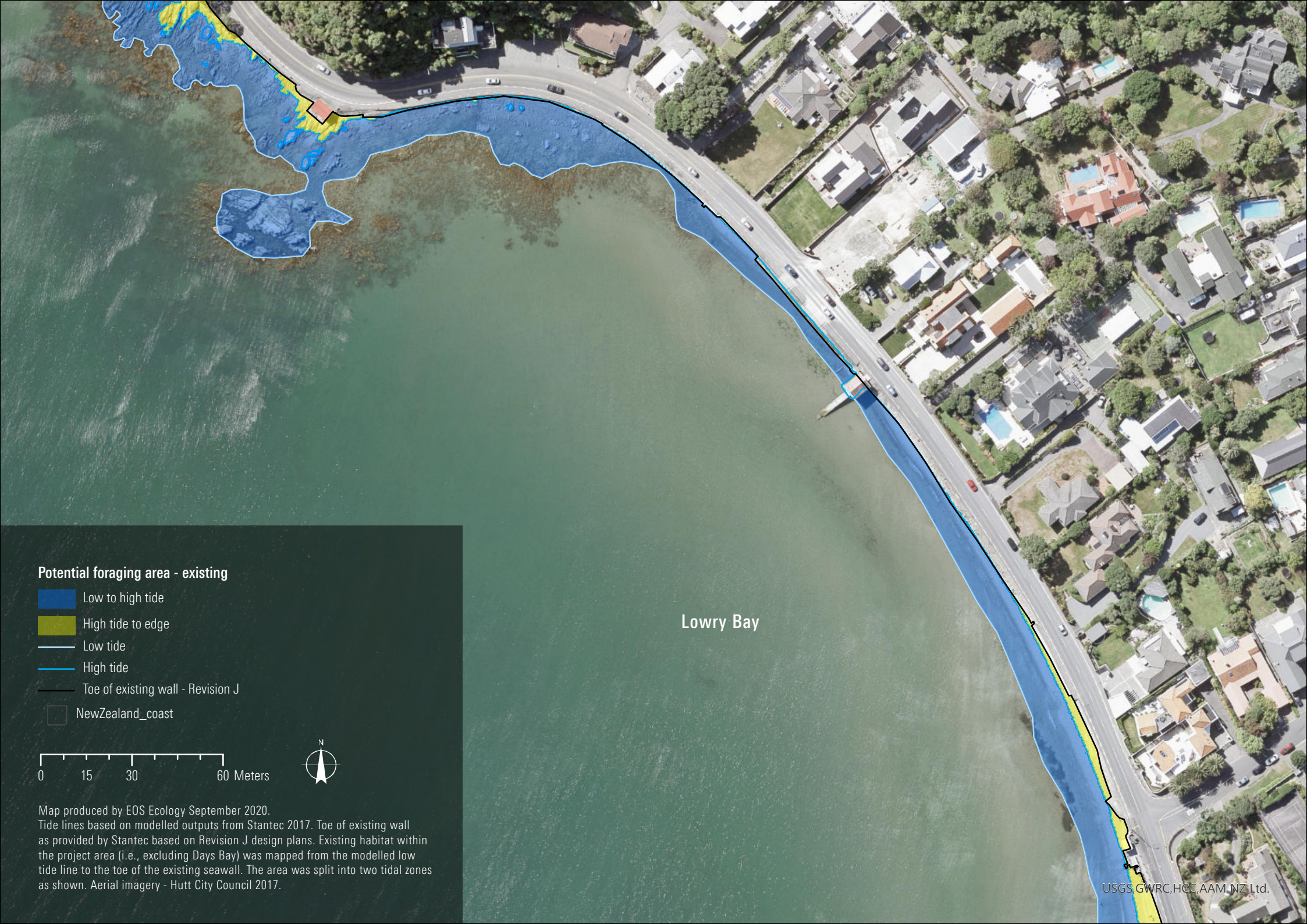
Shorebird foraging area comparison	Area (m2) of potential habitat			Description of how the calculation was made	Map reference pdf name	Shapefile reference (EOS Ecology)
	Low tide-High tide	High tide-edge	TOTAL			
EXISTING POTENTIAL HABITAT - based on the current toe of seawall	48,641	6,544	**55,185**	Existing habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line (provided by Stantec) to the toe of the existing seawall (as per Revision J). The area calculated has been broken down into the different tidal zones indicated in column B-C.	Potentialforagingarea_existing.pdf	PotentialForagingArea_Existing
PROPOSED POTENTIAL HABITAT - based on Revision J design plans	44,962	6,437	**51,399**	Proposed habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line (provided by Stantec) to the toe of the proposed seawall (as per Revision J). Where a revetment is proposed, the foraging area extends from low tide to the high tide line (modelled by GHD) however in some cases this may underestimate the actual area of potential habitat available to foraging birds, which would presumably utilise the revetment surface beyond the high tide line up to the coastal edge/road edge in the same way as for rocky shore or beach areas. The area calculated has been broken down into the different tidal zones indicated in column B-C.	Potentialforagingarea_proposed.pdf	PotentialForagingArea_RevJ_combined
LOSS OF POTENTIAL HABTIAT (area in m2)	**3,679**	**107**	**3,786**	The area of reduction in potential bird foraging habitat has been calculated per tidal zone as well as overall (total).		
LOSS OF POTENTIAL HABTIAT (%)	**7.6%**	**1.6%**	**6.9%**	The % reduction in potential bird foraging habitat has been calculated per tidal zone as well as overall (total).		

