

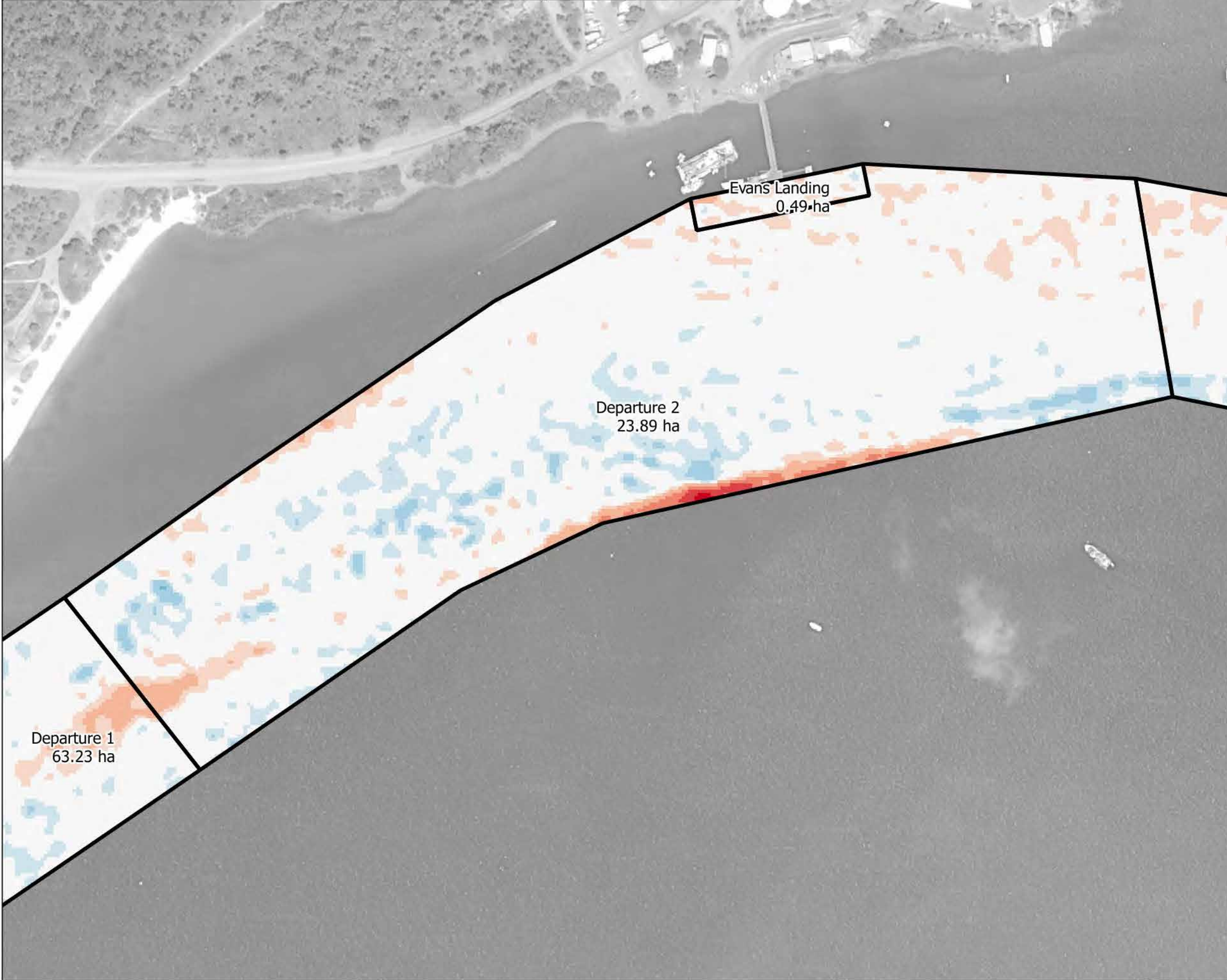
PORT OF WEIPA

# ▶ APPENDIX B

**Bathymetric analysis:  
annual sedimentation - part 3**



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 2	-8821	+9487	+666



**PORT & COASTAL**  
SOLUTIONS

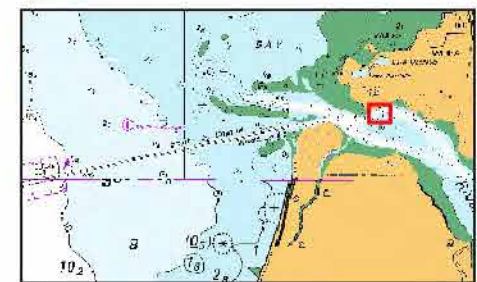
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- -5 - -2
- -2 - -1
- -1 - -0.5
- -0.5 - -0.2
- -0.2 - -0.1
- -0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2012 - Post  
Dredge 2011**

**Departure 2**

A3 Scale: 1:3,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 3	-17432	+63862	+46430



**PORT & COASTAL**  
SOLUTIONS

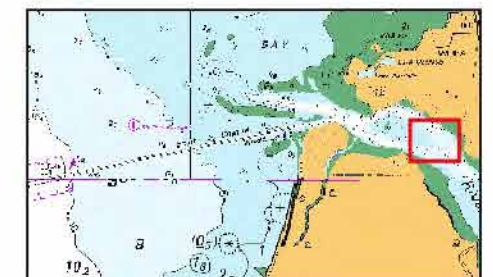
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2012 - Post  
Dredge 2011**

**Approach 3**

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 2	-2495	+6786	+4291

Approach 1  
52.58 ha

Approach 2  
67.25 ha



**PORT & COASTAL**  
SOLUTIONS

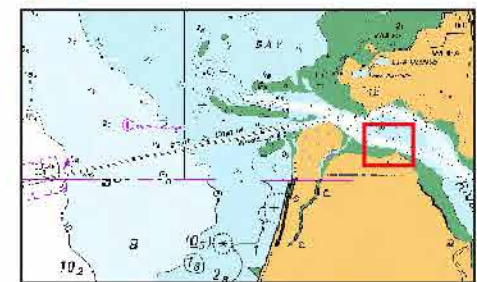


## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



### Calculation 1: Annual Siltation Bed Level Difference

Pre Dredge 2012 - Post  
Dredge 2011

### Approach 2

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Humbug Approach	-790	+2482	+1693



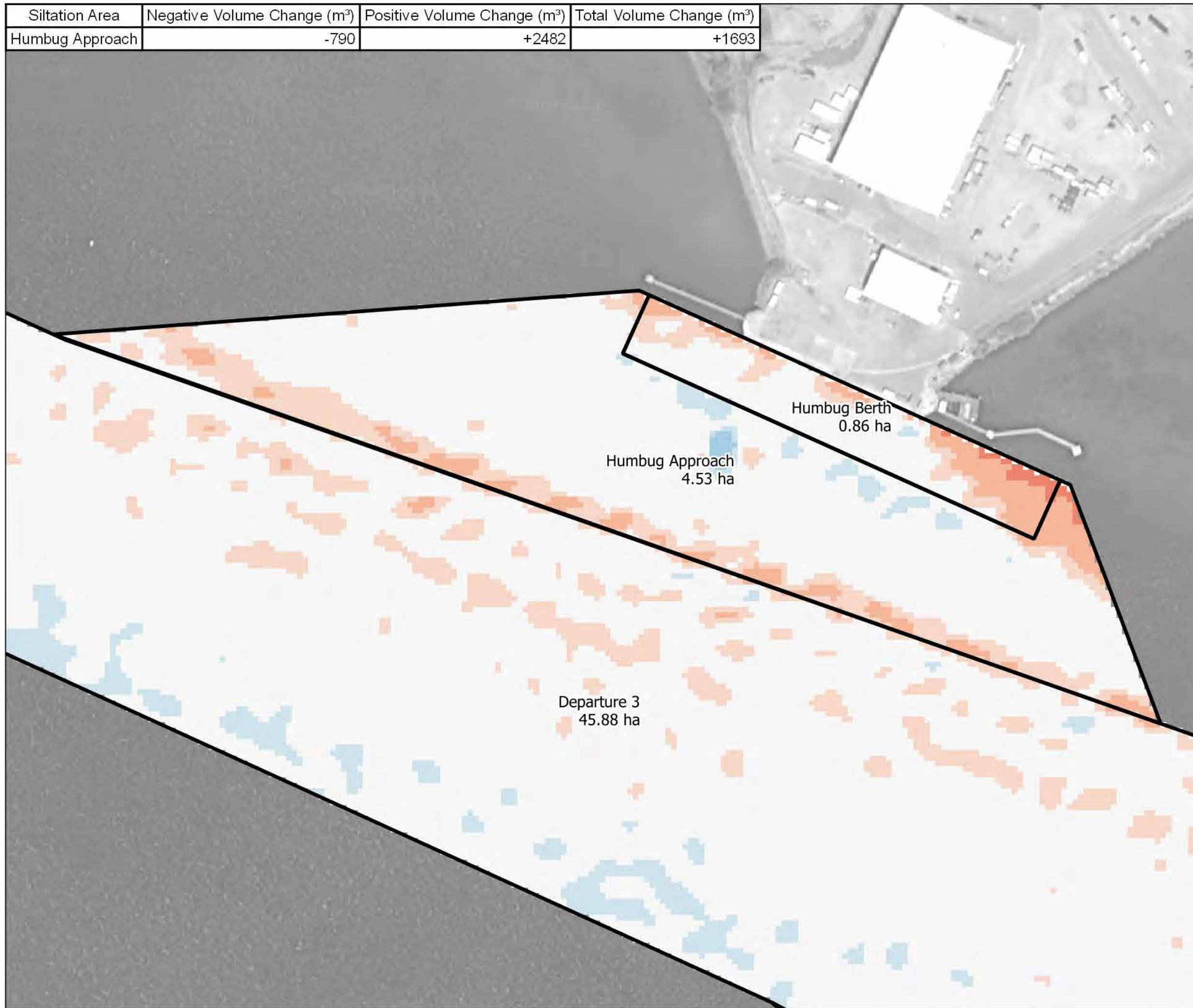
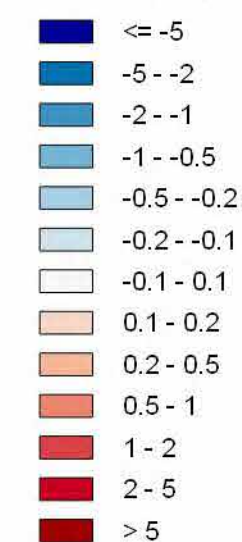
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2012 - Post  
Dredge 2011**

**Humbug Approach**

A3 Scale: 1:2,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Berths	-1702	+5383	+3681



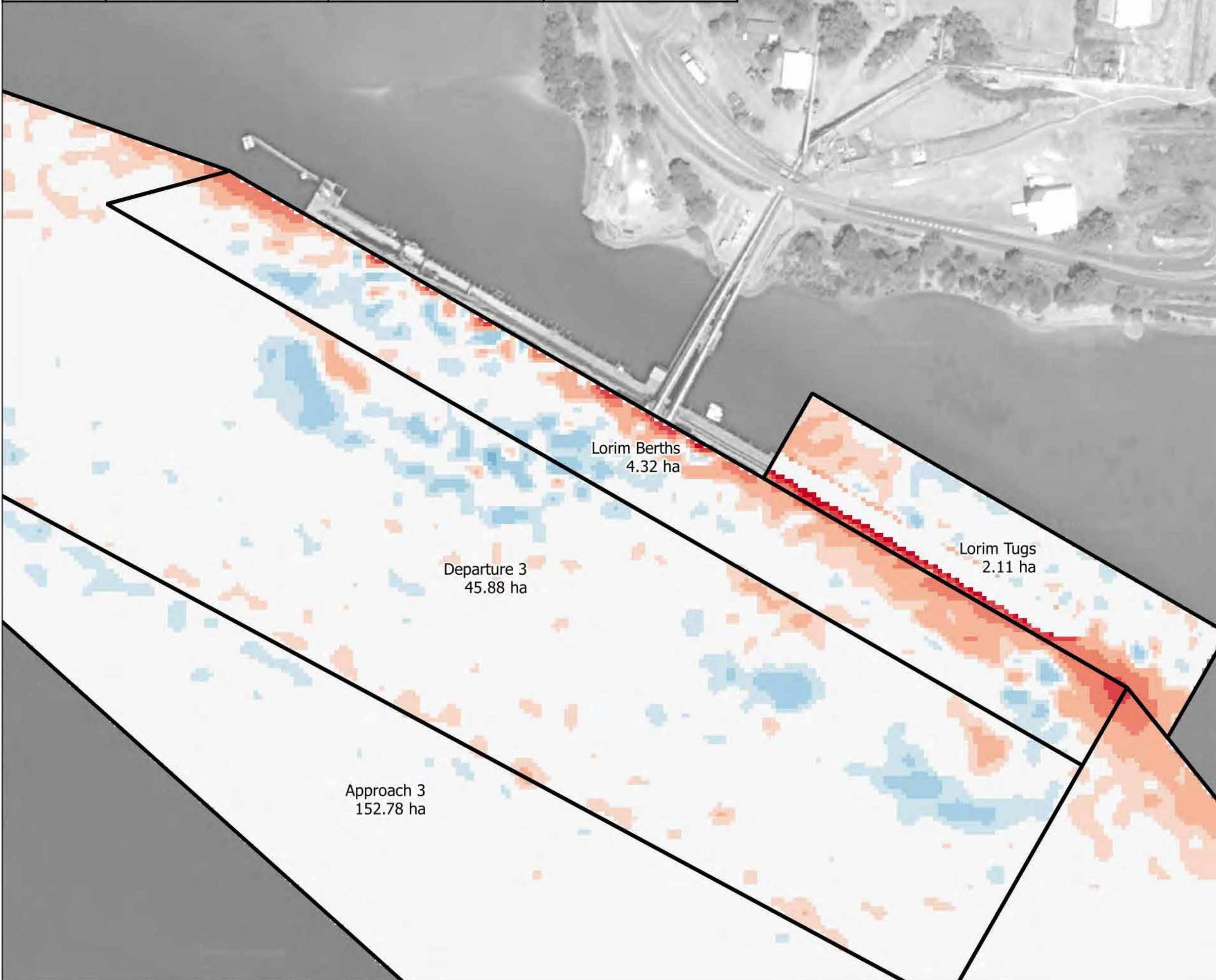
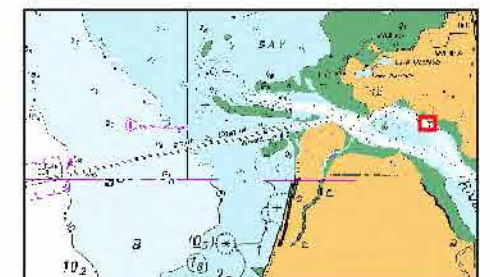
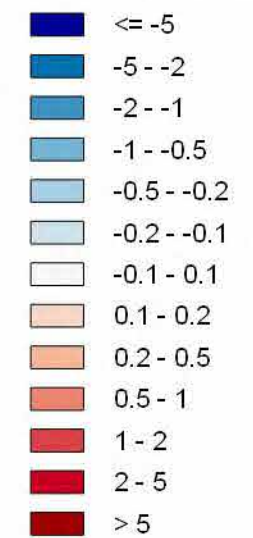
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



Lorim Berths  
4.32 ha

Departure 3  
45.88 ha

Lorim Tugs  
2.11 ha

Approach 3  
152.78 ha

**Calculation 1: Annual  
Siltation Bed Level  
Difference**

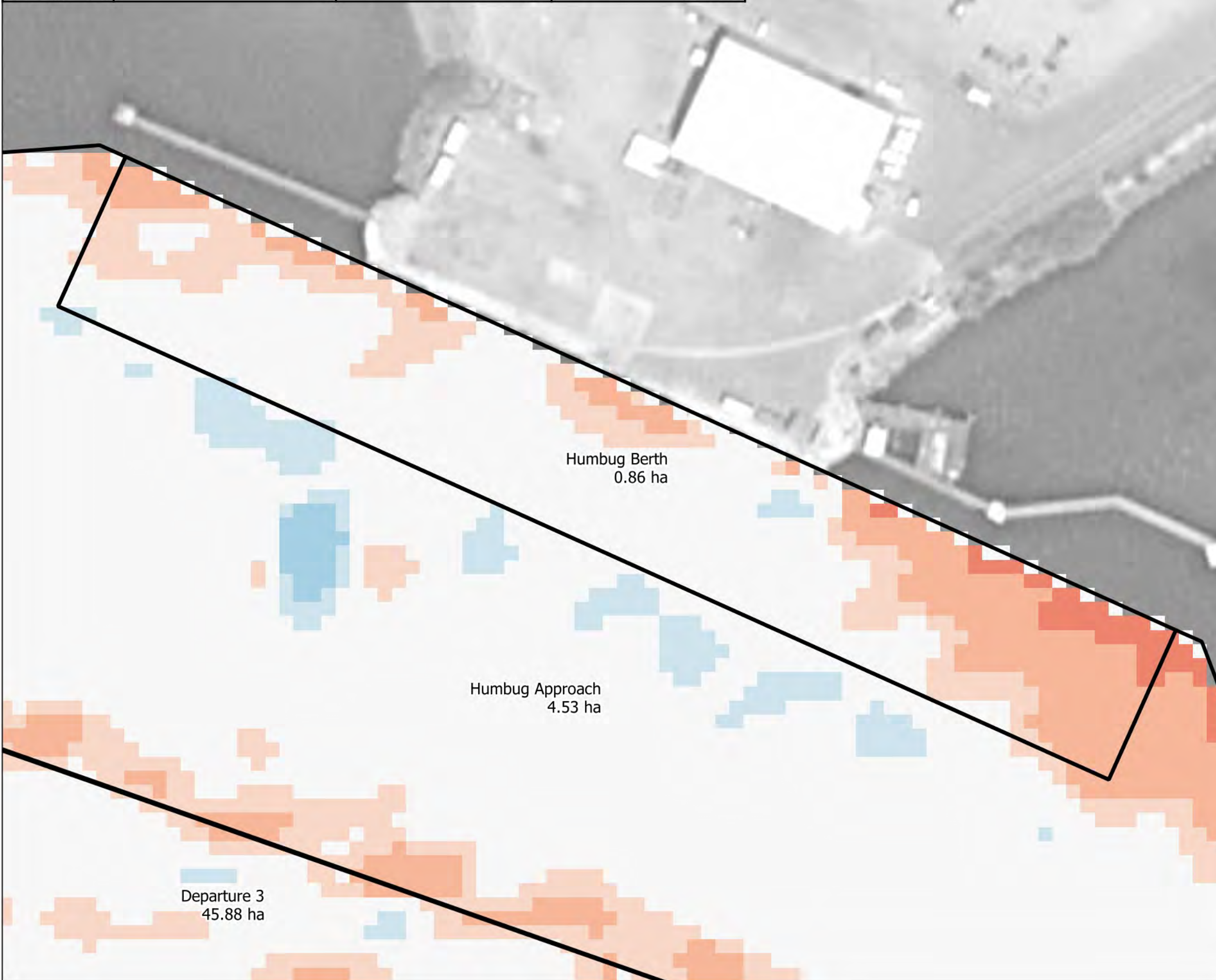
**Pre Dredge 2012 - Post  
Dredge 2011**

**Lorim Berths**

A3 Scale: 1:2,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Humbug Berth	-76	+1092	+1016



**PORT & COASTAL**  
SOLUTIONS

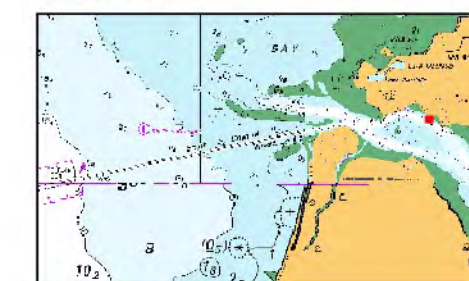
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- -5 - -2
- -2 - -1
- -1 - -0.5
- -0.5 - -0.2
- -0.2 - -0.1
- -0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2012 - Post  
Dredge 2011**

**Humbug Berth**

A3 Scale: 1:800 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Tugs	-434	+4402	+3968



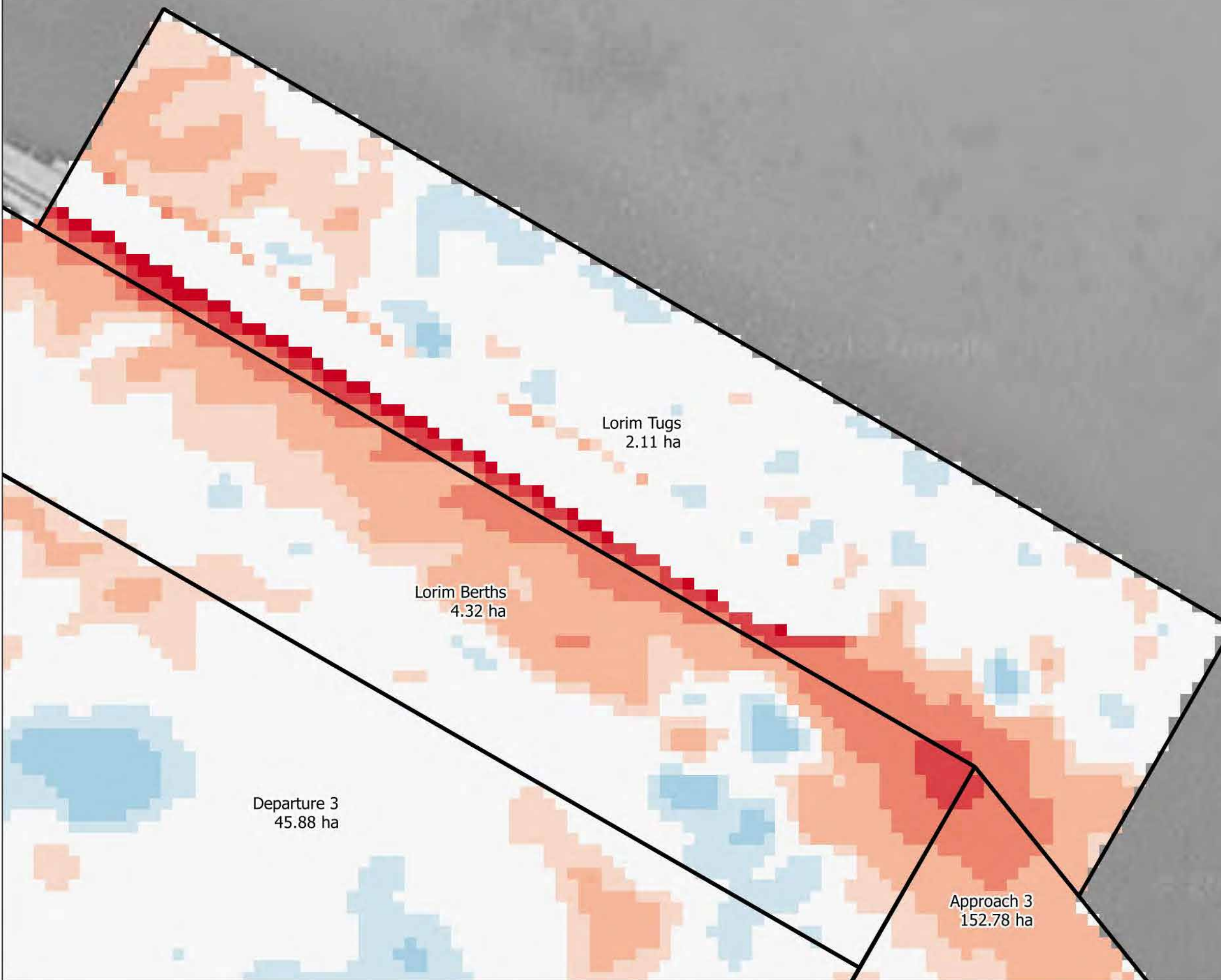
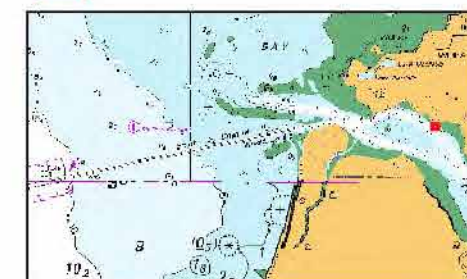
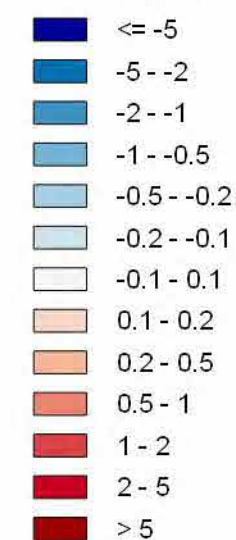
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual Siltation Bed Level Difference**

**Pre Dredge 2012 - Post Dredge 2011**

**Lorim Tugs**

A3 Scale: 1:1,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Outer	-54010	+45275	-8735



**PORT & COASTAL**  
SOLUTIONS

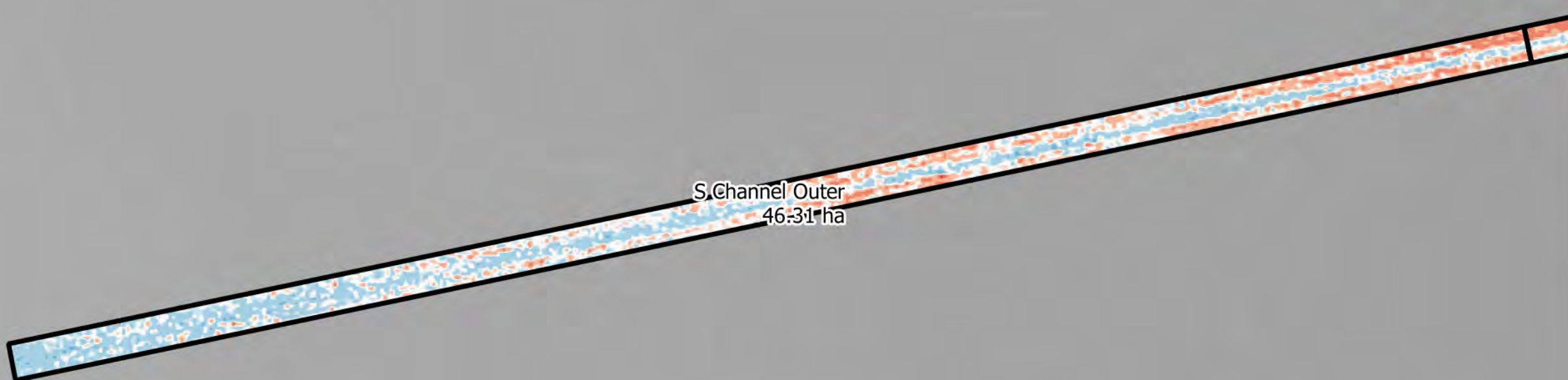
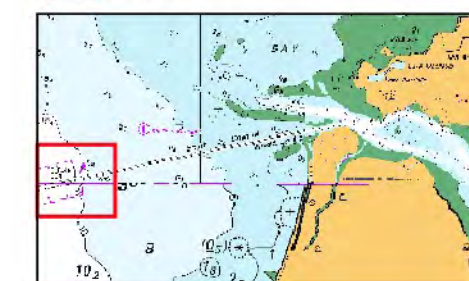
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

