21	3.21	3.26	3.40	3.44	3.21	3.21	3.27	3.49	3.63	3.21	3.21	3.28	3.52	3.74	2.68	0.13	0.26	0.40	0.53	0.66	0.79	0.92	1.06
NBC_MHEPL_453	341006	6257979	1.09	3.95	0.04	2.38	2.68	3.77	3.23	3.23	3.27	3.42	3.47	3.23	3.23	3.29	3.50	3.65	3.23	3.23	3.30	3.54	3.77	2.68	0.14	0.27	0.41	0.55	0.68	0.82	0.95	1.09
NBC_MHEPL_454	341056	6257979	1.05	3.95	0.04	2.38	2.68	3.73	3.21	3.21	3.25	3.40	3.44	3.21	3.21	3.27	3.49	3.63	3.21	3.21	3.27	3.52	3.73	2.68	0.13	0.26	0.39	0.52	0.65	0.79	0.92	1.05
NBC_MHEPL_455	341056	6257929	0.93	3.95	0.04	2.38	2.68	3.61	3.15	3.15	3.19	3.34	3.35	3.15	3.15	3.21	3.45	3.57	3.15	3.15	3.21	3.46	3.61	2.68	0.12	0.23	0.35	0.47	0.58	0.70	0.81	0.93
NBC_MHEPL_456	341056	6257879	1.09	3.95	0.04	2.38	2.68	3.77	3.22	3.22	3.27	3.41	3.46	3.22	3.22	3.28	3.50	3.64	3.22	3.22	3.29	3.54	3.77	2.68	0.14	0.27	0.41	0.54	0.68	0.81	0.95	1.09
NBC_MHEPL_457	341006	6257828	1.22	3.95	0.04	2.38	2.68	3.85	3.29	3.29	3.34	3.48	3.56	3.29	3.29	3.35	3.54	3.70	3.29	3.29	3.36	3.61	3.85	2.68	0.15	0.29	0.44	0.59	0.73	0.88	1.02	1.17
NBC_MHEPL_458	341006	6257778	1.26	3.95	0.04	2.38	2.68	3.87	3.31	3.31	3.35	3.50	3.58	3.31	3.31	3.37	3.56	3.72	3.31	3.31	3.38	3.62	3.87	2.68	0.15	0.30	0.45	0.59	0.74	0.89	1.04	1.19
NBC_MHEPL_459	341006	6257728	1.27	3.95	0.04	2.38	2.68	3.88	3.31	3.31	3.36	3.51	3.59	3.31	3.31	3.37	3.56	3.72	3.31	3.31	3.39	3.63	3.88	2.68	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20
NBC_MHEPL_460	341006	6257679	1.30	3.95	0.04	2.38	2.68	3.89	3.33	3.33	3.37	3.52	3.61	3.33	3.33	3.38	3.57	3.73	3.33	3.33	3.40	3.64	3.89	2.68	0.15	0.30	0.46	0.61	0.76	0.91	1.06	1.21
NBC_MHEPL_461	341006	6257629	1.29	3.95	0.03	2.37	2.67	3.88	3.32	3.32	3.37	3.51	3.60	3.32	3.32	3.38	3.57	3.72	3.32	3.32	3.39	3.64	3.88	2.67	0.15	0.30	0.45	0.60	0.76	0.91	1.06	1.21
NBC_MHEPL_024	332469	6263439	0.37	1.87	0.27	2.61	2.91	3.27	3.09	3.09	3.09	3.17	3.17	3.09	3.09	3.09	3.17	3.17	3.09	3.09	3.09	3.27	3.27	2.91	0.05	0.09	0.14	0.18	0.23	0.28	0.32	0.37
NBC_MHEPL_462	341056	6257629	1.29	3.95	0.03	2.37	2.67	3.88	3.32	3.32	3.37	3.51	3.60	3.32	3.32	3.38	3.56	3.72	3.32	3.32	3.39	3.64	3.88	2.67	0.15	0.30	0.45	0.60	0.75	0.91	1.06	1.21
NBC_MHEPL_463	341106	6257629	1.27	3.95	0.04	2.38	2.68	3.88	3.31	3.31	3.36	3.51	3.59	3.31	3.31	3.37	3.56	3.72	3.31	3.31	3.39	3.63	3.88	2.68	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20
NBC_MHEPL_464	341156	6257679	1.20	3.95	0.04	2.38	2.68	3.84	3.27	3.27	3.32	3.47	3.54	3.27	3.27	3.34	3.53	3.69	3.27	3.27	3.35	3.59	3.84	2.68	0.15	0.29	0.44	0.58	0.73	0.87	1.02	1.16
NBC_MHEPL_465	341206	6257729	1.12	3.95	0.04	2.38	2.68	3.80	3.24	3.24	3.29	3.43	3.49	3.24	3.24	3.30	3.51	3.66	3.24	3.24	3.31	3.56	3.80	2.68	0.14	0.28	0.42	0.56	0.70	0.84	0.98	1.12