Map produced by EOS Ecology September 2020.
Tide lines based on modelled outputs from Stantec 2017. Toe of existing wall as provided by Stantec based on Revision J design plans. Existing habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line to the toe of the existing seawall. The area was split into two tidal zones as shown. Aerial imagery - Hutt City Council 2017.



Map produced by EOS Ecology September 2020.
Tide lines based on modelled outputs from Stantec 2017. Toe of existing wall as provided by Stantec based on Revision J design plans. Existing habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line to the toe of the existing seawall. The area was split into two tidal zones as shown. Aerial imagery - Hutt City Council 2017.

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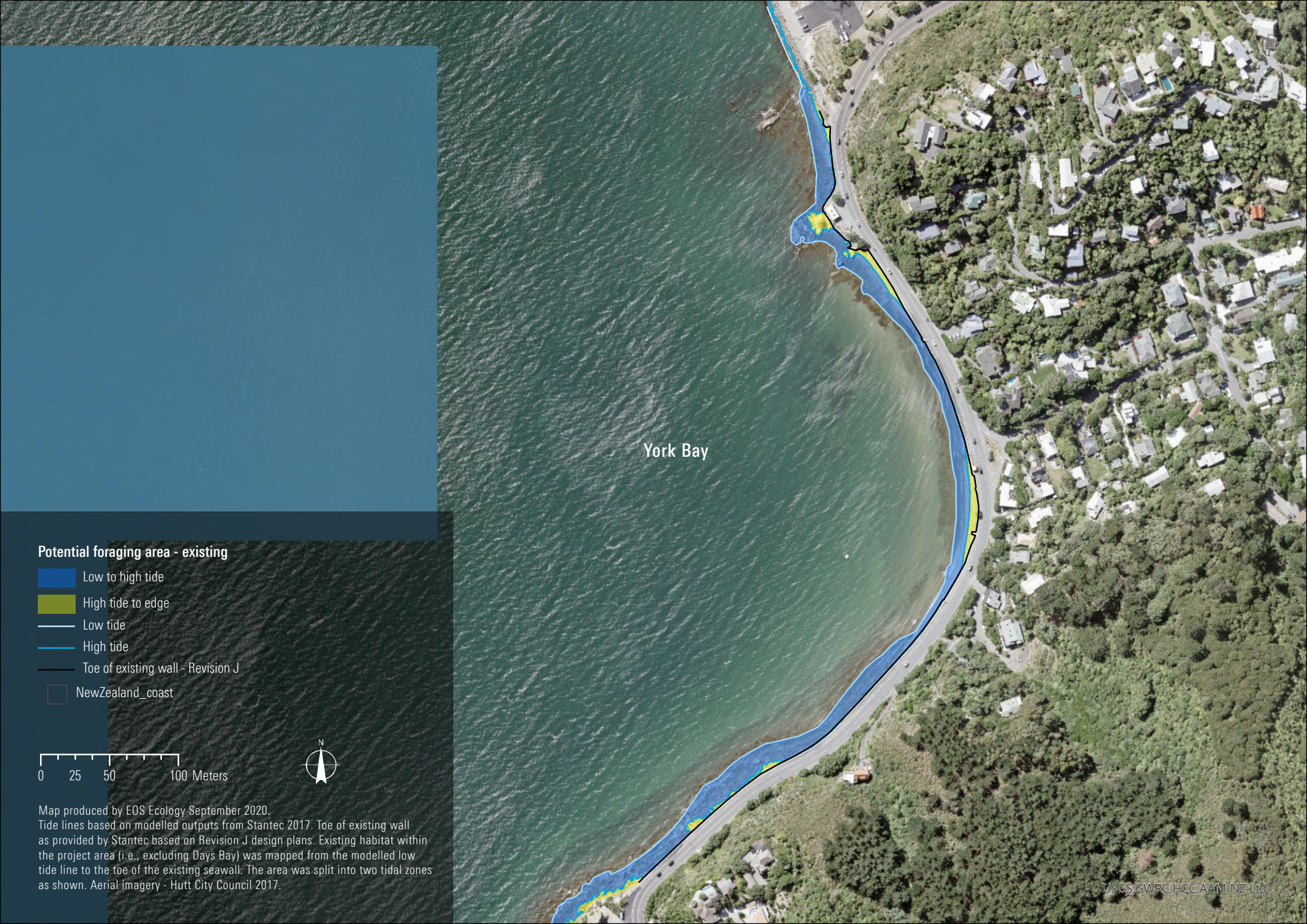

