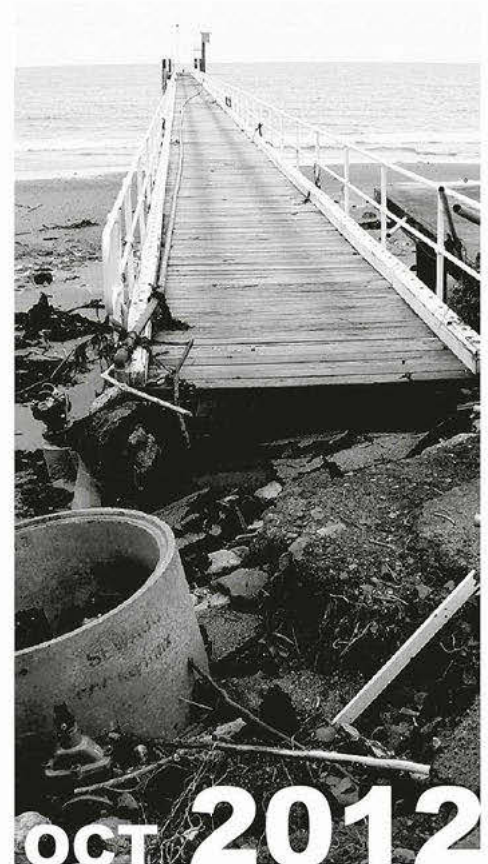


EXTENT OF SELECTED ADAPTION OPTIONS

Coastal Hazard Strategy for Townsville City Council [Pilot Project]



Australian Government
Department of Climate Change
and Energy Efficiency

Scope and limitations

This report: has been prepared by GHD for Townsville City Council and may only be used and relied on by Townsville City Council for the purpose agreed between GHD and the Townsville City Council as set out in this report.

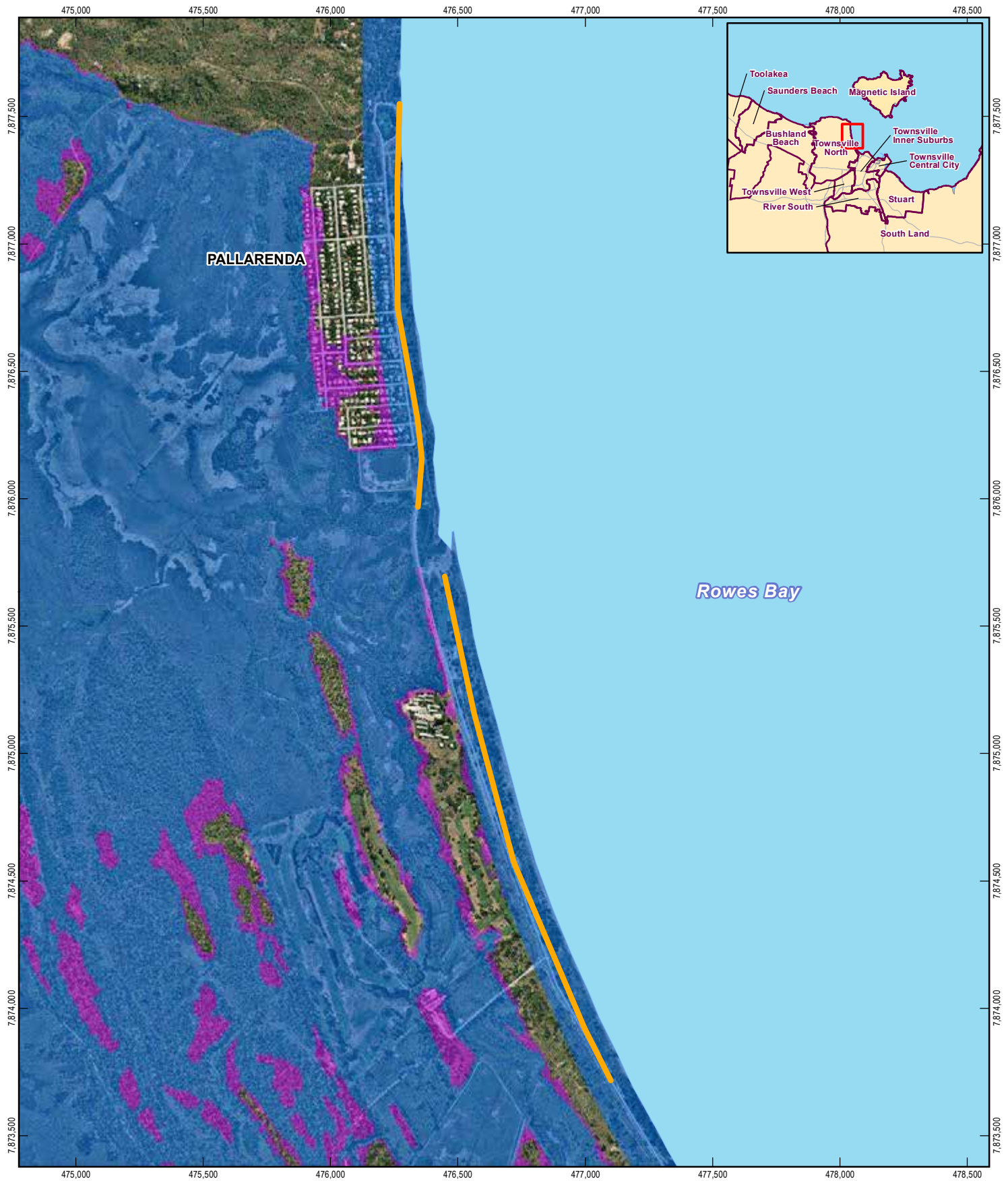
GHD otherwise disclaims responsibility to any person other than Townsville City Council arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

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The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

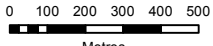
Cover images sourced from Townsville City Council, the Queensland Department of Environment and Heritage Protection and B.Harper (2012).



