



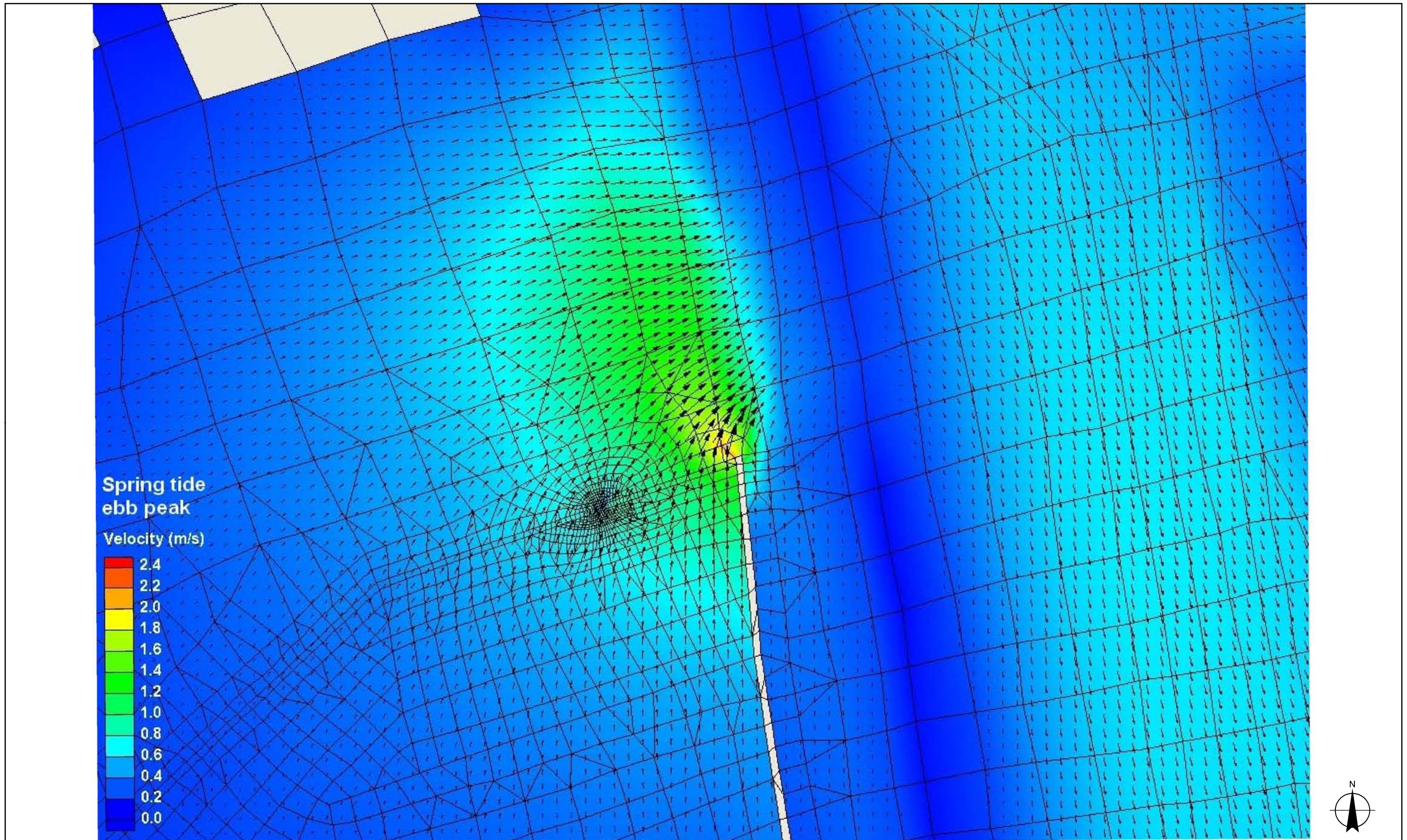
Gladstone Ports Corporation

*Growth, Prosperity, Community.*

## Appendix C – Model Results







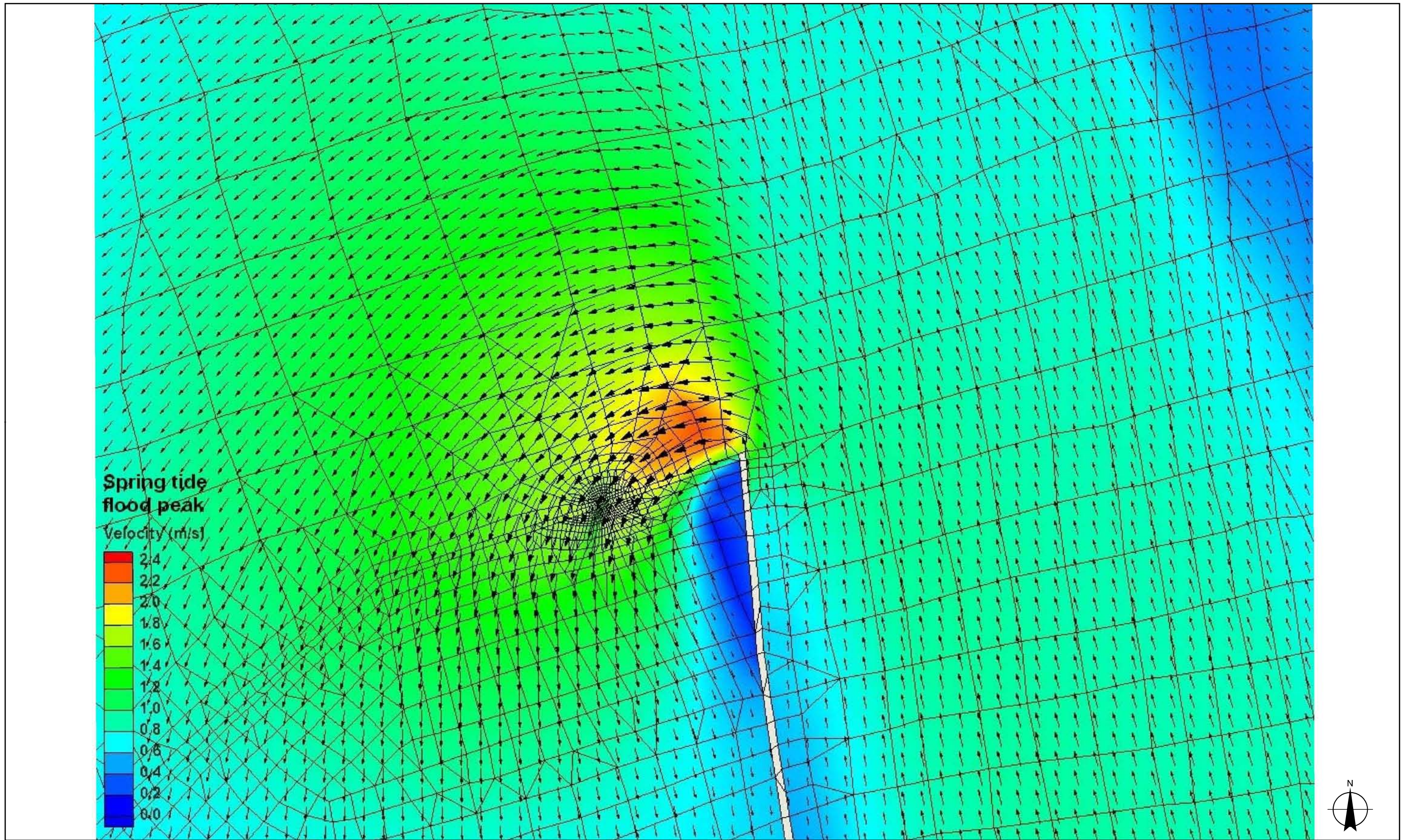
Port of Gladstone  
Western Basin Supplementary EIS

