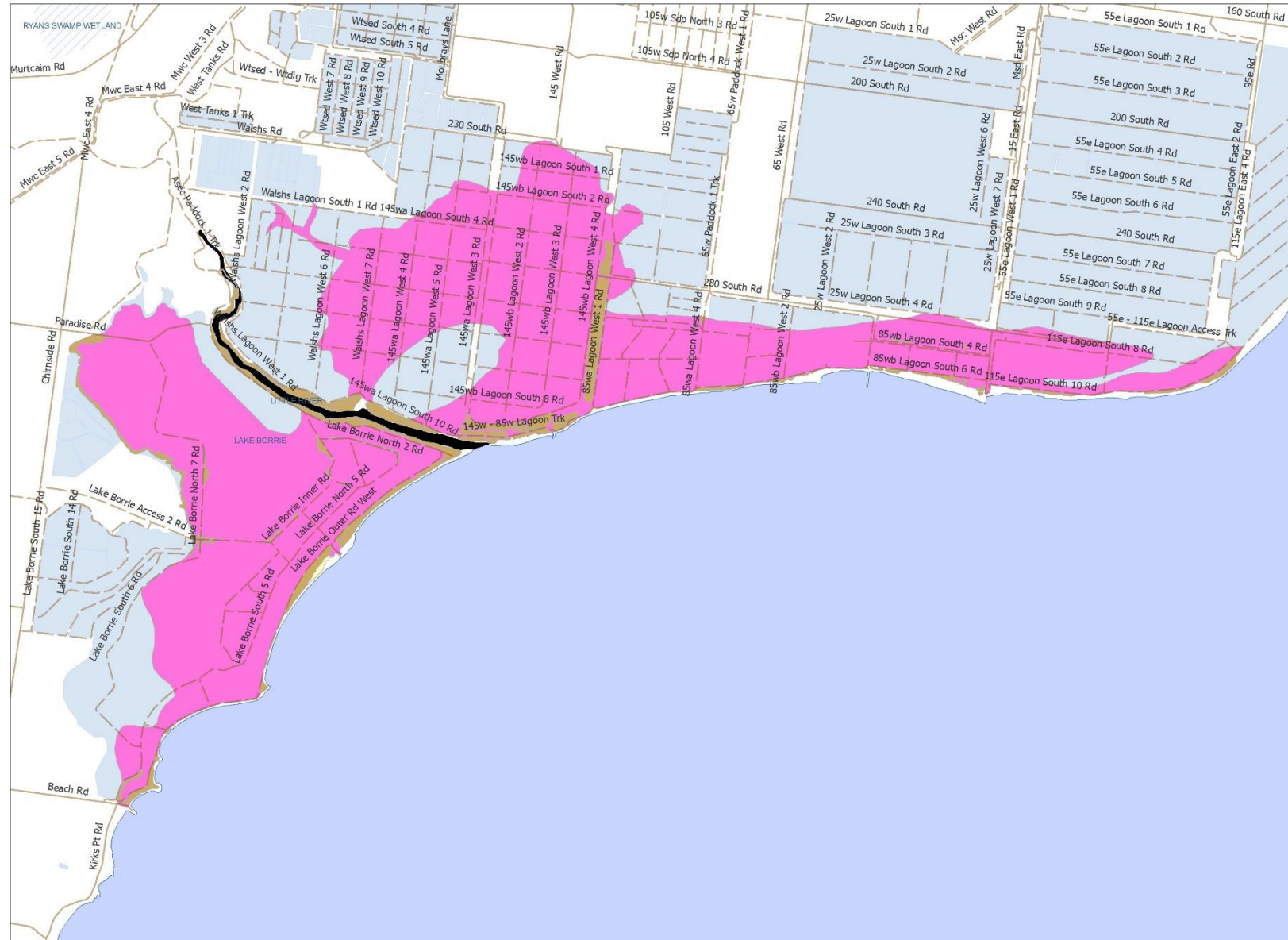


Index of Estuary Condition 2021: Summary of fish information and vegetation maps for Port Phillip and Western Port

Presence (+)/absence (0) of fish taxa captured in Port Phillip and Western Port region estuaries during monitoring for Index of Estuary Condition 2021 (sampling between 2010 and 2019, using a combination of fyke netting and mesh netting, plus seine netting where feasible, in upper, middle and lower estuary in autumn). Common names of fish taxa are provided, with introduced taxa indicated by asterisk (*). For a description of fish and vegetation monitoring methods and corresponding scientific names for fish refer to DELWP (2021) *Assessment of Victoria's estuaries using the Index of Estuary Condition: Background and Methods 2021*.

| Common fish name | Little River (48) | Werribee River (101) | Skeleton Creek (80) | Laverton Creek (47) | Koroit Creek (41) | Yarra River (107) | Elwood Canal (27) | Mordialloc Creek (59) | Patterson River (68) | Kananook Creek (39) | Balcombe Creek (7) | Merricks Creek (54) | Warrigine Creek (97) | Watsons Creek (98) | Tooradin Inlet (111) | Cardinia Creek (20) | Deep Creek (25) | Bunyip River (17) | Yallock Drain (106) | Lang Lang River (45) | Bass River (10) |
|---------------------------|-------------------|----------------------|---------------------|---------------------|-------------------|-------------------|-------------------|-----------------------|----------------------|---------------------|--------------------|---------------------|----------------------|--------------------|----------------------|---------------------|-----------------|-------------------|---------------------|----------------------|-----------------|
| Australian Anchovy | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Australian Grayling | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 |
| Australian Salmon spp. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Barramundi* | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Black Bream | + | + | + | + | + | + | 0 | + | + | 0 | + | + | + | + | 0 | + | 0 | + | 0 | 0 | + |
| Bridled Goby | + | + | 0 | 0 | + | + | 0 | + | + | + | + | 0 | + | + | + | 0 | + | 0 | 0 | 0 | + |
| Bridled Leatherjacket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Cobbler | + | + | 0 | + | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Common Galaxias | + | + | 0 | 0 | + | + | 0 | 0 | + | + | + | + | + | + | 0 | 0 | 0 | + | 0 | + | + |
| Cryptic Sea Gudgeon | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dusky Morwong | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dwarf Flathead Gudgeon | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Eastern Bluespot Goby | + | + | + | + | + | + | + | 0 | + | + | + | + | + | + | 0 | + | 0 | 0 | 0 | 0 | + |
| Eastern Gambusia* | + | + | 0 | 0 | + | + | + | 0 | 0 | 0 | + | + | + | 0 | + | 0 | 0 | 0 | 0 | 0 | + |
| Elephantfish | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 |
| Estuary Perch | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | + | 0 | + | + | 0 | + | + | + | 0 | 0 | + |
| European Carp* | + | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Flathead Gudgeon | + | + | + | + | + | + | 0 | + | + | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Glass Goby | + | + | 0 | 0 | + | + | 0 | 0 | + | 0 | 0 | 0 | + | + | 0 | + | + | + | + | + | + |
| Goby spp. | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Golden Perch* | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Goldspot Mullet | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Greenback Flounder | 0 | + | 0 | 0 | 0 | + | 0 | 0 | + | 0 | + | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Gummy Shark | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Half Bridled Goby | + | + | 0 | + | + | + | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | + |
| King George Whiting | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | + | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Lagoon Goby | + | + | 0 | 0 | + | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Largemouth Goby | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Leatherjacket sp. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Little Weed Whiting | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Longfinned Eel | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Longsnout flounder | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 |
| Luderick | 0 | + | 0 | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | + |
| Mulloway | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Old Wife | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Oyster Blenny | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Pale Mangrove Goby | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pugnose pipefish | 0 | + | 0 | 0 | + | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rock Flathead | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Sandy Sprat | 0 | + | 0 | 0 | + | + | 0 | 0 | + | 0 | + | 0 | 0 | + | 0 | + | + | 0 | 0 | + | 0 |
| Sea Mullet | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Shortfinned Eel | + | + | 0 | 0 | + | + | 0 | 0 | 0 | 0 | + | + | + | + | + | + | + | + | + | + | + |
| Silver Trevally | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Sixspine Leatherjacket | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Smallmouth Hardyhead | + | + | + | + | + | + | 0 | 0 | + | + | + | + | + | 0 | 0 | 0 | 0 | + | 0 | 0 | + |
| Smooth Toadfish | 0 | + | 0 | 0 | + | + | 0 | 0 | + | + | 0 | 0 | + | + | + | + | + | + | 0 | + | + |
| Snapper | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Snook | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Southern Longfin Goby | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | + |
| Striped Sandgoby* | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tailor | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tamar River Goby | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 0 | + | 0 | + | + | 0 | + |
| Trident Goby* | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Tupong | + | 0 | 0 | + | + | + | 0 | 0 | 0 | + | + | + | 0 | + | + | 0 | 0 | + | + | 0 | + |
| Western Australian Salmon | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | + | 0 | + | + | 0 | + | 0 | + | 0 | 0 | + |
| Widebody Pipefish | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Wood's Siphonfish | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Yank Flathead | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + |
| Yelloweye Mullet | + | + | 0 | + | + | + | 0 | 0 | + | 0 | + | + | + | + | 0 | + | + | + | + | + | + |
| Yellowfin Goby* | + | + | + | 0 | + | + | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | + | 0 | 0 | + | 0 | 0 |