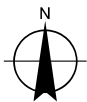
LEGEND

- | | | |
|---------------------------|---|-----------------|
| Adaptation Strategy Works | — | Road Centreline |
| --- | 2100 80cm Sea Level Rise and Erosion Prone Areas | |
| — | Sea Wall | |
| — | Sea Levee | |
| | 2100 100 y Storm Tide Extent with 80cm Sea Level Rise and Erosion Prone Areas | |

Scale 1:20,000 @ A4



Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

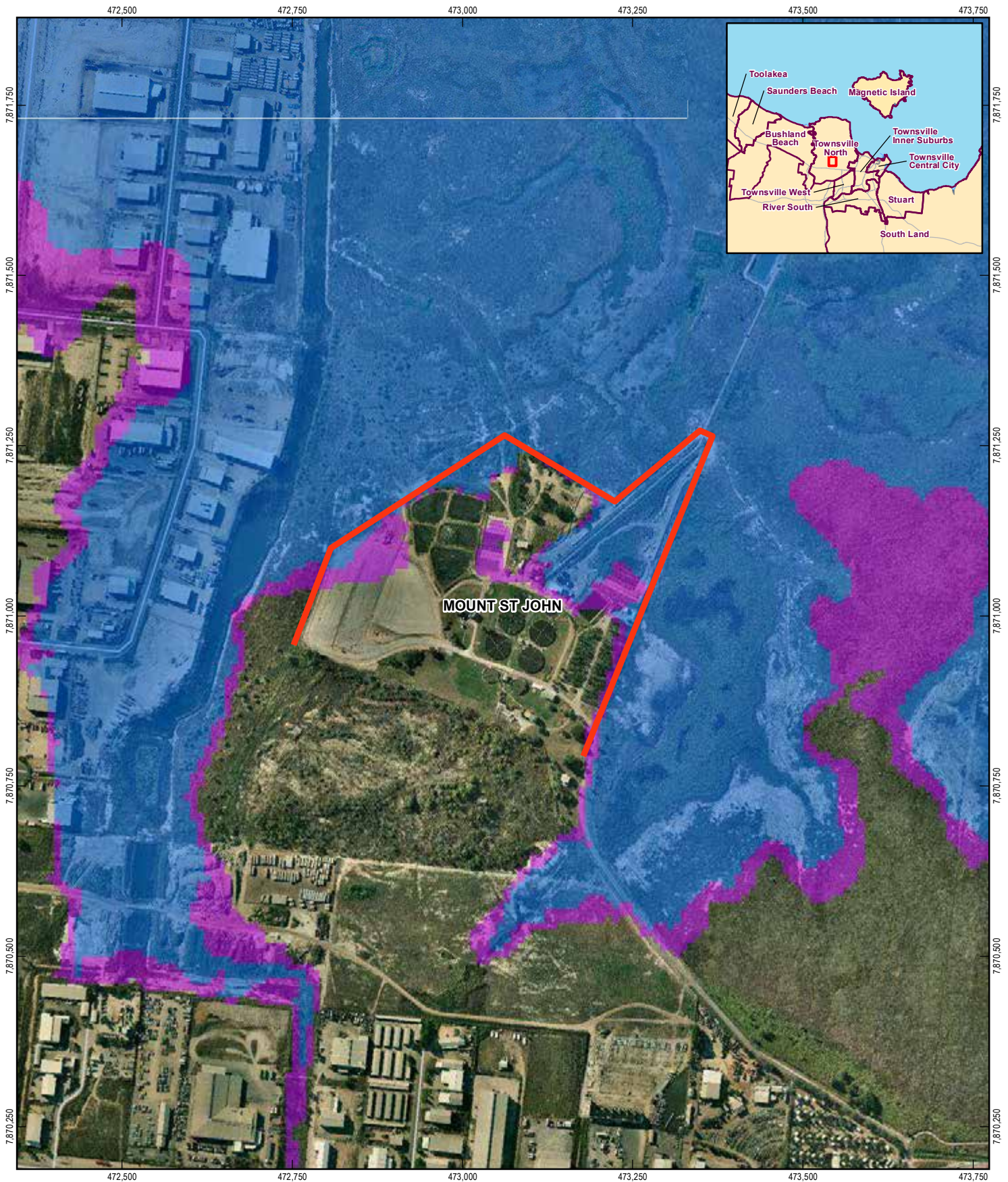


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Pallarenda Accommodate

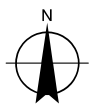
Figure D1



LEGEND

- | | | |
|---------------------------|--------------------|---|
| Adaptation Strategy Works | — | Road Centreline |
| --- | Storm Tide Barrier | 2100 80cm Sea Level Rise and Erosion Prone Areas |
| — | Sea Wall | 2100 100 y Storm Tide Extent with 80cm Sea Level Rise and Erosion Prone Areas |
| — | Sea Levee | |