NBC_MHEPL_466	341256	6257729	1.15	3.95	0.04	2.38	2.68	3.82	3.26	3.26	3.30	3.45	3.51	3.26	3.26	3.32	3.52	3.67	3.26	3.26	3.33	3.57	3.82	2.68	0.14	0.28	0.43	0.57	0.71	0.85	0.99	1.14
NBC_MHEPL_467	341256	6257779	1.12	3.95	0.04	2.38	2.68	3.80	3.24	3.24	3.29	3.43	3.49	3.24	3.24	3.30	3.51	3.66	3.24	3.24	3.31	3.56	3.80	2.68	0.14	0.28	0.42	0.56	0.70	0.84	0.98	1.12
NBC_MHEPL_468	341306	6257829	1.13	3.95	0.05	2.39	2.69	3.81	3.25	3.25	3.30	3.44	3.50	3.25	3.25	3.31	3.52	3.67	3.25	3.25	3.32	3.56	3.81	2.69	0.14	0.28	0.42	0.56	0.70	0.84	0.98	1.12
NBC_MHEPL_469	341356	6257879	1.61	14.32	0.05	2.39	2.69	4.40	3.49	3.49	3.60	4.00	4.40	3.49	3.49	3.59	3.96	4.33	3.49	3.49	3.56	3.81	4.05	2.69	0.21	0.43	0.64	0.86	1.07	1.28	1.50	1.71
NBC_MHEPL_470	341356	6257929	1.42	14.50	0.05	2.39	2.69	4.32	3.40	3.40	3.51	3.91	4.32	3.40	3.40	3.50	3.86	4.23	3.40	3.40	3.47	3.72	3.96	2.69	0.20	0.41	0.61	0.82	1.02	1.22	1.43	1.63
NBC_MHEPL_025	332451	6263386	0.37	1.65	0.26	2.60	2.90	3.27	3.09	3.09	3.09	3.17	3.17	3.09	3.09	3.09	3.14	3.14	3.09	3.09	3.09	3.27	3.27	2.90	0.05	0.09	0.14	0.19	0.23	0.28	0.32	0.37
NBC_MHEPL_471	341406	6257879	1.51	14.30	0.05	2.39	2.69	4.36	3.44	3.44	3.55	3.95	4.36	3.44	3.44	3.54	3.91	4.28	3.44	3.44	3.51	3.76	4.00	2.69	0.21	0.42	0.63	0.83	1.04	1.25	1.46	1.67
NBC_MHEPL_472	341406	6257829	1.59	14.42	0.04	2.38	2.68	4.39	3.48	3.48	3.59	3.99	4.39	3.48	3.48	3.58	3.95	4.31	3.48	3.48	3.55	3.80	4.04	2.68	0.21	0.43	0.64	0.85	1.07	1.28	1.49	1.71
NBC_MHEPL_473	341406	6257779	1.56	13.99	0.04	2.38	2.68	4.37	3.46	3.46	3.57	3.97	4.37	3.46	3.46	3.56	3.93	4.30	3.46	3.46	3.53	3.78	4.02	2.68	0.21	0.42	0.63	0.84	1.05	1.27	1.48	1.69
NBC_MHEPL_474	341406	6257729	1.59	14.42	0.04	2.38	2.68	4.39	3.48	3.48	3.59	3.99	4.39	3.48	3.48	3.58	3.95	4.31	3.48	3.48	3.55	3.80	4.04	2.68	0.21	0.43	0.64	0.86	1.07	1.28	1.50	1.71
NBC_MHEPL_475	341406	6257679	1.59	14.19	0.04	2.38	2.68	4.39	3.47	3.47	3.59	3.99	4.39	3.47	3.47	3.58	3.95	4.31	3.47	3.47	3.55	3.79	4.04	2.68	0.21	0.43	0.64	0.85	1.07	1.28	1.50	1.71
NBC_MHEPL_476	341406	6257629	1.42	3.95	0.04	2.38	2.68	3.95	3.39	3.39	3.44	3.58	3.70	3.39	3.39	3.44	3.62	3.78	3.39	3.39	3.46	3.71	3.95	2.68	0.16	0.32	0.48	0.64	0.80	0.96	1.12	1.28
NBC_MHEPL_477	341456	6257629	1.26	3.95	0.04	2.38	2.68	3.87	3.31	3.31	3.36	3.50	3.59	3.31	3.31	3.37	3.56	3.72	3.31	3.31	3.38	3.63	3.87	2.68	0.15	0.30	0.45	0.60	0.75	0.90	1.04	1.19
NBC_MHEPL_478	341506	6257629	1.32	3.95	0.04	2.38	2.68	3.90	3.34	3.34	3.39	3.53	3.63	3.34	3.34	3.40	3.58	3.74	3.34	3.34	3.41	3.66	3.90	2.68	0.15	0.31	0.46	0.61	0.76	0.92	1.07	1.22
NBC_MHEPL_479	341556	6257629	1.25	3.95	0.04	2.38	2.68	3.87	3.31	3.31	3.35	3.50	3.58	3.31	3.31	3.36	3.56	3.71	3.31	3.31	3.38	3.62	3.87	2.68	0.15	0.30	0.45	0.59	0.74	0.89	1.04	1.19
NBC_MHEPL_480	341556	6257679	1.18	3.95	0.04	2.38	2.68	3.83	3.27	3.27	3.31	3.46	3.53	3.27	3.27	3.33	3.53	3.68	3.27	3.27	3.34	3.58	3.83	2.68	0.14	0.29	0.43	0.57	0.72	0.86	1.01	1.15