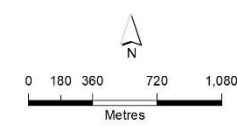
Little River

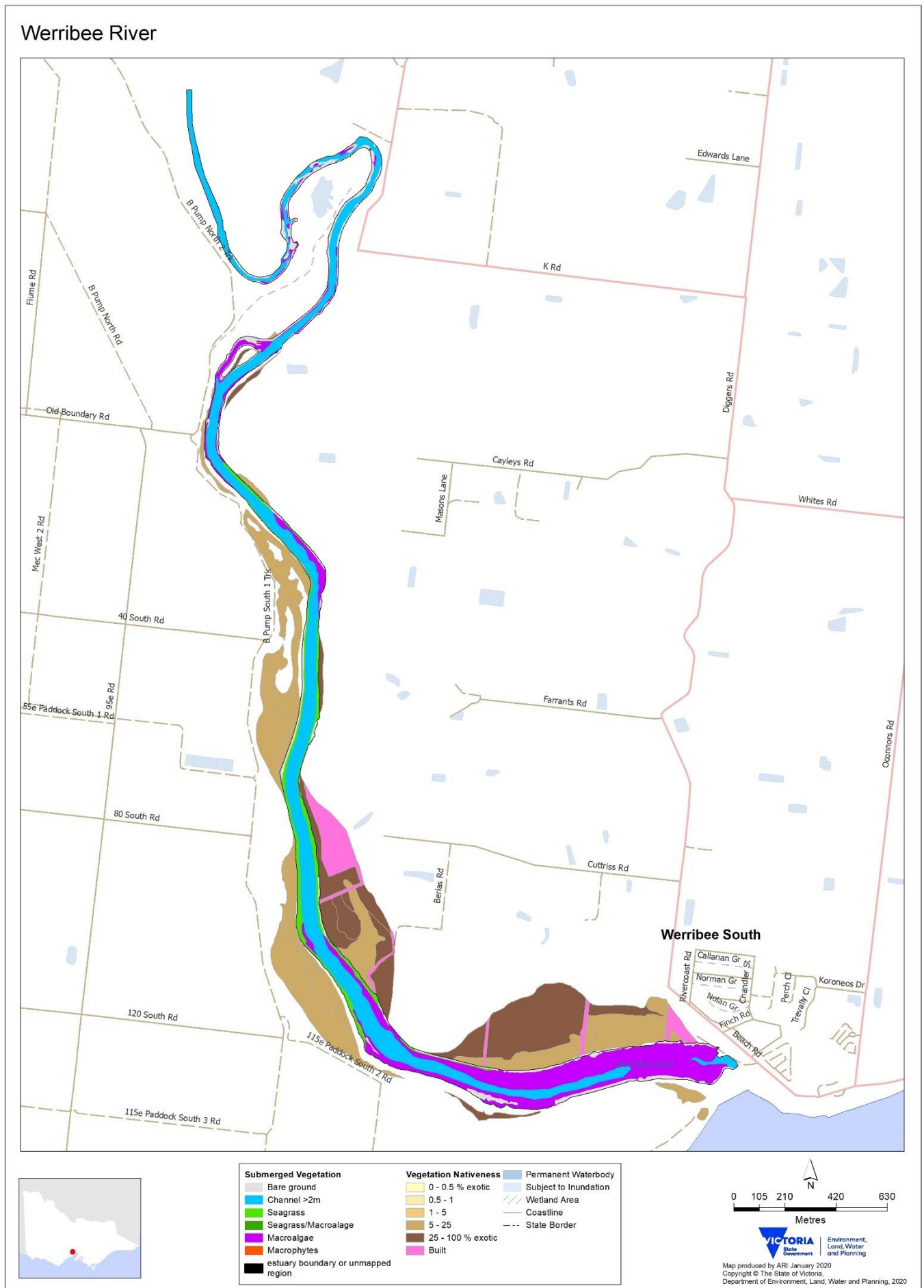


Vegetation Nativeness

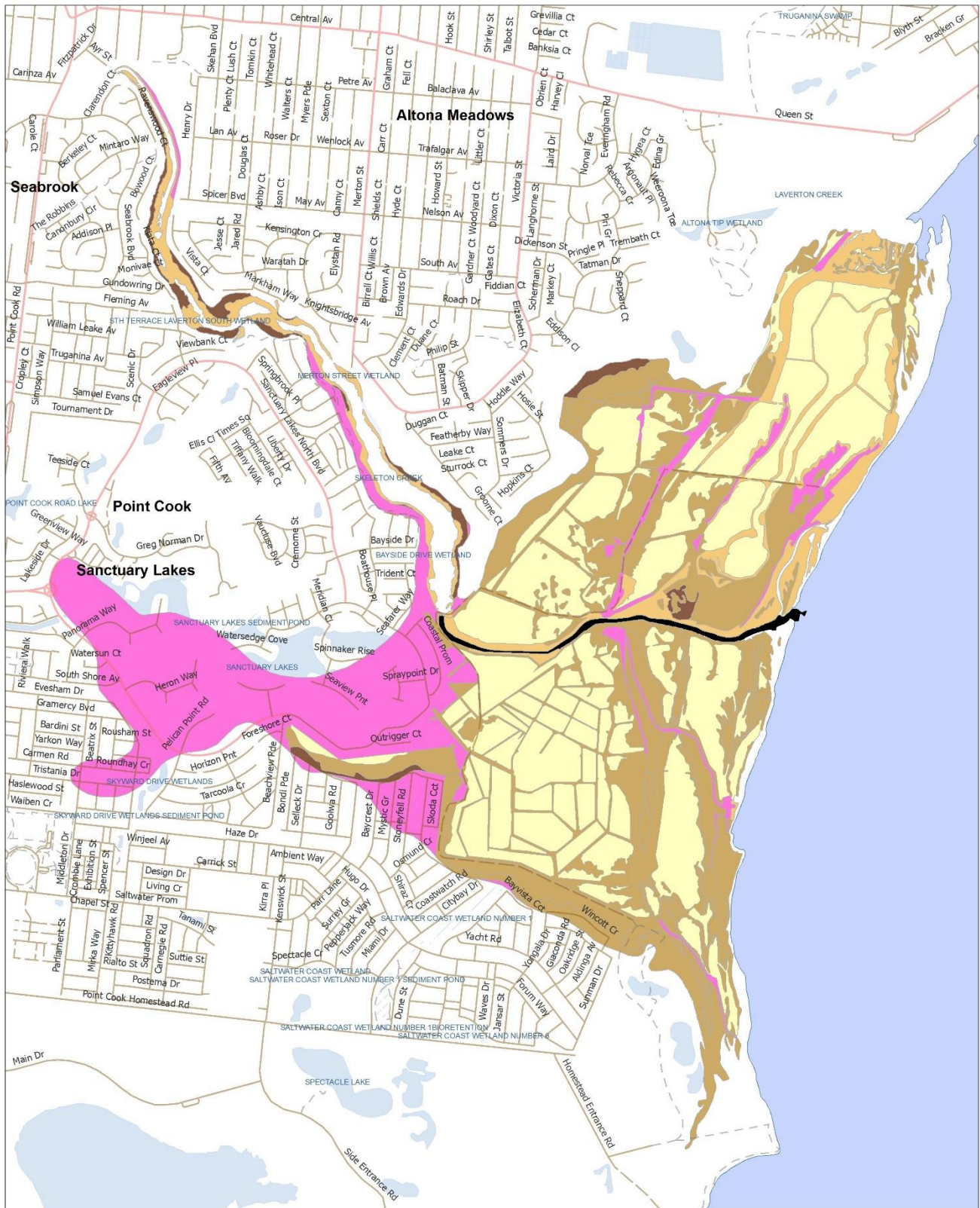
- 0 - 0.5 % exotic
- 0.5 - 1
- 1 - 5
- 5 - 25
- 25 - 100 % exotic
- Built
- estuary boundary or unmapped region

Permanent Waterbody
 Subject to Inundation
 Wetland Area
 Coastline
 State Border





Skeleton Creek