Scale 1:7,500 @ A4
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 Metres
 Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 55

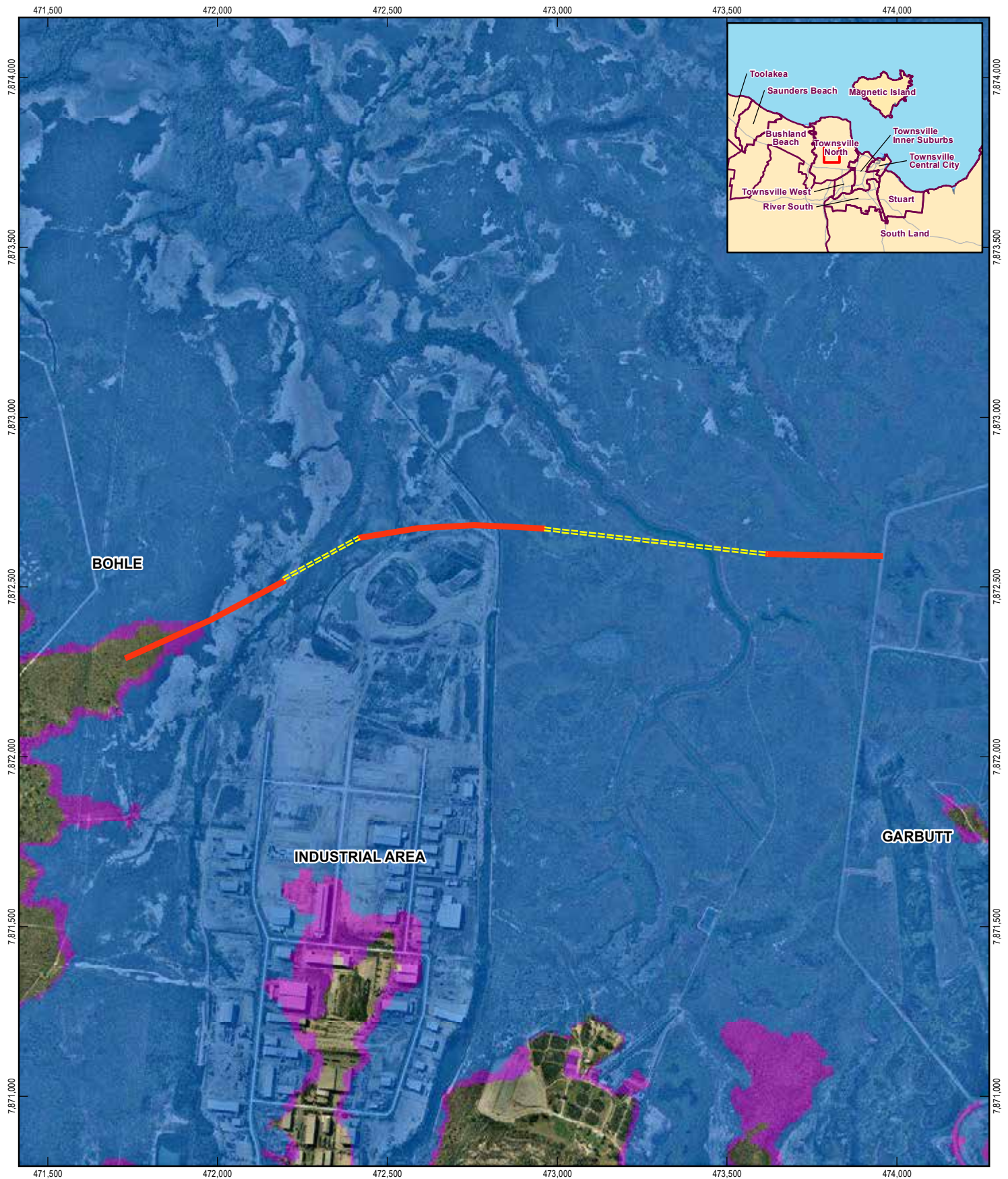


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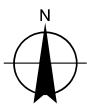
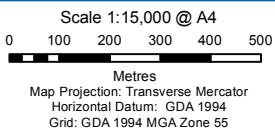
Mt St John Defend

Figure D2



LEGEND

- | | |
|---------------------------|---|
| Adaptation Strategy Works | — Road Centreline |
| --- Storm Tide Barrier | 2100 80cm Sea Level Rise and Erosion Prone Areas |
| Sea Wall | 2100 100 y Storm Tide Extent with 80cm Sea Level Rise and Erosion Prone Areas |
| Sea Levee | |