Construction of Eastern Bund -  
Peak Velocity for Ebb Phase of Spring Tide

Job Number	42-15386
Revision	A
Date	01 March 2010

Figure C 01





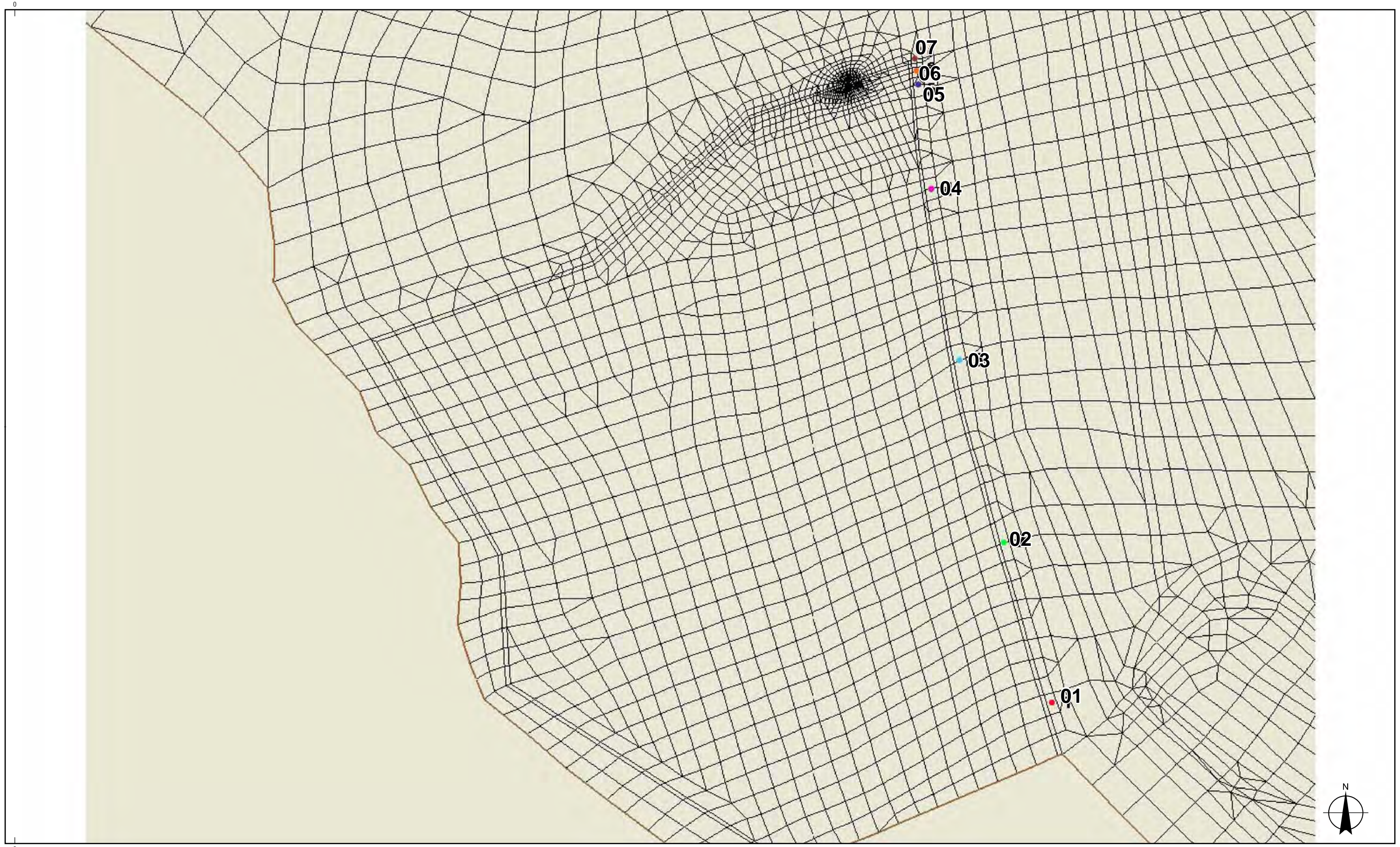
Port of Gladstone  
Western Basin Supplementary EIS

Construction of Eastern Bund -  
Peak velocity for flood phase of spring tide

Job Number	42-15386
Revision	A
Date	01 March 2010

Figure C 02





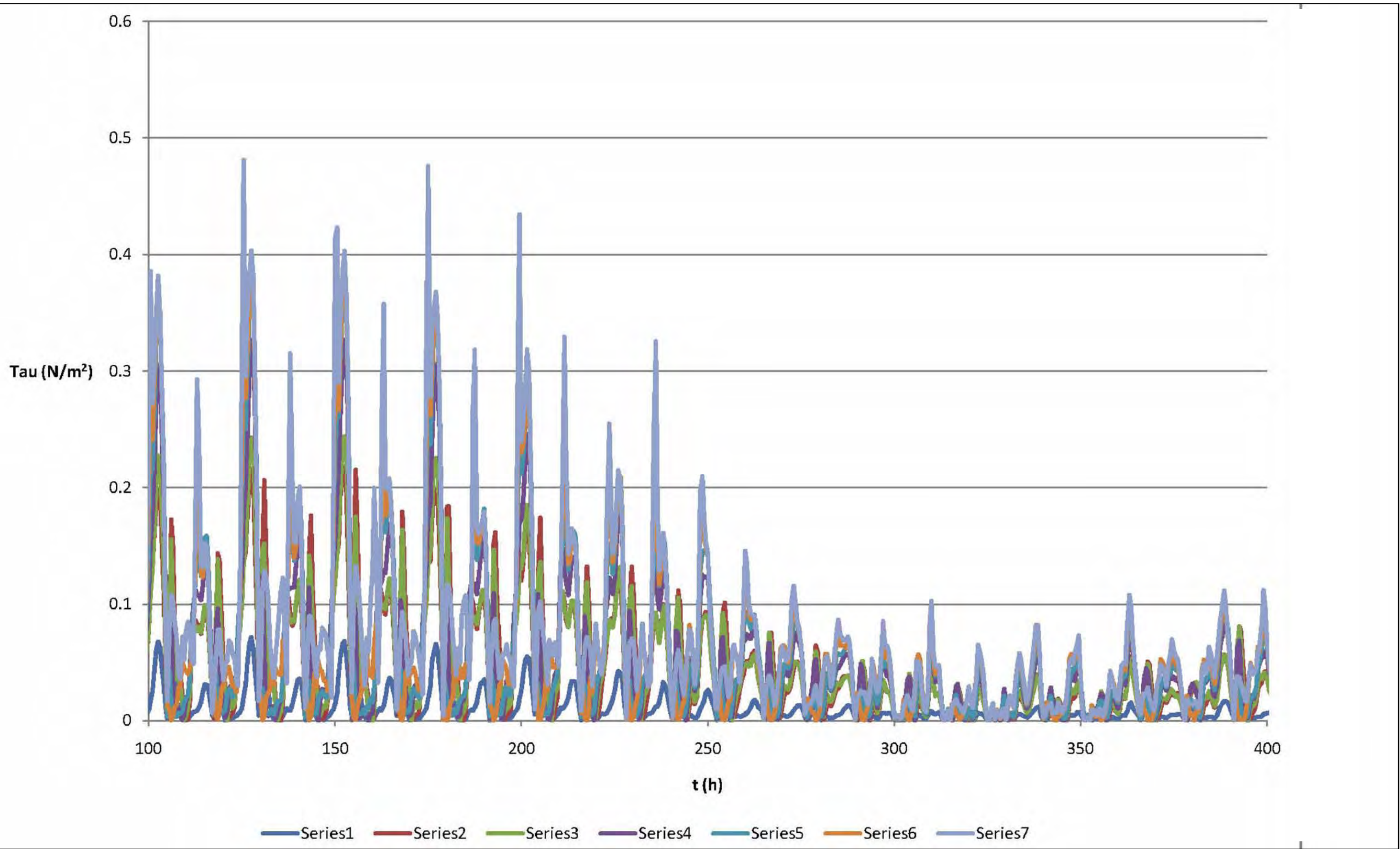
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Western Basin Supplementary EIS