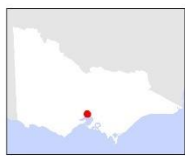
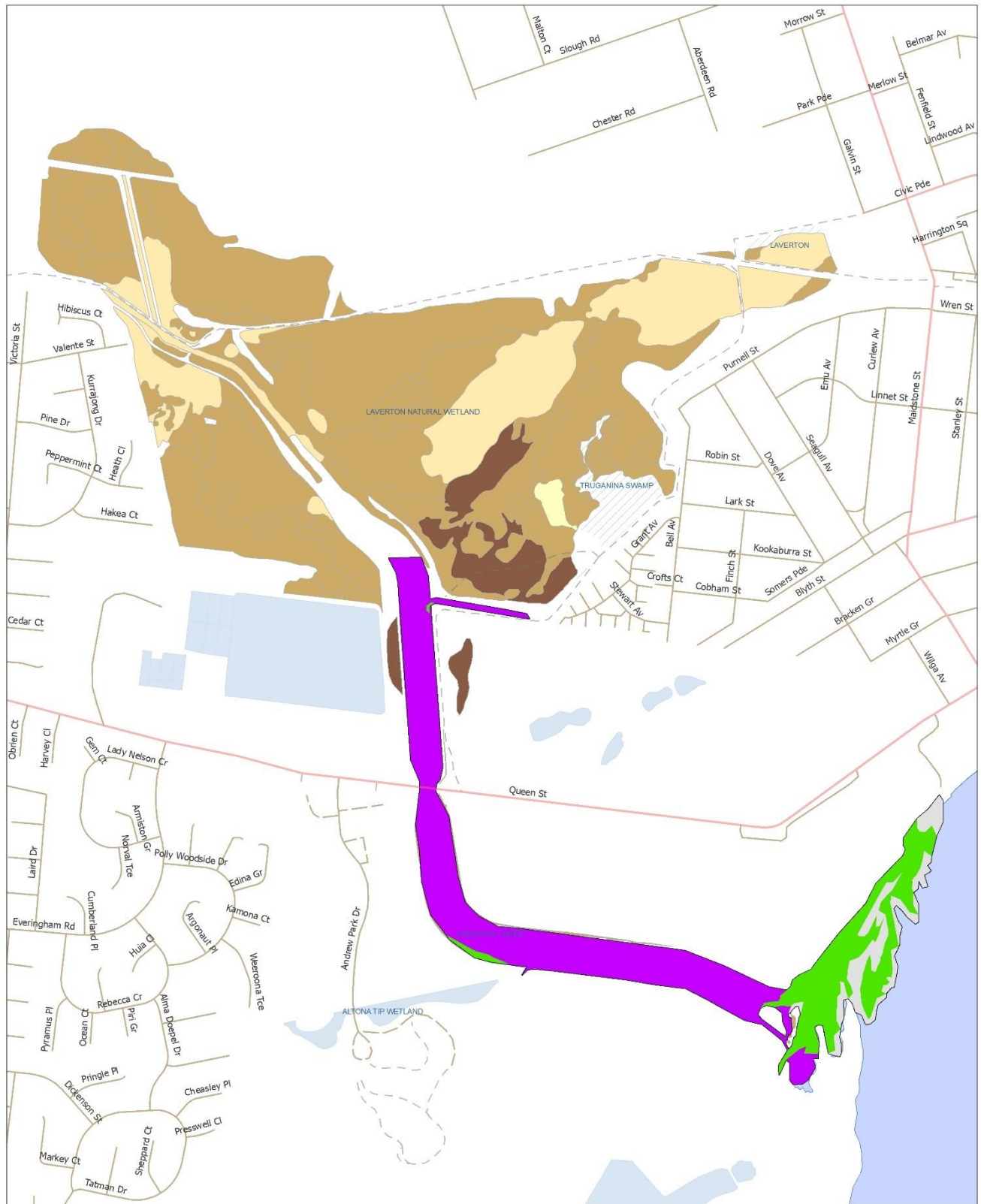
| | |
|-------------------------------------|-----------------------|
| Vegetation Nativeness | Permanent Waterbody |
| 0 - 0.5 % exotic | Subject to Inundation |
| 0.5 - 1 | Wetland Area |
| 1 - 5 | Coastline |
| 5 - 25 | State Border |
| 25 - 100 % exotic | |
| Built | |
| estuary boundary or unmapped region | |