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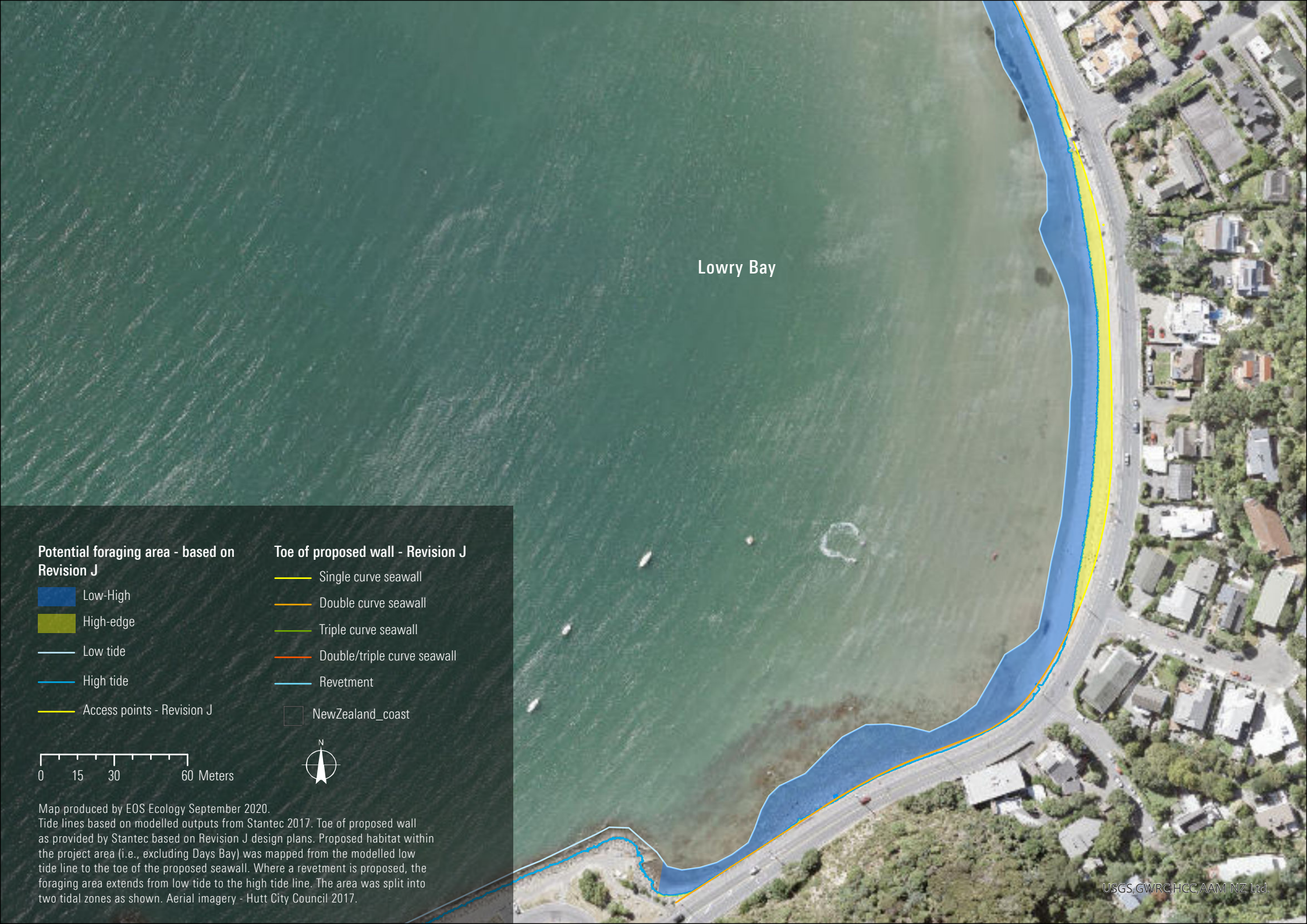
Tide lines based on modelled outputs from Stantec 2017. Toe of existing wall as provided by Stantec based on Revision J design plans. Existing habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line to the toe of the existing seawall. The area was split into two tidal zones as shown. Aerial imagery - Hutt City Council 2017.