Construction of Eastern Bund –  
Hydrodynamic Model Grid

Job Number	42-15386
Revision	A
Date	01 March 2010

Figure C 03





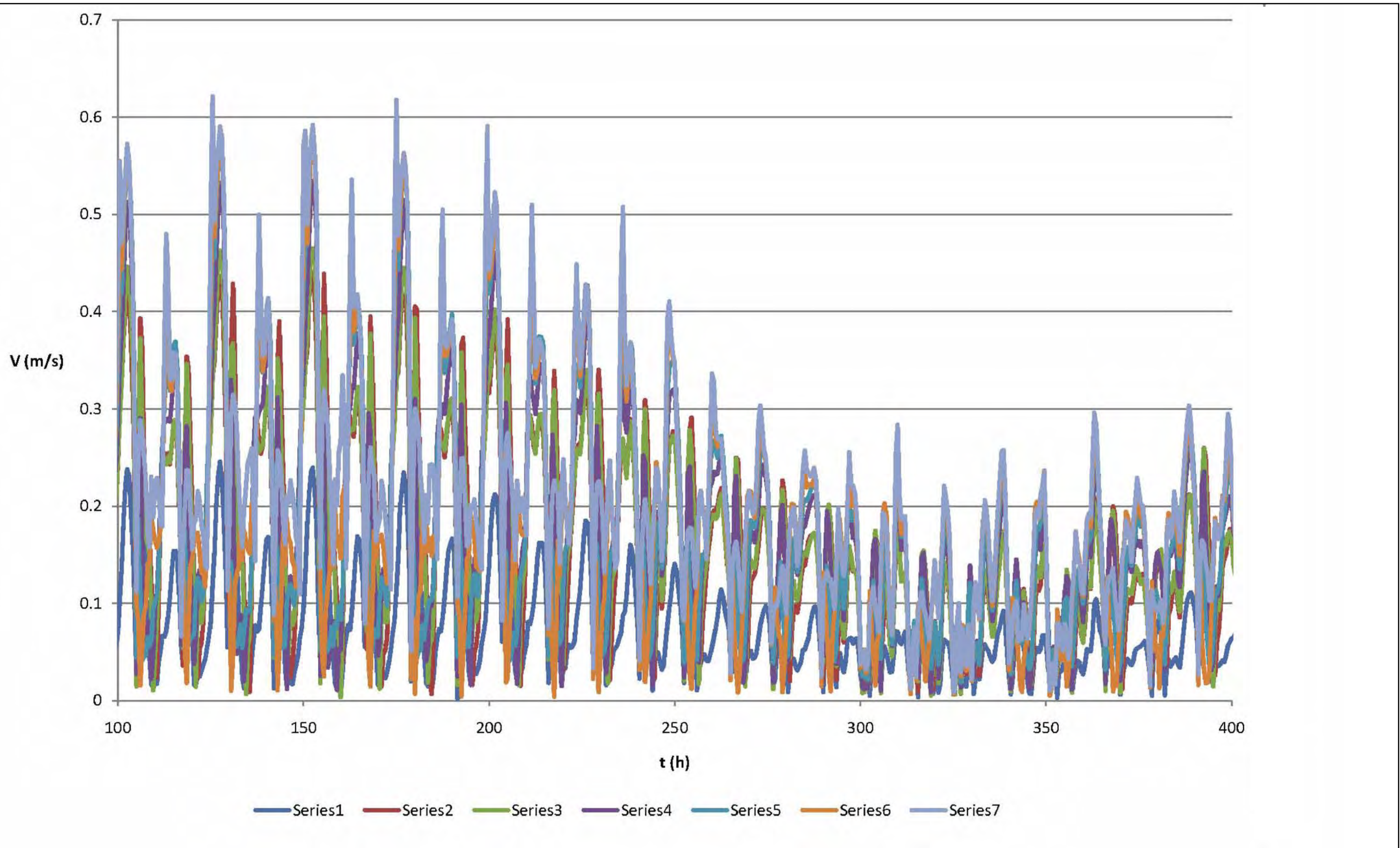
Port of Gladstone  
Western Basin Supplementary EIS

Construction of Eastern Bund –  
Bed Shear Stresses at Key Locations

Job Number	42-15386
Revision	A
Date	01 March 2010

Figure C 04





Port of Gladstone  
Western Basin Supplementary EIS

Construction of Eastern Bund –  
Velocities at Key Locations

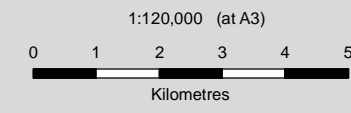
Job Number	42-15386
Revision	A
Date	01 March 2010

Figure C 05





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- LEGEND**
- Seagrass Areas Merged
  - Proposed Dredge Areas
  - Fisherman's Landing Northern Expansion
  - Western Basin Reclamation Area