0 145 290 580 870
Metres

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Laverton Creek



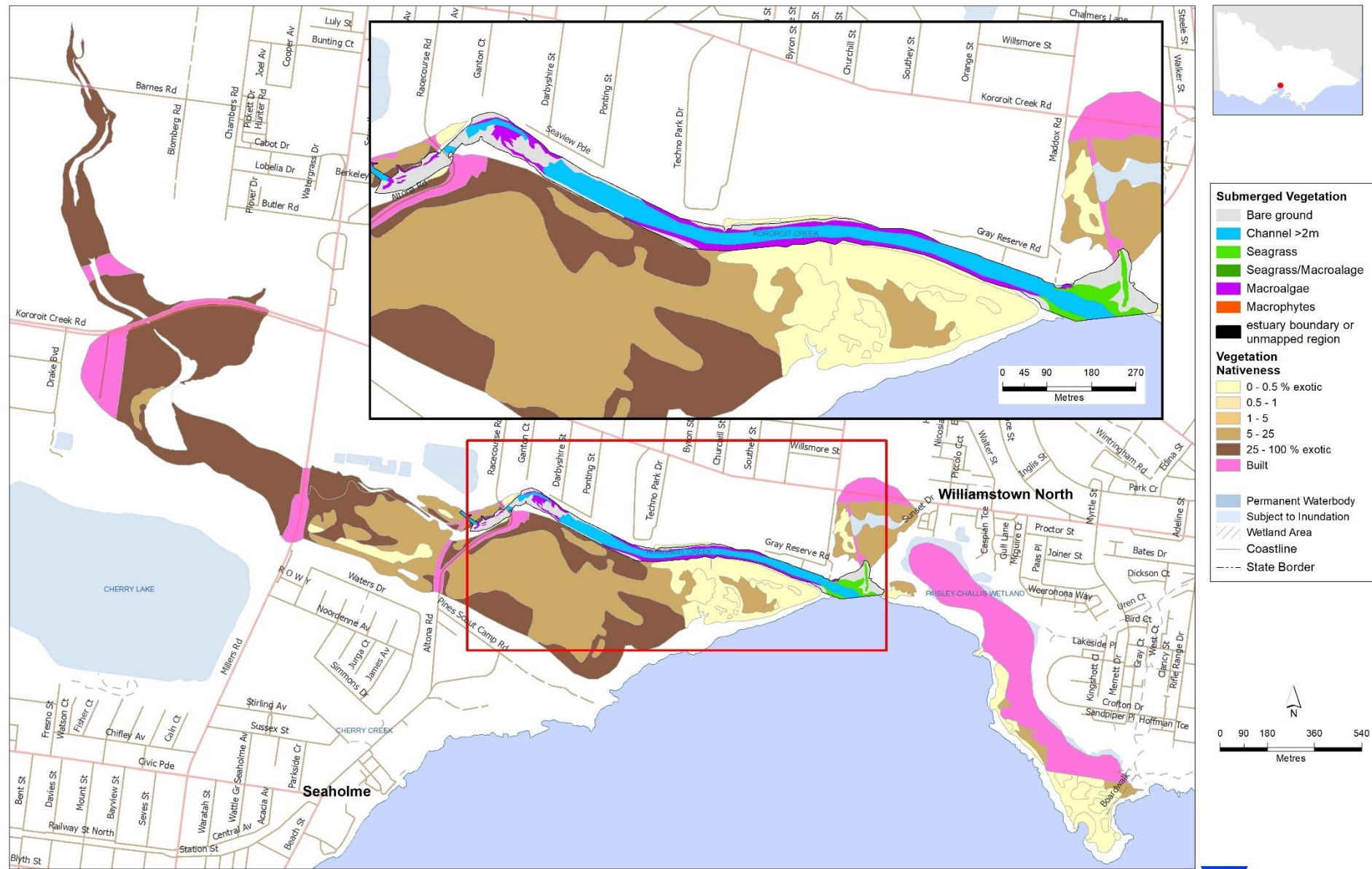
| Submerged Vegetation | Vegetation Nativeness | Permanent Waterbody |
|-------------------------------------|-----------------------|-----------------------|
| Bare ground | 0 - 0.5 % exotic | Subject to Inundation |
| Channel >2m | 0.5 - 1 | Wetland Area |
| Seagrass | 1 - 5 | Coastline |
| Seagrass/Macroalgae | 5 - 25 | State Border |
| Macroalgae | 25 - 100 % exotic | |
| Macrophytes | Built | |
| estuary boundary or unmapped region | | |

0 70 140 280 420
Metres

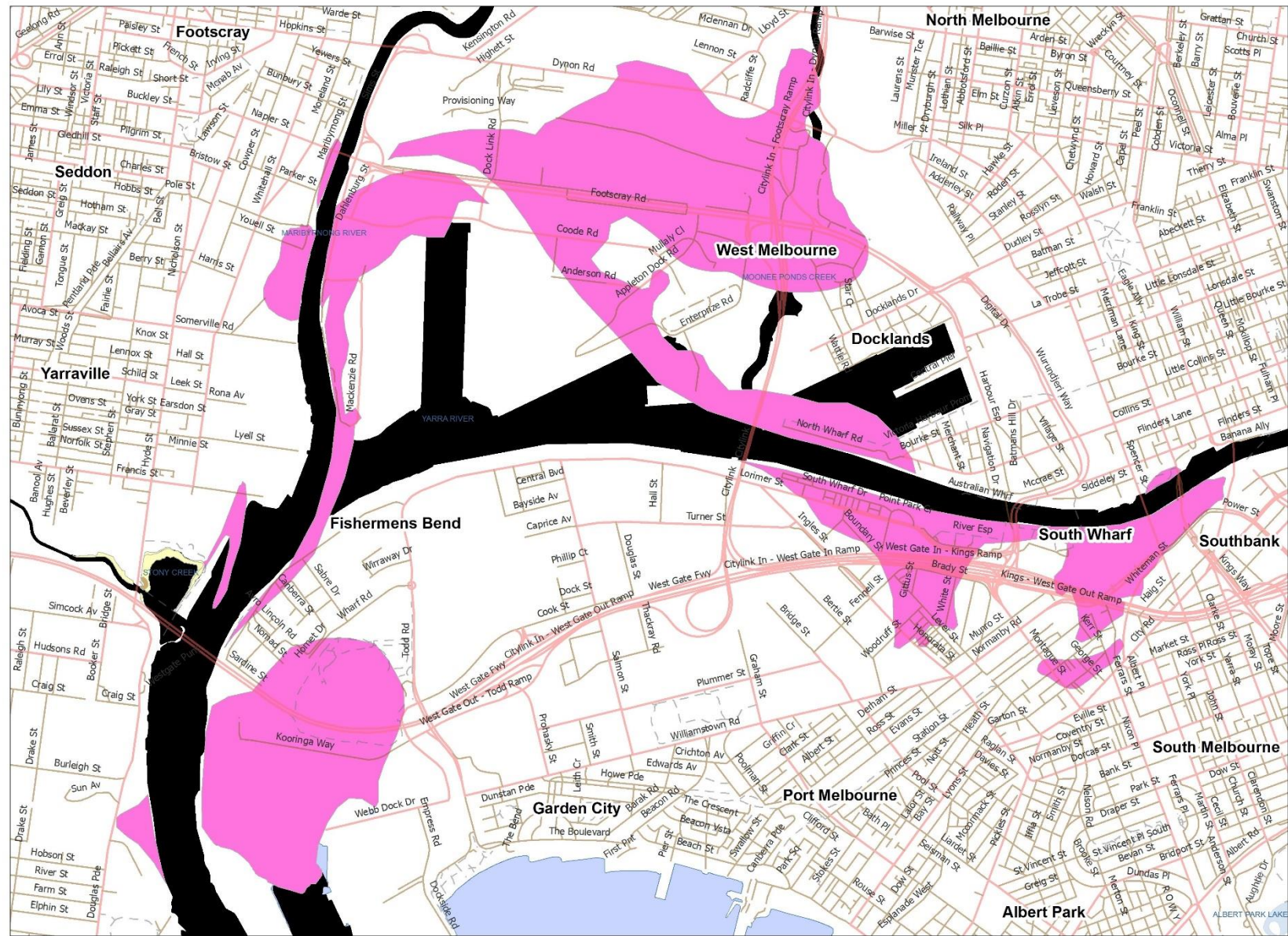
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Kororoit Creek