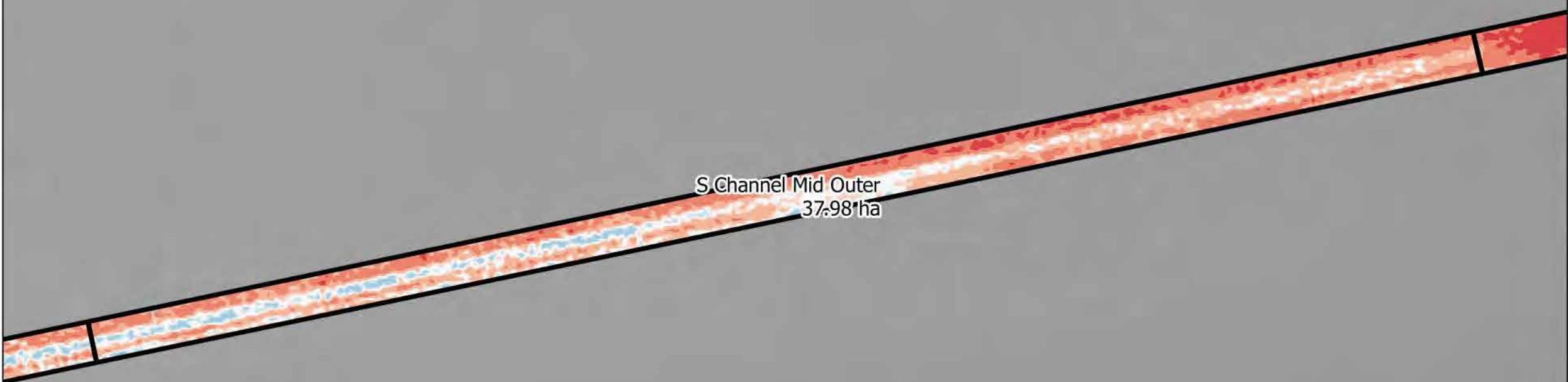
**Pre Dredge 2013 - Post  
Dredge 2012**

**S Channel Outer**

A3 Scale: 1:14,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid Outer	-6224	+147213	+140989



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2013 - Post  
Dredge 2012**

**S Channel Mid Outer**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid	-1031	+329052	+328021



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2013 - Post  
Dredge 2012**

**S Channel Mid**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid Inner	-9412	+55554	+46141



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

#### Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5

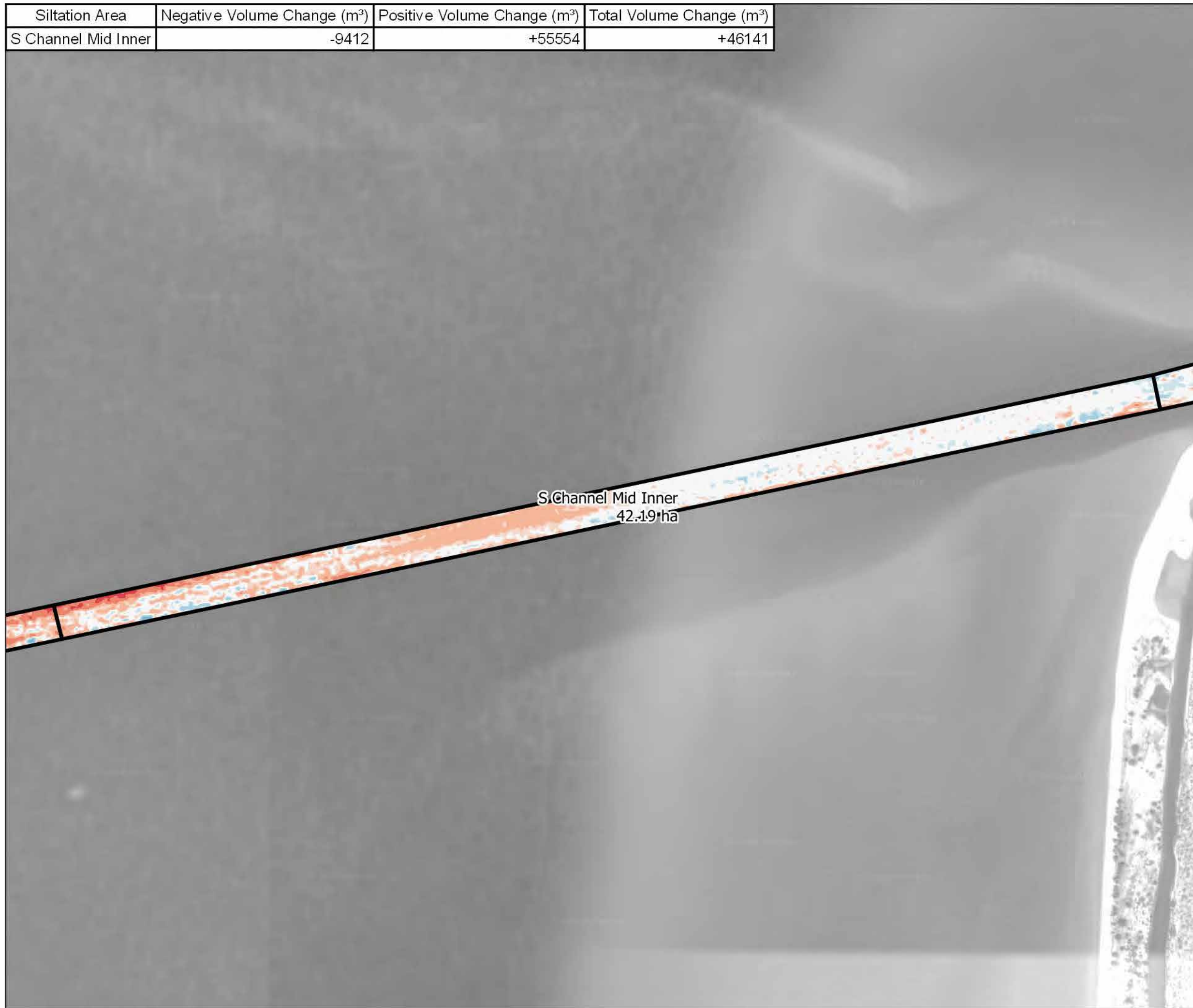


### Calculation 1: Annual Siltation Bed Level Difference

Pre Dredge 2013 - Post Dredge 2012

S Channel Mid Inner

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Inner	-13637	+35795	+22158



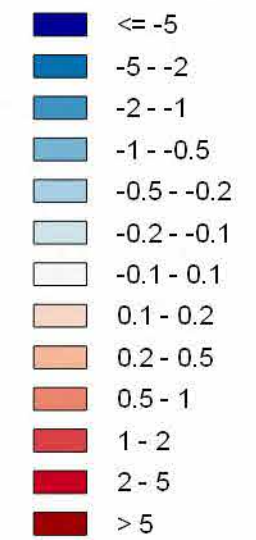
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

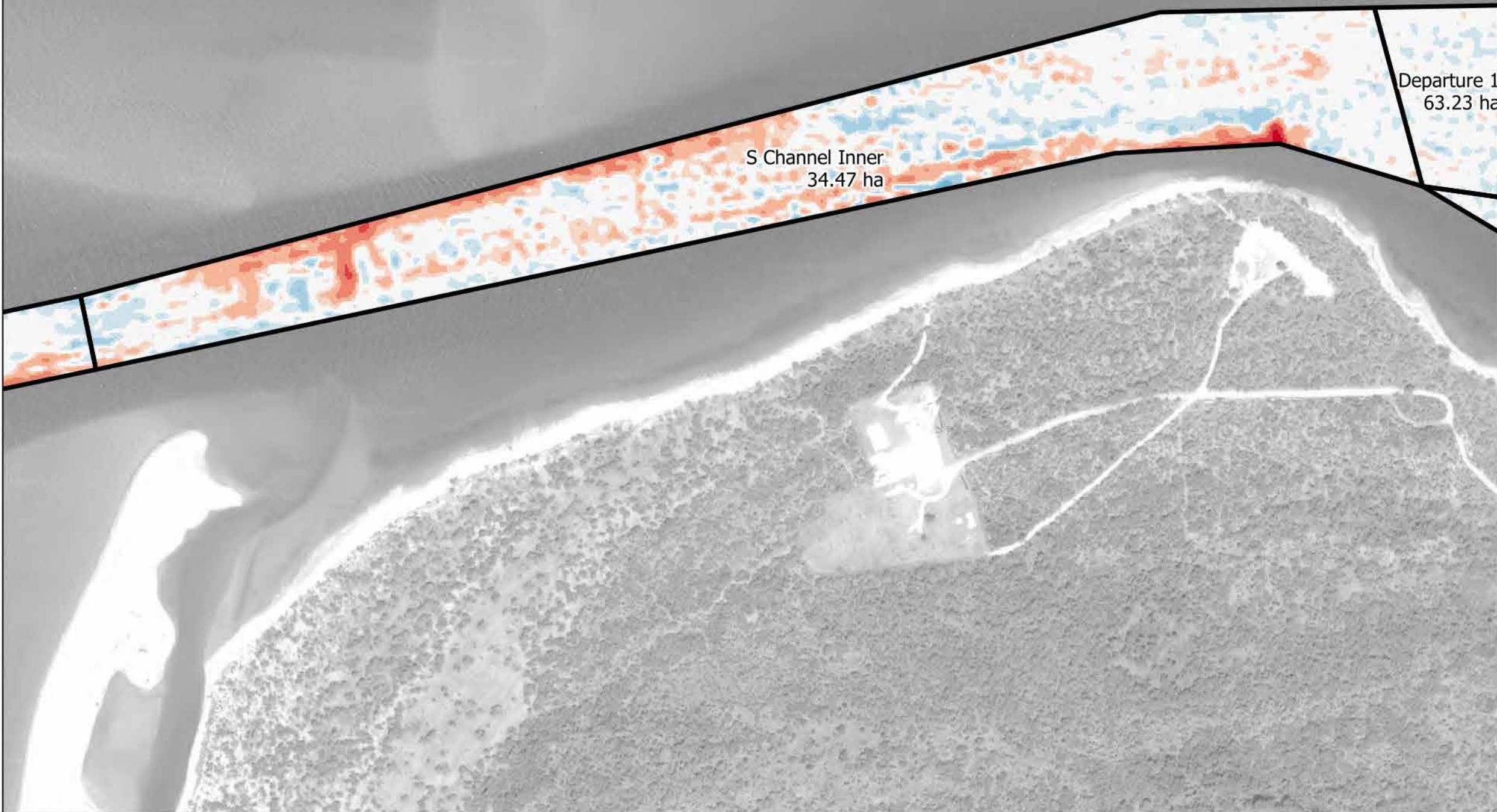


**Calculation 1: Annual  
Siltation Bed Level  
Difference**

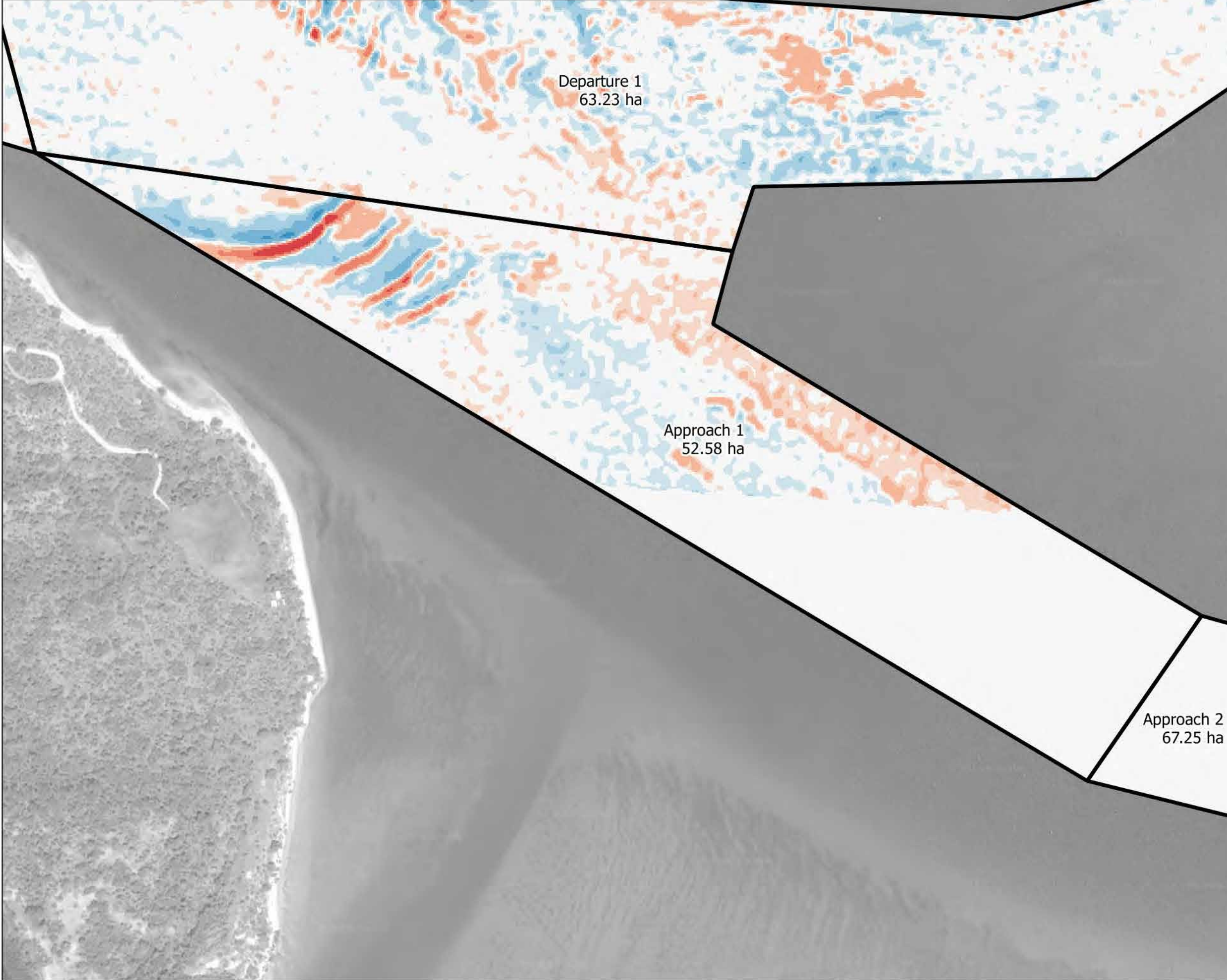
**Pre Dredge 2013 - Post  
Dredge 2012**

**S Channel Inner**

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 1	-21923	+22499	+576



**PORT & COASTAL**  
SOLUTIONS

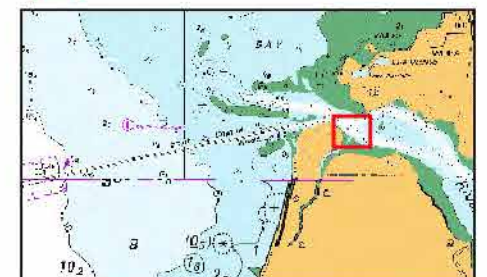
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2013 - Post  
Dredge 2012**

**Approach 1**

A3 Scale: 1:6,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 1	-34865	+23860	-11005



**PORT & COASTAL**  
SOLUTIONS

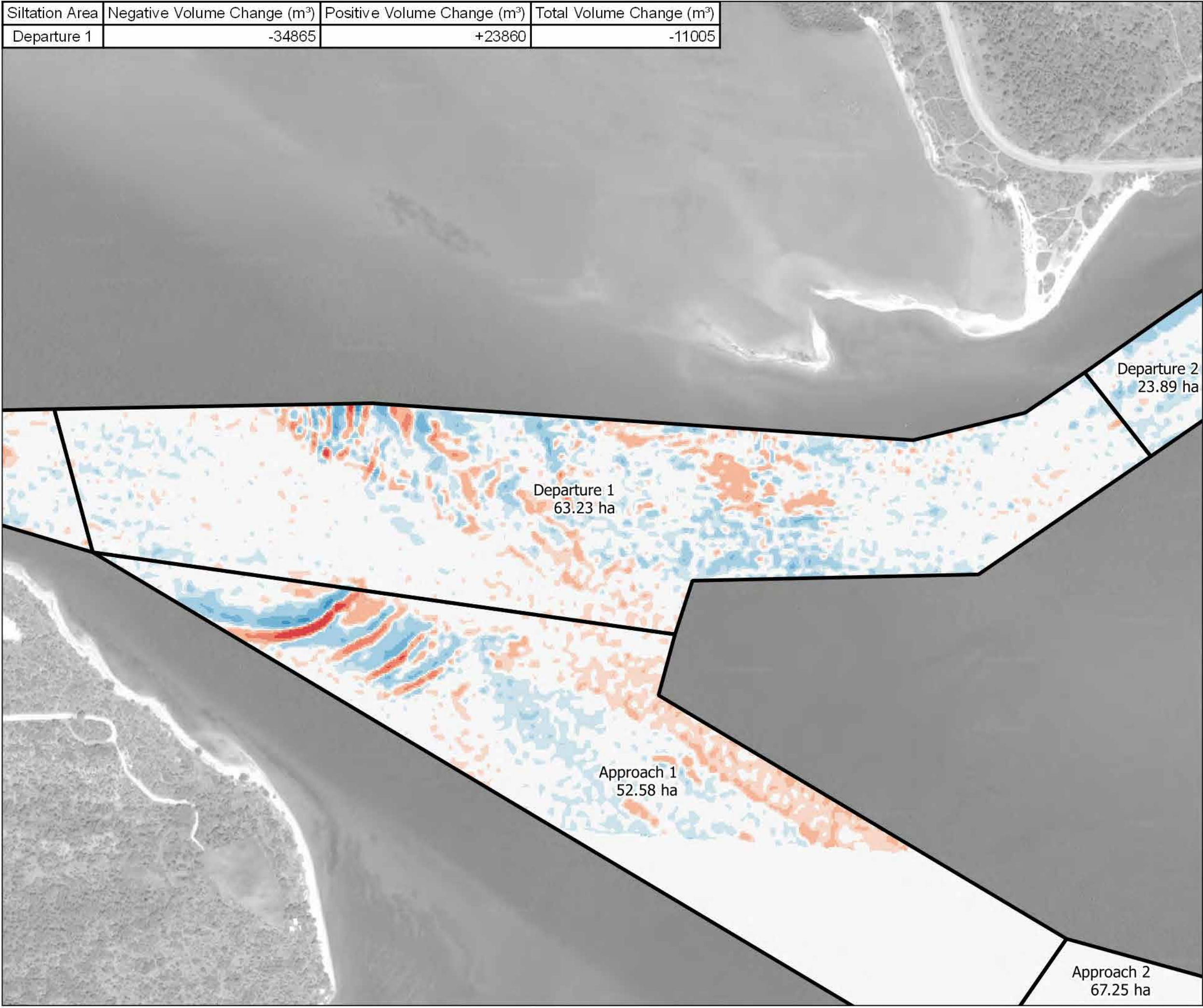
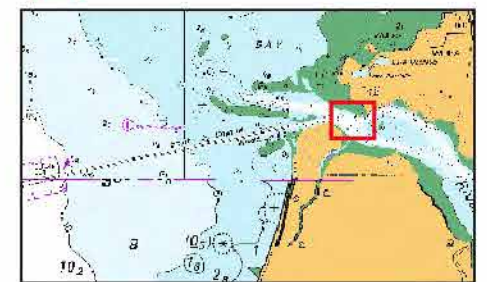
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual Siltation Bed Level Difference**

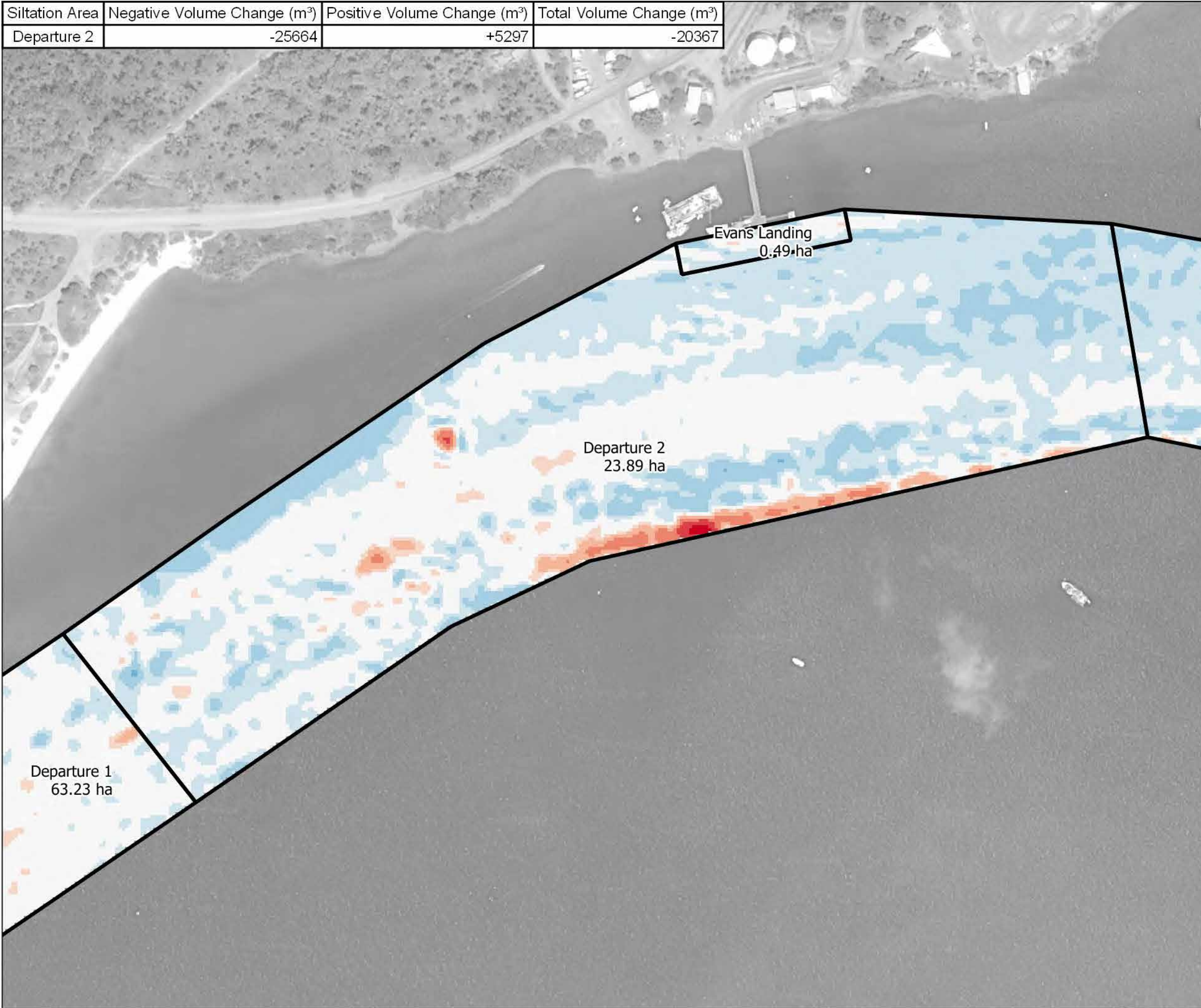
Pre Dredge 2013 - Post Dredge 2012

Departure 1

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 2	-25664	+5297	-20367



**PORT & COASTAL**  
SOLUTIONS

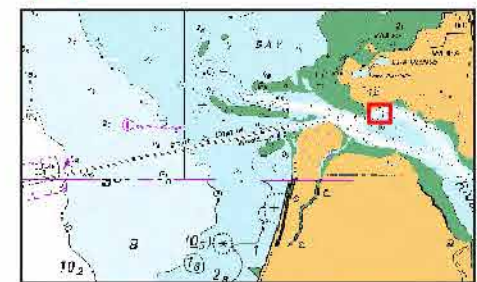
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



### Calculation 1: Annual Siltation Bed Level Difference

Pre Dredge 2013 - Post  
Dredge 2012

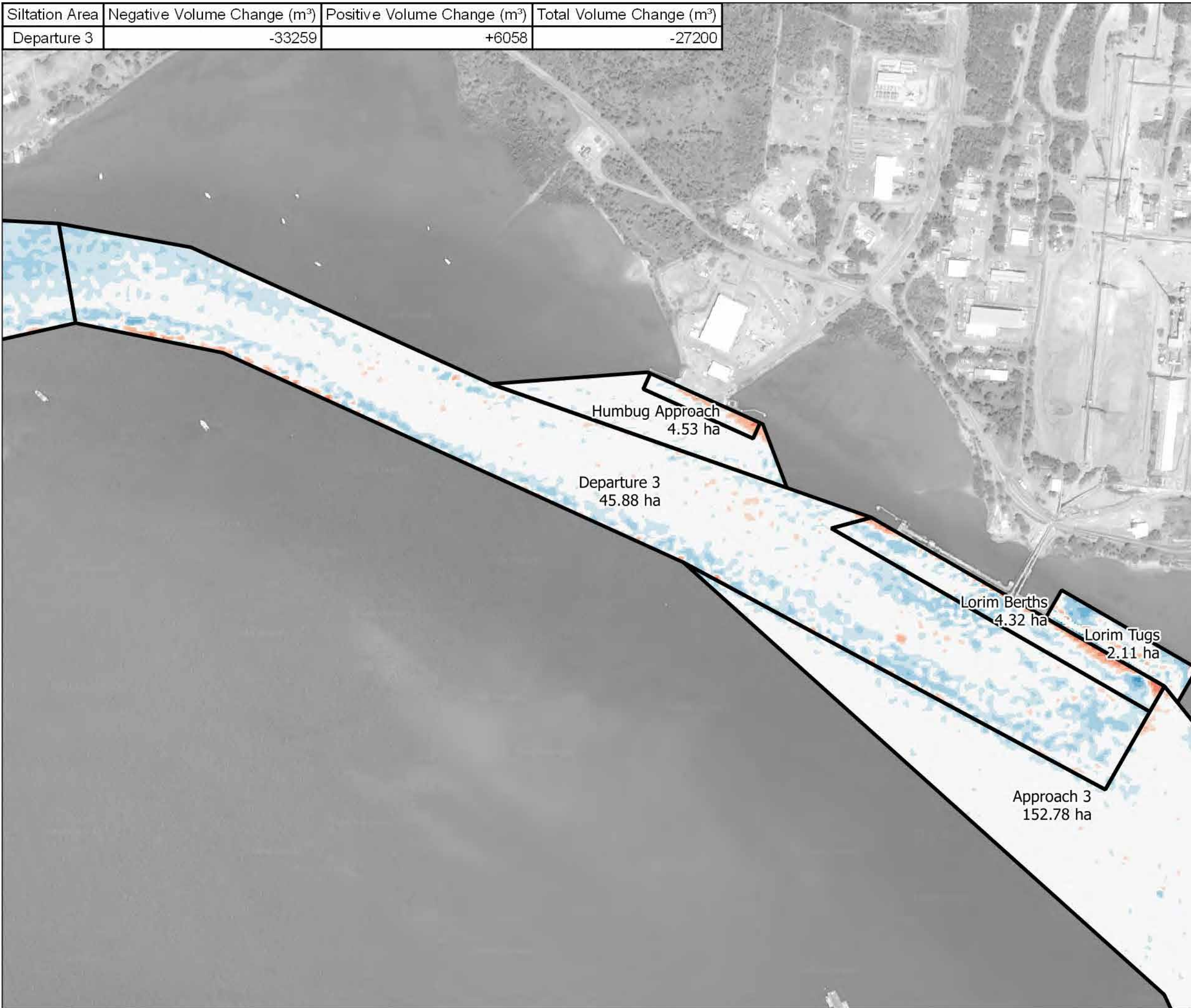
Departure 2

A3 Scale: 1:3,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 3	-33259	+6058	-27200