NBC_MHEPL_481	341606	6257729	1.21	14.42	0.04	2.38	2.68	4.22	3.29	3.29	3.40	3.81	4.22	3.29	3.29	3.38	3.75	4.12	3.29	3.29	3.36	3.60	3.85	2.68	0.19	0.38	0.58	0.77	0.96	1.15	1.34	1.54
NBC_MHEPL_482	341656	6257779	0.86	14.11	0.04	2.38	2.68	4.04	3.12	3.12	3.22	3.63	4.04	3.12	3.12	3.21	3.58	3.94	3.12	3.12	3.18	3.43	3.55	2.68	0.17	0.34	0.51	0.68	0.85	1.02	1.19	1.36
NBC_MHEPL_483	341656	6257729	1.10	3.95	0.04	2.38	2.68	3.78	3.23	3.23	3.28	3.42	3.47	3.23	3.23	3.29	3.50	3.65	3.23	3.23	3.30	3.54	3.78	2.68	0.14	0.27	0.41	0.55	0.69	0.82	0.96	1.10
NBC_MHEPL_484	341656	6257679	1.06	3.48	0.04	2.38	2.68	3.74	3.21	3.21	3.25	3.40	3.44	3.21	3.21	3.26	3.44	3.51	3.21	3.21	3.28	3.52	3.74	2.68	0.13	0.26	0.40	0.53	0.66	0.79	0.92	1.06
NBC_MHEPL_485	341606	6257629	1.07	3.48	0.04	2.38	2.68	3.75	3.21	3.21	3.26	3.40	3.45	3.21	3.21	3.27	3.44	3.51	3.21	3.21	3.28	3.53	3.75	2.68	0.13	0.27	0.40	0.53	0.67	0.80	0.93	1.07
NBC_MHEPL_486	341606	6257579	0.99	3.48	0.04	2.38	2.68	3.67	3.17	3.17	3.22	3.36	3.39	3.17	3.17	3.23	3.41	3.48	3.17	3.17	3.24	3.49	3.67	2.68	0.12	0.25	0.37	0.50	0.62	0.74	0.87	0.99
NBC_MHEPL_487	341606	6257529	0.93	3.48	0.04	2.38	2.68	3.61	3.14	3.14	3.19	3.33	3.35	3.14	3.14	3.20	3.39	3.45	3.14	3.14	3.21	3.46	3.61	2.68	0.12	0.23	0.35	0.47	0.58	0.70	0.82	0.93
NBC_MHEPL_488	341656	6257479	0.89	3.08	0.03	2.37	2.67	3.57	3.12	3.12	3.17	3.31	3.32	3.12	3.12	3.17	3.33	3.34	3.12	3.12	3.19	3.44	3.57	2.67	0.11	0.22	0.33	0.45	0.56	0.67	0.78	0.89
NBC_MHEPL_489	341656	6257429	0.82	3.08	0.03	2.37	2.67	3.49	3.08	3.08	3.13	3.26	3.26	3.08	3.08	3.13	3.31	3.31	3.08	3.08	3.15	3.40	3.49	2.67	0.10	0.20	0.31	0.41	0.51	0.61	0.72	0.82
NBC_MHEPL_490	341606	6257429	0.90	3.08	0.03	2.37	2.67	3.57	3.12	3.12	3.17	3.32	3.32	3.12	3.12	3.17	3.33	3.34	3.12	3.12	3.19	3.44	3.57	2.67	0.11	0.23	0.34	0.45	0.56	0.68	0.79	0.90
NBC_MHEPL_026	332438	6263327	0.33	1.87	0.25	2.59	2.89	3.23	3.06	3.06	3.06	3.13	3.13	3.06	3.06	3.06	3.15	3.15	3.06	3.06	3.06	3.23	3.23	2.89	0.04	0.08	0.12	0.17	0.21	0.25	0.29	0.33
NBC_MHEPL_491	341606	6257379	0.93	3.08	0.03	2.37	2.67	3.61	3.14	3.14	3.19	3.33	3.34	3.14	3.14	3.19	3.34	3.35	3.14	3.14	3.21	3.46	3.61	2.67	0.12	0.23	0.35	0.47	0.58	0.70	0.82	0.93
NBC_MHEPL_492	341556	6257379	0.99	3.08	0.03	2.37	2.67	3.67	3.17	3.17	3.22	3.36	3.39	3.17	3.17	3.22	3.36	3.38	3.17	3.17	3.24	3.49	3.67	2.67	0.12	0.25	0.37	0.50	0.62	0.75	0.87	0.99
NBC_MHEPL_493	341506	6257379	1.04	3.48	0.03	2.37	2.67	3.72	3.19	3.19	3.24	3.39	3.42	3.19	3.19	3.25	3.43	3.50	3.19	3.19	3.27	3.51	3.72	2.67	0.13	0.26	0.39	0.52	0.65	0.78	0.91	1.04
NBC_MHEPL_494	341456	6257379	1.09	3.48	0.03	2.37	2.67	3.76	3.22	3.22	3.27	3.41	3.46	3.22	3.22	3.27	3.44	3.51	3.22	3.22	3.29	3.54	3.76	2.67	0.14	0.27	0.41	0.55	0.68	0.82	0.95	1.09