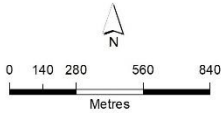
Yarra River

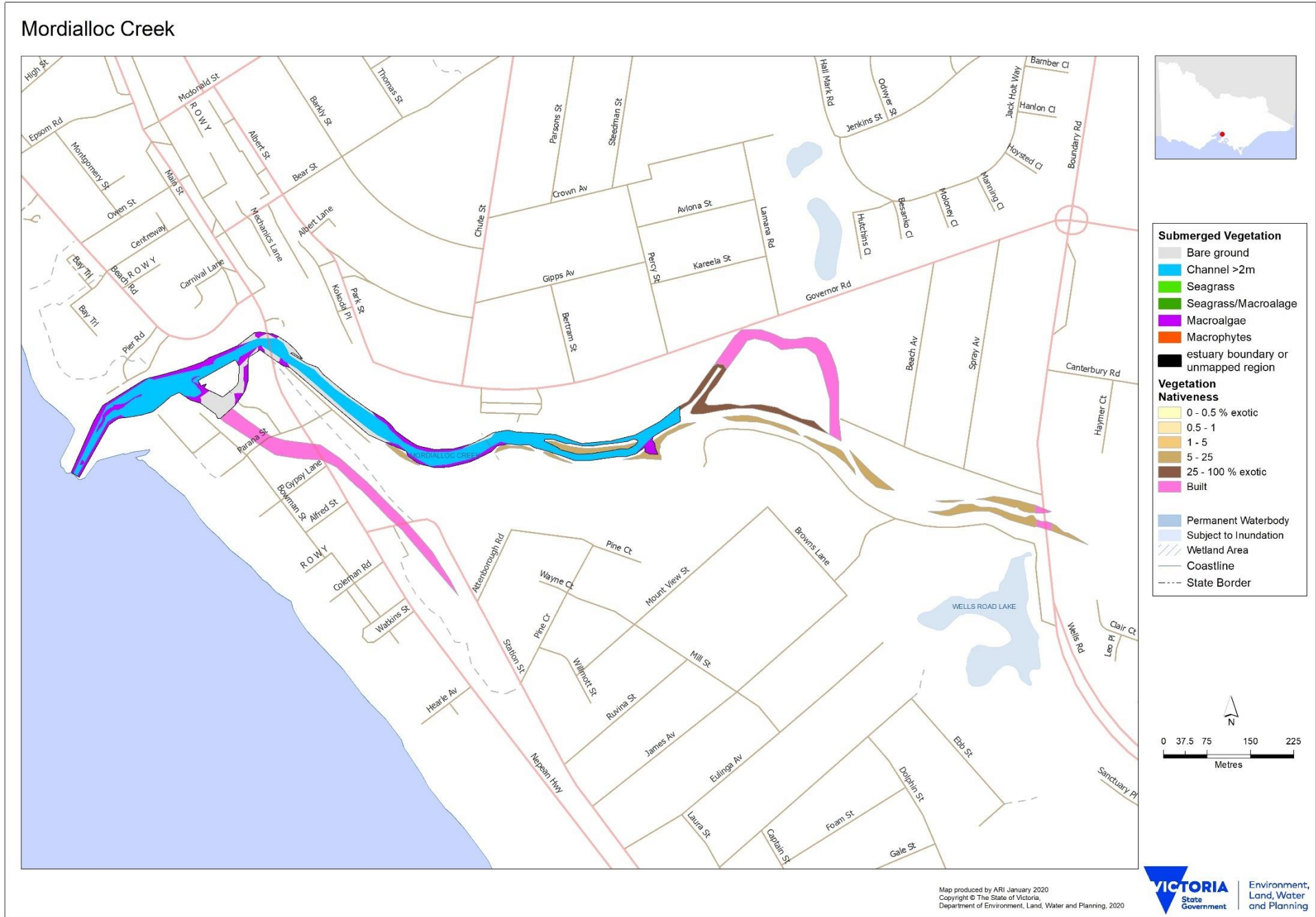


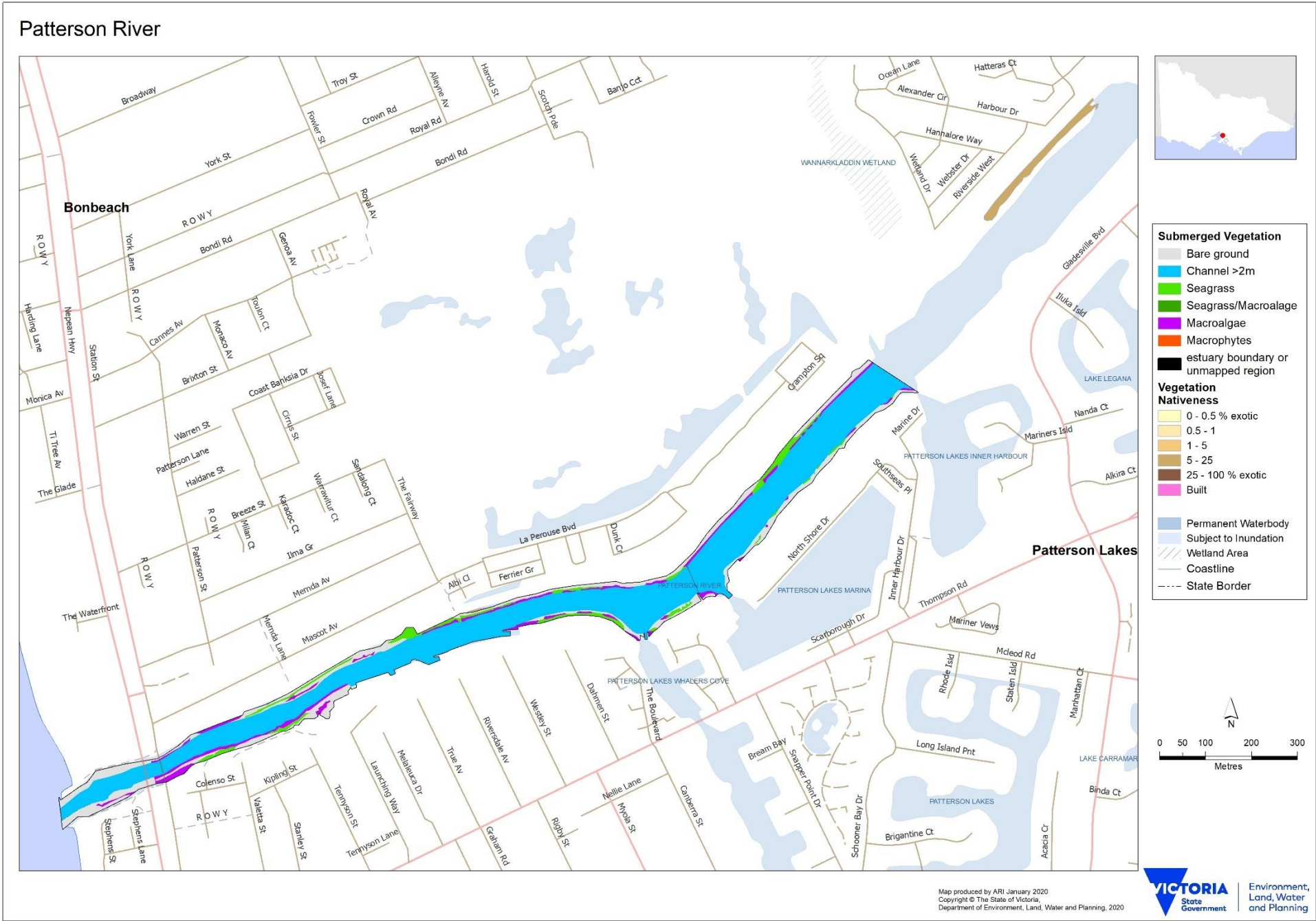
Vegetation Nativeness

- 0 - 0.5 % exotic
- 0.5 - 1
- 1 - 5
- 5 - 25
- 25 - 100 % exotic
- Built
- estuary boundary or unmapped region

■ Permanent Waterbody
■ Subject to Inundation
■ Wetland Area
— Coastline
--- State Border







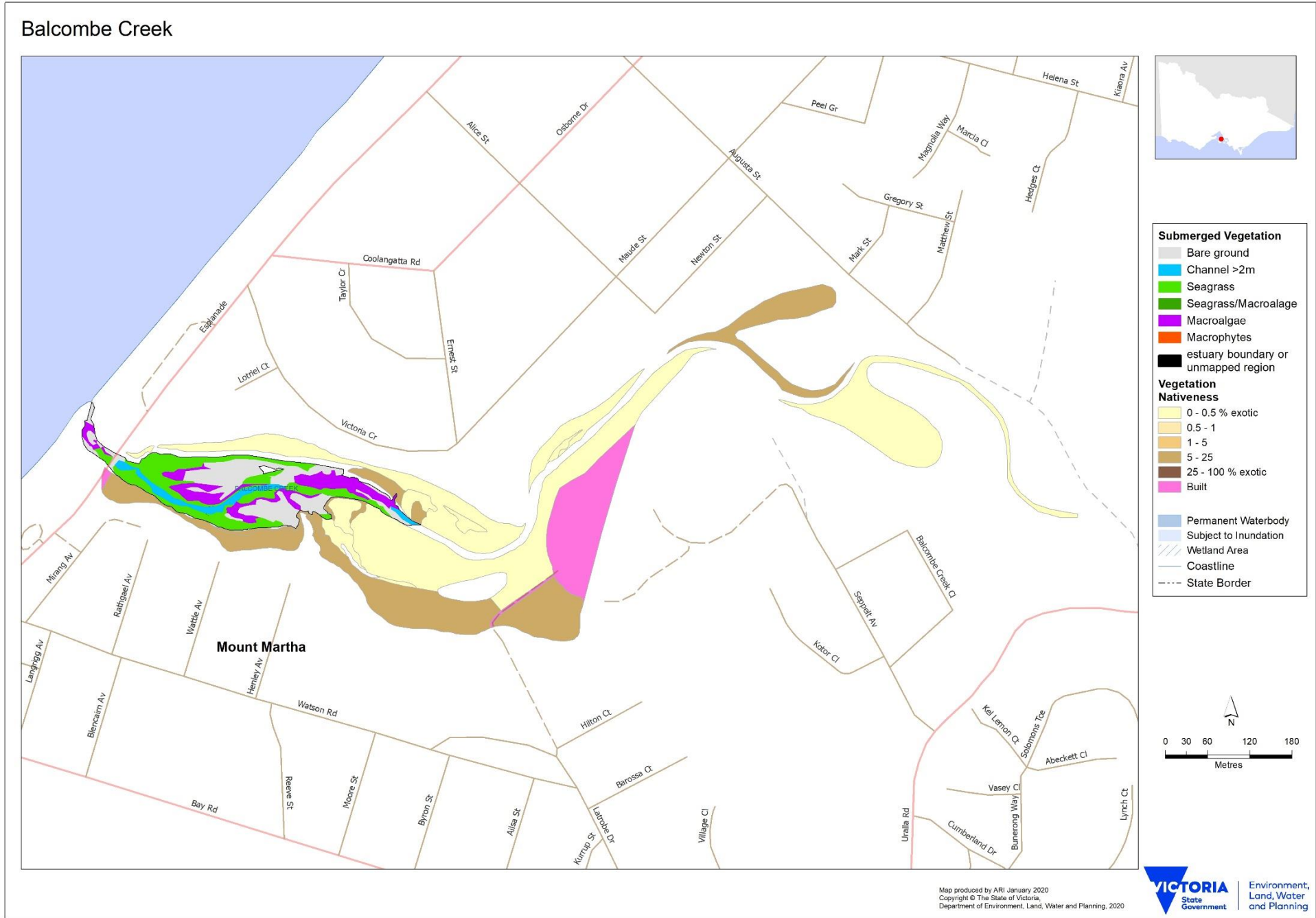
Kananook Creek



| Submerged Vegetation | | Vegetation Nativeness | | Permanent Waterbody | |
|----------------------|-------------------------------------|-----------------------|-------------------|----------------------------|-----------------------|
| [Light Blue] | Bare ground | [Light Yellow] | 0 - 0.5 % exotic | [Blue] | Permanent Waterbody |
| [Medium Blue] | Channel >2m | [Yellow] | 0.5 - 1 | [Light Blue] | Subject to Inundation |
| [Green] | Seagrass | [Light Orange] | 1 - 5 | [Blue with diagonal lines] | Wetland Area |
| [Dark Green] | Seagrass/Macroalgae | [Orange] | 5 - 25 | [Red line] | Coastline |
| [Purple] | Macroalgae | [Dark Orange] | 25 - 100 % exotic | [Dashed line] | State Border |
| [Red] | Macrophytes | [Pink] | Built | | |
| [Black line] | estuary boundary or unmapped region | | | | |

0 170 340 680 1,020 Metres

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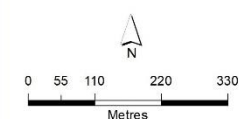
Merricks Creek