- TSS (mg/L)**
- 10-30
  - 30-50
  - 50-100
  - >100



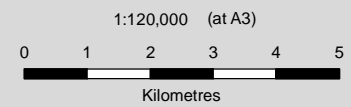
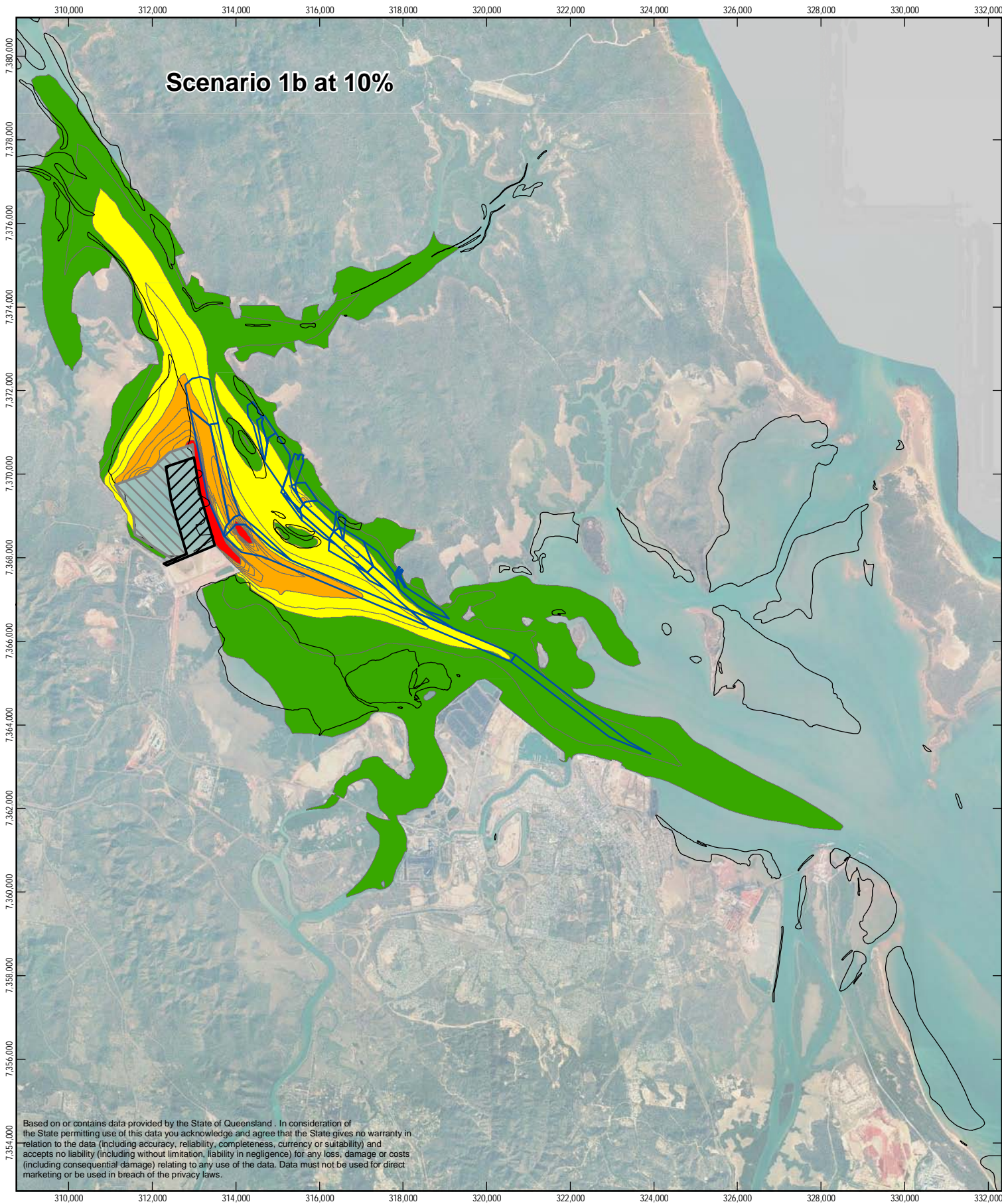
Port of Gladstone  
Western Basin Supplementary EIS

Job Number | 42-15386  
Revision | A  
Date | 28 April 2010

Scenario 1a Dredge Plume Extents

Figure C 06





**LEGEND**

- Seagrass Areas Merged
- Proposed Dredge Areas
- Fisherman's Landing Northern Expansion
- Western Basin Reclamation Area

**TSS (mg/L)**

- 10-30
- 30-50
- 50-100
- >100



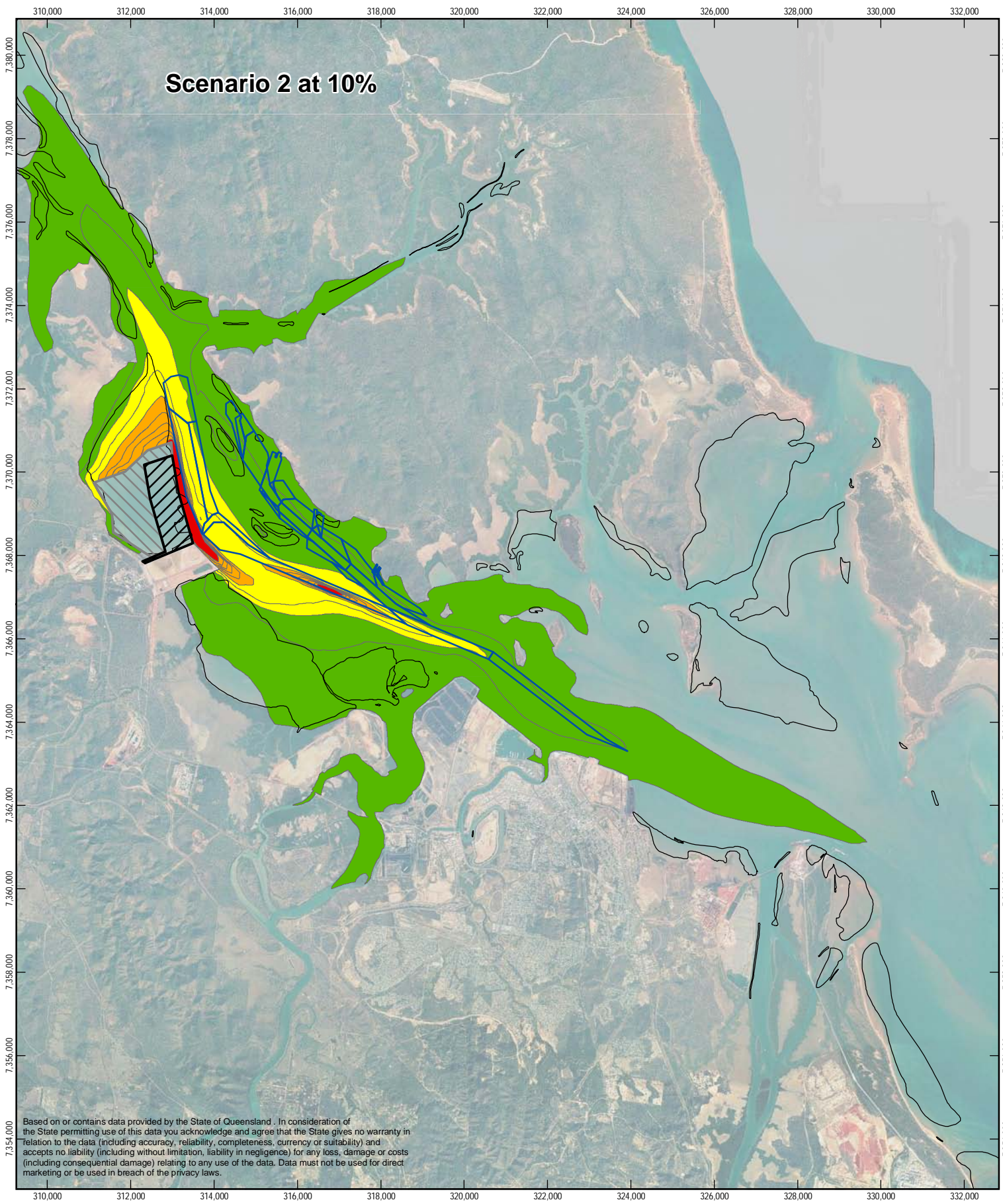
Port of Gladstone  
Western Basin Dredging and Disposal Project

Job Number | 42-15386  
Revision | A  
Date | 28 April 2010

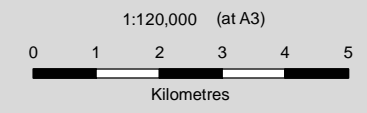
Scenario 1b Dredge Plume Extents

Figure C 07





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- LEGEND**
- Seagrass Areas Merged
  - Proposed Dredge Areas
  - Fisherman's Landing Northern Expansion
  - Western Basin Reclamation Area

- TSS (mg/L)**
- 10-30
  - 30-50
  - 50-100
  - >100



Port of Gladstone  
Western Basin Dredging and Disposal Project

Job Number | 42-15386  
Revision | A  
Date | 28 April 2010

Scenario 2 Dredge Plume Extents

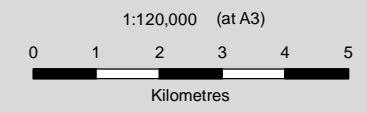
Figure C 08

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Data source: Aerial Photo (flown 2007) - DERM; Seagrass Data - DEEDI; Plume Data - WBM; Dredge Channels - GPC.