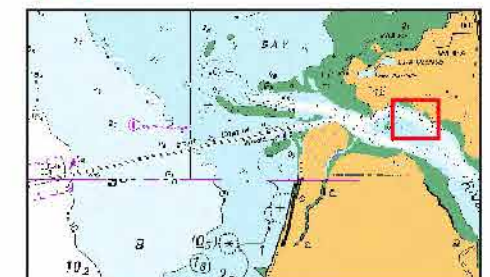
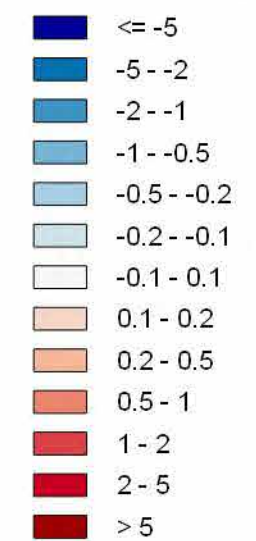
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

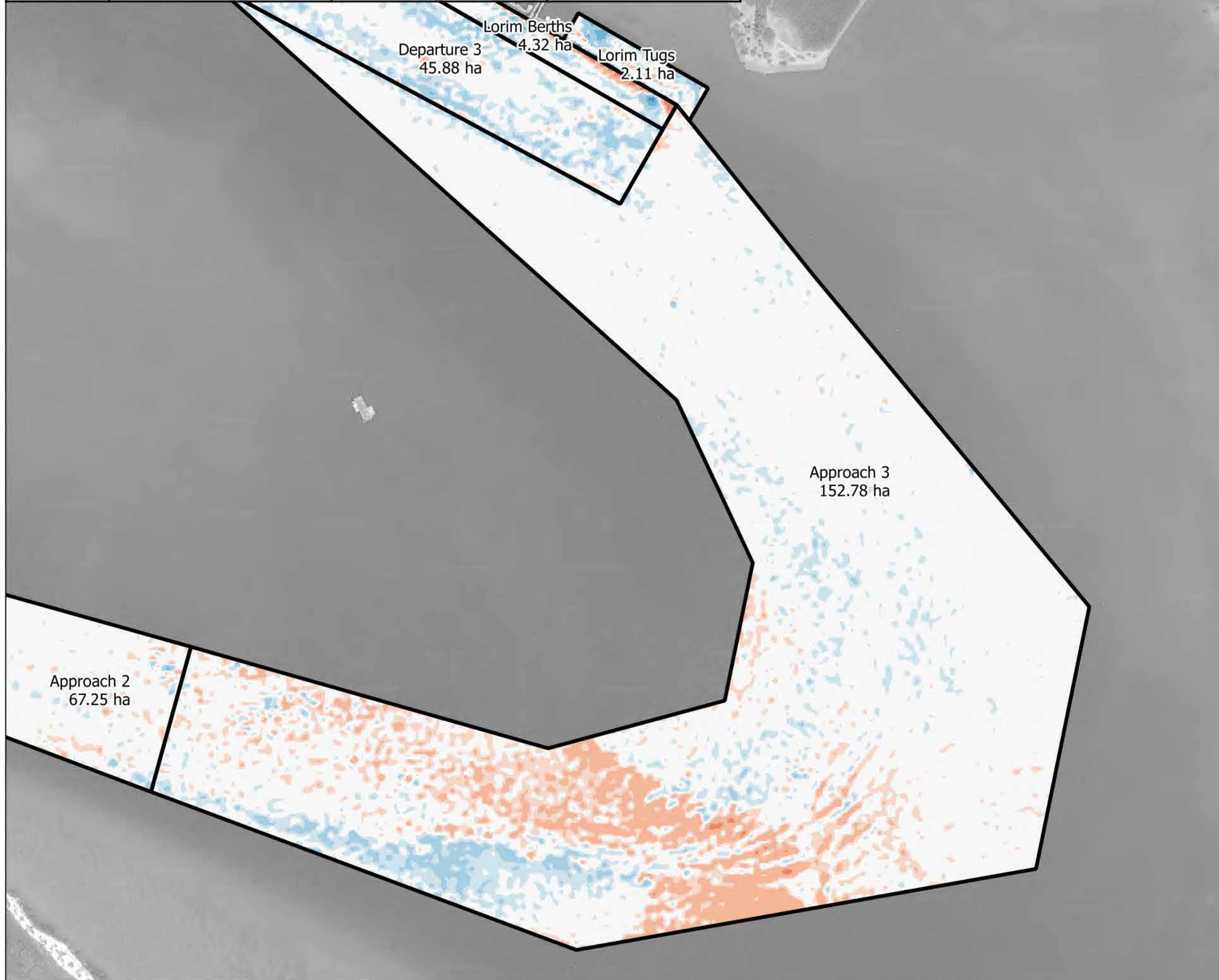
**Pre Dredge 2013 - Post  
Dredge 2012**

**Departure 3**

A3 Scale: 1:7,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 3	-49003	+60747	+11744



**PORT & COASTAL**  
SOLUTIONS

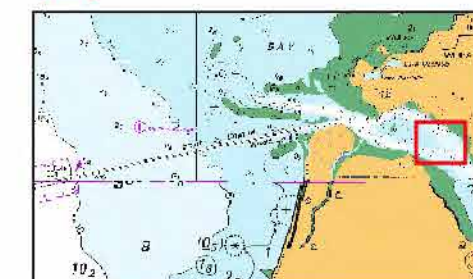
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2013 - Post  
Dredge 2012**

**Approach 3**

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Evans Landing	-543	+30	-513



**PORT & COASTAL**  
SOLUTIONS

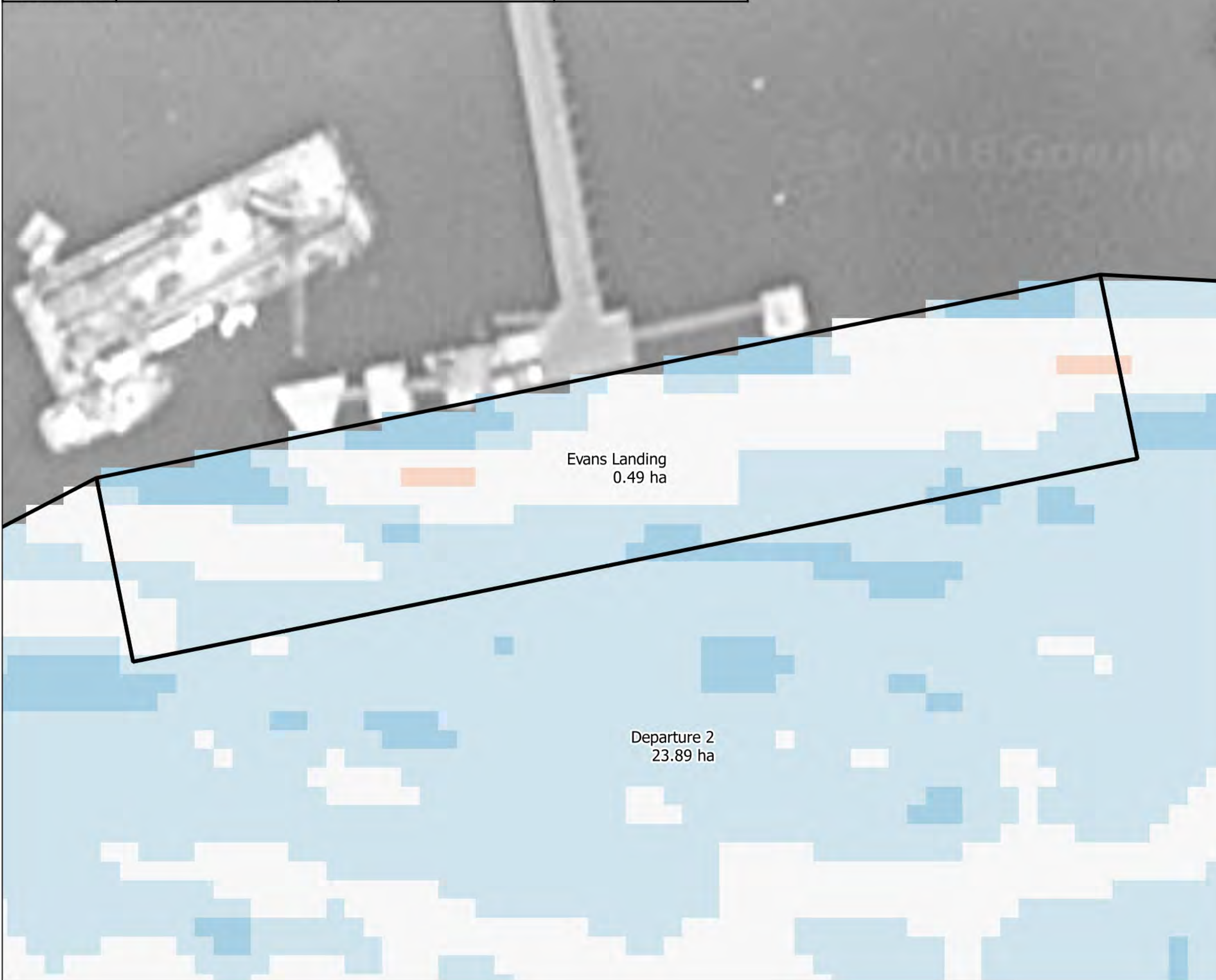
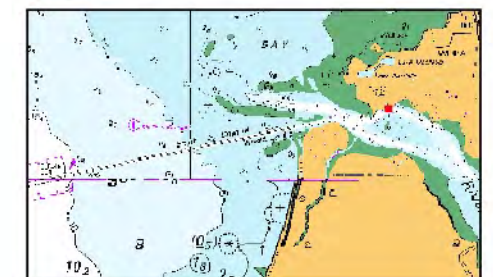
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

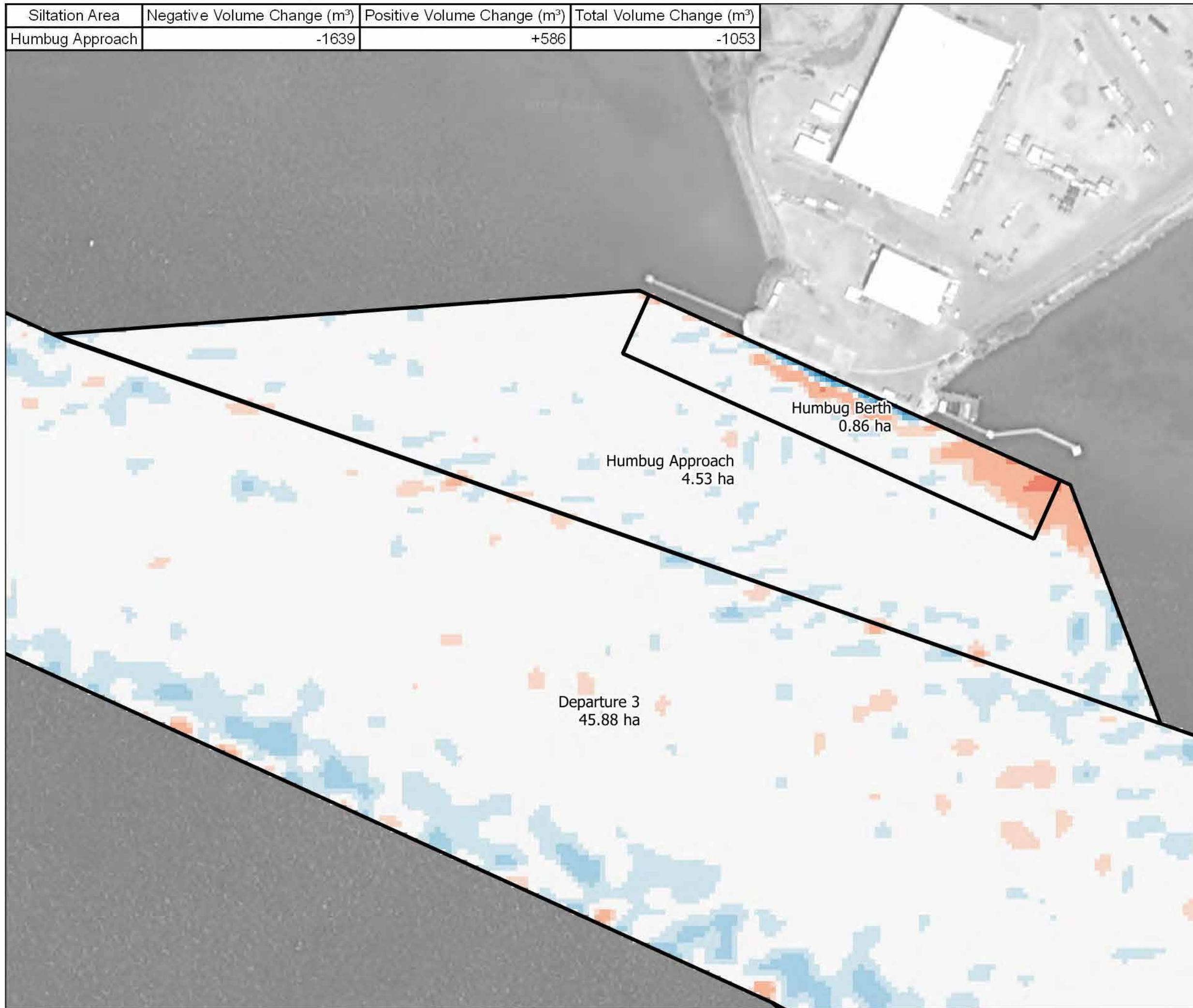
**Pre Dredge 2013 - Post  
Dredge 2012**

**Evans Landing**

A3 Scale: 1:600 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Humbug Approach	-1639	+586	-1053



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- -5 - -2
- -2 - -1
- -1 - -0.5
- -0.5 - -0.2
- -0.2 - -0.1
- -0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2013 - Post  
Dredge 2012**

**Humbug Approach**

A3 Scale: 1:2,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Berths	-4119	+2858	-1261



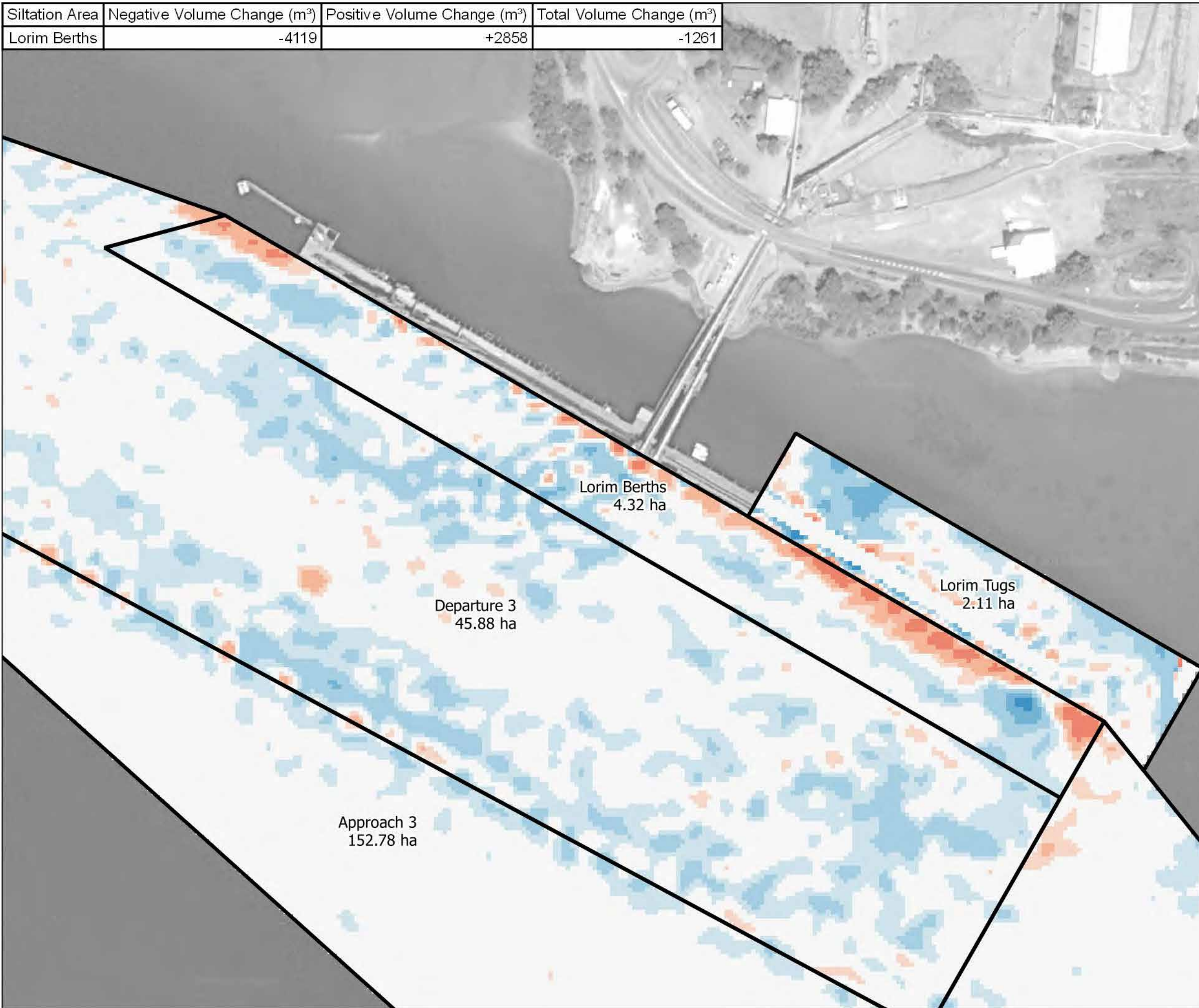
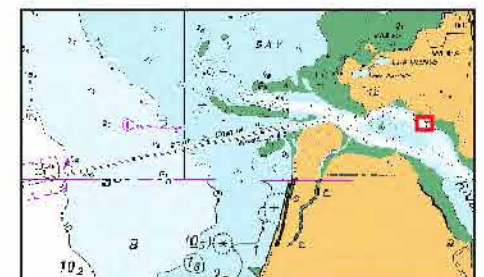
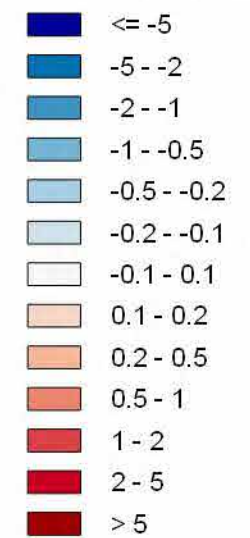
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual Siltation Bed Level Difference**

**Pre Dredge 2013 - Post Dredge 2012**

**Lorim Berths**

A3 Scale: 1:2,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Tugs	-2737	+527	-2211



**PORT & COASTAL**  
SOLUTIONS

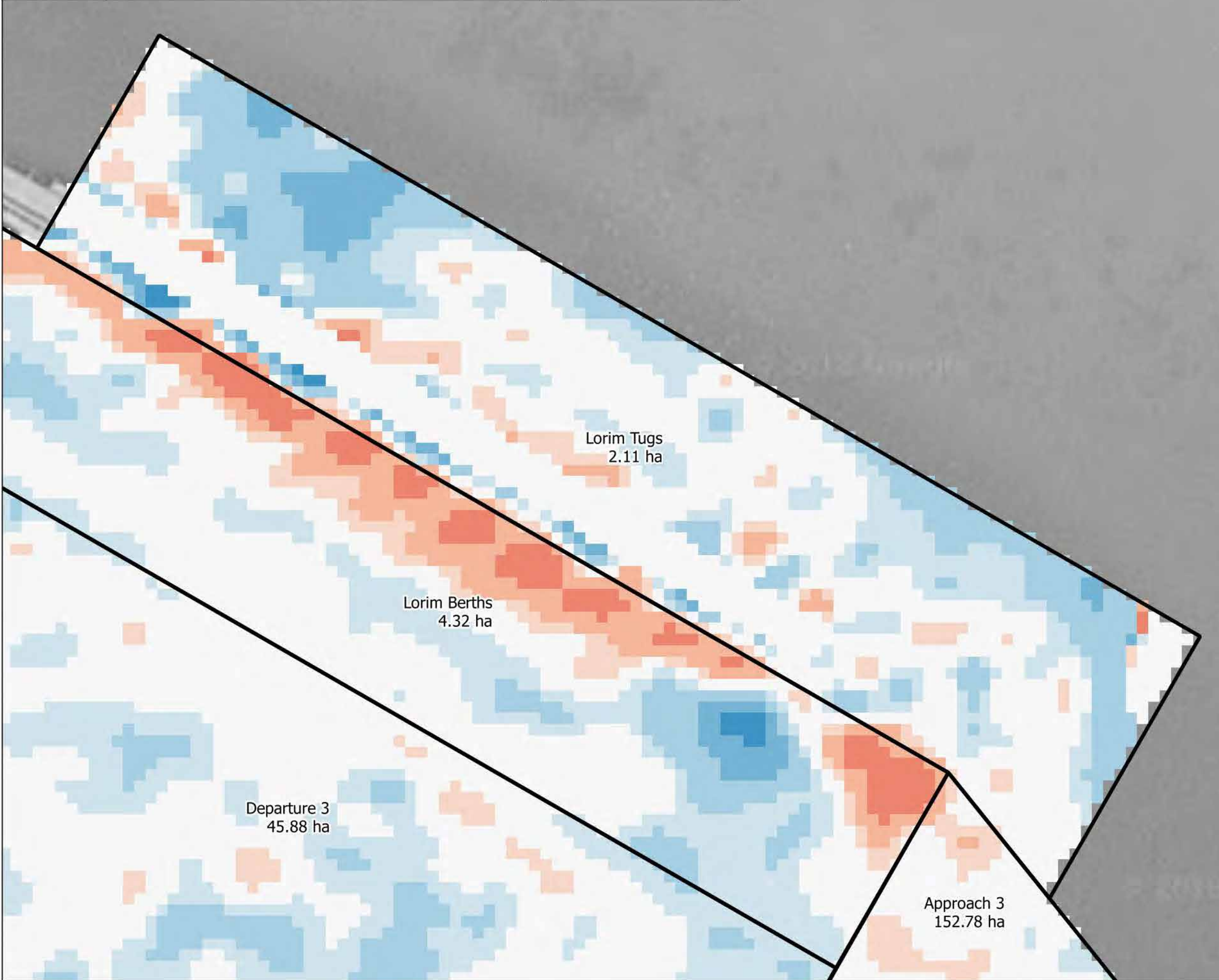
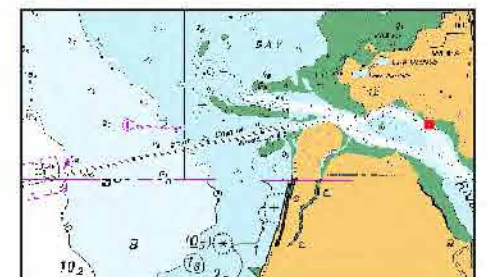
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual Siltation Bed Level Difference**

**Pre Dredge 2013 - Post Dredge 2012**

**Lorim Tugs**

A3 Scale: 1:1,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Outer	-51060	+10032	-41029



**PORT & COASTAL**  
SOLUTIONS

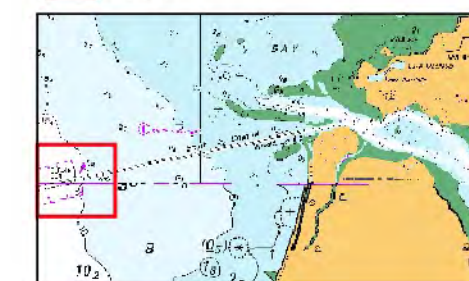
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2014 - Post  
Dredge 2013**

**S Channel Outer**

A3 Scale: 1:14,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid Outer	-19239	+60045	+40806



**PORT & COASTAL**  
SOLUTIONS

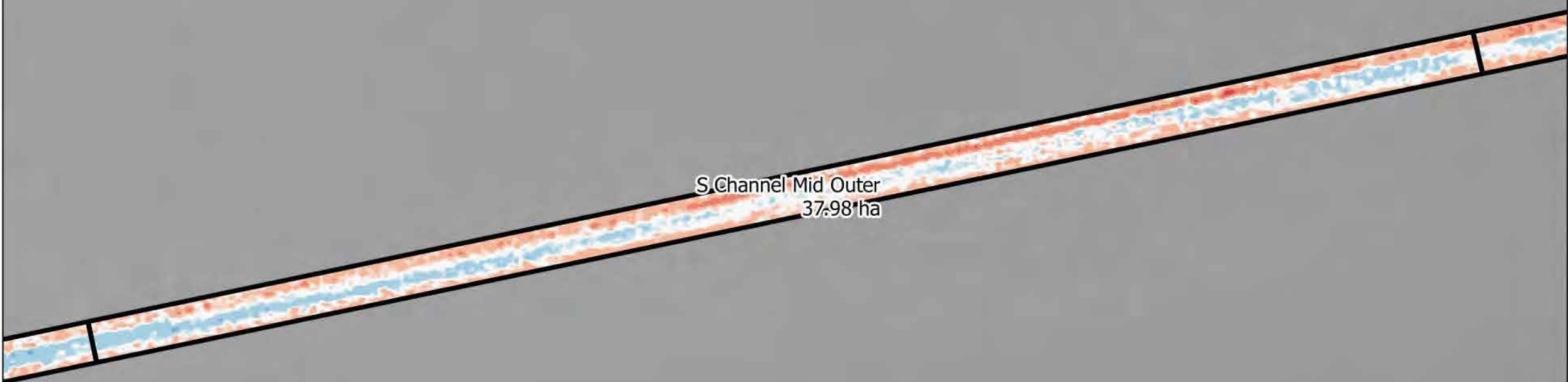
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2014 - Post  
Dredge 2013**

**S Channel Mid Outer**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid	-25581	+109928	+84348



**PORT & COASTAL**  
SOLUTIONS

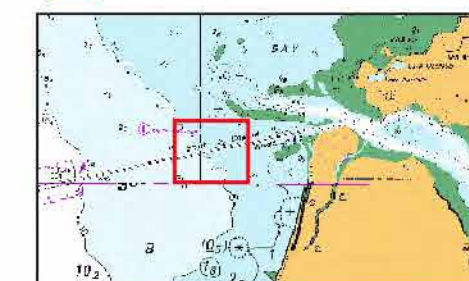
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2014 - Post  
Dredge 2013**