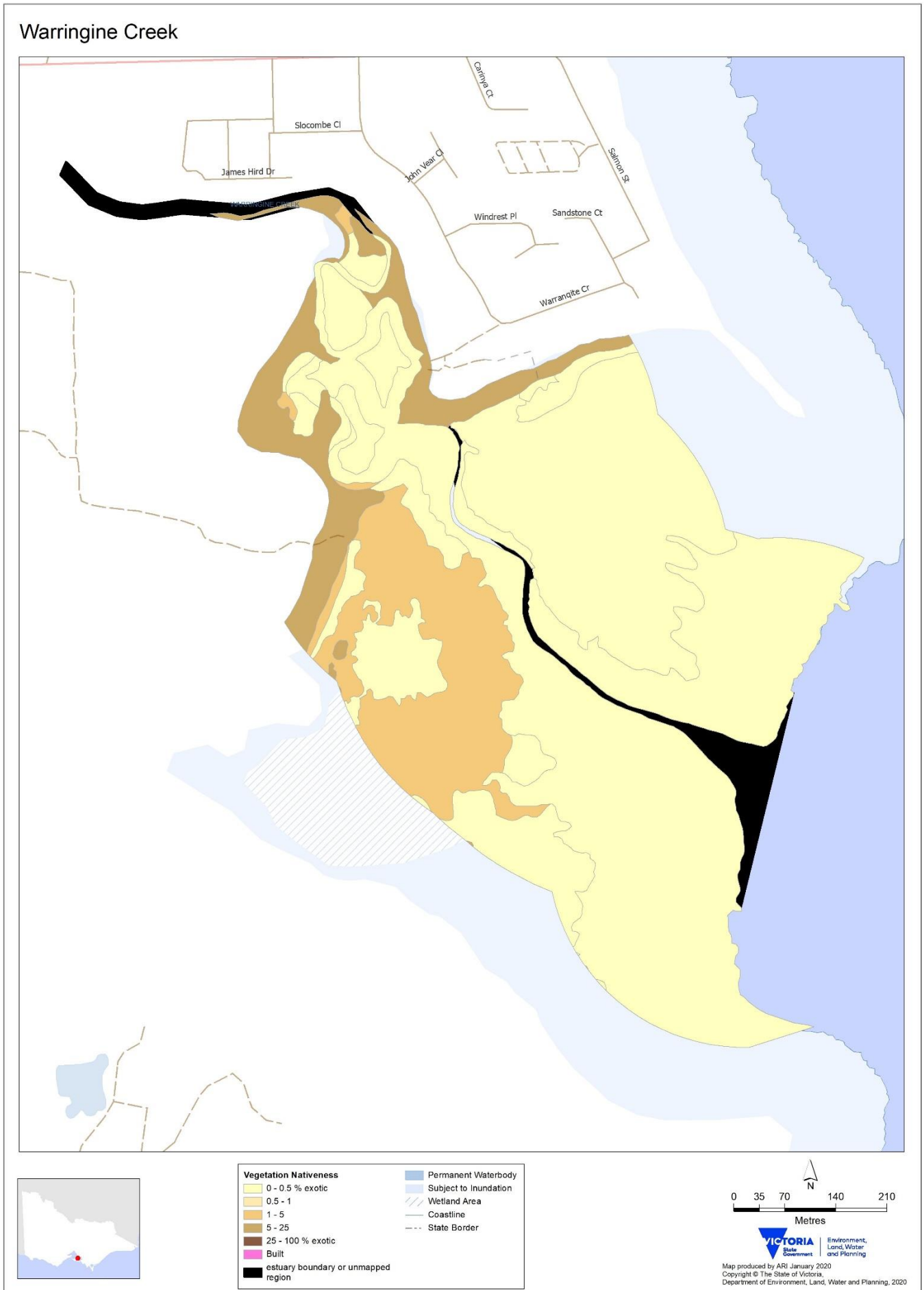


Vegetation Nativeness

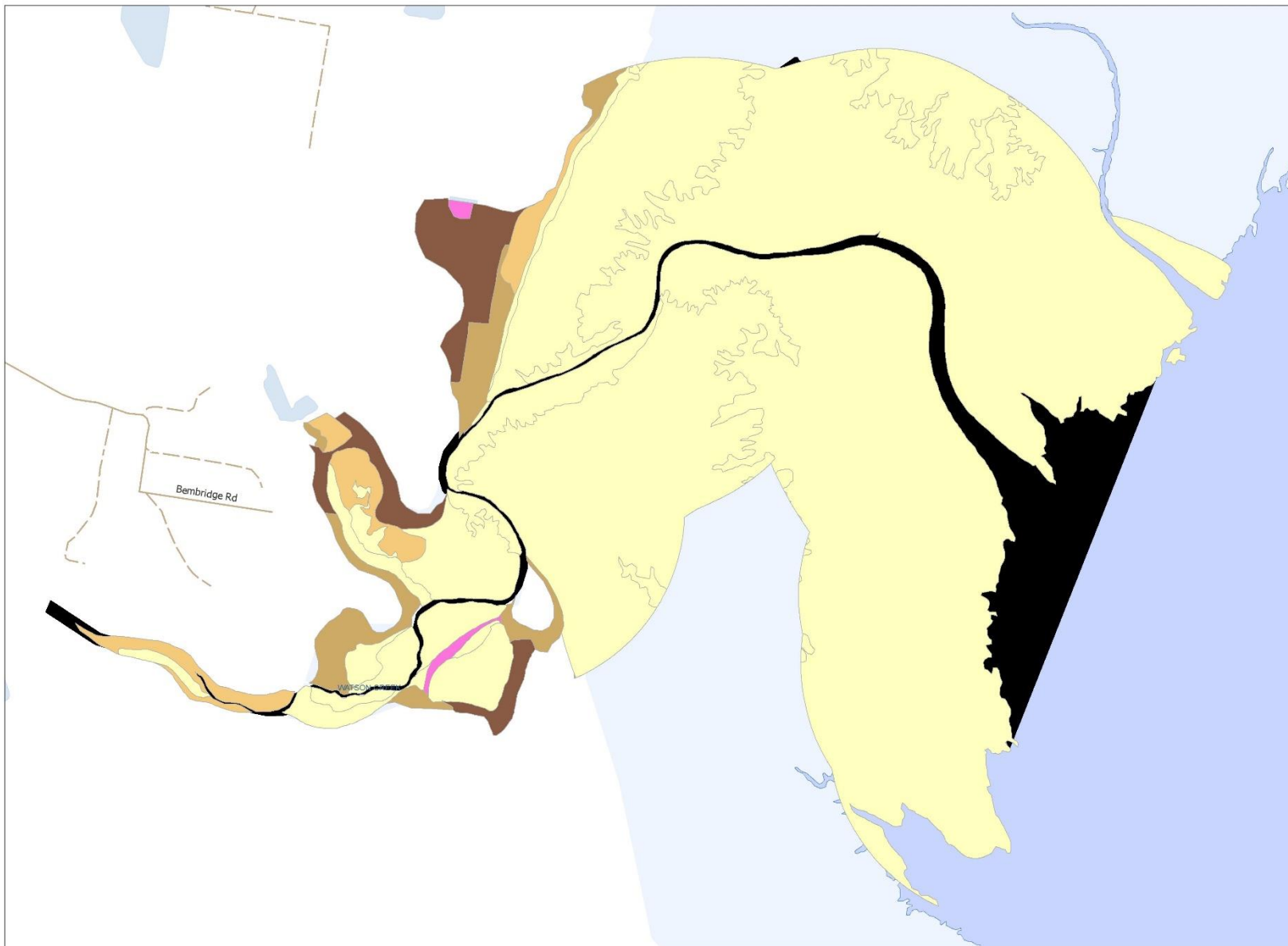
- 0 - 0.5 % exotic
- 0.5 - 1
- 1 - 5
- 5 - 25
- 25 - 100 % exotic
- Built
- estuary boundary or unmapped region