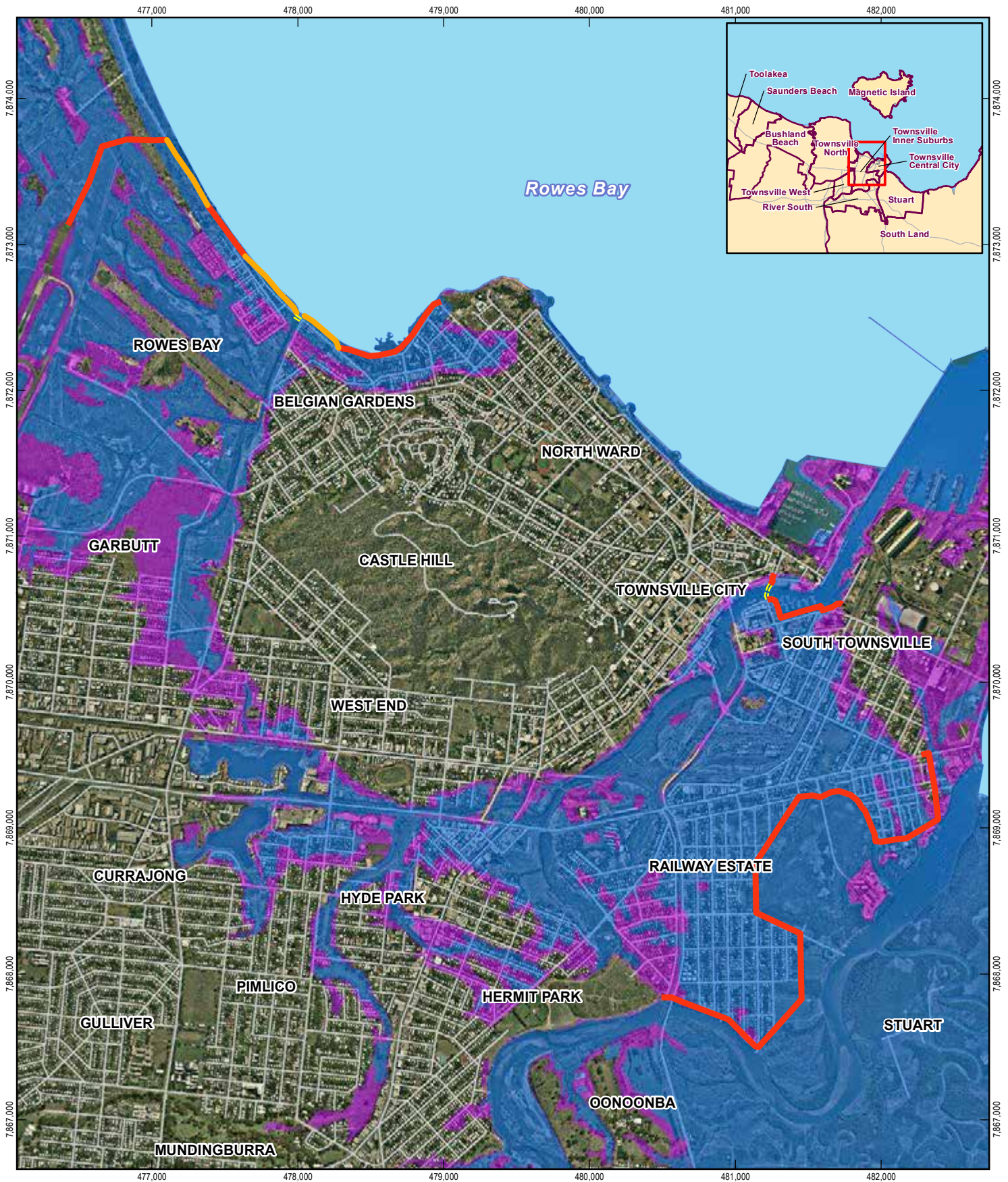


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Industrial Area Defend

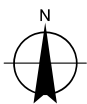
Figure D3



LEGEND

- | | |
|---------------------------|---|
| Adaptation Strategy Works | — Road Centreline |
| --- Storm Tide Barrier | 2100 80cm Sea Level Rise and Erosion Prone Areas |
| — Sea Wall | 2100 100 y Storm Tide Extent with 80cm Sea Level Rise and Erosion Prone Areas |
| — Sea Levee | |