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- LEGEND**
- Seagrass Areas Merged
  - Proposed Dredge Areas
  - Fisherman's Landing Northern Expansion
  - Western Basin Reclamation Area

- TSS (mg/L)**
- 10-30
  - 30-50
  - 50-100
  - >100



Port of Gladstone  
Western Basin Supplementary EIS

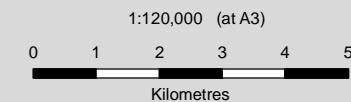
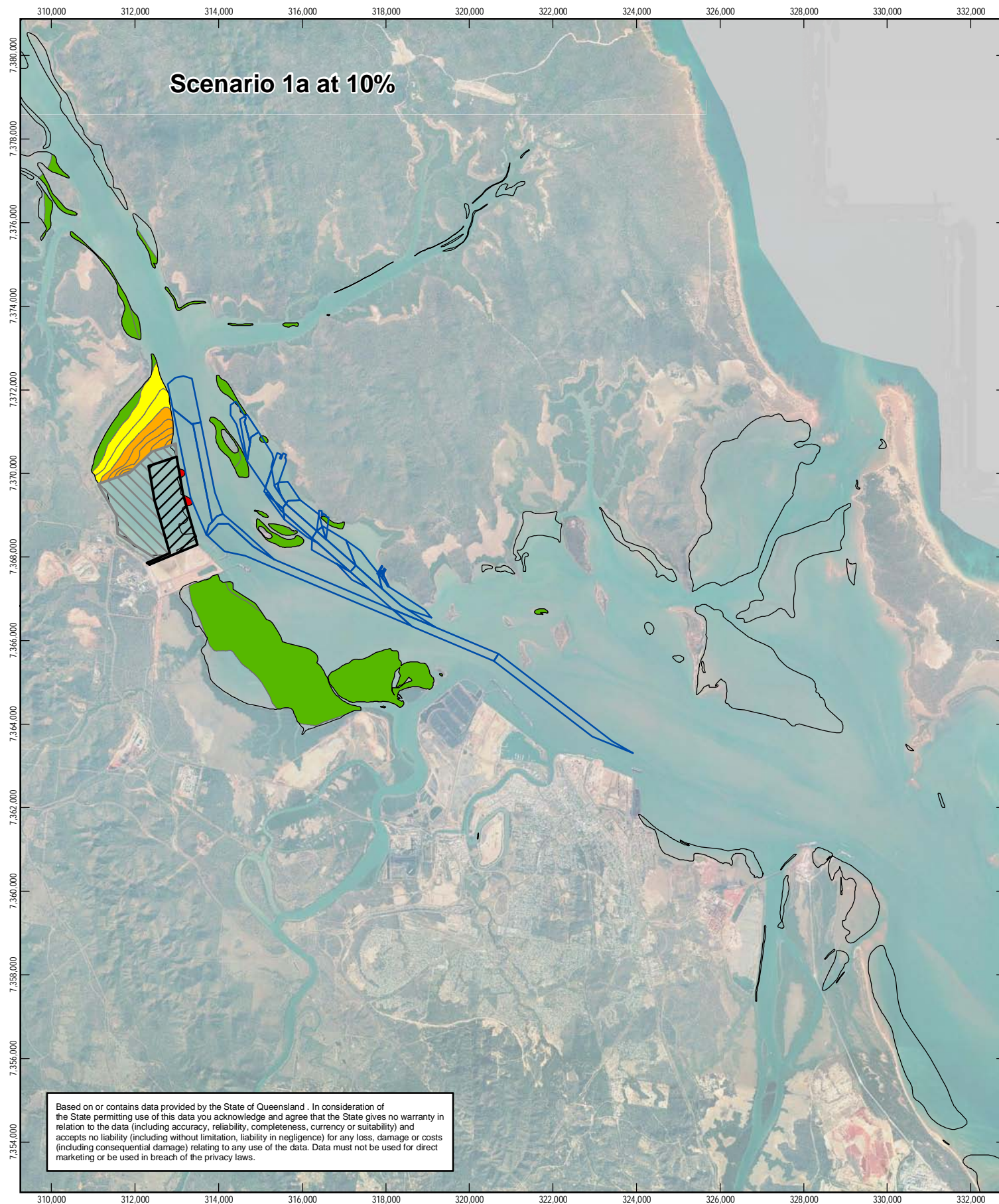
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Scenario 3 Dredge Plume Extents

Figure C 09

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Data source: Aerial Photo (flown 2007) - DERM; Seagrass Data - DEEDI; Plume Data - WBM; Dredge Channels - GPC.





- LEGEND**
- Seagrass Areas Merged
  - Proposed Dredge Areas
  - Fisherman's Landing Northern Expansion
  - Western Basin Reclamation Area