**S Channel Mid**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid Inner	-43823	+26063	-17760



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5

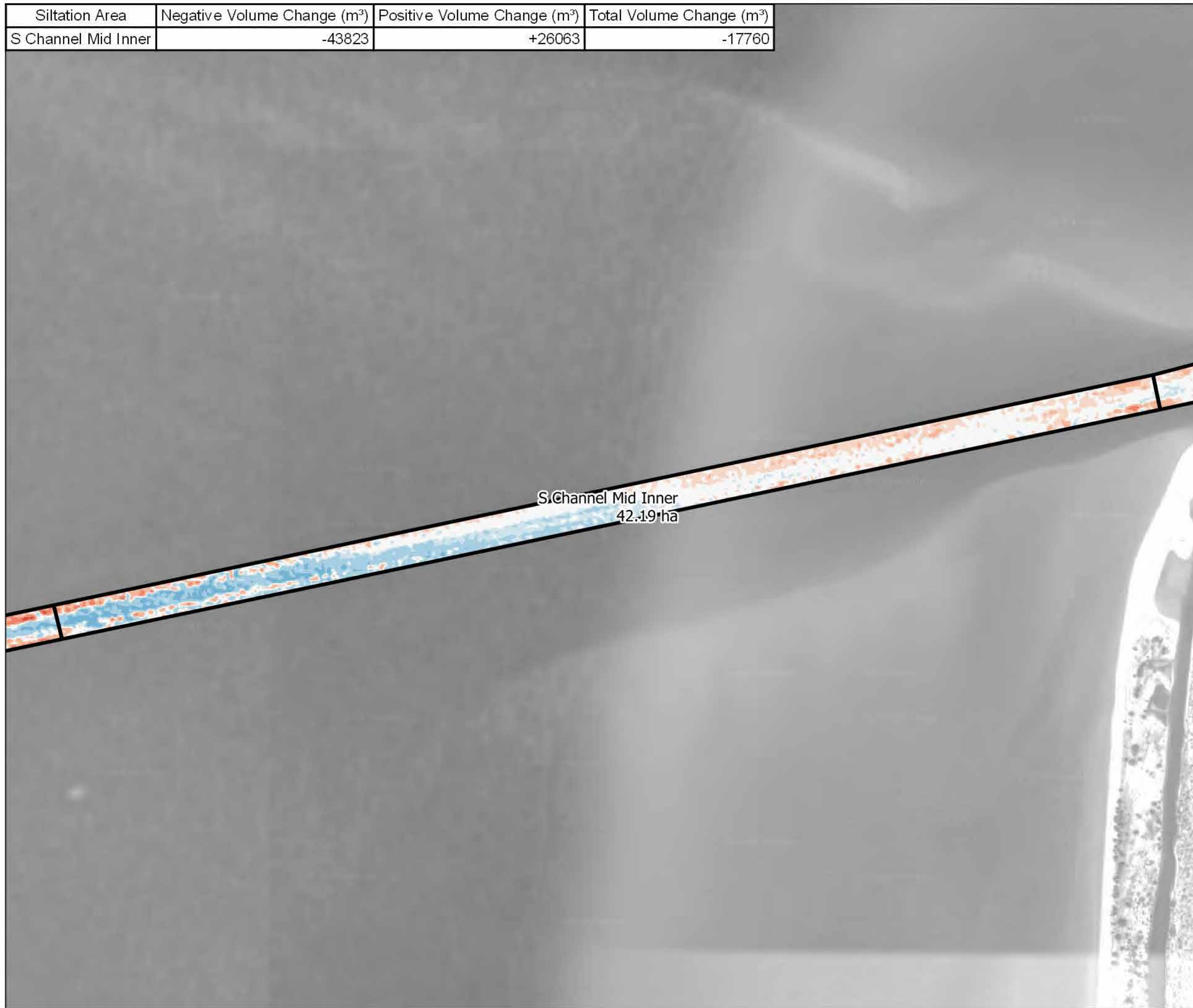


**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2014 - Post  
Dredge 2013**

**S Channel Mid Inner**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Inner	-6621	+52978	+46357



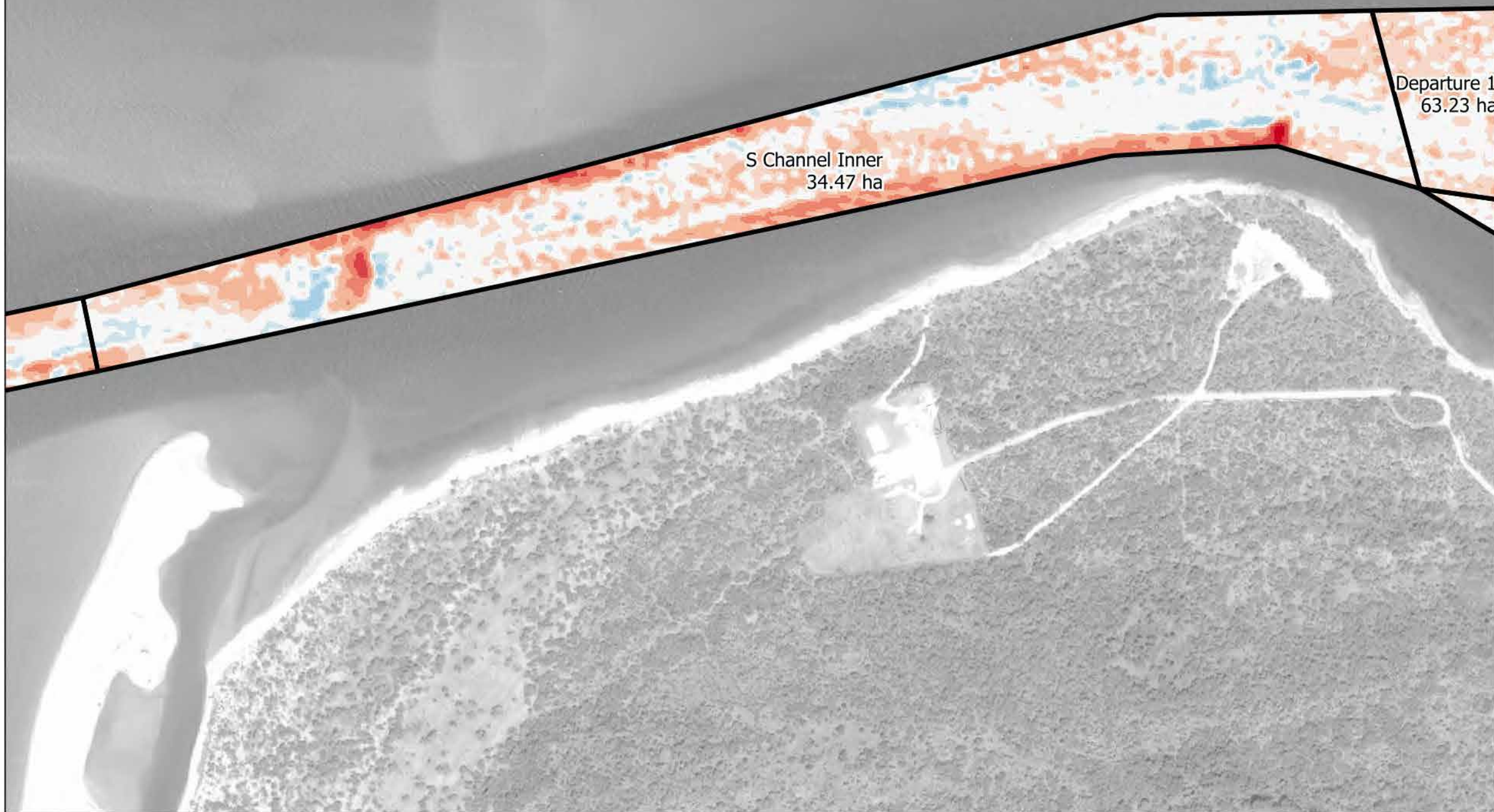
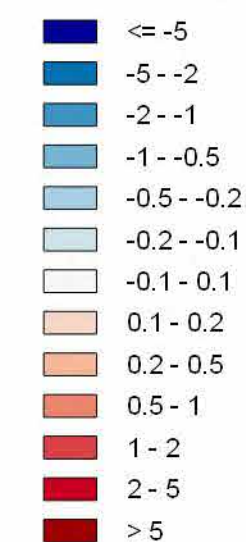
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

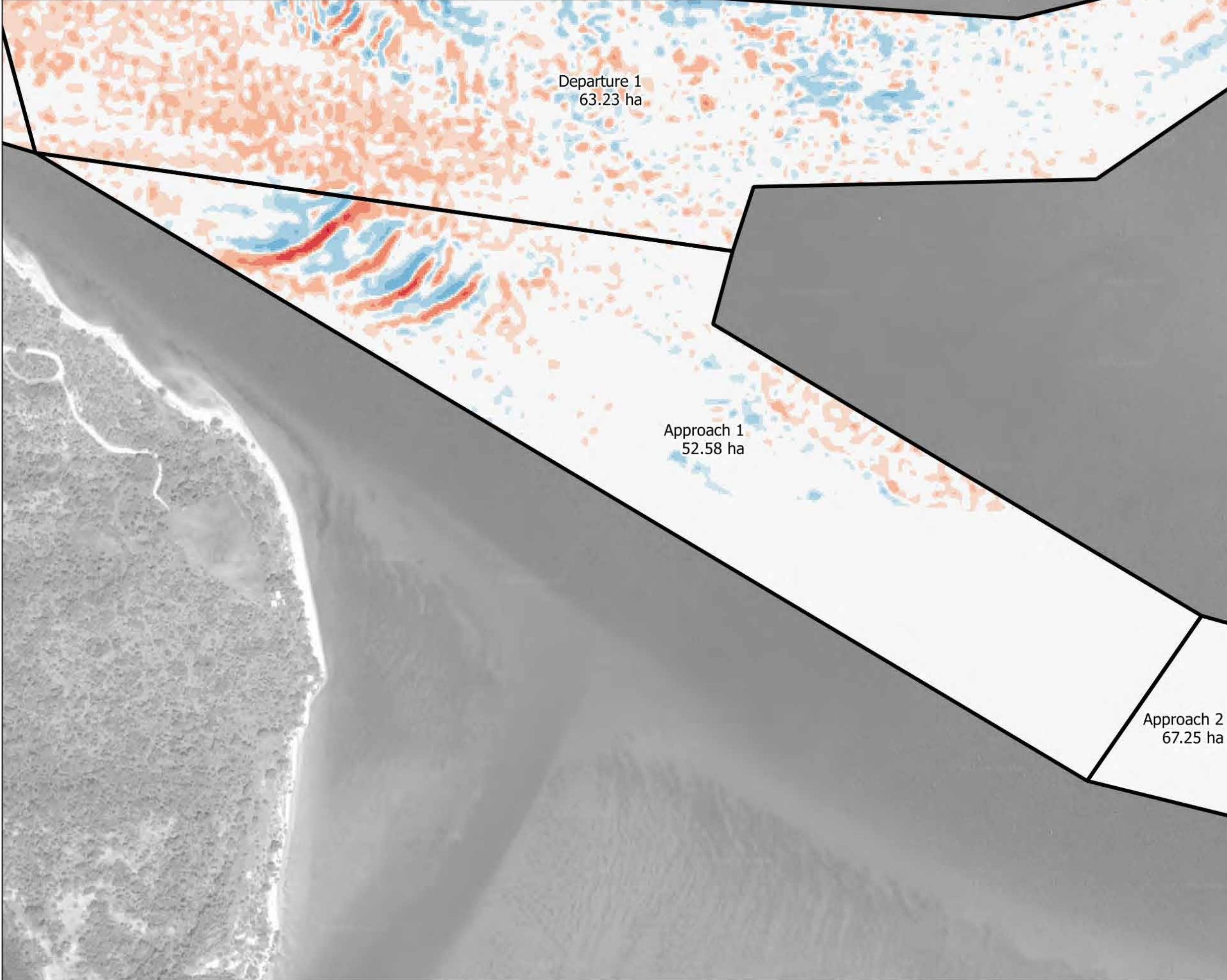
**Pre Dredge 2014 - Post  
Dredge 2013**

**S Channel Inner**

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 1	-11780	+20487	+8707



**PORT & COASTAL**  
SOLUTIONS

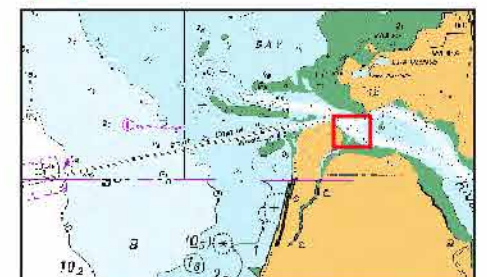
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- -5 - -2
- -2 - -1
- -1 - -0.5
- -0.5 - -0.2
- -0.2 - -0.1
- -0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2014 - Post  
Dredge 2013**

**Approach 1**

A3 Scale: 1:6,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 1	-19636	+45923	+26287



**PORT & COASTAL**  
SOLUTIONS

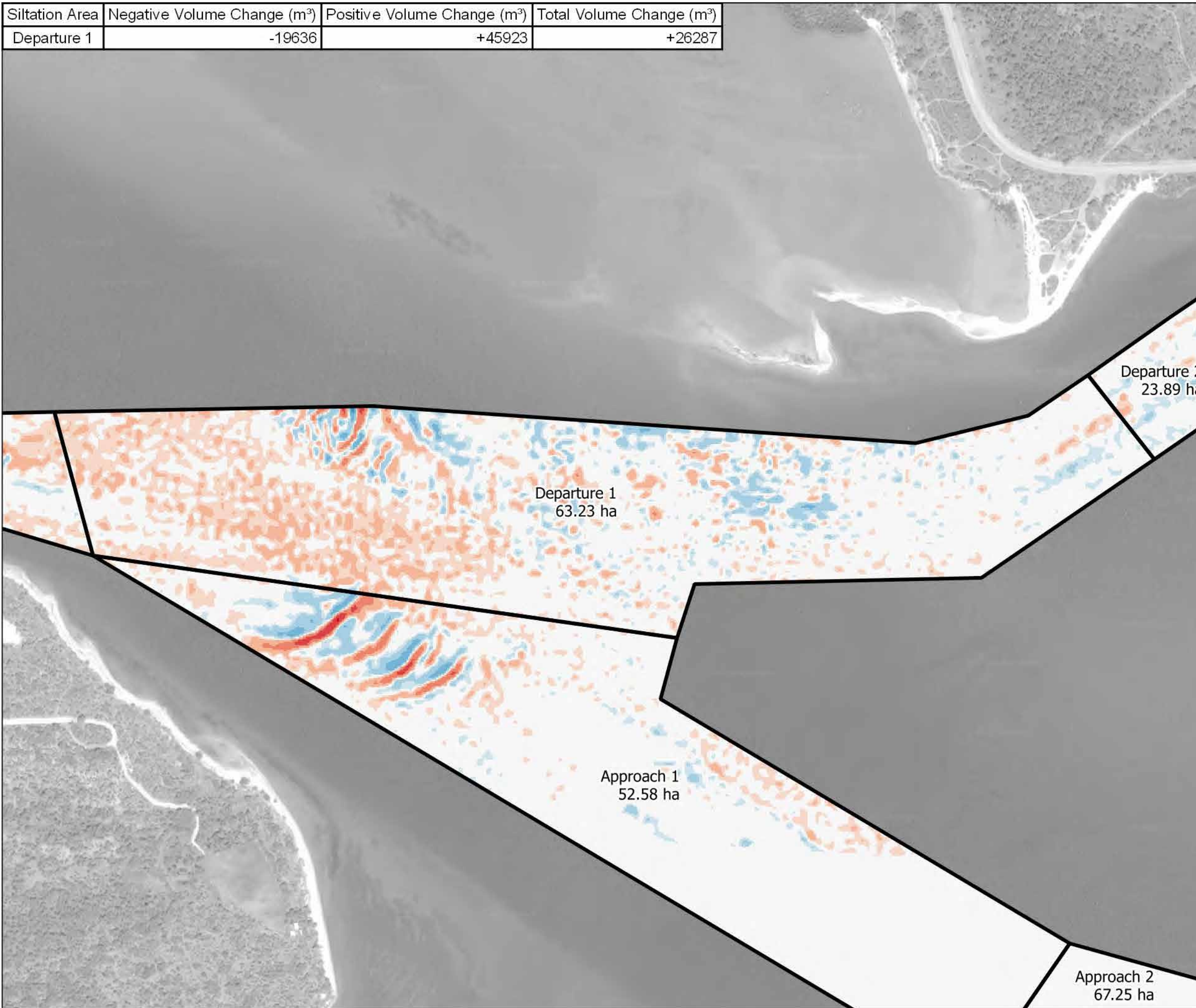
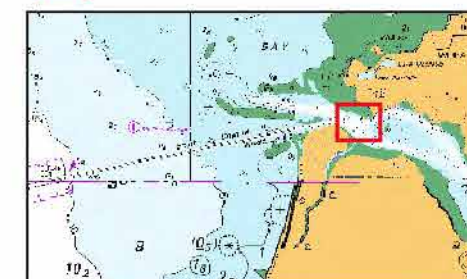
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual Siltation Bed Level Difference**

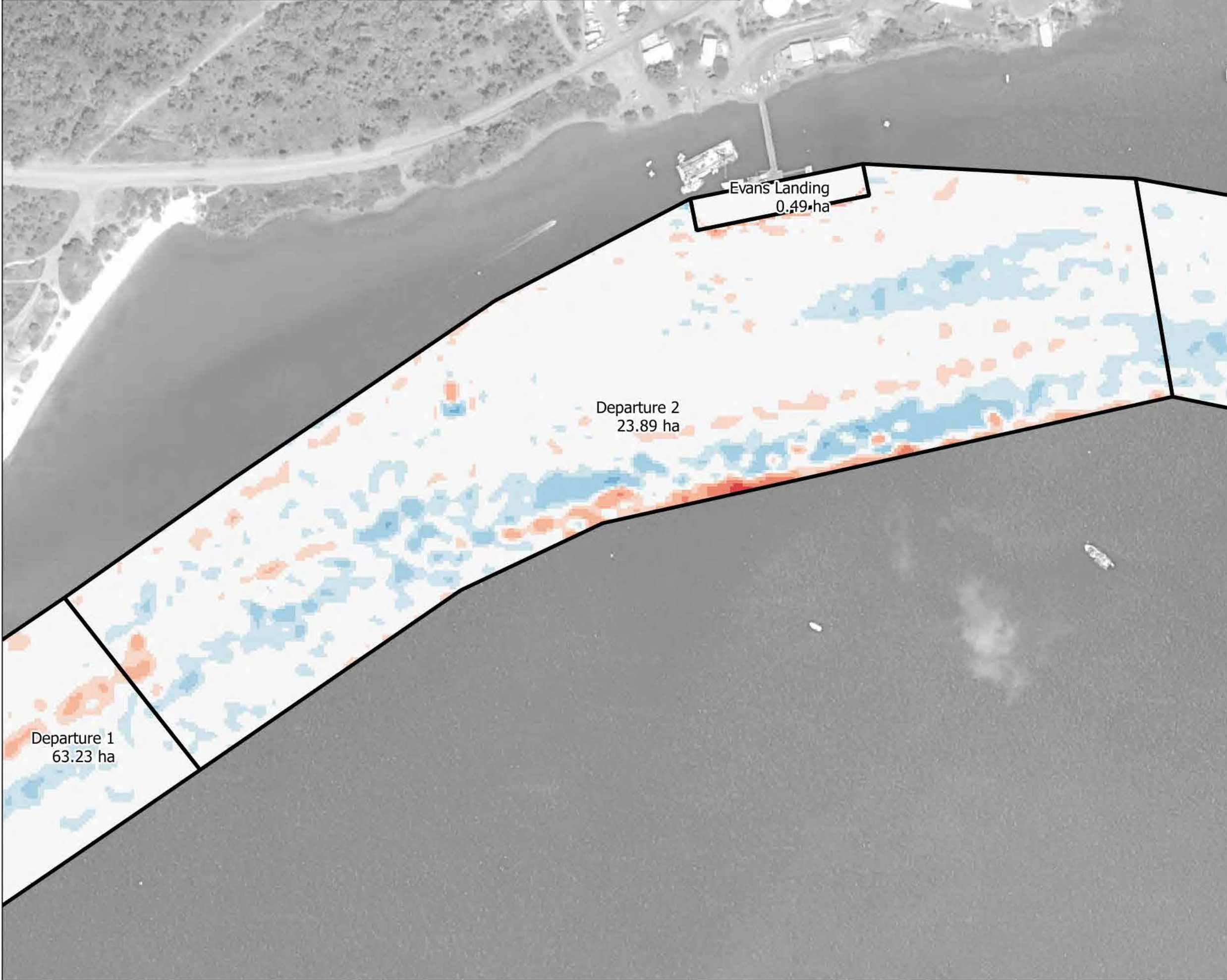
Pre Dredge 2014 - Post Dredge 2013

Departure 1

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 2	-11875	+7069	-4806



**PORT & COASTAL**  
SOLUTIONS

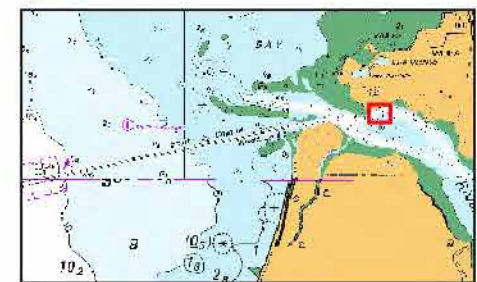
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 -- -2
- 2 -- -1
- 1 -- -0.5
- 0.5 -- -0.2
- 0.2 -- -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



### Calculation 1: Annual Siltation Bed Level Difference

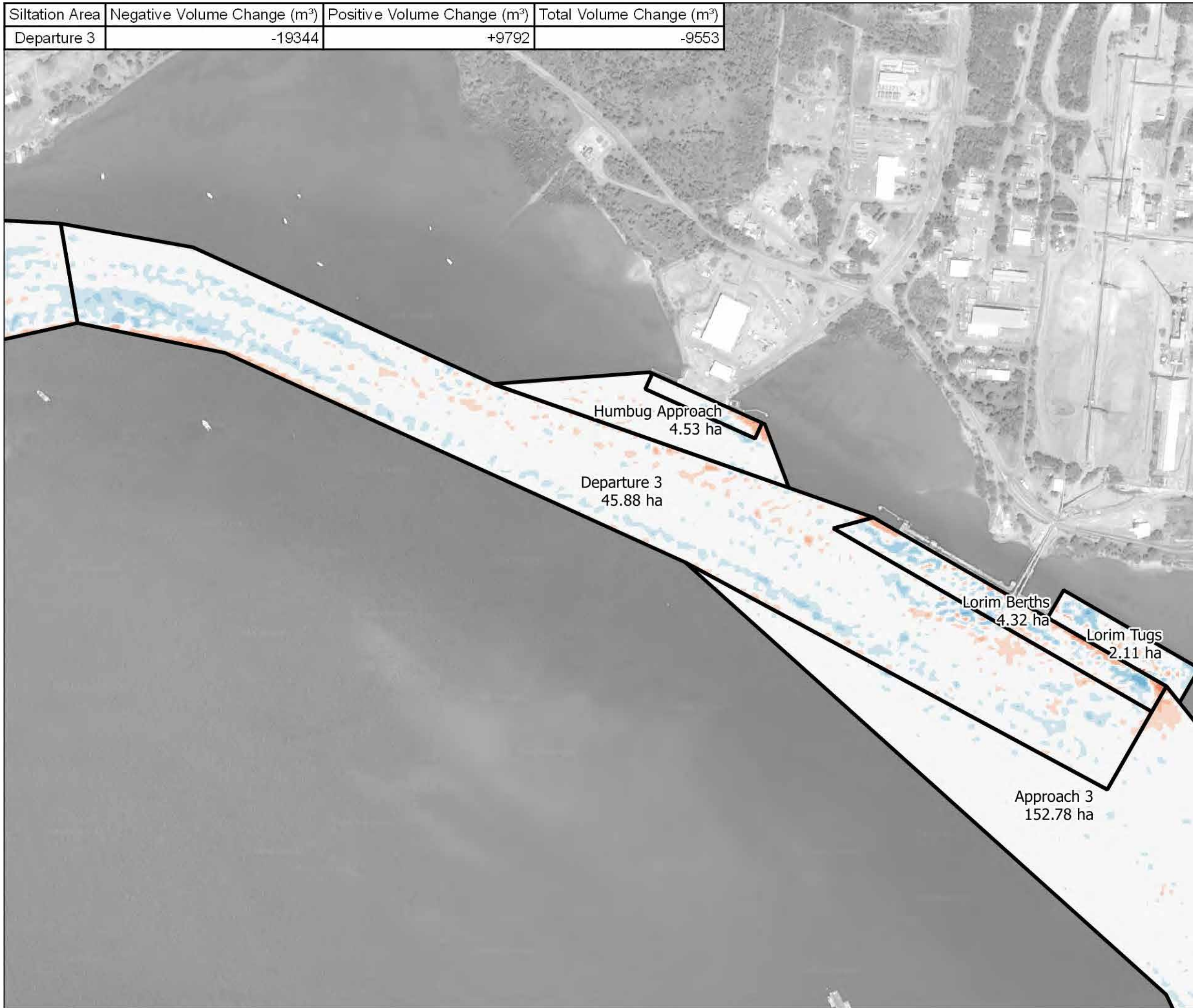
Pre Dredge 2014 - Post  
Dredge 2013

Departure 2

A3 Scale: 1:3,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 3	-19344	+9792	-9553



**PORT & COASTAL**  
SOLUTIONS

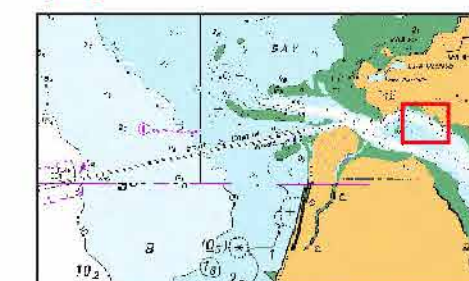
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

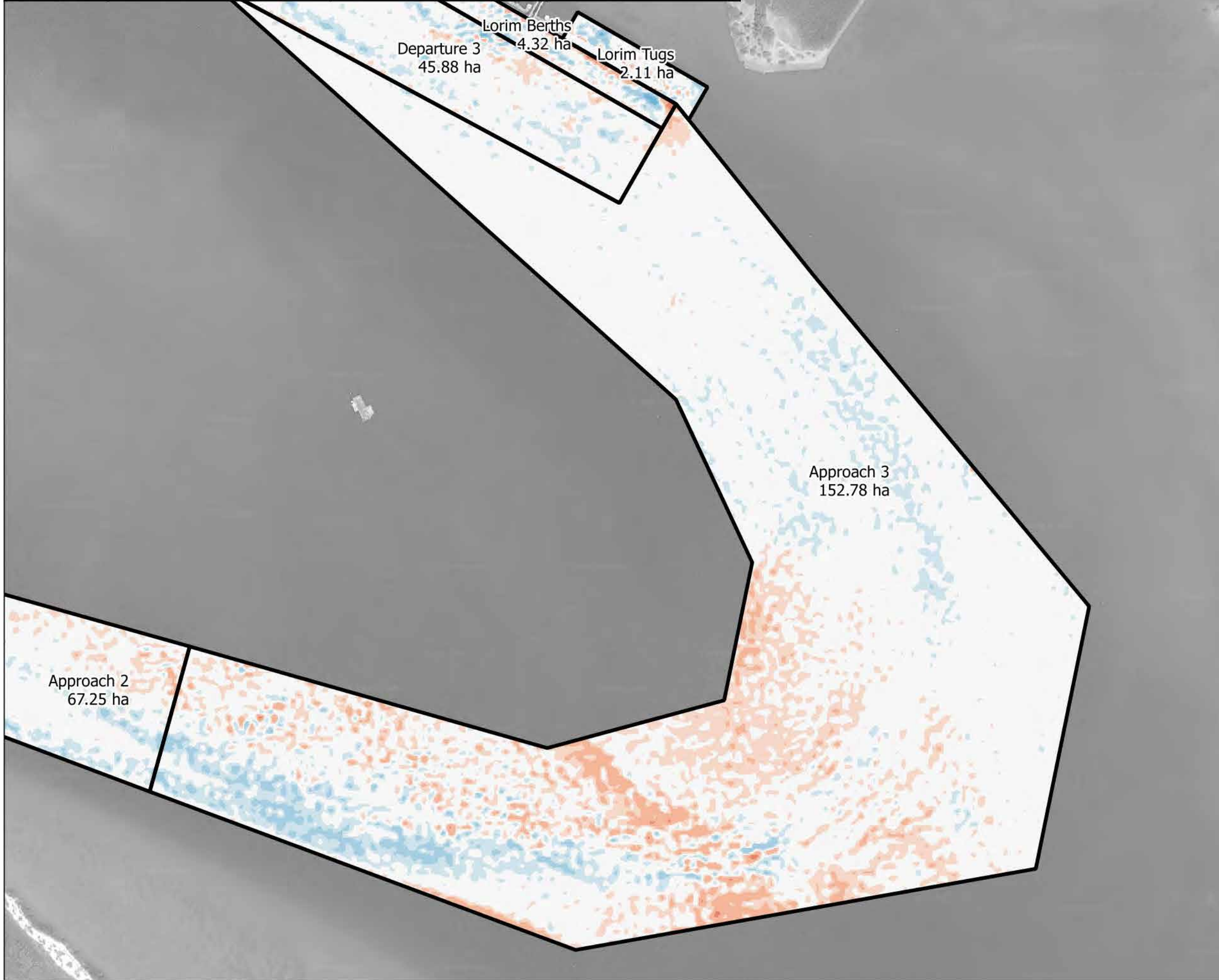
**Pre Dredge 2014 - Post  
Dredge 2013**