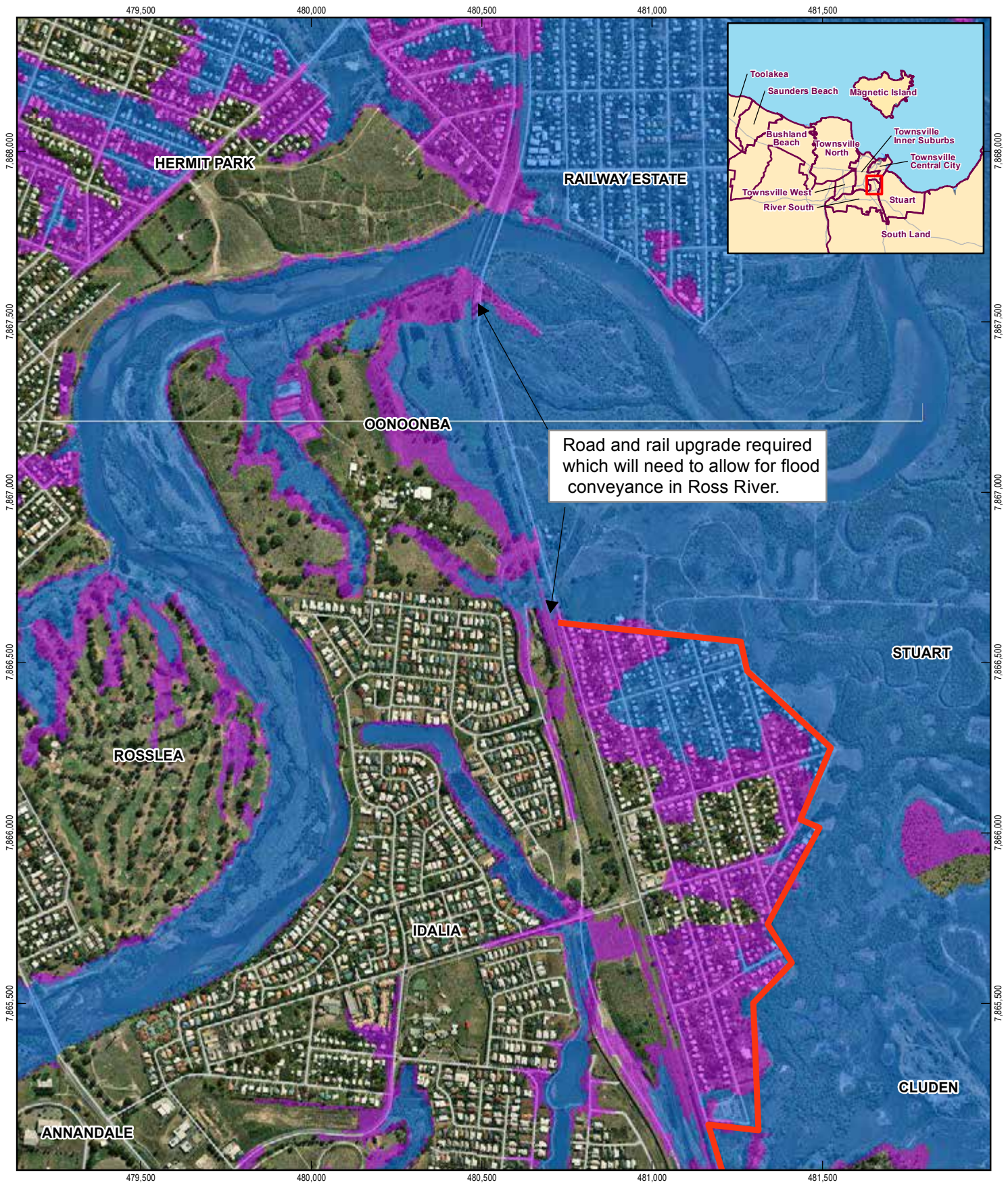
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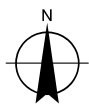
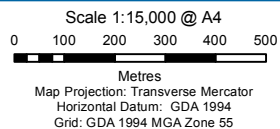
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 Revision | A
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Townsville Inner Suburbs Defend Figure D4



LEGEND

- | | |
|---------------------------|---|
| Adaptation Strategy Works | — Road Centreline |
| Sea Wall | 2100 80cm Sea Level Rise and Erosion Prone Areas |
| Sea Levee | 2100 100 y Storm Tide Extent with 80cm Sea Level Rise and Erosion Prone Areas |
| Land Filling | |