- TSS (mg/L)**
- 10-30
  - 30-50
  - 50-100
  - >100



Port of Gladstone  
Western Basin Supplementary EIS

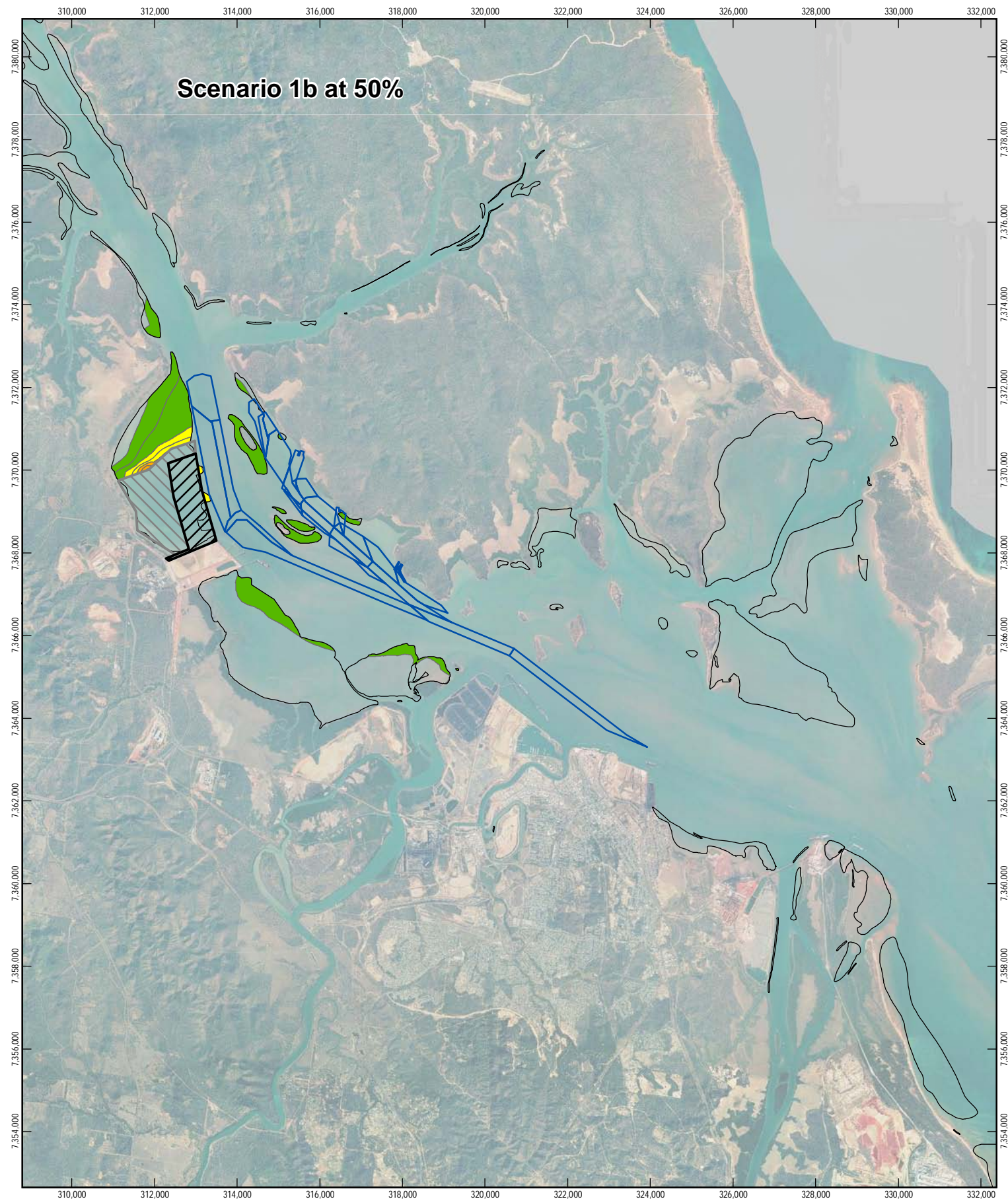
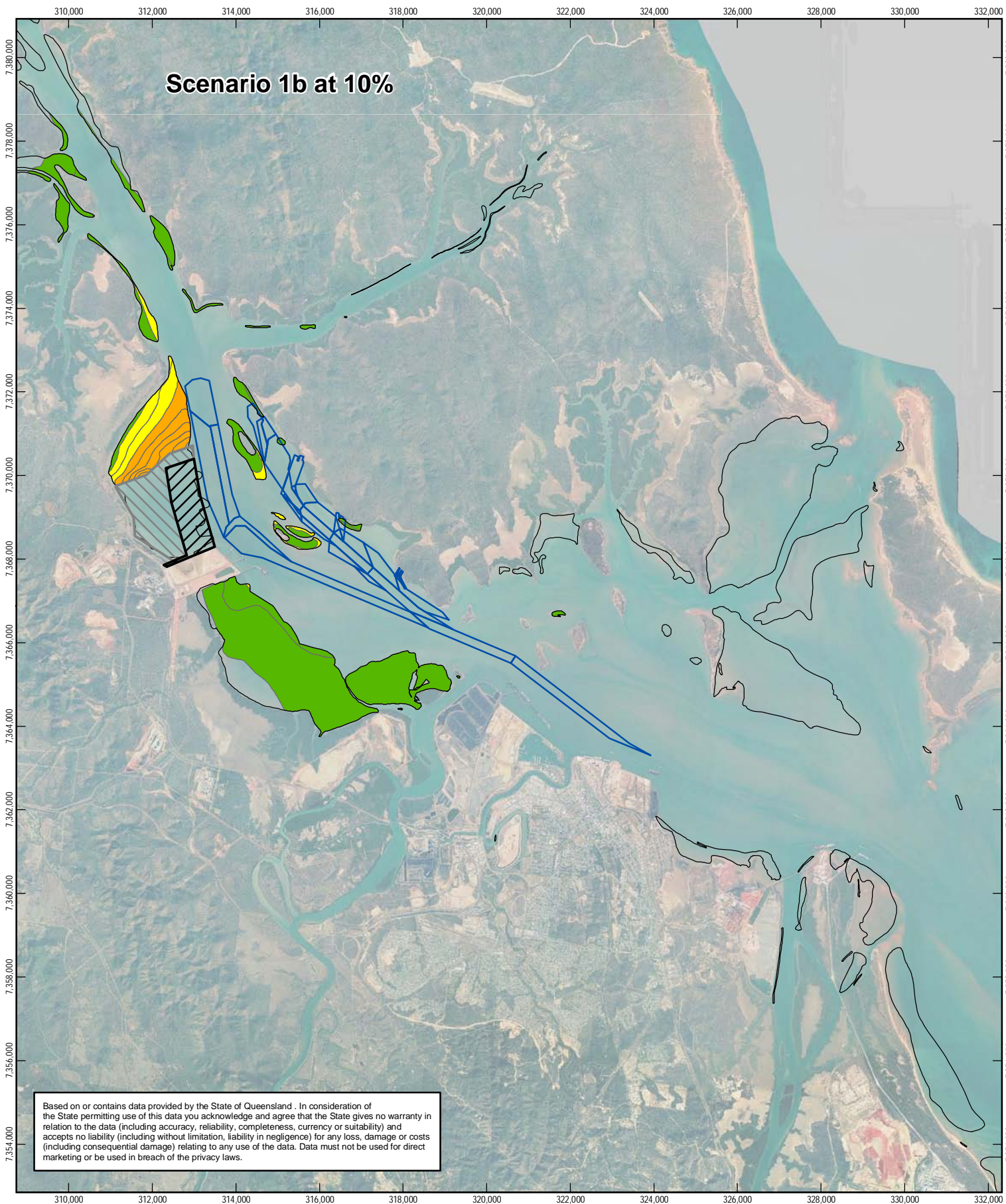
**Seagrass Areas Affected by  
Scenario 1a Dredge Plume**

Job Number | 42-15386  
Revision | A  
Date | 28 April 2010

**Figure C 10**

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Data source: Aerial Photo (flown 2007) - DERM; Seagrass Data - DEEDI; Plume Data - WBM; Dredge Channels - GPC.



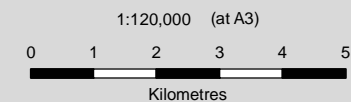


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<p>1:120,000 (at A3)</p> <p>Map Projection: Universal Transverse Mercator Horizontal Datum: Geocentric Datum of Australia Grid: Map Grid of Australia 1994, Zone 56</p>	<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li> Seagrass Areas Merged</li> <li> Proposed Dredge Areas</li> <li> Fisherman's Landing Northern Expansion</li> <li> Western Basin Reclamation Area</li> </ul>	<p><b>TSS (mg/L)</b></p> <ul style="list-style-type: none"> <li> 10-30</li> <li> 30-50</li> <li> 50-100</li> <li> &gt;100</li> </ul>		<p>Port of Gladstone Western Basin Supplementary EIS</p> <p><b>Seagrass Areas Affected by Scenario 1b Dredge Plume</b></p>	<table border="0"> <tr> <td>Job Number</td> <td>42-15386</td> </tr> <tr> <td>Revision</td> <td>A</td> </tr> <tr> <td>Date</td> <td>28 April 2010</td> </tr> </table>	Job Number	42-15386	Revision	A	Date	28 April 2010
Job Number	42-15386										
Revision	A										
Date	28 April 2010										

**Figure C 11**





- LEGEND**
- Seagrass Areas Merged
  - Proposed Dredge Areas
  - Fisherman's Landing Northern Expansion
  - Western Basin Reclamation Area