**Departure 3**

A3 Scale: 1:7,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 3	-49268	+60791	+11522



**PORT & COASTAL**  
SOLUTIONS

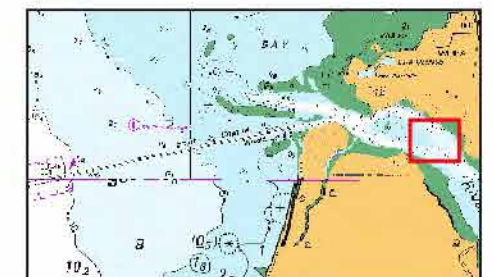
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2014 - Post  
Dredge 2013**

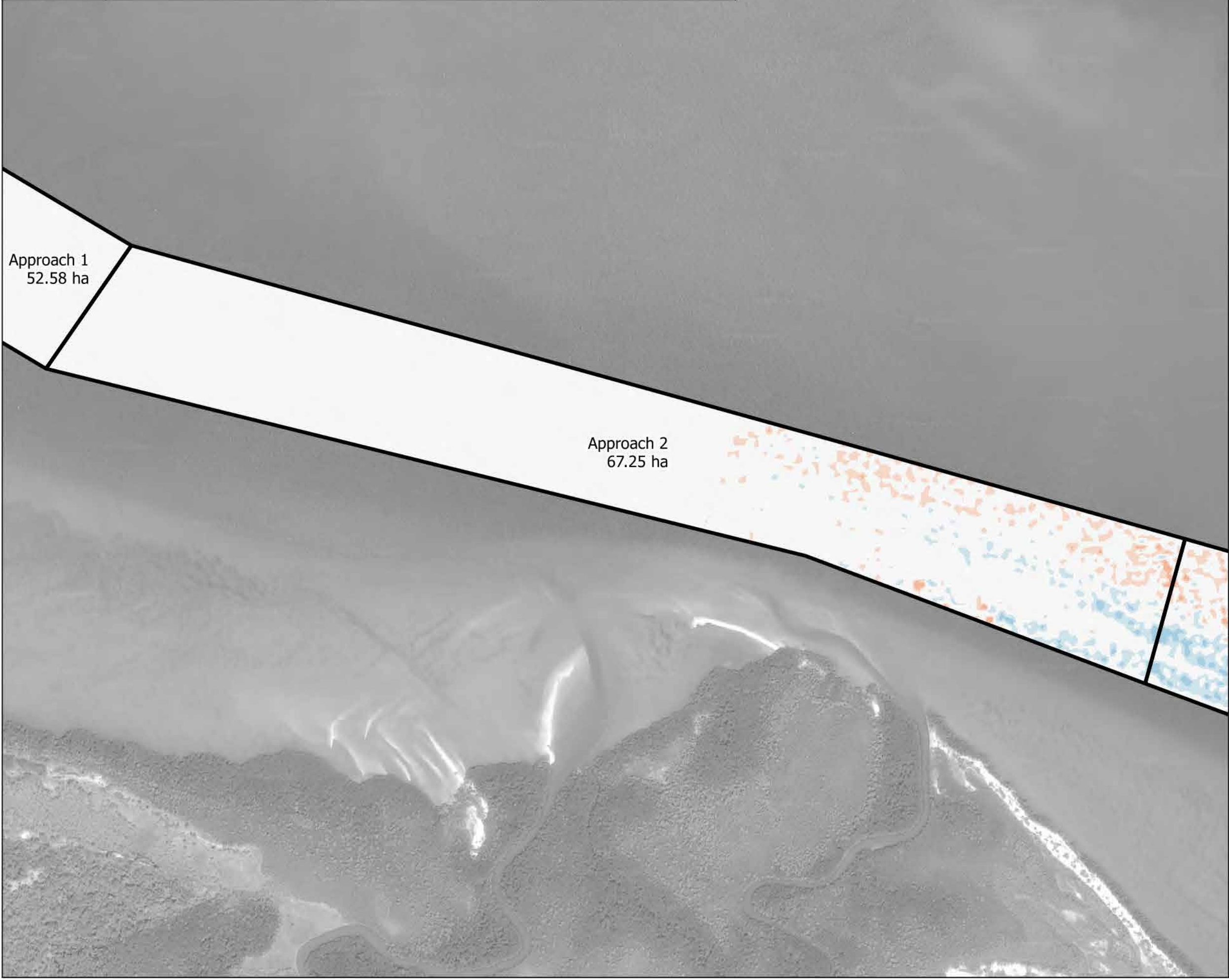
**Approach 3**

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 2	-6761	+9440	+2679



**PORT & COASTAL**  
SOLUTIONS

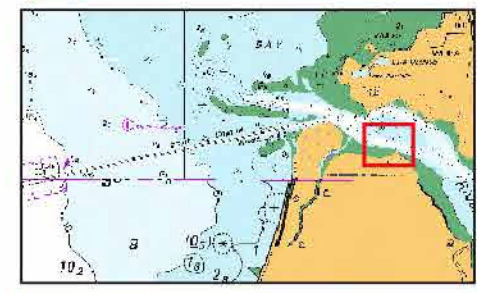


## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2014 - Post  
Dredge 2013**

**Approach 2**

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Humbug Approach	-725	+1406	+681



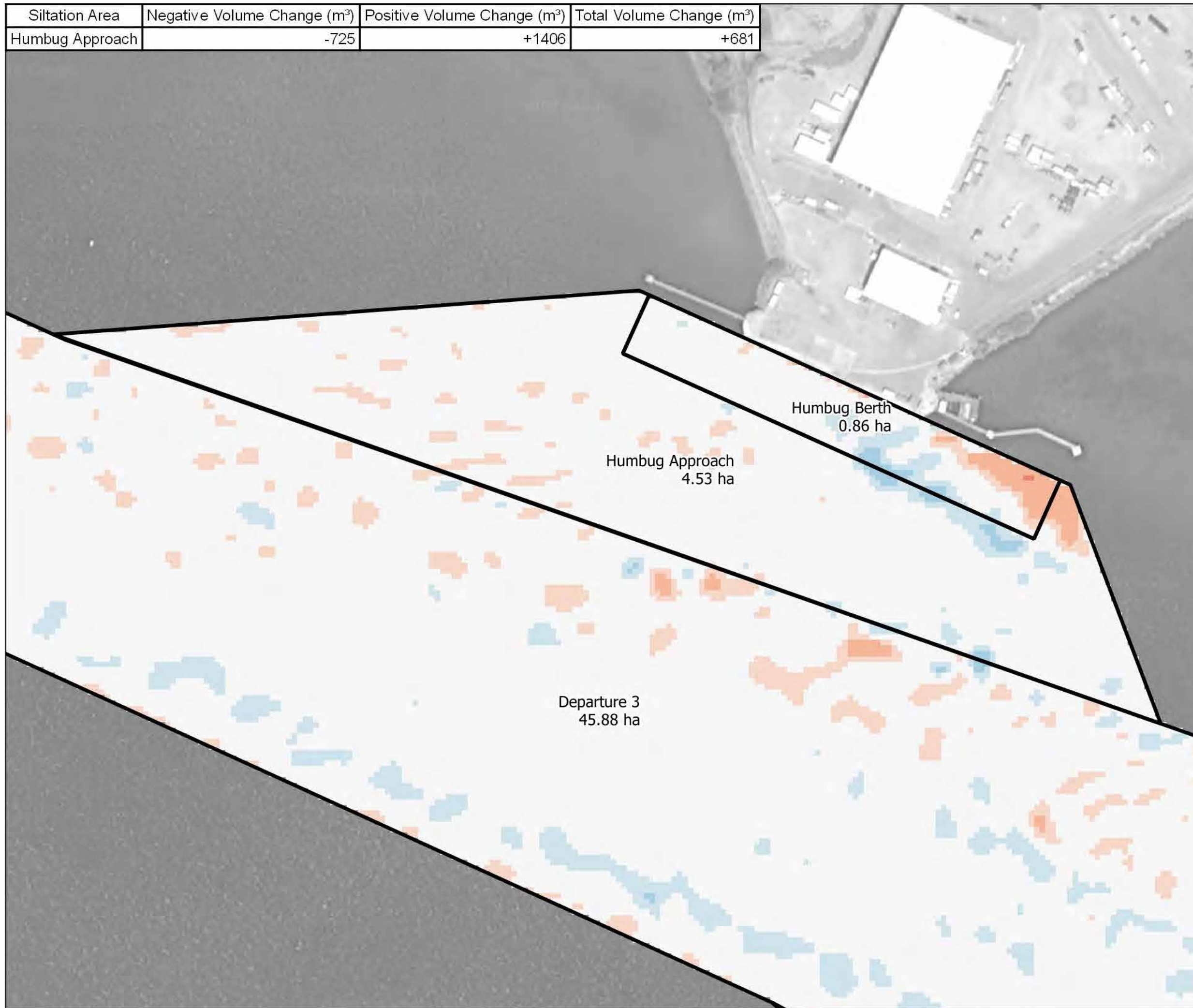
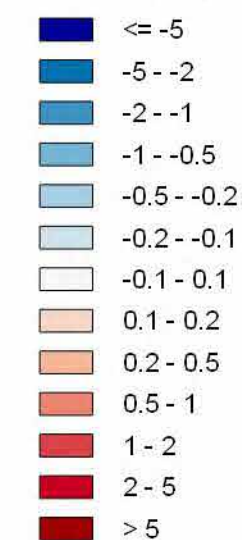
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2014 - Post  
Dredge 2013**

**Humbug Approach**

A3 Scale: 1:2,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Berths	-3020	+2356	-664



**PORT & COASTAL**  
SOLUTIONS

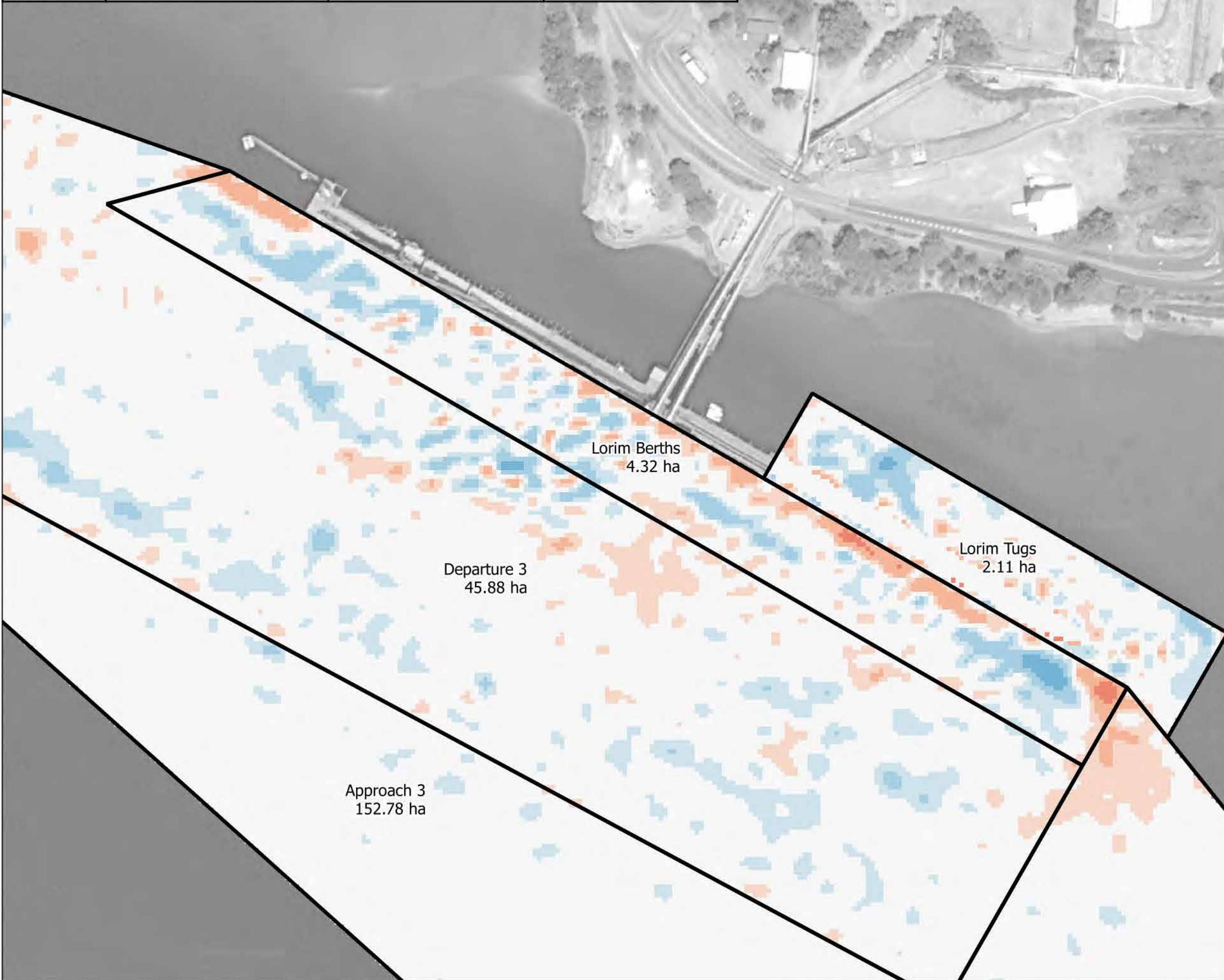
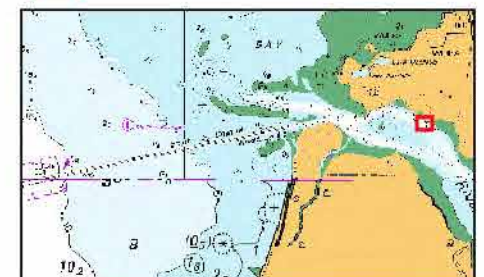
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2014 - Post  
Dredge 2013**

**Lorim Berths**

A3 Scale: 1:2,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Tugs	-1193	+690	-503



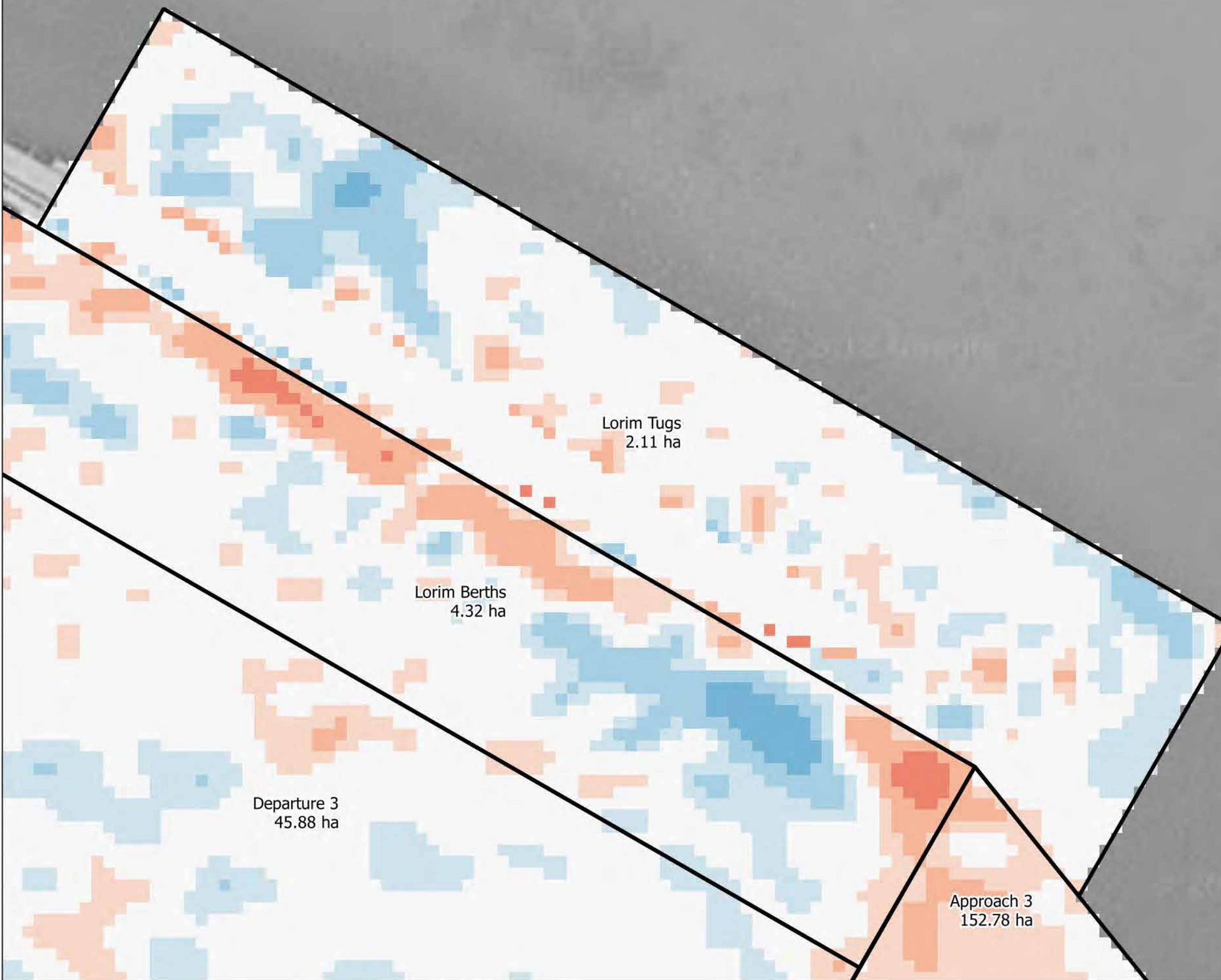
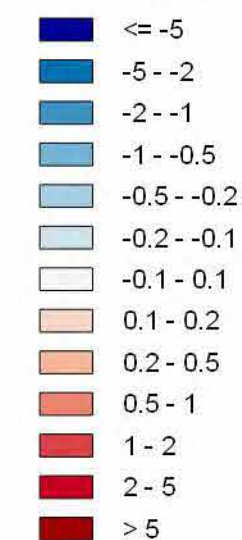
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

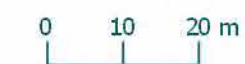


**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2014 - Post  
Dredge 2013**

**Lorim Tugs**

A3 Scale: 1:1,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Outer	-115122	+1124	-113998



**PORT & COASTAL**  
SOLUTIONS

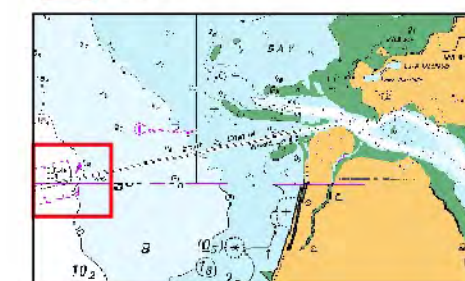
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2015 - Post  
Dredge 2014**

**S Channel Outer**

A3 Scale: 1:14,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid Outer	-59374	+35720	-23654



**PORT & COASTAL**  
SOLUTIONS

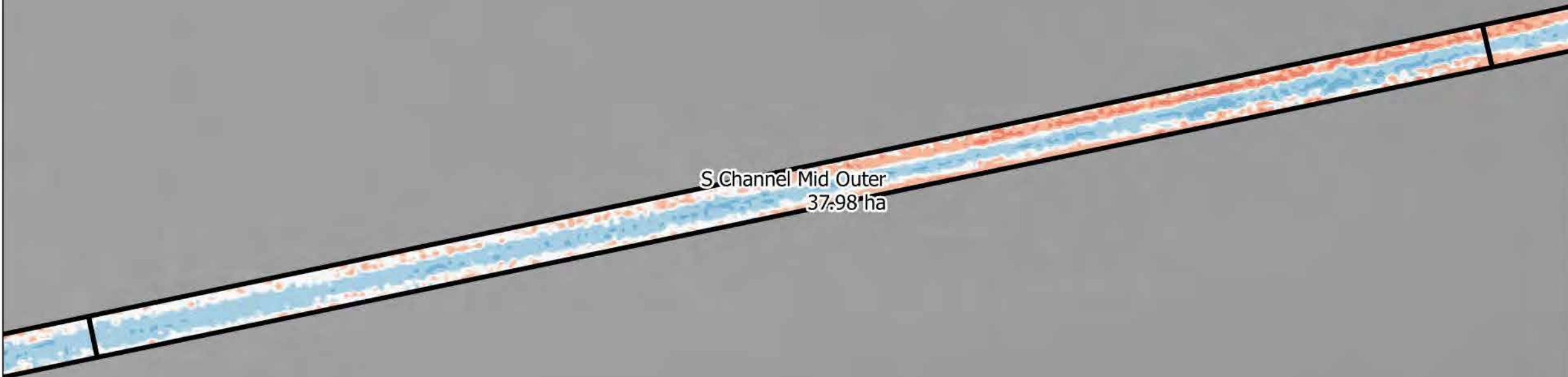
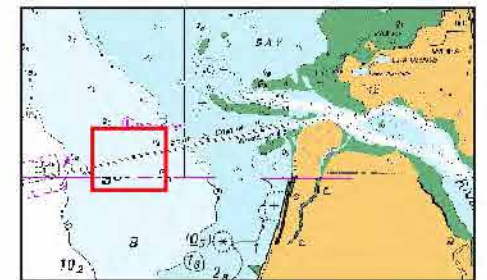
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2015 - Post  
Dredge 2014**

**S Channel Mid Outer**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid	-34256	+98051	+63795



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

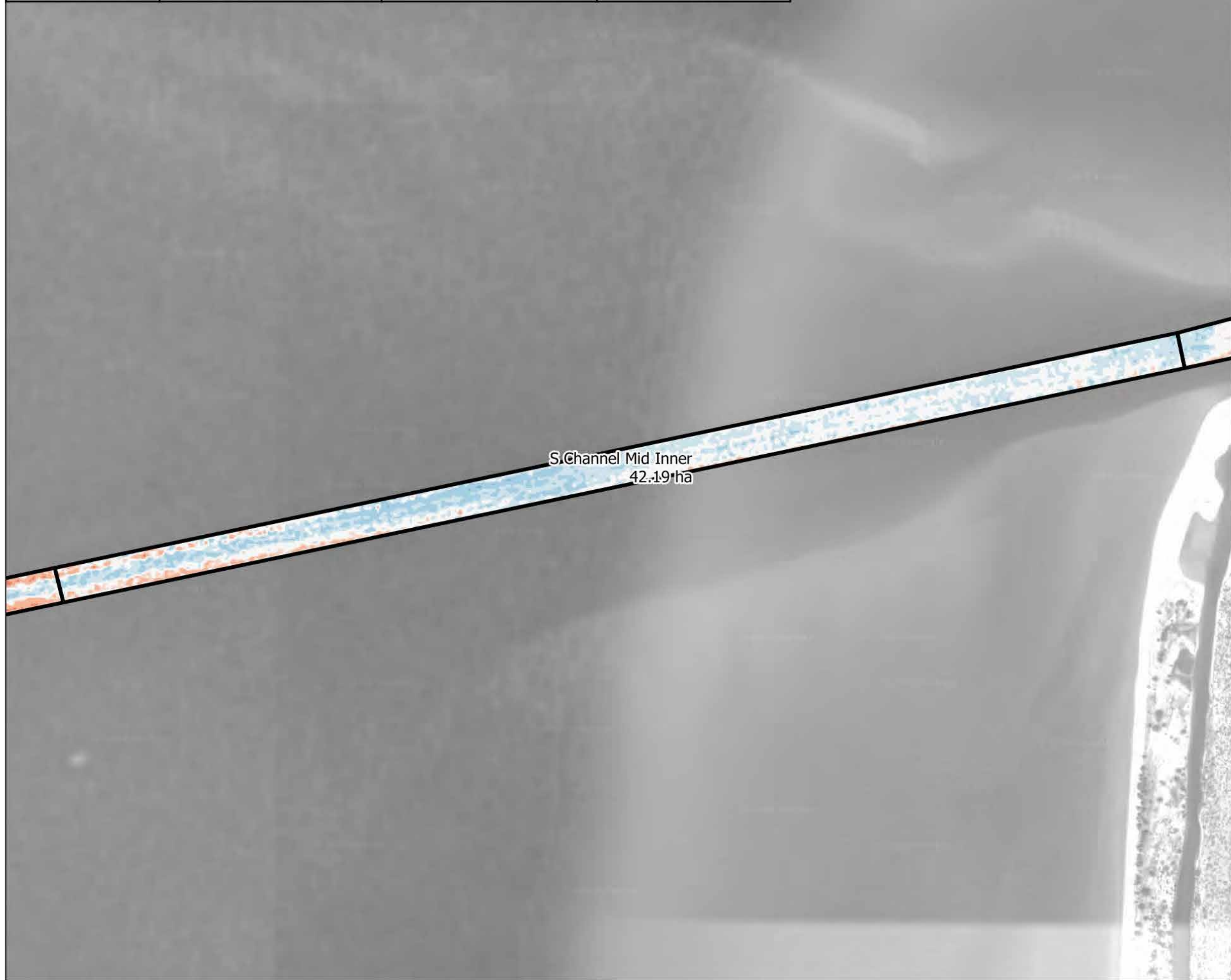
**Pre Dredge 2015 - Post  
Dredge 2014**

**S Channel Mid**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid Inner	-44633	+8652	-35980



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

#### Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



### Calculation 1: Annual Siltation Bed Level Difference

Pre Dredge 2015 - Post  
Dredge 2014

**S Channel Mid Inner**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Inner	-18842	+26926	+8084



**PORT & COASTAL**  
SOLUTIONS

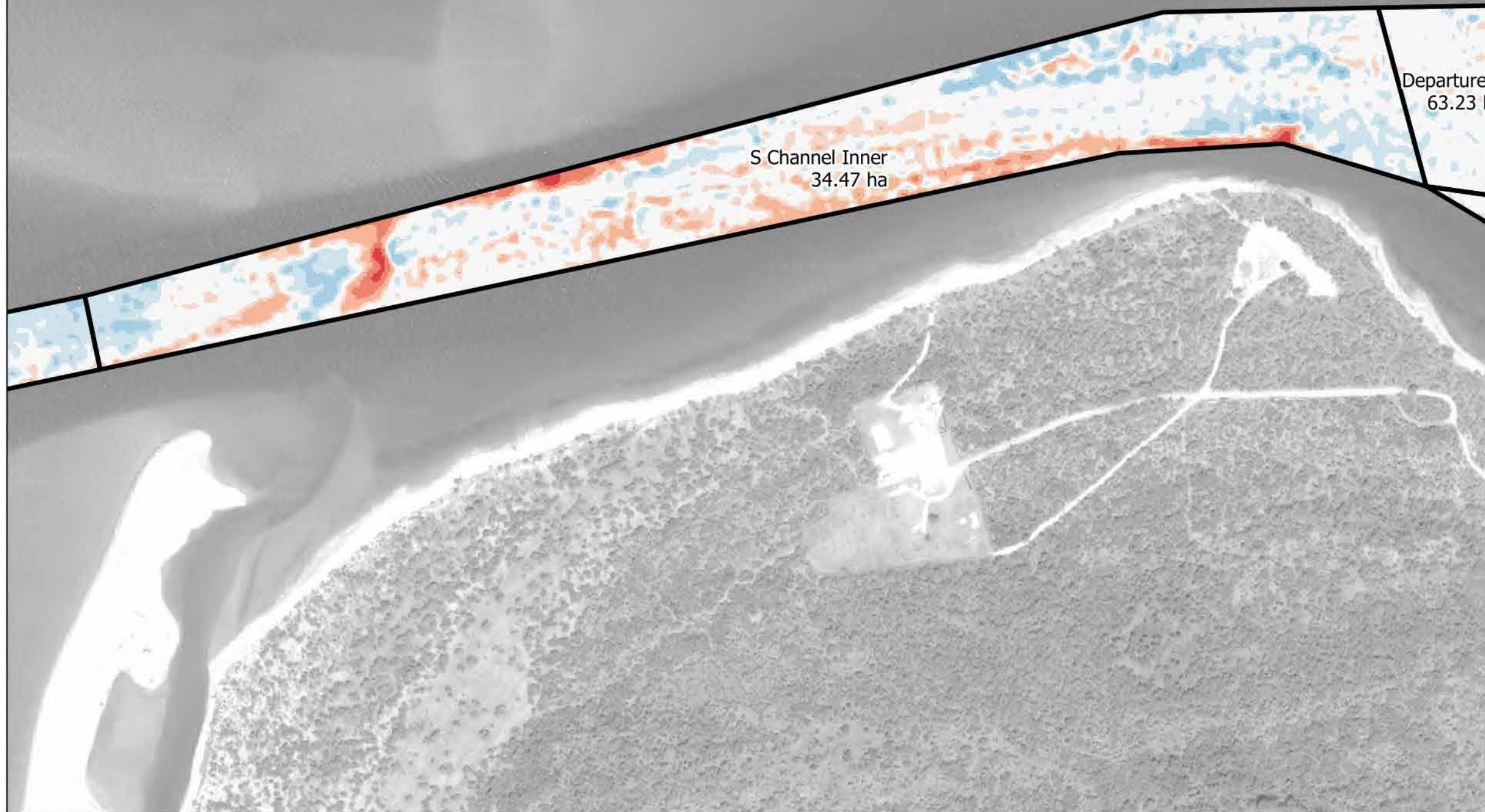
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