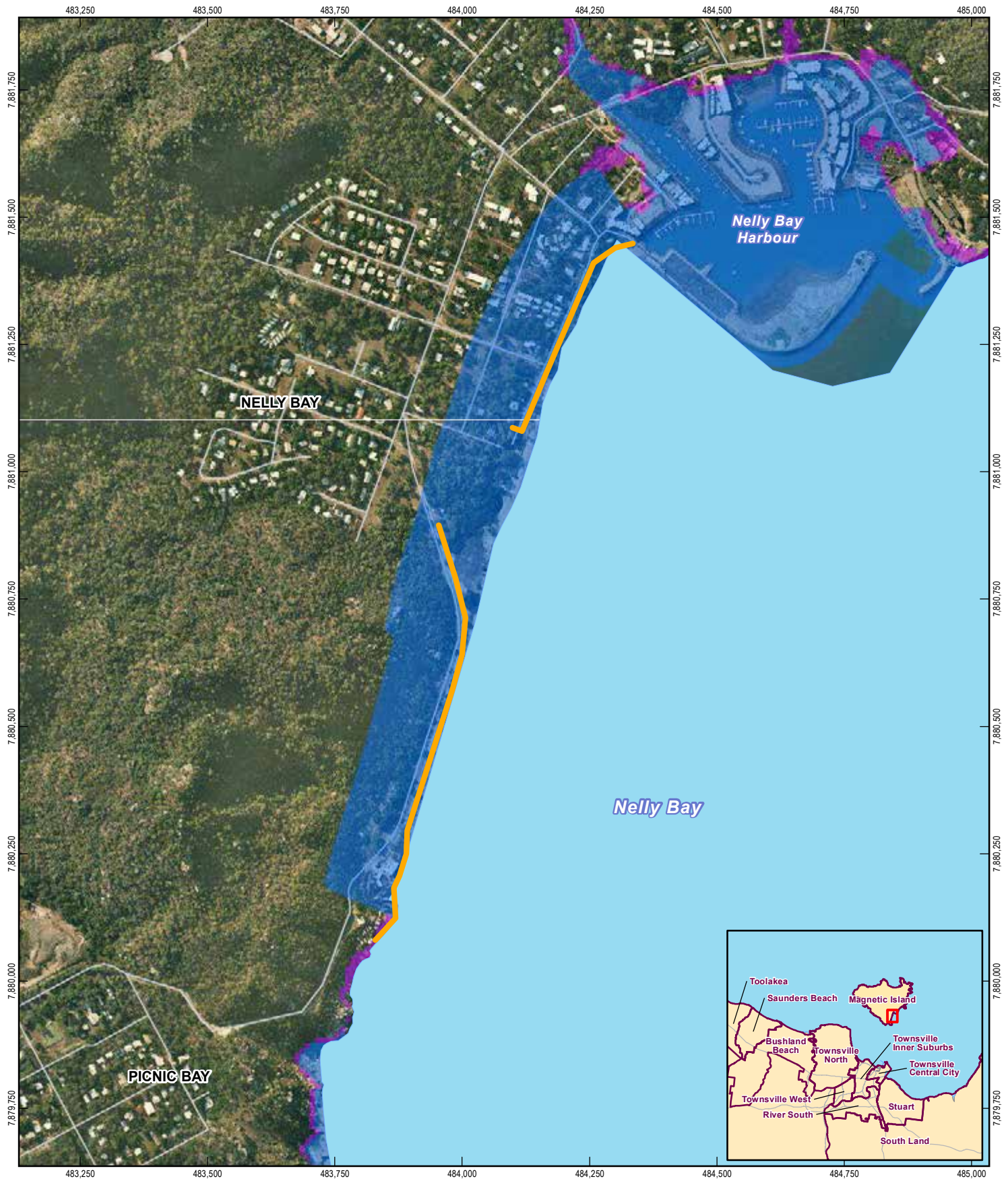


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Oonoonba Defend

Figure D5

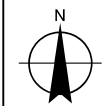


LEGEND

- | | |
|---------------------------|---|
| Adaptation Strategy Works | — Road Centreline |
| --- Storm Tide Barrier | 2100 80cm Sea Level Rise and Erosion Prone Areas |
| Sea Wall | 2100 100 y Storm Tide Extent with 80cm Sea Level Rise and Erosion Prone Areas |
| Sea Levee | |



Scale 1:10,000 @ A4
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 Metres
 Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 55