- TSS (mg/L)**
- 10-30
  - 30-50
  - 50-100
  - >100



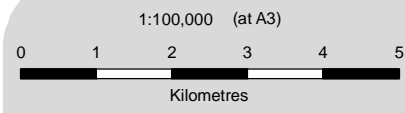
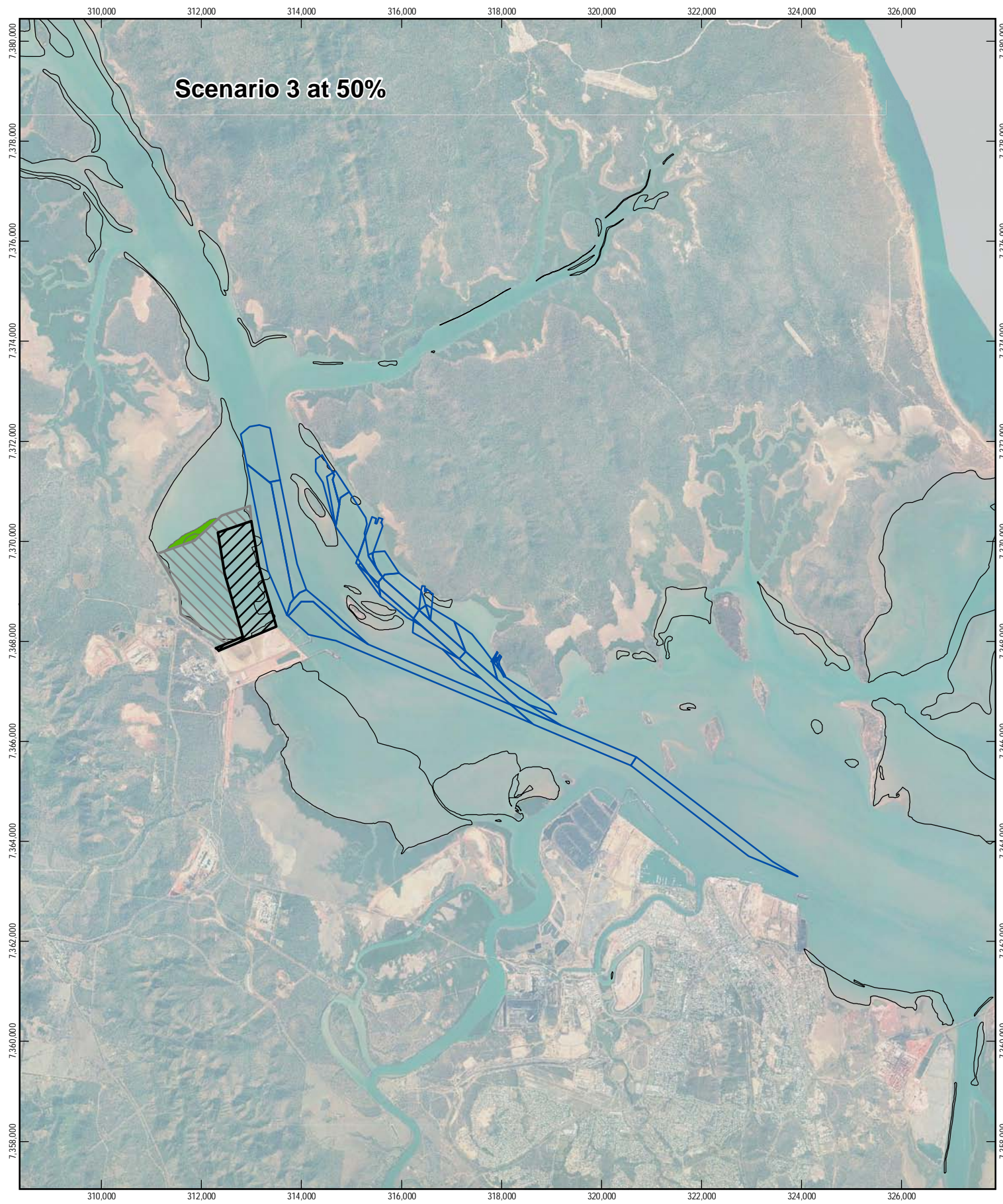
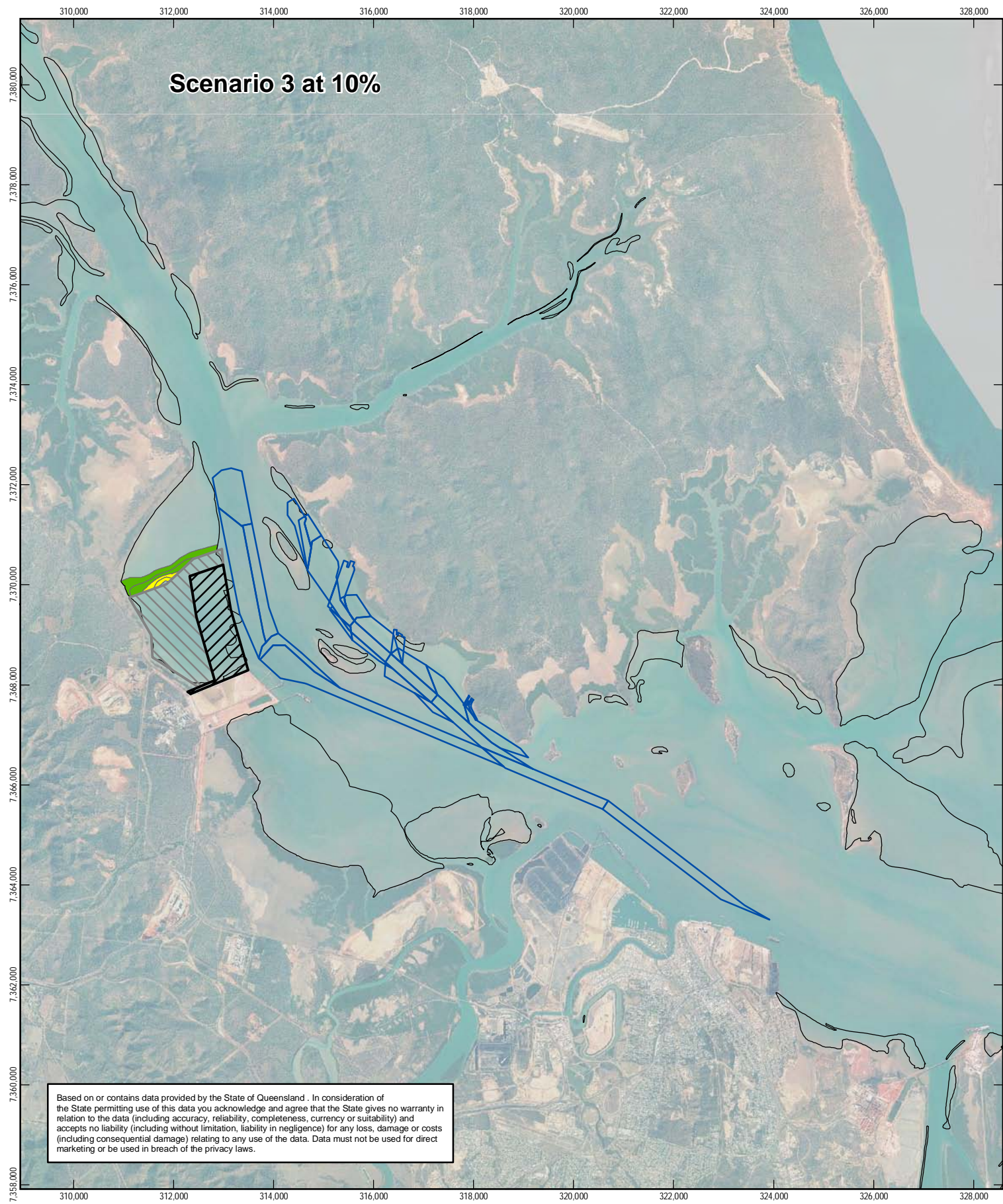
Port of Gladstone  
Western Basin Supplementary EIS  
**Seagrass Areas Affected by  
Scenario 2 Dredge Plume**

Job Number | 42-15386  
Revision | A  
Date | 28 April 2010

**Figure C 12**

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Data source: Aerial Photo (flown 2007) - DERM; Seagrass Data - DEEDI; Plume Data - WBM; Dredge Channels - GPC.