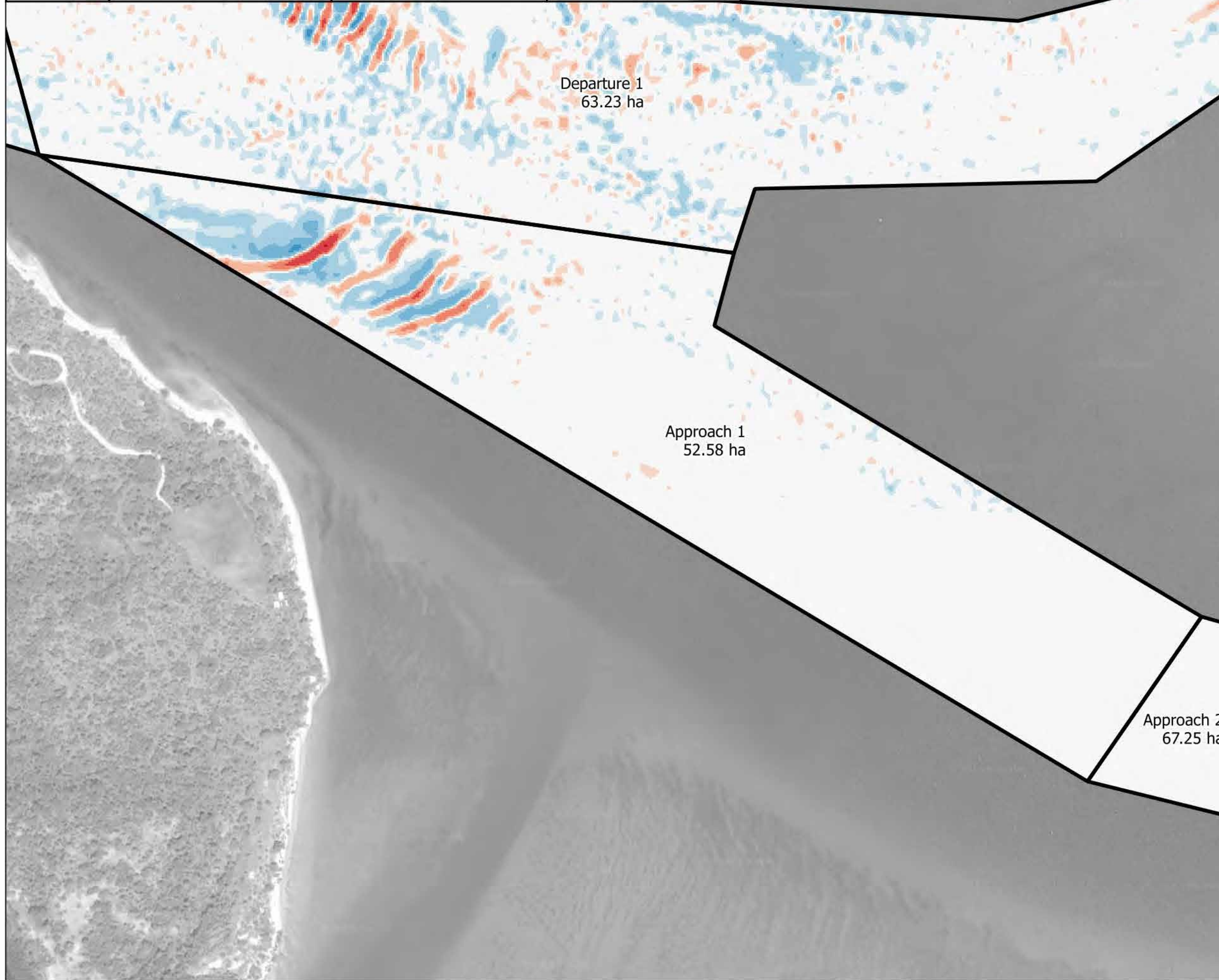
**Pre Dredge 2015 - Post  
Dredge 2014**

**S Channel Inner**

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 1	-19758	+11938	-7820



**PORT & COASTAL**  
SOLUTIONS

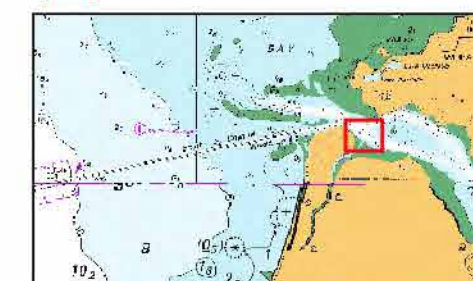
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2015 - Post  
Dredge 2014**

**Approach 1**

A3 Scale: 1:6,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 1	-33700	+17827	-15874



**PORT & COASTAL**  
SOLUTIONS

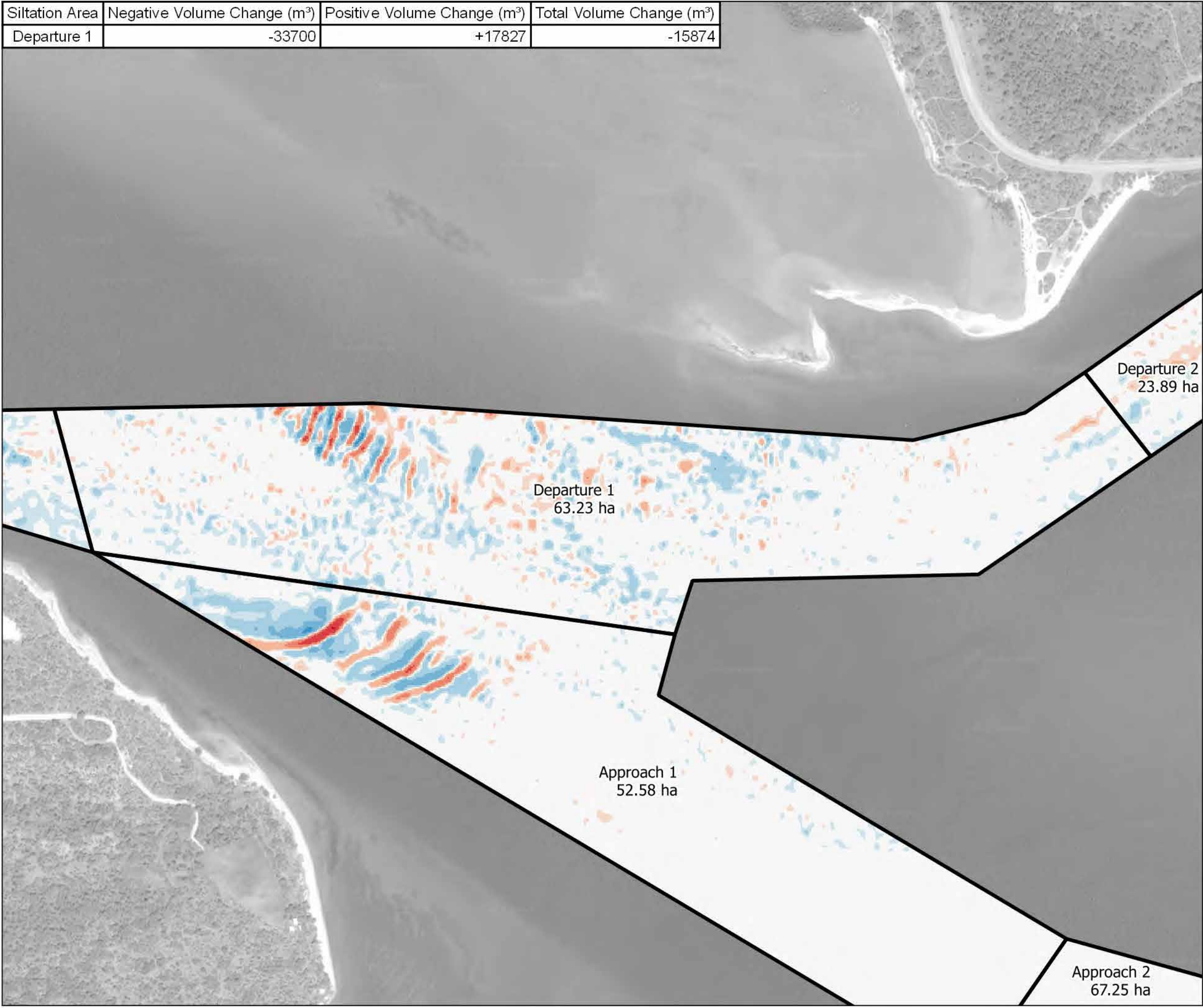
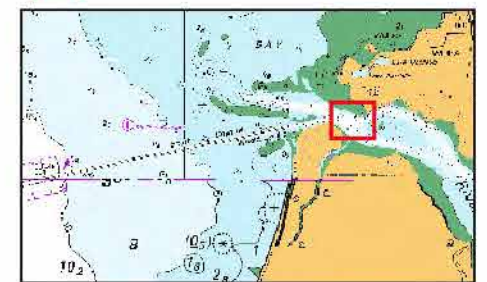
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



Departure 2  
23.89 ha

Departure 1  
63.23 ha

Approach 1  
52.58 ha

Approach 2  
67.25 ha

**Calculation 1: Annual  
Siltation Bed Level  
Difference**

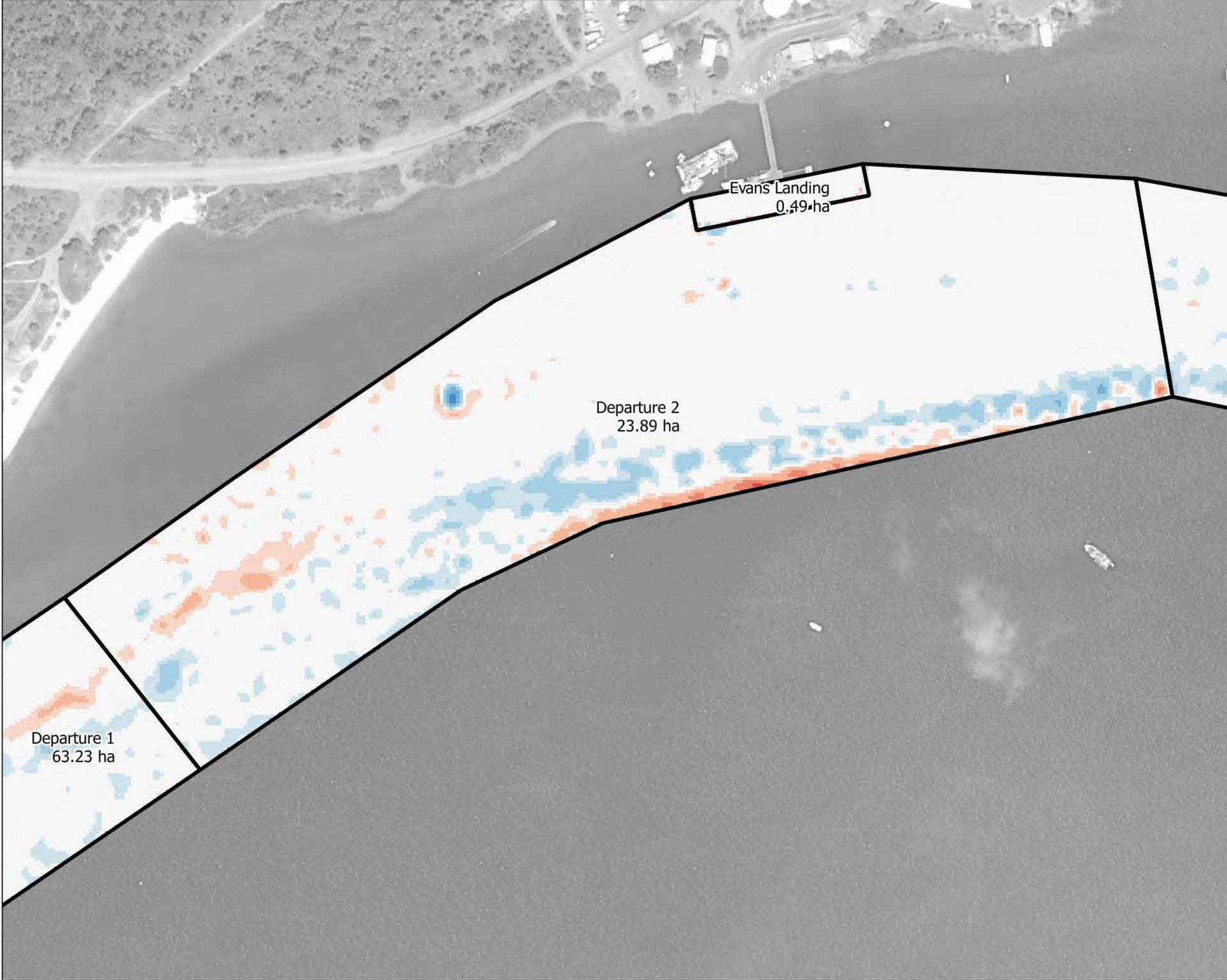
**Pre Dredge 2015 - Post  
Dredge 2014**

**Departure 1**

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 2	-8889	+5911	-2978



**PORT & COASTAL**  
SOLUTIONS

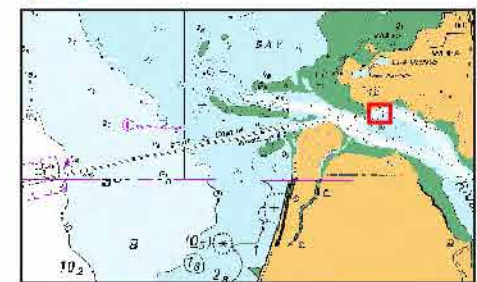
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 -- -2
- 2 -- -1
- 1 -- -0.5
- 0.5 -- -0.2
- 0.2 -- -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



### Calculation 1: Annual Siltation Bed Level Difference

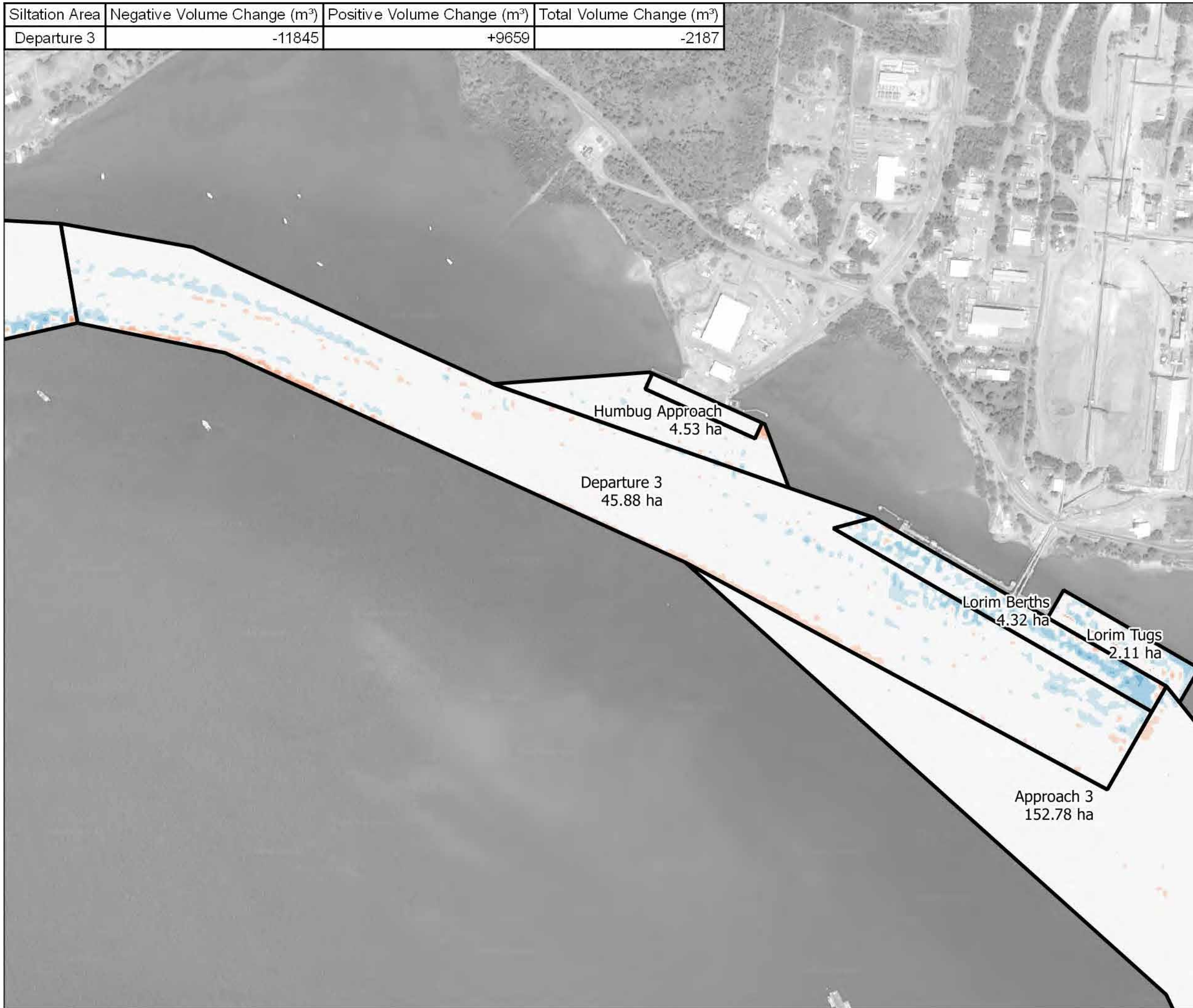
Pre Dredge 2015 - Post  
Dredge 2014

Departure 2

A3 Scale: 1:3,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 3	-11845	+9659	-2187



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2015 - Post  
Dredge 2014**

**Departure 3**

A3 Scale: 1:7,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 3	-36177	+29097	-7080



**PORT & COASTAL**  
SOLUTIONS

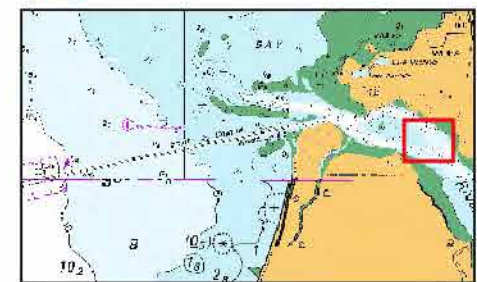
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2015 - Post  
Dredge 2014**

**Approach 3**

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 2	-9649	+2562	-7087



**PORT & COASTAL**  
SOLUTIONS

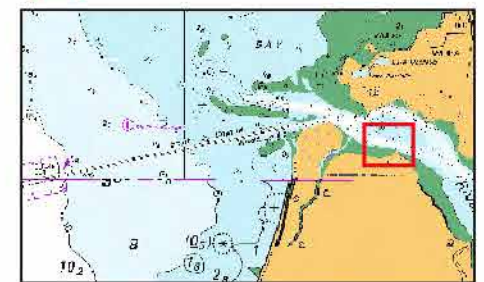
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5

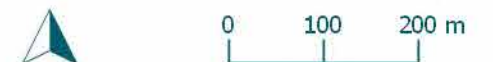


**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2015 - Post  
Dredge 2014**

**Approach 2**

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Berths	-5298	+531	-4767



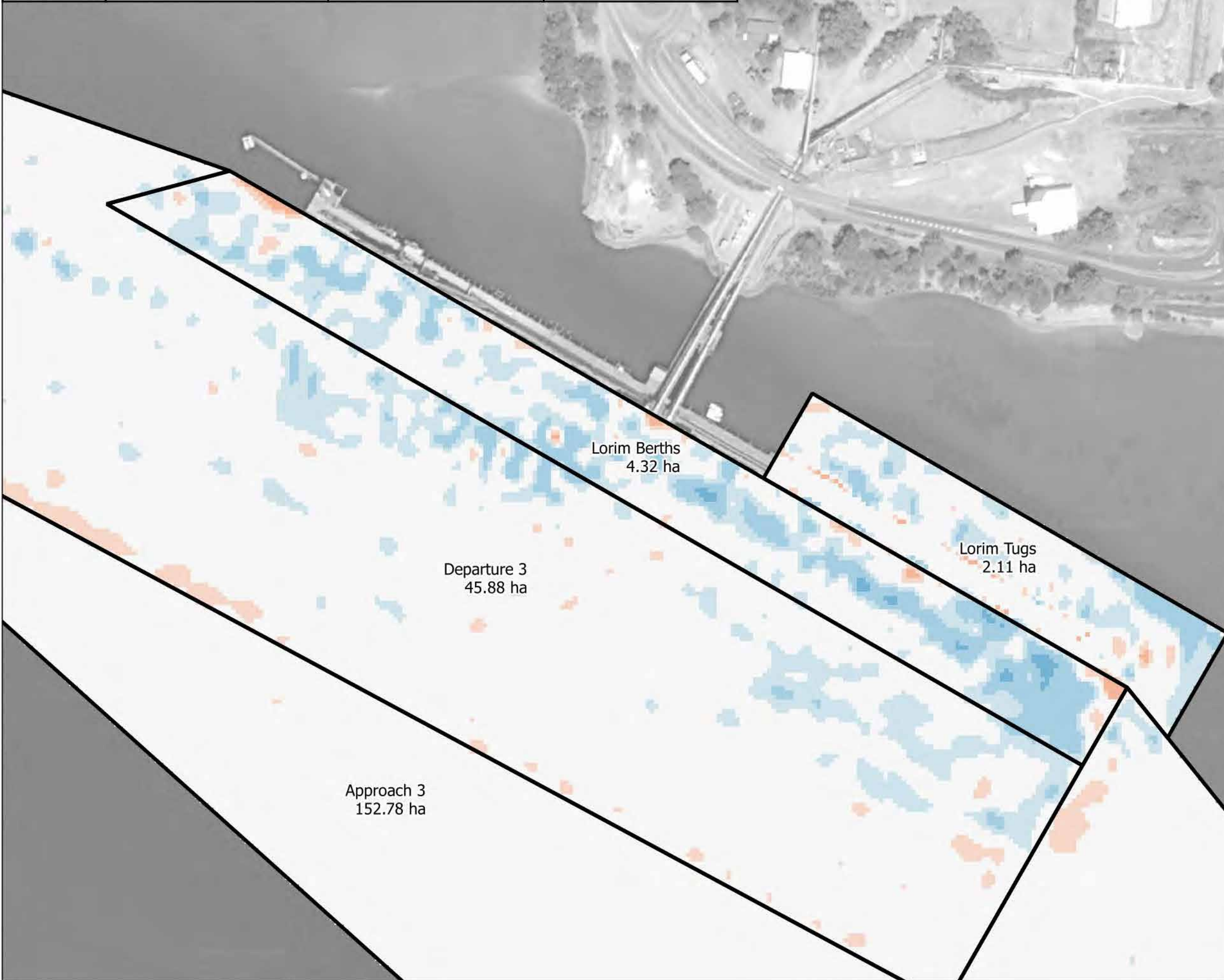
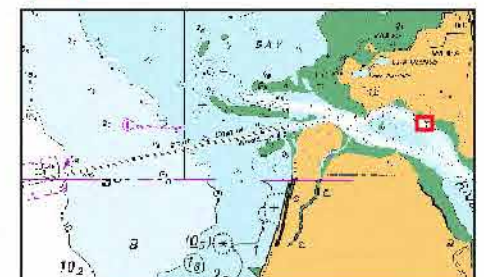
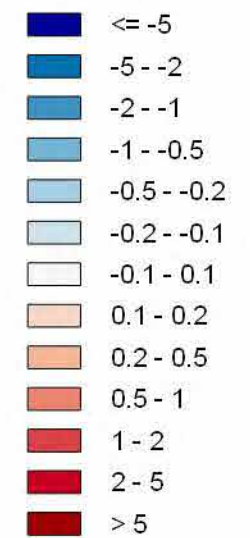
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2015 - Post  
Dredge 2014**

**Lorim Berths**

A3 Scale: 1:2,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Tugs	-1436	+278	-1158