100yr ARI Planning Levels - 0.9m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.90** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave						Foreshore Type ##																				
									1					2				3				4								
									Crest Level (mAHD)																				
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0.9 m Sea Level Projection	0.9 m Sea Level Projection																								
NBC_MHEPL_495	341406	6257329	0.94	3.48	0.03	2.37	2.67	3.61	3.14	3.14	3.19	3.33	3.35	3.14	3.14	3.20	3.39	3.45	3.14	3.14	3.21	3.46	3.61	2.67	0.12	0.23	0.35	0.47	0.59	0.70	0.82	0.94
NBC_MHEPL_496	341356	6257279	0.91	3.48	0.03	2.37	2.67	3.58	3.13	3.13	3.17	3.32	3.33	3.13	3.13	3.19	3.38	3.44	3.13	3.13	3.20	3.44	3.58	2.67	0.11	0.23	0.34	0.46	0.57	0.69	0.80	0.91
NBC_MHEPL_497	341356	6257229	0.91	3.08	0.03	2.37	2.67	3.58	3.13	3.13	3.17	3.32	3.33	3.13	3.13	3.17	3.33	3.34	3.13	3.13	3.20	3.44	3.58	2.67	0.11	0.23	0.34	0.46	0.57	0.68	0.80	0.91
NBC_MHEPL_498	341356	6257179	0.93	3.08	0.03	2.37	2.67	3.60	3.13	3.13	3.18	3.33	3.34	3.13	3.13	3.18	3.33	3.35	3.13	3.13	3.21	3.45	3.60	2.67	0.12	0.23	0.35	0.46	0.58	0.69	0.81	0.93
NBC_MHEPL_499	341356	6257129	0.85	3.08	0.03	2.37	2.67	3.52	3.10	3.10	3.14	3.28	3.28	3.10	3.10	3.15	3.31	3.32	3.10	3.10	3.17	3.41	3.52	2.67	0.11	0.21	0.32	0.43	0.53	0.64	0.75	0.85
NBC_MHEPL_500	341356	6257078	0.76	2.71	0.03	2.37	2.67	3.43	3.05	3.05	3.09	3.22	3.22	3.05	3.05	3.09	3.21	3.21	3.05	3.05	3.12	3.37	3.43	2.67	0.10	0.19	0.29	0.38	0.48	0.57	0.67	0.76
NBC_MHEPL_027	332426	6263276	0.29	1.65	0.25	2.59	2.89	3.18	3.03	3.03	3.03	3.10	3.10	3.03	3.03	3.03	3.10	3.10	3.03	3.03	3.03	3.18	3.18	2.89	0.04	0.07	0.11	0.14	0.18	0.22	0.25	0.29
NBC_MHEPL_501	341356	6257028	0.65	2.71	0.03	2.37	2.67	3.32	2.99	2.99	3.04	3.14	3.14	2.99	2.99	3.04	3.17	3.17	2.99	2.99	3.06	3.31	3.32	2.67	0.08	0.16	0.24	0.33	0.41	0.49	0.57	0.65
NBC_MHEPL_502	341306	6257028	0.64	2.71	0.03	2.37	2.67	3.31	2.99	2.99	3.03	3.13	3.13	2.99	2.99	3.04	3.16	3.16	2.99	2.99	3.06	3.30	3.31	2.67	0.08	0.16	0.24	0.32	0.40	0.48	0.56	0.64
NBC_MHEPL_503	341256	6257028	0.63	2.71	0.03	2.37	2.67	3.29	2.98	2.98	3.03	3.12	3.12	2.98	2.98	3.03	3.16	3.16	2.98	2.98	3.05	3.29	3.29	2.67	0.08	0.16	0.24	0.31	0.39	0.47	0.55	0.63
NBC_MHEPL_504	341206	6257079	0.83	3.08	0.03	2.37	2.67	3.50	3.08	3.08	3.13	3.27	3.27	3.08	3.08	3.14	3.31	3.31	3.08	3.08	3.16	3.40	3.50	2.67	0.10	0.21	0.31	0.42	0.52	0.63	0.73	0.83
NBC_MHEPL_505	341156	6257079	1.01	3.95	0.03	2.37	2.67	3.68	3.18	3.18	3.22	3.37	3.40	3.18	3.18	3.24	3.47	3.60	3.18	3.18	3.25	3.49	3.68	2.67	0.13	0.25	0.38	0.51	0.63	0.76	0.89	1.01
NBC_MHEPL_506	341106	6257079	1.28	3.95	0.03	2.37	2.67	3.87	3.31	3.31	3.36	3.50	3.59	3.31	3.31	3.37	3.56	3.71	3.31	3.31	3.38	3.63	3.87	2.67	0.15	0.30	0.45	0.60	0.75	0.90	1.06	1.21
NBC_MHEPL_507	341106	6257029	1.33	3.95	0.03	2.37	2.67	3.90	3.33	3.33	3.38	3.53	3.62	3.33	3.33	3.39	3.57	3.73	3.33	3.33	3.41	3.65	3.90	2.67	0.15	0.31	0.46	0.62	0.77	0.92	1.08	1.23
NBC_MHEPL_508	341106	6256978	1.37	3.95	0.03	2.37	2.67	3.92	3.35	3.35	3.40	3.55	3.65	3.35	3.35	3.41	3.59	3.75	3.35	3.35	3.43	3.68	3.92	2.67	0.16	0.31	0.47	0.63	0.78	0.94	1.10	1.25
NBC_MHEPL_509	341106	6256928	1.37	3.95	0.02	2.36	2.66	3.92	3.35	3.35	3.40	3.55	3.65	3.35	3.35	3.41	3.59	3.75	3.35	3.35	3.43	3.68	3.92	2.66	0.16	0.31	0.47	0.63	0.78	0.94	1.10	1.26
NBC_MHEPL_510	341156	6256878	1.37	3.95	0.02	2.36	2.66	3.92	3.35	3.35	3.40	3.55	3.65	3.35	3.35	3.41	3.59	3.75	3.35	3.35	3.43	3.68	3.92	2.66	0.16	0.31	0.47	0.63	0.79	0.94	1.10	1.26