- LEGEND**
- Seagrass Areas Merged
  - Proposed Dredge Areas
  - Fisherman's Landing Northern Expansion
  - Western Basin Reclamation Area

- TSS (mg/L)**
- 10-30
  - 30-50
  - 50-100
  - >100



Port of Gladstone  
Western Basin Supplementary EIS

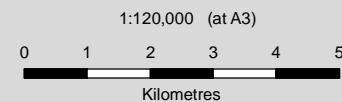
**Seagrass Areas Affected by  
Scenario 3 Dredge Plume**

Job Number 42-15386  
Revision A  
Date 28 April 2010

**Figure C 13**

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Data source: Aerial Photo (flown 2007) - DERM; Seagrass Data - DEEDI; Plume Data - WBM; Dredge Channels - GPC.





- LEGEND**
- Seagrass Areas Merged
  - Proposed Dredge Areas
  - Fisherman's Landing Northern Expansion
  - Western Basin Reclamation Area

- TSS (mg/L)**
- 10-30
  - 30-50
  - 50-100
  - >100



Port of Gladstone  
Western Basin Dredging and Disposal Project

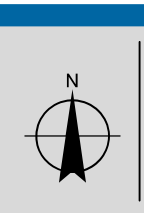
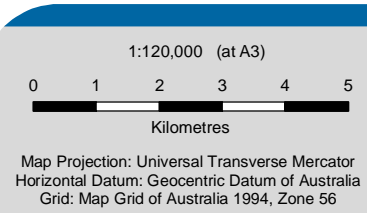
**Scenario 9 Dredge Plume Extents  
No Rehandling**

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Revision | A  
Date | 28 April 2010

**Figure C 14**

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Data source: Aerial Photo (flown 2007) - DERM; Seagrass Data - DEEDI; Plume Data - WBM; Dredge Channels - GPC.





- LEGEND**
- Seagrass Areas Merged
  - Proposed Dredge Areas
  - Fisherman's Landing Northern Expansion
  - Western Basin Reclamation Area

- TSS (mg/L)**
- 10-30
  - 30-50
  - 50-100
  - >100



Port of Gladstone  
Western Basin Dredging and Disposal Project

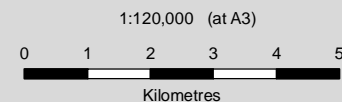
**Scenario10 Dredge Plume Extents  
No Rehandling and NE Decant**

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Date | 28 April 2010

**Figure C 15**

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Data source: Aerial Photo (flown 2007) - DERM; Seagrass Data - DEEDI; Plume Data - WBM; Dredge Channels - GPC.





**LEGEND**

Seagrass Areas Merged	TSS (mg/L) 10-30
Proposed Dredge Areas	TSS (mg/L) 30-50
Fisherman's Landing Northern Expansion	TSS (mg/L) 50-100
Western Basin Reclamation Area	



Port of Gladstone  
Western Basin Supplementary EIS

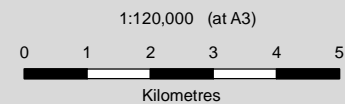
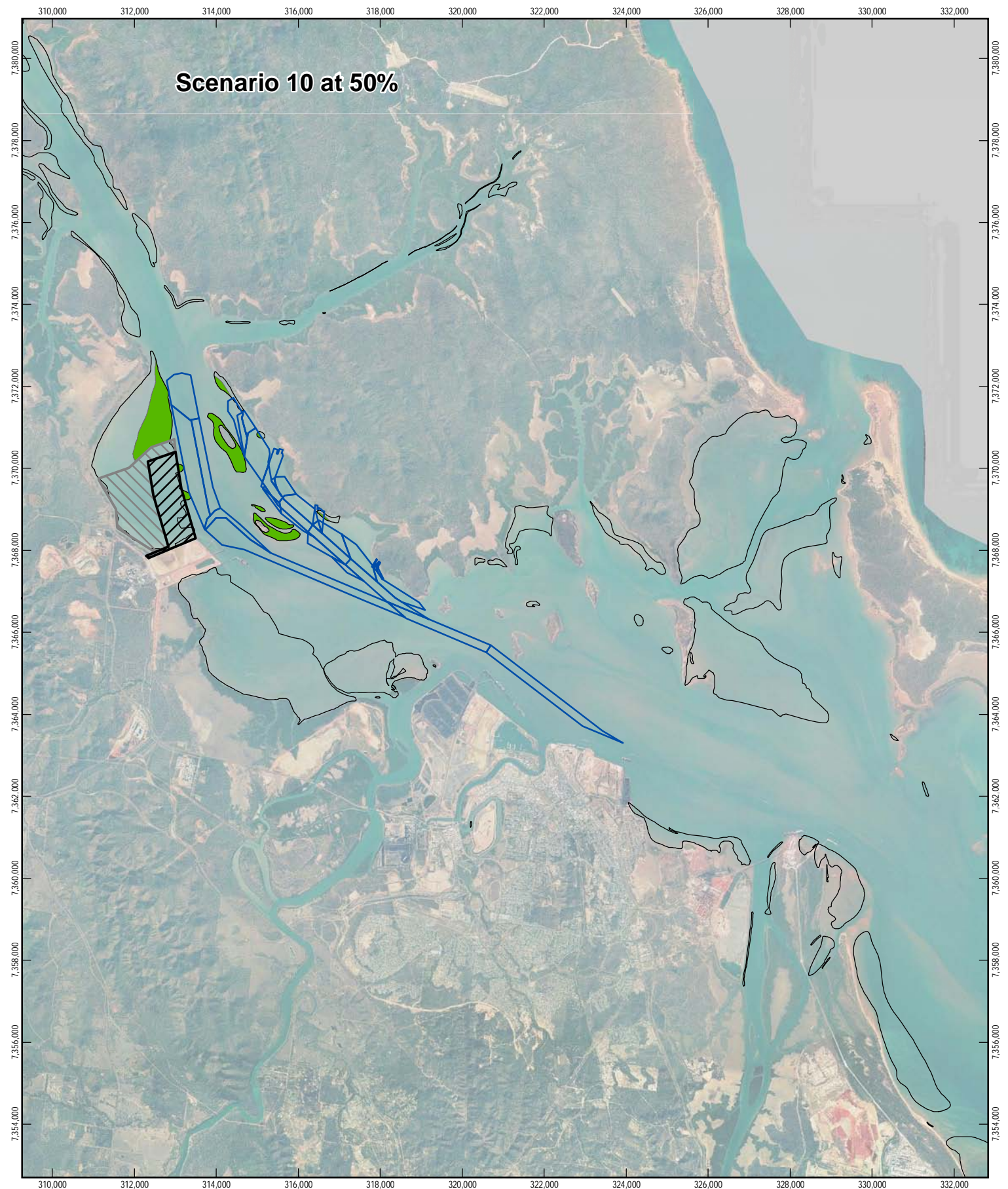
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Seagrass Areas Affected by  
Scenario 9 Dredge Plume

Figure C 16

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**LEGEND**

- Seagrass Areas Merged
- Proposed Dredge Areas
- Fisherman's Landing Northern Expansion
- Western Basin Reclamation Area

**TSS (mg/L)**

- 10-30
- 30-50
- 50-100



Port of Gladstone  
Western Basin Supplementary EIS

Seagrass Areas Affected by  
Scenario 10 Dredge Plume

Job Number | 42-15386  
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**Figure C 17**