**PORT & COASTAL**  
SOLUTIONS

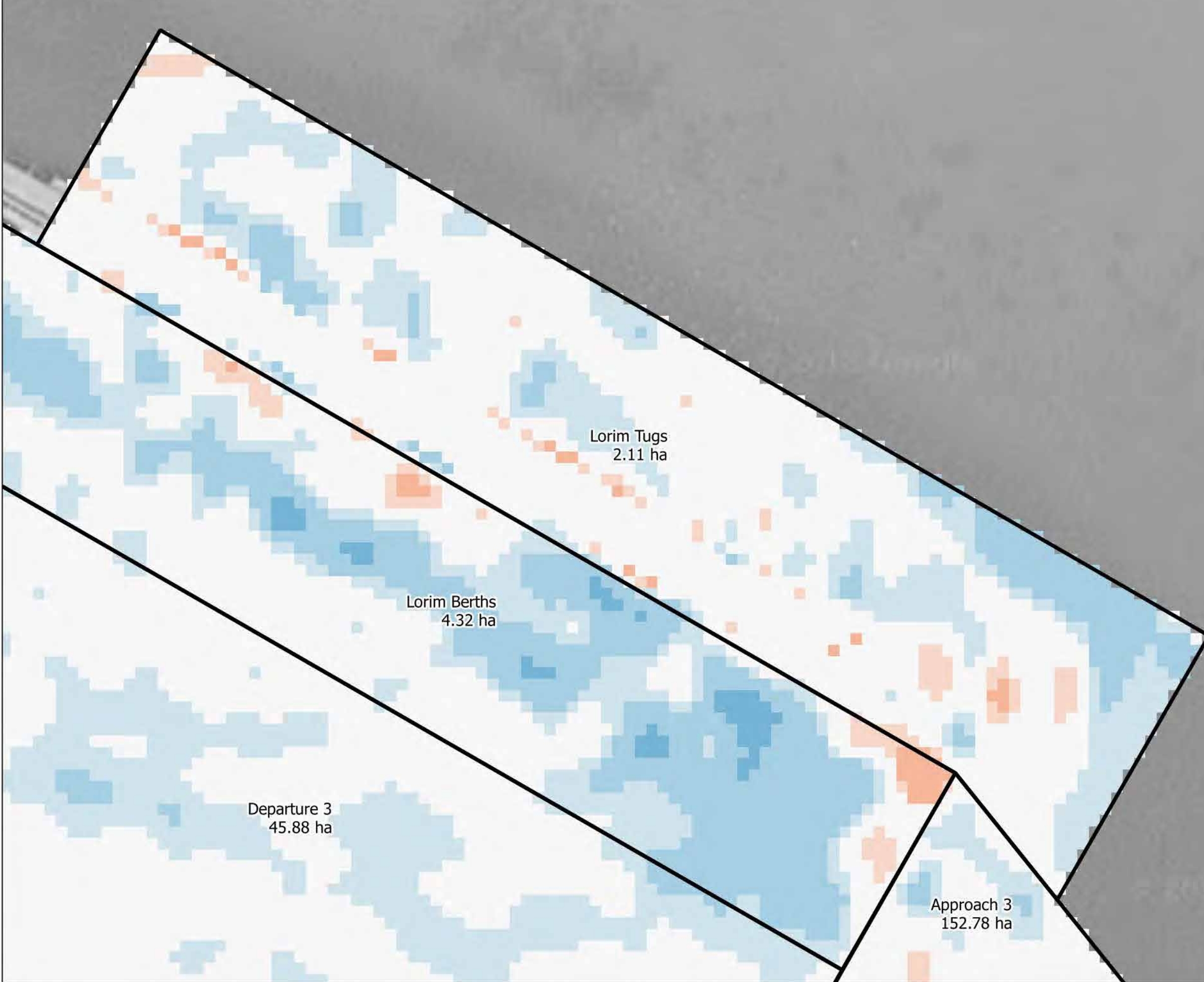
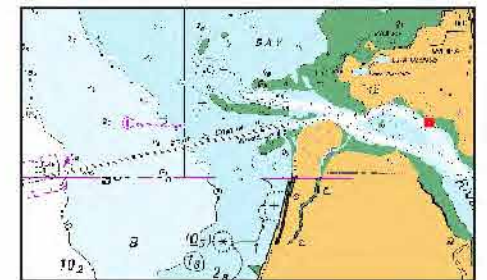
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



Lorim Tugs  
2.11 ha

Lorim Berths  
4.32 ha

Departure 3  
45.88 ha

Approach 3  
152.78 ha

**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2015 - Post  
Dredge 2014**

**Lorim Tugs**

A3 Scale: 1:1,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Outer	-10555	+34627	+24072



**PORT & COASTAL**  
SOLUTIONS

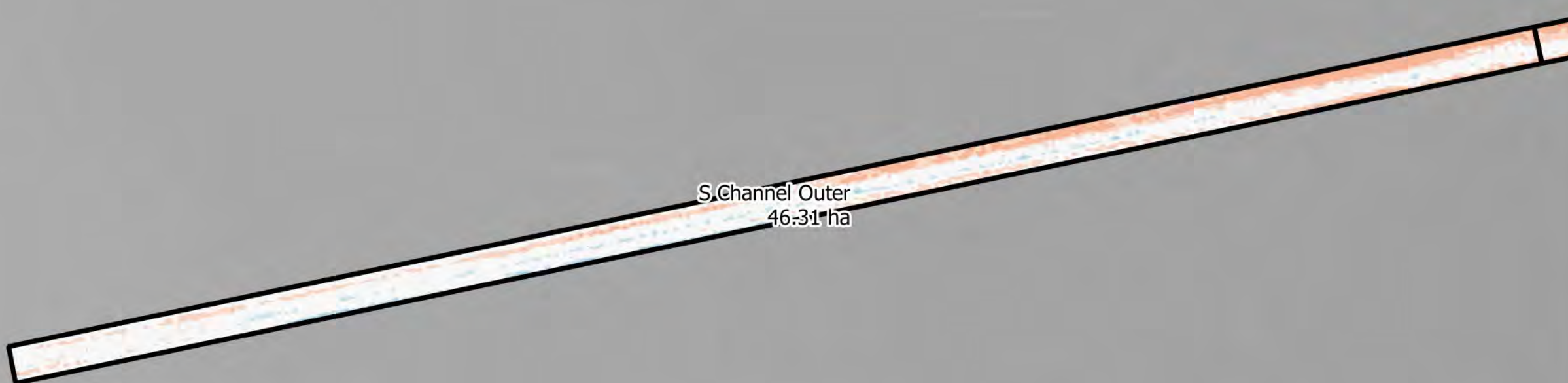
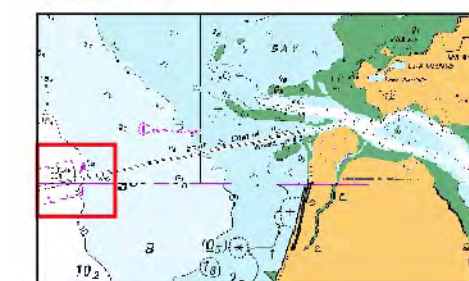
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2016 - Post  
Dredge 2015**

**S Channel Outer**

A3 Scale: 1:14,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid Outer	-11910	+78581	+66671



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2016 - Post  
Dredge 2015**

**S Channel Mid Outer**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid	-5258	+228626	+223368



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

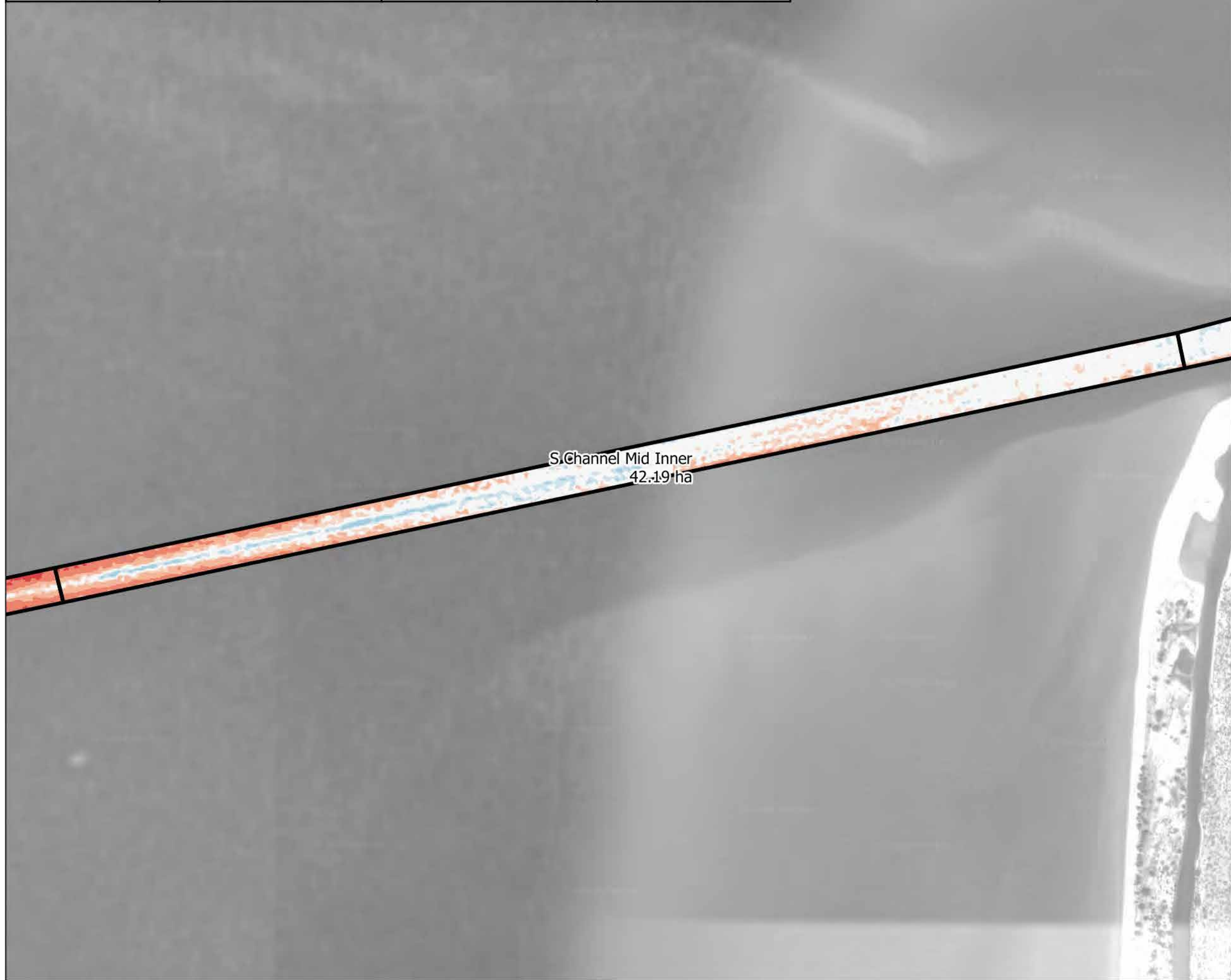
**Pre Dredge 2016 - Post  
Dredge 2015**

**S Channel Mid**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid Inner	-11382	+55467	+44085



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2016 - Post  
Dredge 2015**

**S Channel Mid Inner**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Inner	-12149	+28598	+16449



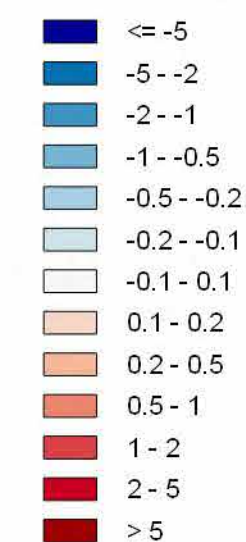
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

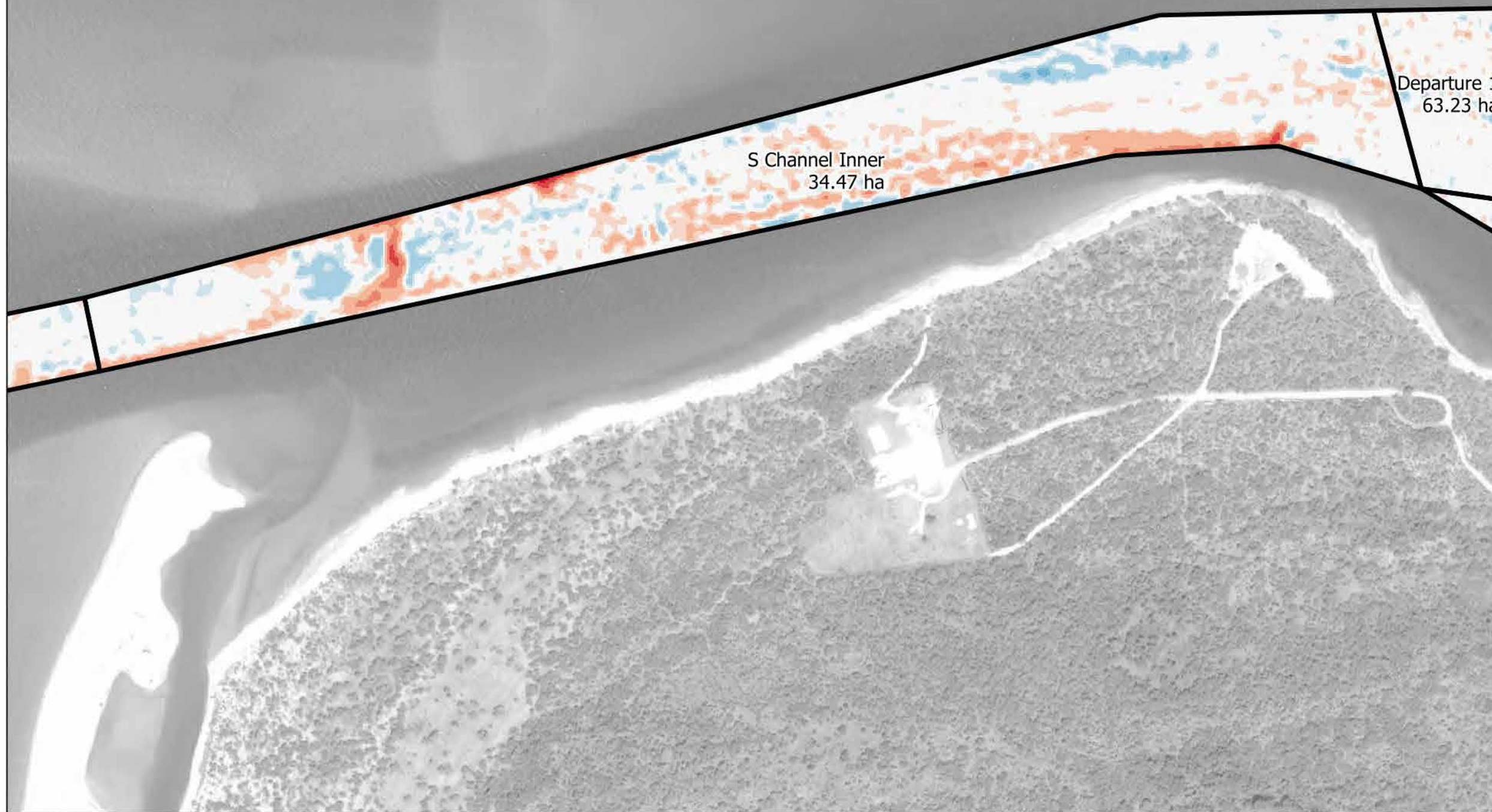


**Calculation 1: Annual  
Siltation Bed Level  
Difference**

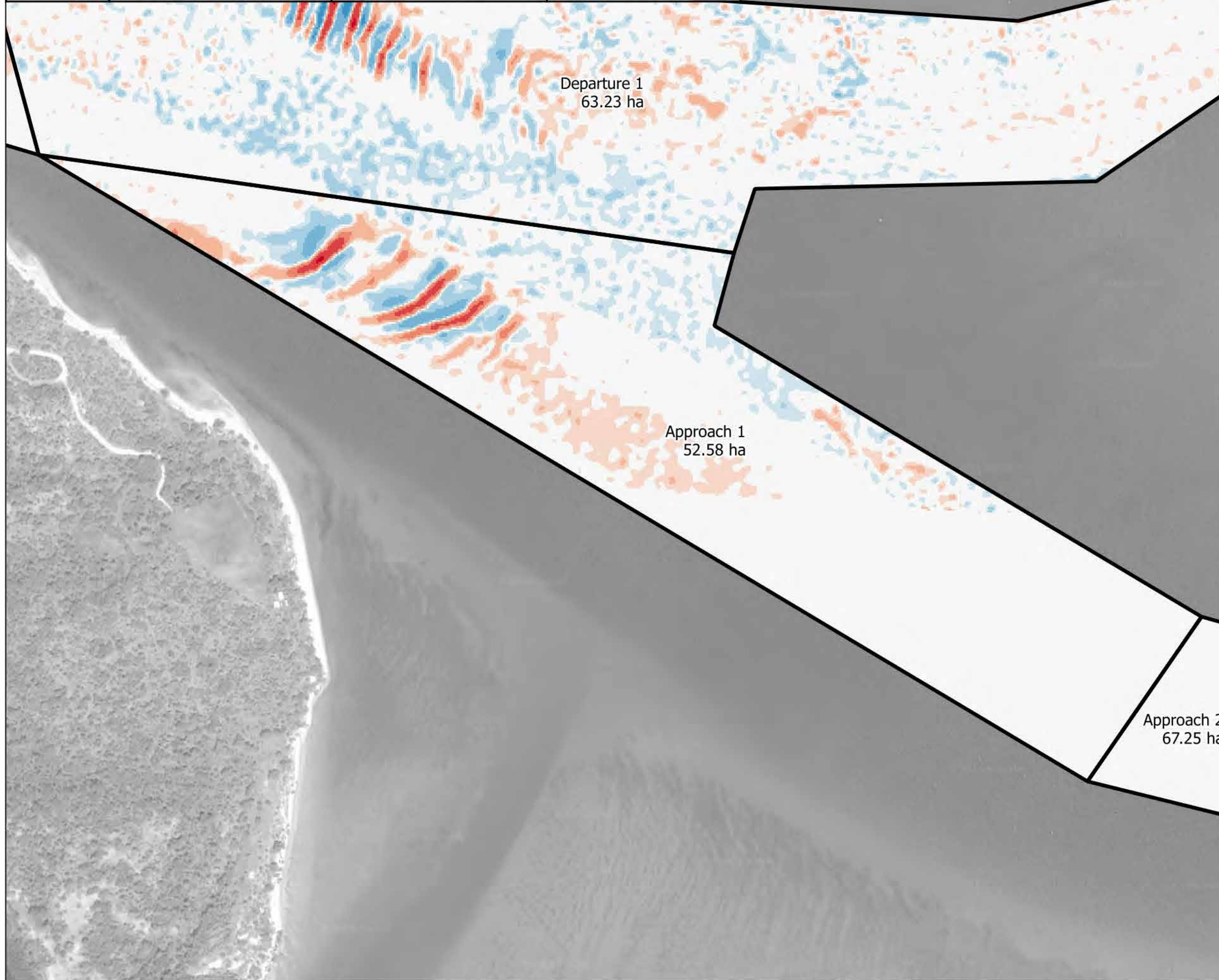
**Pre Dredge 2016 - Post  
Dredge 2015**

**S Channel Inner**

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 1	-16247	+21588	+5341



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2016 - Post  
Dredge 2015**

**Approach 1**

A3 Scale: 1:6,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 1	-33672	+25234	-8437



**PORT & COASTAL**  
SOLUTIONS

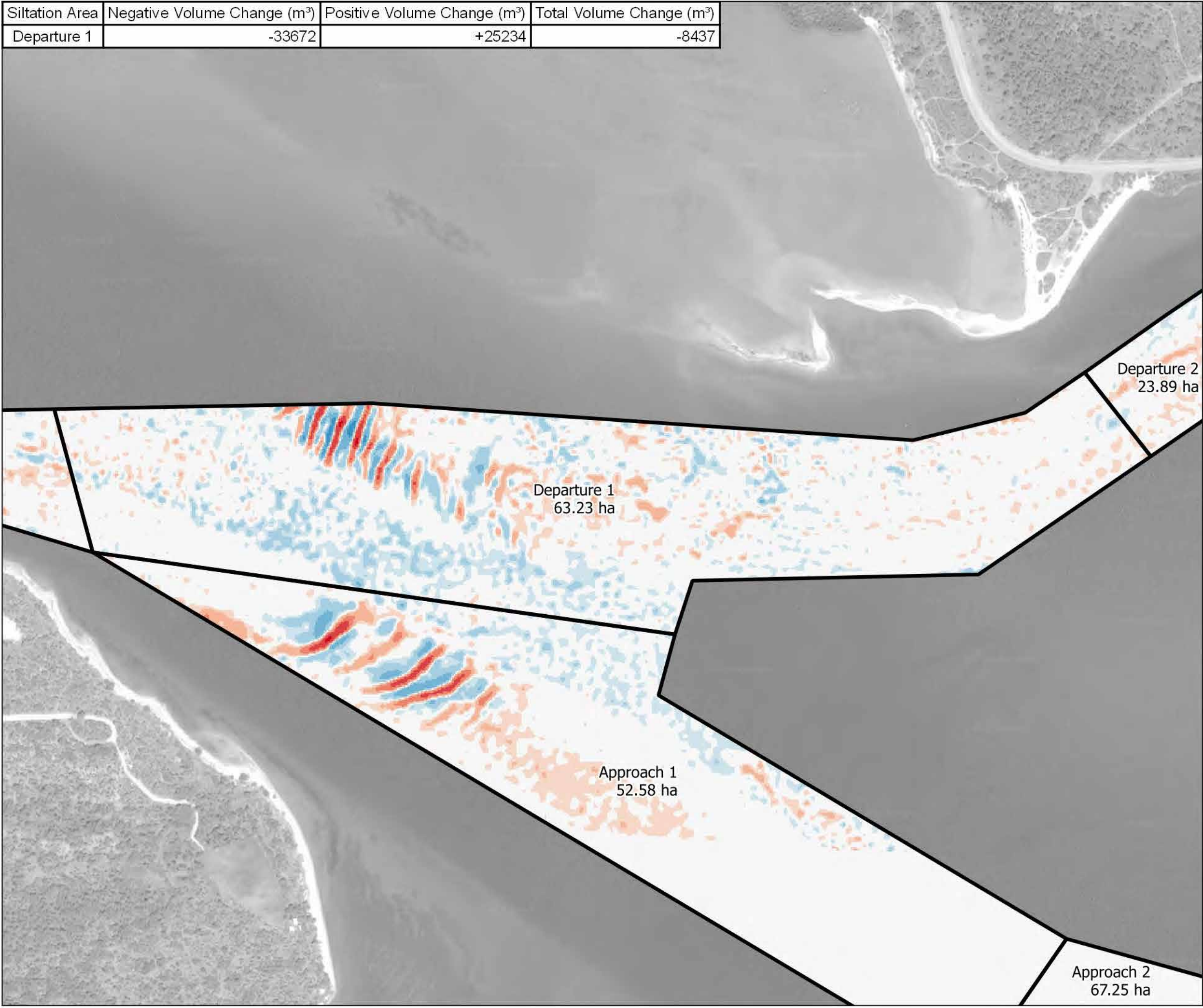
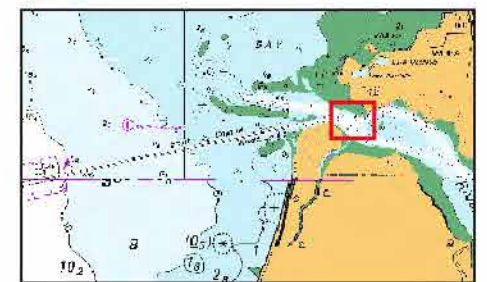
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual Siltation Bed Level Difference**

Pre Dredge 2016 - Post Dredge 2015

Departure 1

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 2	-2539	+12405	+9866



**PORT & COASTAL**  
SOLUTIONS

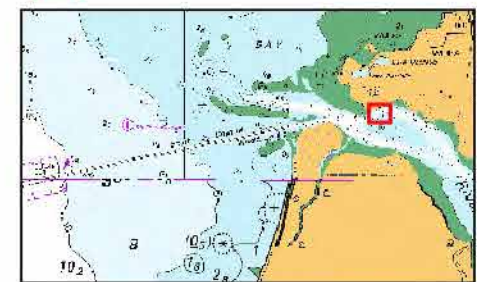
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- -5 - -2
- -2 - -1
- -1 - -0.5
- -0.5 - -0.2
- -0.2 - -0.1
- -0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



### Calculation 1: Annual Siltation Bed Level Difference

Pre Dredge 2016 - Post  
Dredge 2015

Departure 2

A3 Scale: 1:3,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 3	-7302	+21075	+13773



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 -- -2
- 2 -- -1
- 1 -- -0.5
- 0.5 -- -0.2
- 0.2 -- -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

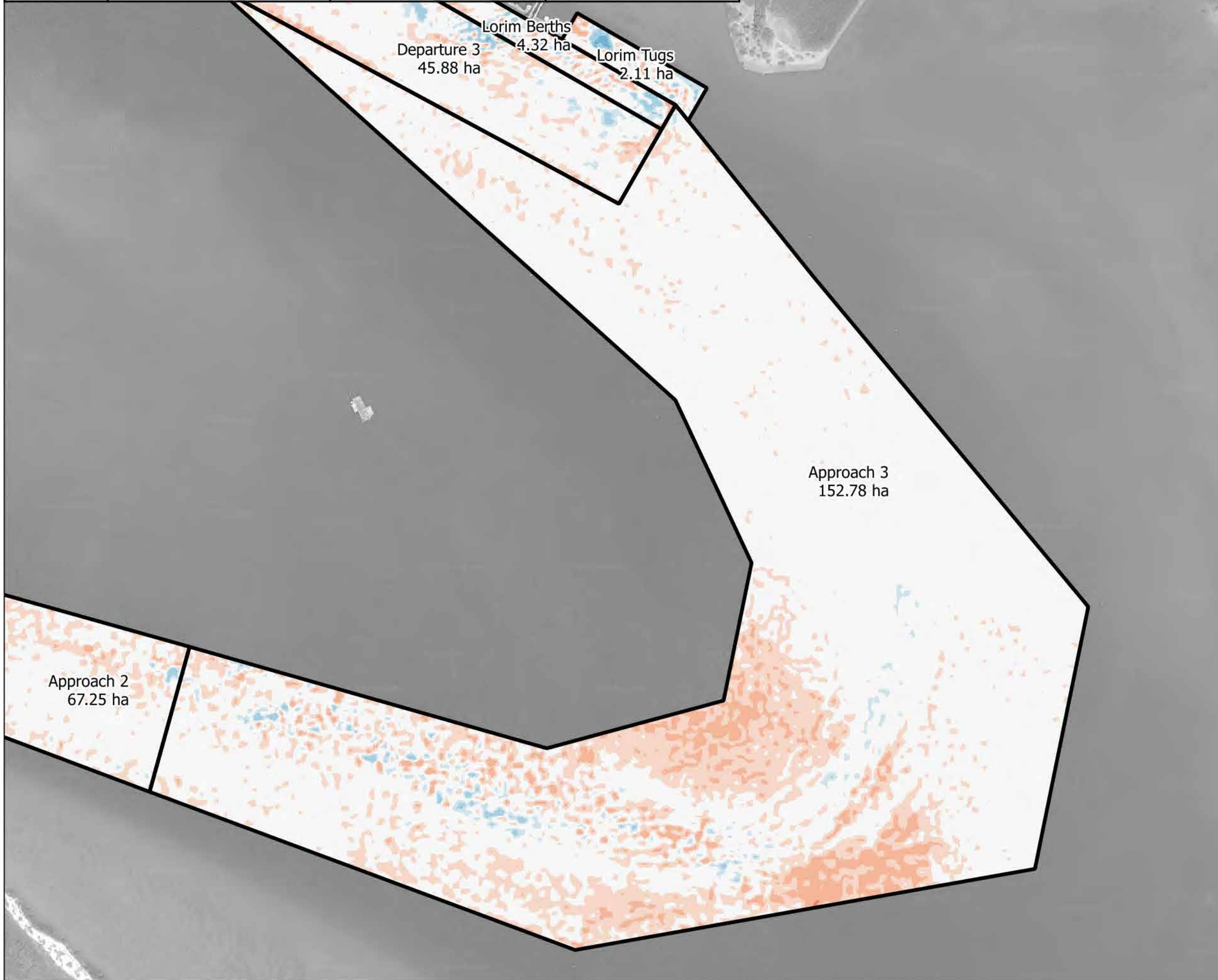
**Pre Dredge 2016 - Post  
Dredge 2015**

**Departure 3**

A3 Scale: 1:7,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 3	-8791	+92099	+83308



**PORT & COASTAL**  
SOLUTIONS

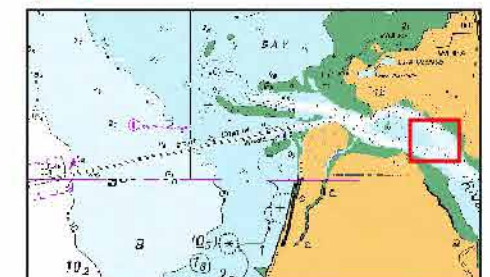
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2016 - Post  
Dredge 2015**

**Approach 3**

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 2	-1612	+15443	+13831



**PORT & COASTAL**  
SOLUTIONS

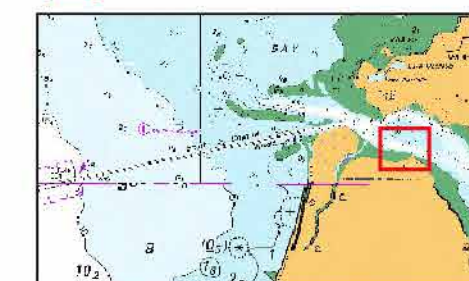
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual Siltation Bed Level Difference**