■ Permanent Waterbody
■ Subject to Inundation
▨ Wetland Area
— Coastline
- - - State Border





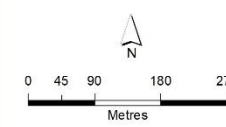
Watsons Creek



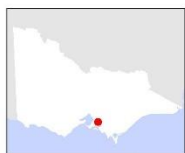
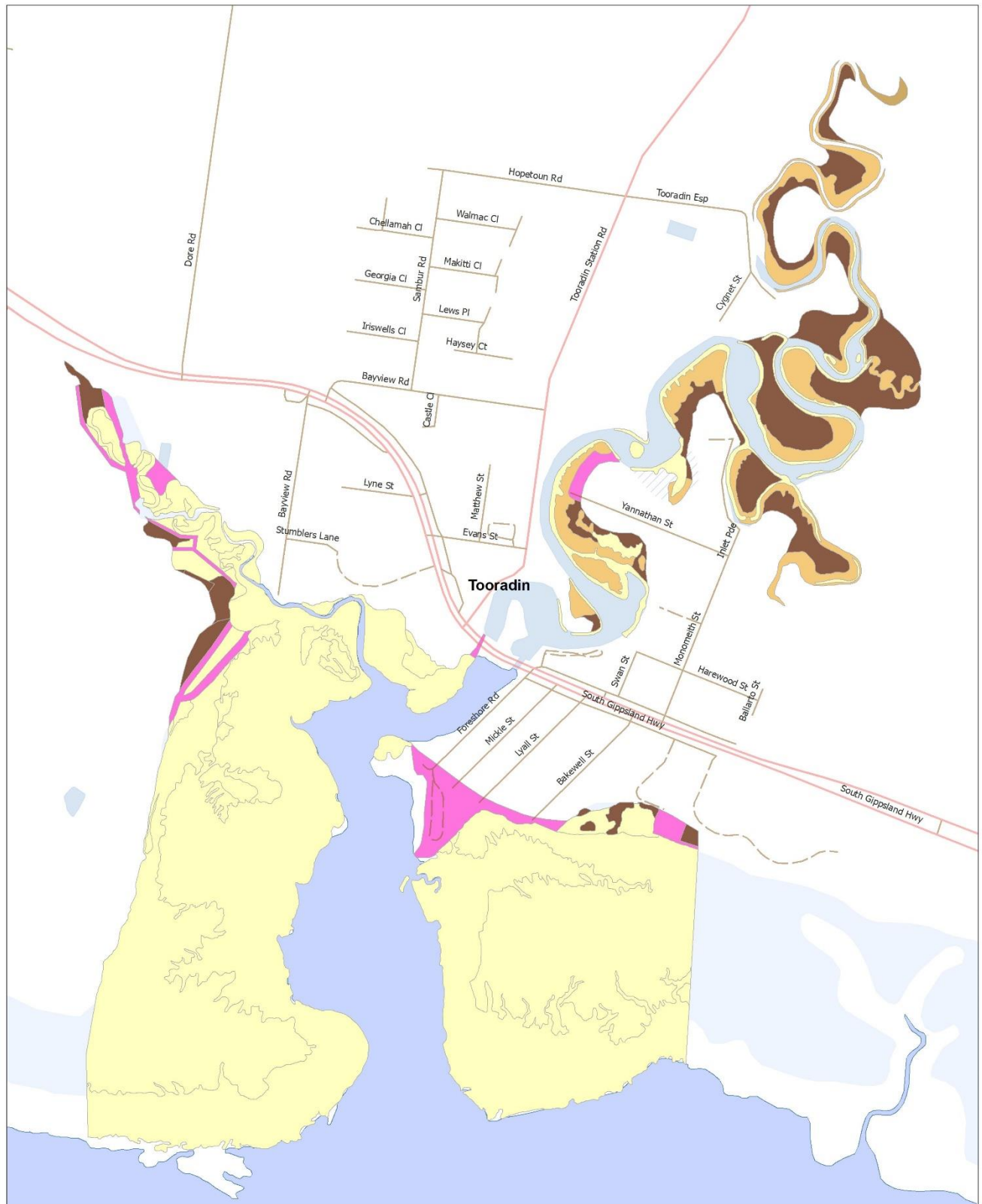
Vegetation Nativeness

- 0 - 0.5 % exotic
- 0.5 - 1
- 1 - 5
- 5 - 25
- 25 - 100 % exotic
- Built
- estuary boundary or unmapped region

Permanent Waterbody
Subject to Inundation
Wetland Area
Coastline
State Border



Tooradin Inlet



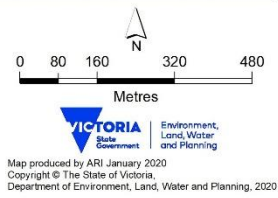
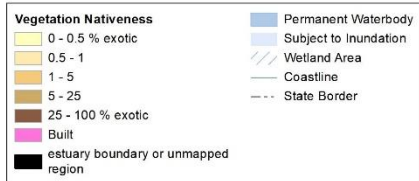
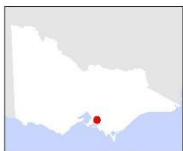
| Vegetation Nativeness | | | |
|-------------------------------------|-----------------|-----------------------|------------------|
| 0 - 0.5 % exotic | Lightest yellow | Permanent Waterbody | Blue |
| 0.5 - 1 | Light yellow | Subject to Inundation | Light blue |
| 1 - 5 | Yellow | Wetland Area | Lightest blue |
| 5 - 25 | Orange | Coastline | Thin grey line |
| 25 - 100 % exotic | Dark orange | State Border | Dashed grey line |
| Built | Pink | | |
| estuary boundary or unmapped region | Black | | |

0 70 140 280 420
Metres

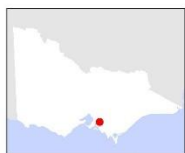
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Cardinia Creek and Deep Creek



Bunyip River



| | | |
|------------------------------|--|---|
| Vegetation Nativeness | <ul style="list-style-type: none"> 0 - 0.5 % exotic 0.5 - 1 1 - 5 5 - 25 25 - 100 % exotic Built estuary boundary or unmapped region | <ul style="list-style-type: none"> Permanent Waterbody Subject to Inundation Wetland Area Coastline State Border |
|------------------------------|--|---|

0 110 220 440 660

Metres

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Yallock Creek



Vegetation Nativeness

- 0 - 0.5 % exotic
- 0.5 - 1
- 1 - 5
- 5 - 25
- 25 - 100 % exotic
- Built
- estuary boundary or unmapped region

Permanent Waterbody
Subject to Inundation
Wetland Area
Coastline
State Border