NBC_MHEPL_511	341256	6256828	1.38	3.95	0.02	2.36	2.66	3.92	3.35	3.35	3.40	3.55	3.65	3.35	3.35	3.41	3.59	3.74	3.35	3.35	3.43	3.68	3.92	2.66	0.16	0.32	0.47	0.63	0.79	0.95	1.10	1.26
NBC_MHEPL_512	341305	6256728	1.32	3.48	0.02	2.36	2.66	3.89	3.32	3.32	3.37	3.52	3.61	3.32	3.32	3.37	3.50	3.58	3.32	3.32	3.40	3.64	3.89	2.66	0.15	0.31	0.46	0.62	0.77	0.92	1.08	1.23
NBC_MHEPL_513	341255	6256679	1.52	3.48	0.02	2.36	2.66	3.99	3.42	3.42	3.47	3.62	3.75	3.42	3.42	3.46	3.57	3.65	3.42	3.42	3.50	3.75	3.99	2.66	0.17	0.33	0.50	0.67	0.83	1.00	1.17	1.34
NBC_MHEPL_514	341255	6256629	1.45	3.48	0.02	2.36	2.66	3.96	3.38	3.38	3.44	3.58	3.70	3.38	3.38	3.43	3.55	3.63	3.38	3.38	3.47	3.71	3.96	2.66	0.16	0.32	0.49	0.65	0.81	0.97	1.14	1.30
NBC_MHEPL_515	341305	6256529	1.55	3.48	0.01	2.35	2.65	4.01	3.43	3.43	3.49	3.64	3.77	3.43	3.43	3.48	3.58	3.66	3.43	3.43	3.52	3.76	4.01	2.65	0.17	0.34	0.51	0.68	0.85	1.02	1.19	1.35
NBC_MHEPL_516	341355	6256479	1.52	3.95	0.01	2.35	2.65	3.99	3.42	3.42	3.47	3.62	3.75	3.42	3.42	3.48	3.64	3.80	3.42	3.42	3.50	3.75	3.99	2.65	0.17	0.33	0.50	0.67	0.84	1.00	1.17	1.34
NBC_MHEPL_517	341355	6256429	1.46	3.95	0.01	2.35	2.65	3.96	3.39	3.39	3.44	3.59	3.71	3.39	3.39	3.45	3.62	3.77	3.39	3.39	3.47	3.72	3.96	2.65	0.16	0.33	0.49	0.65	0.82	0.98	1.14	1.31
NBC_MHEPL_518	341405	6256378	1.44	3.95	0.01	2.35	2.65	3.95	3.37	3.37	3.43	3.57	3.69	3.37	3.37	3.44	3.60	3.76	3.37	3.37	3.46	3.70	3.95	2.65	0.16	0.33	0.49	0.65	0.81	0.98	1.14	1.30
NBC_MHEPL_519	341455	6256328	1.40	3.95	0.01	2.35	2.65	3.93	3.35	3.35	3.41	3.55	3.66	3.35	3.35	3.42	3.59	3.75	3.35	3.35	3.44	3.68	3.93	2.65	0.16	0.32	0.48	0.64	0.80	0.96	1.12	1.28
NBC_MHEPL_520	341505	6256328	1.37	3.95	0.01	2.35	2.65	3.91	3.33	3.33	3.39	3.54	3.64	3.33	3.33	3.40	3.58	3.73	3.33	3.33	3.42	3.67	3.91	2.65	0.16	0.32	0.47	0.63	0.79	0.95	1.11	1.26
NBC_MHEPL_521	341555	6256328	1.34	3.95	0.00	2.34	2.64	3.89	3.31	3.31	3.37	3.52	3.61	3.31	3.31	3.38	3.57	3.72	3.31	3.31	3.40	3.65	3.89	2.64	0.16	0.31	0.47	0.62	0.78	0.94	1.09	1.25
NBC_MHEPL_522	341605	6256328	1.32	3.95	0.00	2.34	2.64	3.88	3.30	3.30	3.36	3.51	3.59	3.30	3.30	3.37	3.56	3.70	3.30	3.30	3.39	3.64	3.88	2.64	0.15	0.31	0.46	0.62	0.77	0.93	1.08	1.24
NBC_MHEPL_523	341655	6256328	1.26	3.95	0.00	2.34	2.64	3.85	3.28	3.28	3.33	3.48	3.55	3.28	3.28	3.35	3.54	3.68	3.28	3.28	3.36	3.61	3.85	2.64	0.15	0.30	0.45	0.61	0.76	0.91	1.06	1.21
NBC_MHEPL_524	341705	6256328	1.25	3.95	0.00	2.34	2.64	3.85	3.27	3.27	3.33	3.47	3.54	3.27	3.27	3.34	3.53	3.68	3.27	3.27	3.36	3.60	3.85	2.64	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20
NBC_MHEPL_525	341755	6256328	1.22	3.95	0.00	2.34	2.64	3.83	3.26	3.26	3.31	3.46	3.53	3.26	3.26	3.33	3.52	3.67	3.26	3.26	3.34	3.59	3.83	2.64	0.15	0.30	0.45	0.59	0.74	0.89	1.04	1.19
NBC_MHEPL_028	332548	6263174	0.37	1.65	0.24	2.58	2.88	3.25	3.06	3.06	3.06	3.14	3.14	3.06	3.06	3.06	3.12	3.12	3.06	3.06	3.06	3.25	3.25	2.88	0.05	0.09	0.14	0.18	0.23	0.27	0.32	0.37
NBC_MHEPL_526	341805	6256328	1.24	3.48	0.00	2.34	2.64	3.84	3.26	3.26	3.32	3.47	3.53	3.26	3.26	3.32	3.47	3.54	3.26	3.26	3.35	3.60	3.84	2.64	0.15	0.30	0.45	0.60	0.75	0.90	1.05	1.20
NBC_MHEPL_527	341855	6256328	1.29	3.48	0.00	2.34	2.64	3.87	3.29	3.29	3.35	3.49	3.57	3.29	3.29	3.35	3.49	3.56	3.29	3.29	3.38	3.62	3.87	2.64	0.15	0.31	0.46	0.61	0.77	0.92	1.07	1.22
NBC_MHEPL_528	341906	6256328	1.30	3.48	0.00	2.34	2.64	3.87	3.29	3.29	3.35	3.50	3.58	3.29	3.29	3.35	3.49	3.56	3.29	3.29	3.38	3.63	3.87	2.64	0.15	0.31	0.46	0.61	0.77	0.92	1.08	1.23
NBC_MHEPL_529	341956	6256328	1.28	3.48	0.00	2.34	2.64	3.86	3.28	3.28	3.34	3.49	3.57	3.28	3.28	3.34	3.48	3.56	3.28	3.28	3.37	3.62	3.86	2.64	0.15	0.31	0.46	0.61	0.76	0.92	1.07	1.22