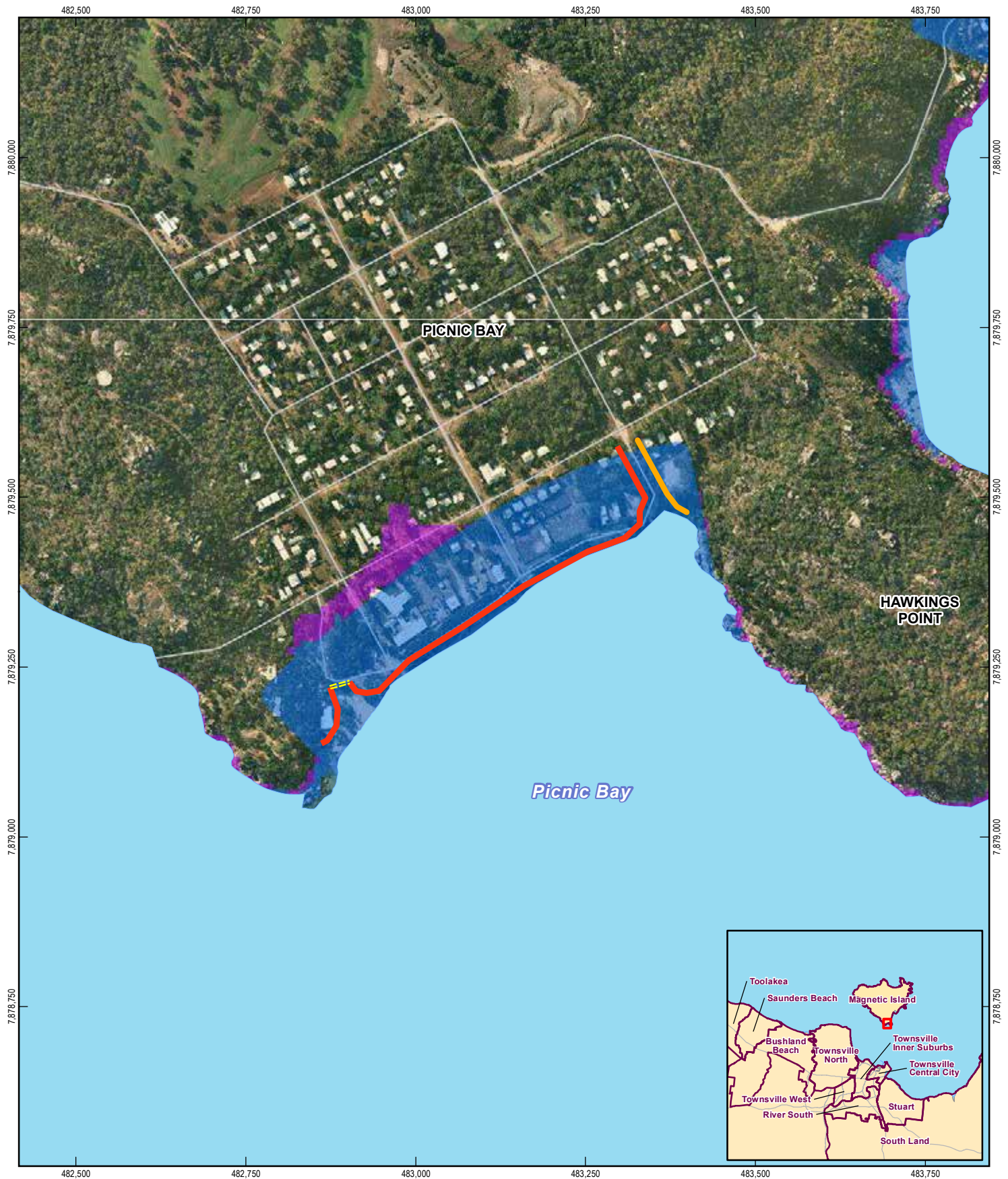


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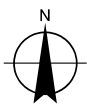
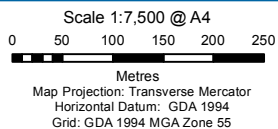
Nelly Bay Defend

Figure D6



LEGEND

- | | | |
|---------------------------|-----|---|
| Adaptation Strategy Works | — | Road Centreline |
| --- | --- | Storm Tide Barrier |
| — | — | Sea Wall |
| — | — | Sea Levee |
| | — | 2100 80cm Sea Level Rise and Erosion Prone Areas |
| | — | 2100 100 y Storm Tide Extent with 80cm Sea Level Rise and Erosion Prone Areas |

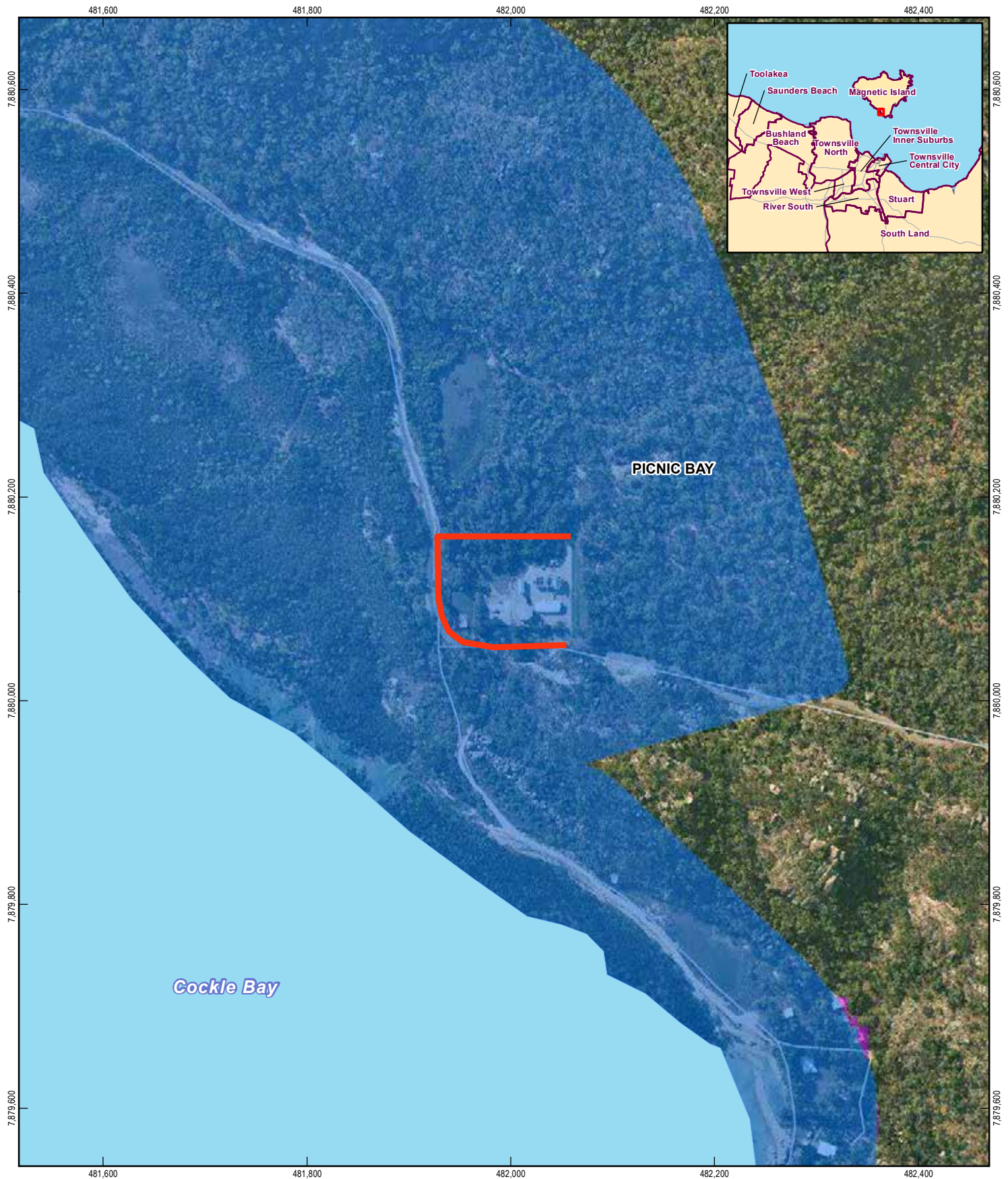


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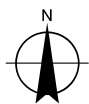
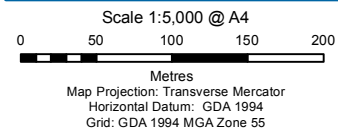
Picnic Bay Defend