Windy Point
Potential foraging area - existing
Low to high tide
High tide to edge
Low tide
High tide
Toe of existing wall - Revision J
NewZealand_coast
0
20
40
80 Meters
N
Map produced by EOS Ecology September 2020.
Tide lines based on modelled outputs from Stantec 2017. Toe of existing wall as provided by Stantec based on Revision J design plans. Existing habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line to the toe of the existing seawall. The area was split into two tidal zones as shown. Aerial imagery - Hutt City Council 2017.
USGS,GWRC,HCC,AAM NZ Ltd.

Map produced by EOS Ecology September 2020.
Tide lines based on modelled outputs from Stantec 2017. Toe of proposed wall as provided by Stantec based on Revision J design plans. Proposed habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line to the toe of the proposed seawall. Where a revetment is proposed, the foraging area extends from low tide to the high tide line. The area was split into two tidal zones as shown. Aerial imagery - Hutt City Council 2017.

Map produced by EOS Ecology September 2020.
Tide lines based on modelled outputs from Stantec 2017. Toe of proposed wall as provided by Stantec based on Revision J design plans. Proposed habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line to the toe of the proposed seawall. Where a revetment is proposed, the foraging area extends from low tide to the high tide line. The area was split into two tidal zones as shown. Aerial imagery - Hutt City Council 2017.



Map produced by EOS Ecology September 2020.
Tide lines based on modelled outputs from Stantec 2017. Toe of proposed wall as provided by Stantec based on Revision J design plans. Proposed habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line to the toe of the proposed seawall. Where a revetment is proposed, the foraging area extends from low tide to the high tide line. The area was split into two tidal zones as shown. Aerial imagery - Hutt City Council 2017.

Map produced by EOS Ecology September 2020.
Tide lines based on modelled outputs from Stantec 2017. Toe of proposed wall as provided by Stantec based on Revision J design plans. Proposed habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line to the toe of the proposed seawall. Where a revetment is proposed, the foraging area extends from low tide to the high tide line. The area was split into two tidal zones as shown. Aerial imagery - Hutt City Council 2017.

Map produced by EOS Ecology September 2020.
Tide lines based on modelled outputs from Stantec 2017. Toe of proposed wall as provided by Stantec based on Revision J design plans. Proposed habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line to the toe of the proposed seawall. Where a revetment is proposed, the foraging area extends from low tide to the high tide line. The area was split into two tidal zones as shown. Aerial imagery - Hutt City Council 2017.


Sunshine Bay
Potential foraging area - based on Revision J
Low-High
High-edge
Low tide
High tide
Access points - Revision J
Toe of proposed wall - Revision J
Single curve seawall
Double curve seawall
Triple curve seawall
Double/triple curve seawall
Revetment
NewZealand_coast
N
0 30 60 120 Meters
Map produced by EOS Ecology September 2020.
Tide lines based on modelled outputs from Stantec 2017. Toe of proposed wall as provided by Stantec based on Revision J design plans. Proposed habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line to the toe of the proposed seawall. Where a revetment is proposed, the foraging area extends from low tide to the high tide line. The area was split into two tidal zones as shown. Aerial imagery - Hutt City Council 2017.
USGS GWRC HCC AAM NZ Ltd

Map produced by EOS Ecology September 2020.
Tide lines based on modelled outputs from Stantec 2017. Toe of proposed wall as provided by Stantec based on Revision J design plans. Proposed habitat within the project area (i.e., excluding Days Bay) was mapped from the modelled low tide line to the toe of the proposed seawall. Where a revetment is proposed, the foraging area extends from low tide to the high tide line. The area was split into two tidal zones as shown. Aerial imagery - Hutt City Council 2017.