NBC_MHEPL_029	332600	6263152	0.36	1.65	0.24	2.58	2.88	3.24	3.06	3.06	3.06	3.14	3.14	3.06	3.06	3.06	3.12	3.12	3.06	3.06	3.06	3.24	3.24	2.88	0.05	0.09	0.14	0.18	0.23	0.27	0.32	0.36
NBC_MHEPL_002	331895	6264742	0.11	1.00	0.40	2.74	3.04	3.15	3.09	3.09	3.09	3.12	3.12	3.09	3.09	3.09	3.12	3.12	3.09	3.09	3.09	3.15	3.15	3.04	0.01	0.03	0.04	0.05	0.07	0.08	0.10	0.11
NBC_MHEPL_030	332632	6263103	0.34	1.65	0.24	2.58	2.88	3.22	3.05	3.05	3.05	3.12	3.12	3.05	3.05	3.05	3.10	3.10	3.05	3.05	3.05	3.22	3.22	2.88	0.04	0.09	0.13	0.17	0.21	0.26	0.30	0.34
NBC_MHEPL_031	332662	6263060	0.32	1.65	0.23	2.57	2.87	3.19	3.03	3.03	3.03	3.10	3.10	3.03	3.03	3.03	3.10	3.10	3.03	3.03	3.03	3.19	3.19	2.87	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32
NBC_MHEPL_032	332696	6263014	0.30	1.65	0.23	2.57	2.87	3.17	3.02	3.02	3.02	3.09	3.09	3.02	3.02	3.02	3.09	3.09	3.02	3.02	3.02	3.17	3.17	2.87	0.04	0.08	0.11	0.15	0.19	0.23	0.27	0.30
NBC_MHEPL_033	332727	6262972	0.29	1.45	0.23	2.57	2.87	3.16	3.01	3.01	3.01	3.08	3.08	3.01	3.01	3.01	3.05	3.05	3.01	3.01	3.01	3.16	3.16	2.87	0.04	0.07	0.11	0.15	0.18	0.22	0.26	0.29
NBC_MHEPL_034	332757	6262932	0.29	1.65	0.22	2.56	2.86	3.15	3.01	3.01	3.01	3.07	3.07	3.01	3.01	3.01	3.08	3.08	3.01	3.01	3.01	3.15	3.15	2.86	0.04	0.07	0.11	0.14	0.18	0.22	0.25	0.29
NBC_MHEPL_035	332788	6262955	0.29	1.65	0.23	2.57	2.87	3.16	3.01	3.01	3.01	3.08	3.08	3.01	3.01	3.01	3.08	3.08	3.01	3.01	3.01	3.16	3.16	2.87	0.04	0.07	0.11	0.15	0.18	0.22	0.26	0.29
NBC_MHEPL_036	332818	6262915	0.30	1.65	0.22	2.56	2.86	3.17	3.02	3.02	3.02	3.08	3.08	3.02	3.02	3.02	3.08	3.08	3.02	3.02	3.02	3.17	3.17	2.86	0.04	0.08	0.11	0.15	0.19	0.23	0.27	0.30
NBC_MHEPL_037	332877	6262900	0.32	1.65	0.22	2.56	2.86	3.18	3.02	3.02	3.02	3.09	3.09	3.02	3.02	3.02	3.08	3.08	3.02	3.02	3.02	3.18	3.18	2.86	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32
NBC_MHEPL_038	332936	6262884	0.32	1.65	0.22	2.56	2.86	3.18	3.02	3.02	3.02	3.09	3.09	3.02	3.02	3.02	3.08	3.08	3.02	3.02	3.02	3.18	3.18	2.86	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32
NBC_MHEPL_039	332996	6262868	0.33	1.65	0.22	2.56	2.86	3.18	3.02	3.02	3.02	3.09	3.09	3.02	3.02	3.02	3.08	3.08	3.02	3.02	3.02	3.18	3.18	2.86	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.33
NBC_MHEPL_003	331926	6264732	0.12	1.13	0.40	2.74	3.04	3.16	3.10	3.10	3.10	3.13	3.13	3.10	3.10	3.10	3.13	3.13	3.10	3.10	3.10	3.16	3.16	3.04	0.02	0.03	0.05	0.06	0.08	0.09	0.11	0.12
NBC_MHEPL_040	333024	6262831	0.40	2.11	0.22	2.56	2.86	3.26	3.06	3.06	3.06	3.14	3.14	3.06	3.06	3.06	3.17	3.17	3.06	3.06	3.06	3.26	3.26	2.86	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40
NBC_MHEPL_041	333084	6262819	0.44	2.11	0.22	2.56	2.86	3.29	3.07	3.07	3.07	3.17	3.17	3.07	3.07	3.07	3.18	3.18	3.07	3.07	3.07	3.29	3.29	2.86	0.05	0.11	0.16	0.22	0.27	0.33	0.38	0.44
NBC_MHEPL_042	333144	6262808	0.47	2.11	0.21	2.55	2.85	3.33	3.09	3.09	3.09	3.20	3.20	3.09	3.09	3.09	3.20	3.20	3.09	3.09	3.09	3.31	3.33	2.85	0.06	0.12	0.18	0.24	0.30	0.35	0.41	0.47
NBC_MHEPL_043	333174	6262772	0.47	2.11	0.21	2.55	2.85	3.32	3.09	3.09	3.09	3.19	3.19	3.09	3.09	3.09	3.19	3.19	3.09	3.09	3.09	3.31	3.32	2.85	0.06	0.12	0.18	0.24	0.30	0.35	0.41	0.47
NBC_MHEPL_044	333171	6262710	0.48	2.11	0.21	2.55	2.85	3.33	3.09	3.09	3.09	3.19	3.19	3.09	3.09	3.09	3.19	3.19	3.09	3.09	3.09	3.31	3.33	2.85	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_045	333167	6262651	0.48	2.11	0.20	2.54	2.84	3.32	3.08	3.08	3.08	3.19	3.19	3.08	3.08	3.08	3.19	3.19	3.08	3.08	3.08	3.31	3.32	2.84	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48