Figure D7



LEGEND

- | | |
|---------------------------|---|
| Adaptation Strategy Works | — Road Centreline |
| --- Storm Tide Barrier | ■ 2100 80cm Sea Level Rise and Erosion Prone Areas |
| — Sea Wall | |
| — Sea Levee | ■ 2100 100 y Storm Tide Extent with 80cm Sea Level Rise and Erosion Prone Areas |

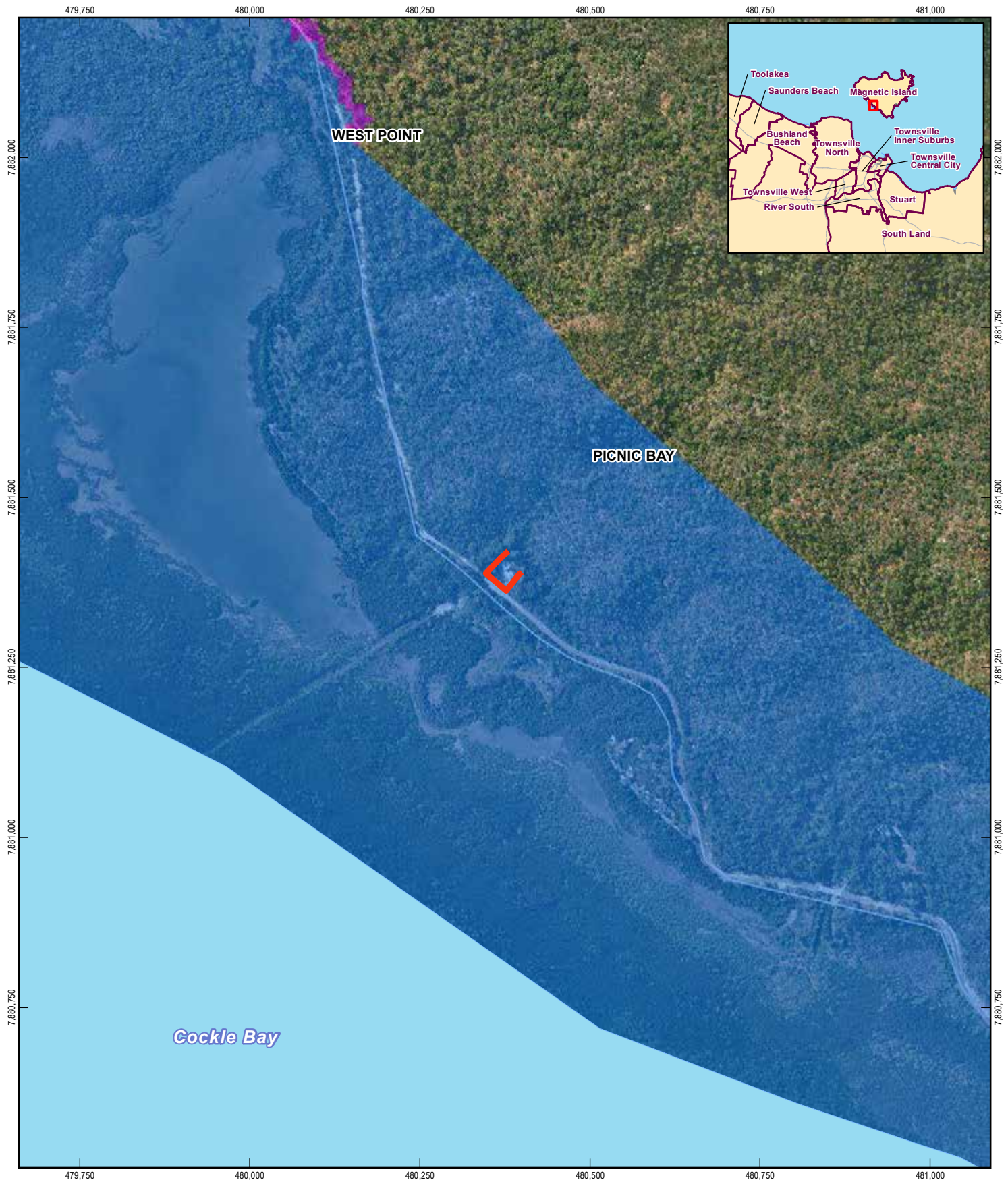


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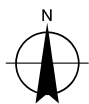
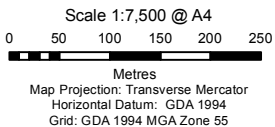
Picnic Bay STP Defend

Figure D8



LEGEND

- | | | |
|---------------------------|---|-----------------|
| Adaptation Strategy Works | — | Road Centreline |
| --- | 2100 80cm Sea Level Rise and Erosion Prone Areas | |
| — | Sea Wall | |
| — | Sea Levee | |
| | 2100 100 y Storm Tide Extent with 80cm Sea Level Rise and Erosion Prone Areas | |



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Bolger Bay Pump Station Defend Figure D9