100yr ARI Planning Levels - 0.9m Sea Level Rise

Foreshore Types:

1. Grassed or Sandy Slope (1 in 10 slope)
2. Rocky Shoreline (1 in 5 slope)
3. Sea Wall
4. Mangroves

100-year ARI Storm Tide at Fort Denison is **1.44** mAHD (excluding Sea Level Rise)

EPLs for all sea wall heights less than 1.5 m AHD will be the equivalent.

Mean Sea Level Rise Allowance **0.90** m sea level rise projection

Freeboard of **0.3** m included in EPLs

Foreshore Location (X,Y Coordinates @ Wave Output Location)			100yrARI					Estuarine Planning Level (m)															Reduction Factor Note: The application of the Reduction Factor should not reduce the EPL below the Local (Still) Water Level							
			Wave					Foreshore Type ##																					
								1					2					3					4							
								Crest Level (mAHD)																					
Name	X MGAz56	Y MGAz56	Hs (m)	Tp (sec)	Local Wind Setup* (m)	Local (Still) Water Level (mAHD)	Local (Still) Water Level with 0.3m Freeboard (mAHD)	Max EPL of all Foreshore Types and Crest Levels (mAHD)	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	1.5	2	2.5	3	3.5	N/A	5m	10m	15m	20m	25m	30m	35m	40m
						0.9 m Sea Level Projection	0.9 m Sea Level Projection																							
NBC_MHEPL_046	333194	6262618	0.47	2.11	0.20	2.54	2.84	3.31	3.08	3.08	3.08	3.18	3.18	3.08	3.08	3.08	3.18	3.18	3.08	3.08	3.08	3.31	3.31	2.84	0.06	0.12	0.18	0.24	0.29	0.35	0.41	0.47
NBC_MHEPL_047	333220	6262584	0.47	2.11	0.20	2.54	2.84	3.30	3.07	3.07	3.07	3.17	3.17	3.07	3.07	3.07	3.17	3.17	3.07	3.07	3.07	3.30	3.30	2.84	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.47
NBC_MHEPL_048	333246	6262550	0.46	2.11	0.19	2.53	2.83	3.29	3.06	3.06	3.06	3.16	3.16	3.06	3.06	3.06	3.17	3.17	3.06	3.06	3.06	3.29	3.29	2.83	0.06	0.11	0.17	0.23	0.29	0.34	0.40	0.46
NBC_MHEPL_049	333272	6262516	0.43	1.87	0.19	2.53	2.83	3.27	3.05	3.05	3.05	3.15	3.15	3.05	3.05	3.05	3.12	3.12	3.05	3.05	3.05	3.27	3.27	2.83	0.05	0.11	0.16	0.22	0.27	0.33	0.38	0.43
NBC_MHEPL_004	331991	6264724	0.14	1.13	0.39	2.73	3.03	3.17	3.10	3.10	3.10	3.13	3.13	3.10	3.10	3.10	3.13	3.13	3.10	3.10	3.10	3.17	3.17	3.03	0.02	0.03	0.05	0.07	0.09	0.10	0.12	0.14
NBC_MHEPL_050	333268	6262456	0.41	1.87	0.19	2.53	2.83	3.24	3.03	3.03	3.03	3.13	3.13	3.03	3.03	3.03	3.11	3.11	3.03	3.03	3.03	3.24	3.24	2.83	0.05	0.10	0.15	0.21	0.26	0.31	0.36	0.41
NBC_MHEPL_051	333236	6262431	0.41	1.87	0.19	2.53	2.83	3.24	3.03	3.03	3.03	3.12	3.12	3.03	3.03	3.03	3.11	3.11	3.03	3.03	3.03	3.24	3.24	2.83	0.05	0.10	0.15	0.21	0.26	0.31	0.36	0.41
NBC_MHEPL_052	333204	6262407	0.41	1.87	0.18	2.52	2.82	3.24	3.03	3.03	3.03	3.12	3.12	3.03	3.03	3.03	3.11	3.11	3.03	3.03	3.03	3.24	3.24	2.82	0.05	0.10	0.15	0.21	0.26	0.31	0.36	0.41
NBC_MHEPL_053	333199	6262347	0.45	2.11	0.18	2.52	2.82	3.27	3.04	3.04	3.04	3.14	3.14	3.04	3.04	3.04	3.15	3.15	3.04	3.04	3.04	3.27	3.27	2.82	0.06	0.11	0.17	0.22	0.28	0.33	0.39	0.45
NBC_MHEPL_054	333194	6262286	0.49	2.40	0.18	2.52	2.82	3.31	3.06	3.06	3.06	3.17	3.17	3.06	3.06	3.06	3.20	3.20	3.06	3.06	3.06	3.30	3.31	2.82	0.06	0.12	0.18	0.24	0.31	0.37	0.43	0.49
NBC_MHEPL_055	333222	6262250	0.48	2.11	0.17	2.51	2.81	3.29	3.05	3.05	3.05	3.16	3.16	3.05	3.05	3.05	3.16	3.16	3.05	3.05	3.05	3.29	3.29	2.81	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_056	333219	6262189	0.47	2.11	0.17	2.51	2.81	3.27	3.04	3.04	3.04	3.14	3.14	3.04	3.04	3.04	3.15	3.15	3.04	3.04	3.04	3.27	3.27	2.81	0.06	0.12	0.18	0.23	0.29	0.35	0.41	0.47
NBC_MHEPL_057	333248	6262152	0.45	2.11	0.16	2.50	2.80	3.25	3.03	3.03	3.03	3.13	3.13	3.03	3.03	3.03	3.14	3.14	3.03	3.03	3.03	3.25	3.25	2.80	0.06	0.11	0.17	0.22	0.28	0.34	0.39	0.45
NBC_MHEPL_058	333277	6262115	0.44	2.11	0.16	2.50	2.80	3.24	3.02	3.02	3.02	3.12	3.12	3.02	3.02	3.02	3.13	3.13	3.02	3.02	3.02	3.24	3.24	2.80	0.05	0.11	0.16	0.22	0.27	0.33	0.38	0.44
NBC_MHEPL_059	333307	6262077	0.46	2.11	0.16	2.50	2.80	3.26	3.03	3.03	3.03	3.13	3.13	3.03	3.03	3.03	3.14	3.14	3.03	3.03	3.03	3.26	3.26	2.80	0.06	0.11	0.17	0.23	0.29	0.34	0.40	0.46
NBC_MHEPL_060	333368	6262063	0.48	2.40	0.16	2.50	2.80	3.28	3.04	3.04	3.04	3.14	3.14	3.04	3.04	3.04	3.18	3.18	3.04	3.04	3.04	3.28	3.28	2.80	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_061	333429	6262050	0.50	2.40	0.16	2.50	2.80	3.29	3.05	3.05	3.05	3.16	3.16	3.05	3.05	3.05	3.19	3.19	3.05	3.05	3.05	3.29	3.29	2.80	0.06	0.12	0.19	0.25	0.31	0.37	0.43	0.50
NBC_MHEPL_062	333459	6262013	0.50	2.40	0.16	2.50	2.80	3.30	3.05	3.05	3.05	3.16	3.16	3.05	3.05	3.05	3.19	3.19	3.05	3.05	3.05	3.30	3.30	2.80	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50
NBC_MHEPL_063	333490	6262038	0.51	2.40	0.16	2.50	2.80	3.30	3.05	3.05	3.06	3.16	3.16	3.05	3.05	3.06	3.19	3.19	3.05	3.05	3.06	3.30	3.30	2.80	0.06	0.13	0.19	0.25	0.32	0.38	0.44	0.51
NBC_MHEPL_064	333520	6262001	0.51	2.40	0.15	2.49	2.79	3.30	3.05	3.05	3.06	3.16	3.16	3.05	3.05	3.06	3.19	3.19	3.05	3.05	3.06	3.30	3.30	2.79	0.06	0.13	0.19	0.25	0.32	0.38	0.44	0.51
NBC_MHEPL_065	333550	6261964	0.51	2.11	0.15	2.49	2.79	3.30	3.05	3.05	3.05	3.16	3.16	3.05	3.05	3.05	3.14	3.14	3.05	3.05	3.05	3.30	3.30	2.79	0.06	0.13	0.19	0.25	0.32	0.38	0.44	0.51
NBC_MHEPL_066	333609	6261891	0.50	2.11	0.15	2.49	2.79	3.28	3.04	3.04	3.04	3.14	3.14	3.04	3.04	3.04	3.14	3.14	3.04	3.04	3.05	3.28	3.28	2.79	0.06	0.12	0.19	0.25	0.31	0.37	0.43	0.50
NBC_MHEPL_067	333639	6261854	0.48	2.11	0.15	2.49	2.79	3.27	3.03	3.03	3.04	3.13	3.13	3.03	3.03	3.04	3.13	3.13	3.03	3.03	3.04	3.27	3.27	2.79	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48
NBC_MHEPL_068	333668	6261818	0.46	2.11	0.14	2.48	2.78	3.25	3.02	3.02	3.03	3.12	3.12	3.02	3.02	3.03	3.12	3.12	3.02	3.02	3.03	3.25	3.25	2.78	0.06	0.12	0.17	0.23	0.29	0.35	0.41	0.46
NBC_MHEPL_069	333698	6261781	0.45	1.87	0.14	2.48	2.78	3.23	3.01	3.01	3.02	3.10	3.10	3.01	3.01	3.01	3.08	3.08	3.01	3.01	3.02	3.23	3.23	2.78	0.06	0.11	0.17	0.22	0.28	0.34	0.39	0.45

Rhelm Pty Ltd

ABN 55 616 964 517

ACN 616 964 517

Head Office

Level 1, 50 Yeo Street

Neutral Bay NSW 2089

contact@rhelm.com.au

+61 2 9098 6998

www.rhelm.com.au