**Pre Dredge 2016 - Post Dredge 2015**

**Approach 2**

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Humbug Approach	-459	+2345	+1886



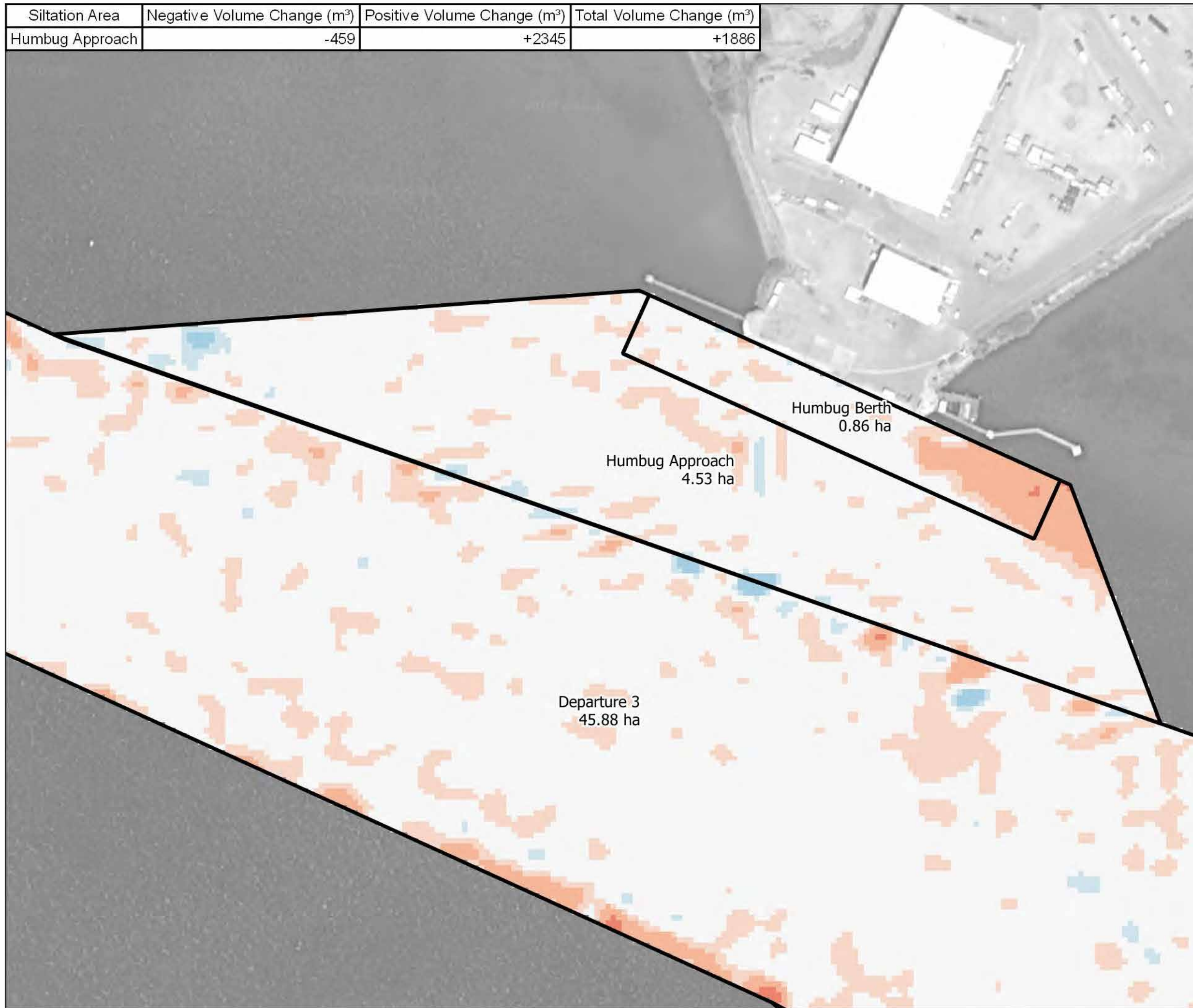
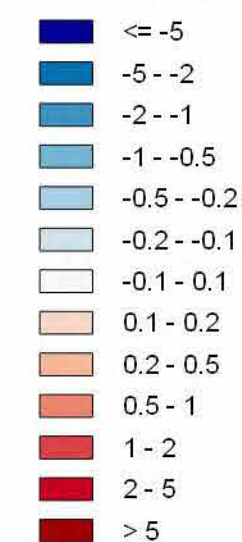
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2016 - Post  
Dredge 2015**

**Humbug Approach**

A3 Scale: 1:2,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Berths	-1876	+2829	+952



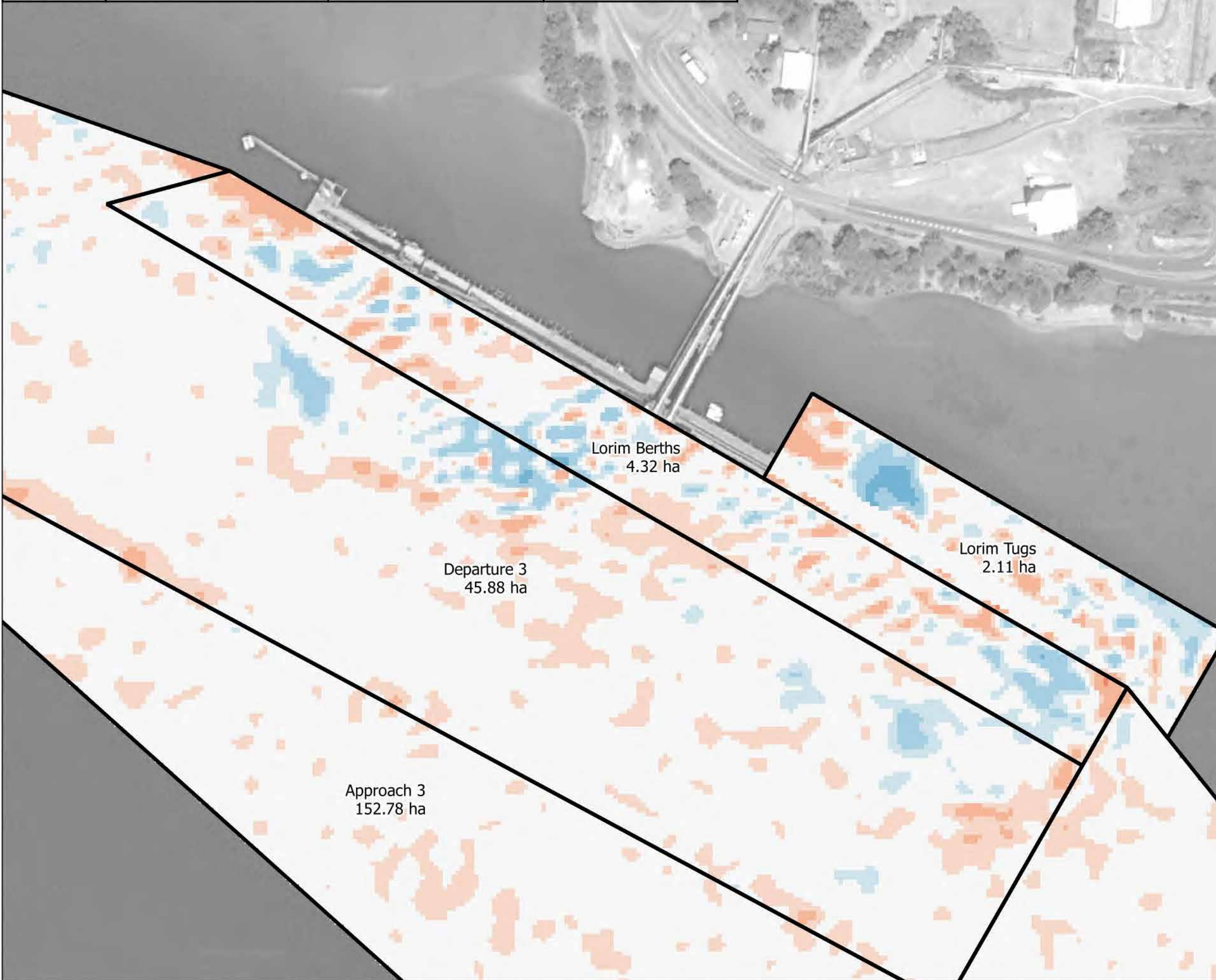
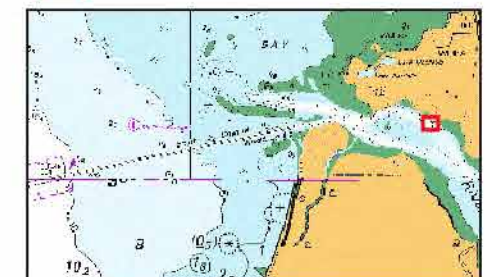
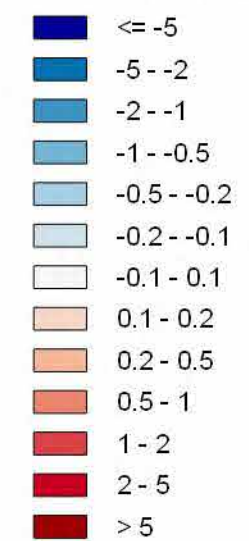
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



Lorim Berths  
4.32 ha

Departure 3  
45.88 ha

Lorim Tugs  
2.11 ha

Approach 3  
152.78 ha

**Calculation 1: Annual  
Siltation Bed Level  
Difference**

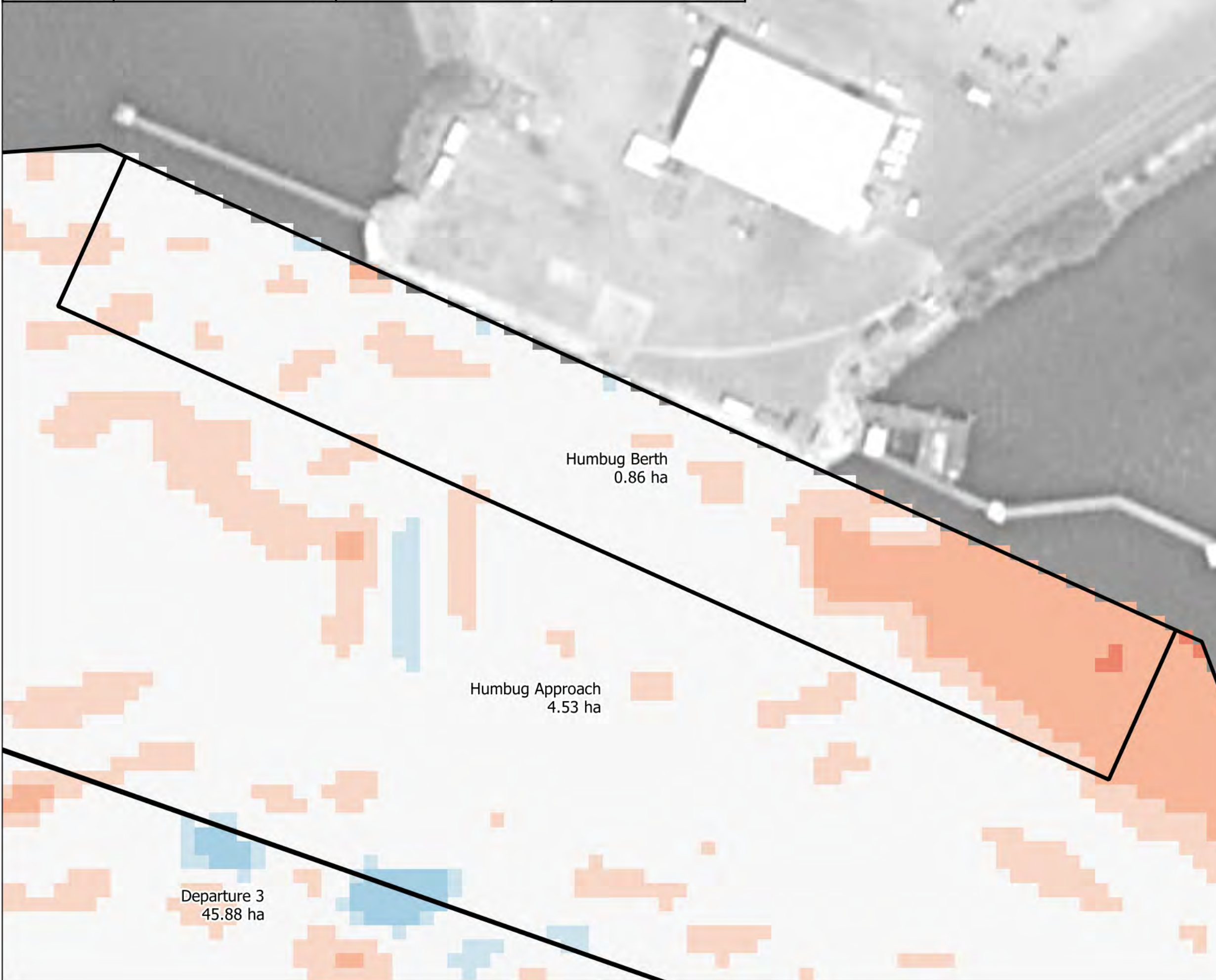
**Pre Dredge 2016 - Post  
Dredge 2015**

**Lorim Berths**

A3 Scale: 1:2,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Humberg Berth	-20	+1017	+997



**PORT & COASTAL**  
SOLUTIONS

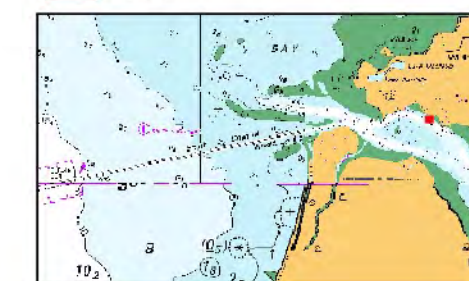
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- -5 - -2
- -2 - -1
- -1 - -0.5
- -0.5 - -0.2
- -0.2 - -0.1
- -0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2016 - Post  
Dredge 2015**

**Humberg Berth**

A3 Scale: 1:800 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Outer	-51568	+3922	-47647



**PORT & COASTAL**  
SOLUTIONS

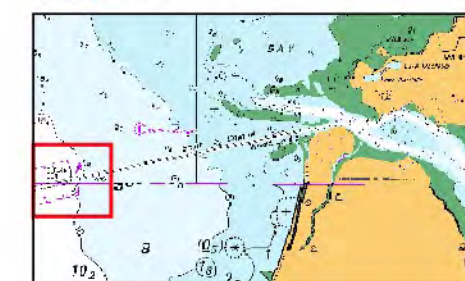
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2017 - Post  
Dredge 2016**

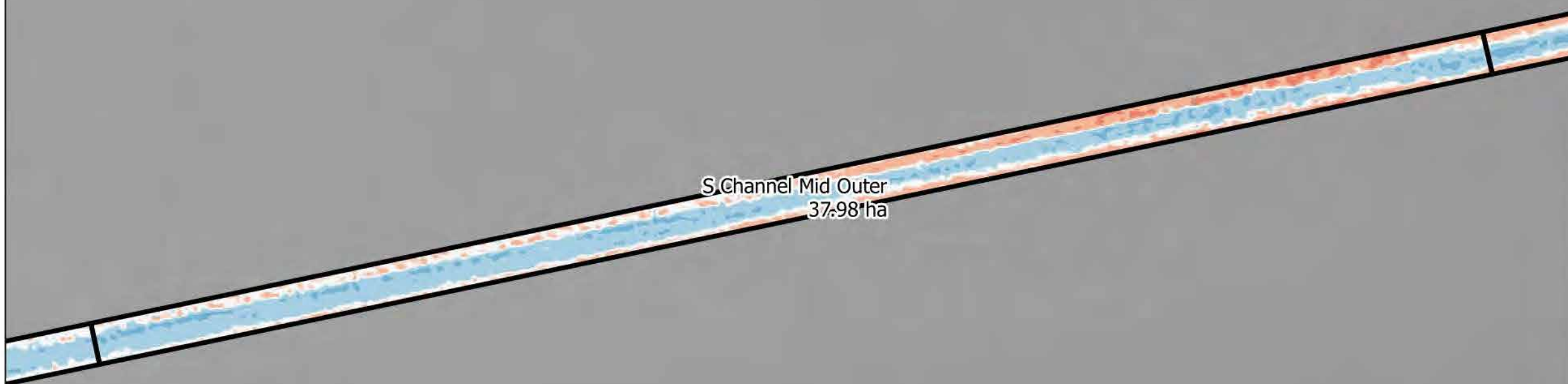
**S Channel Outer**

A3 Scale: 1:14,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid Outer	-68610	+33493	-35116



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual Siltation Bed Level Difference**

**Pre Dredge 2017 - Post Dredge 2016**

**S Channel Mid Outer**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid	-64833	+57722	-7111



**PORT & COASTAL**  
SOLUTIONS

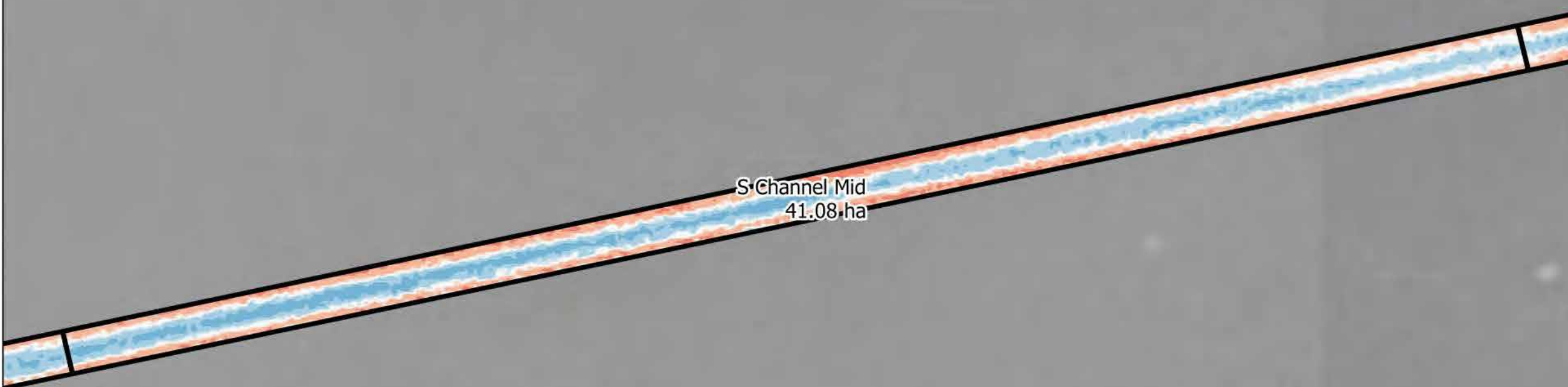
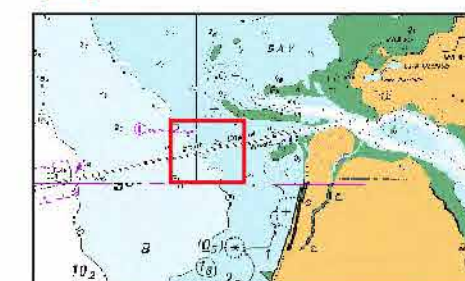
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2017 - Post  
Dredge 2016**

**S Channel Mid**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid Inner	-42659	+15247	-27413



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

#### Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5

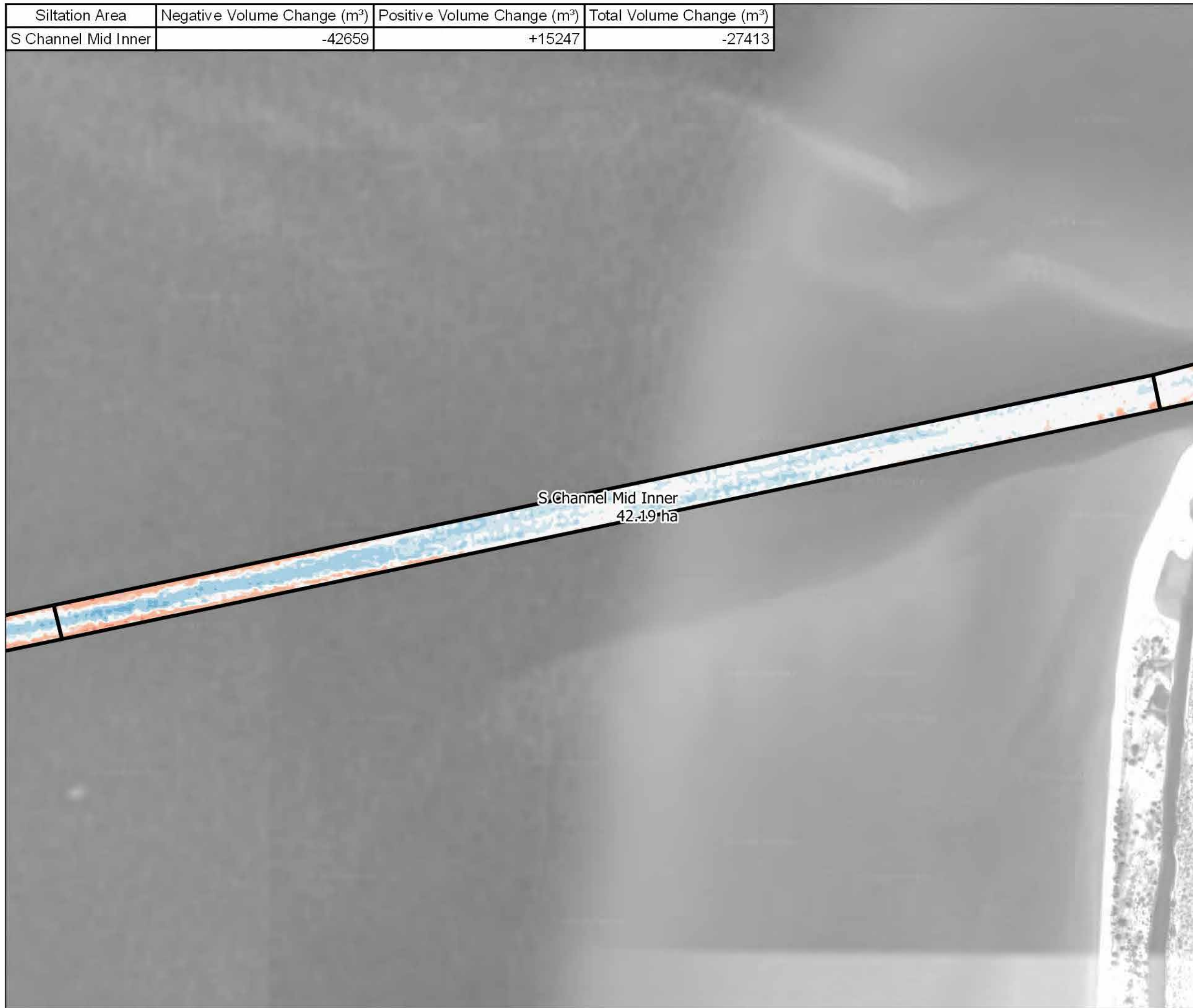


### Calculation 1: Annual Siltation Bed Level Difference

Pre Dredge 2017 - Post  
Dredge 2016

**S Channel Mid Inner**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Inner	-19391	+24171	+4780



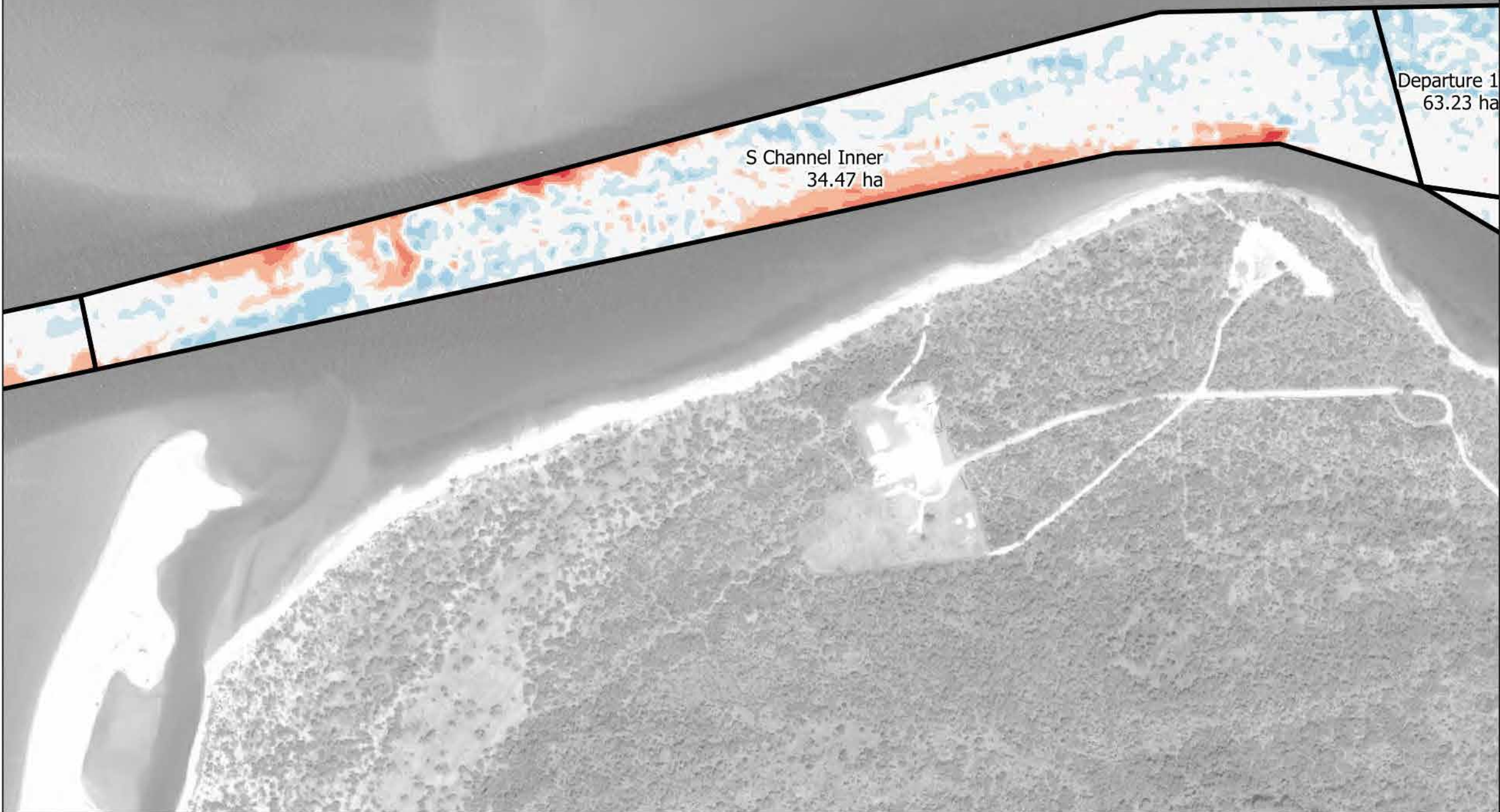
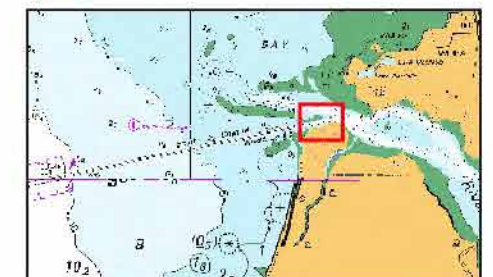
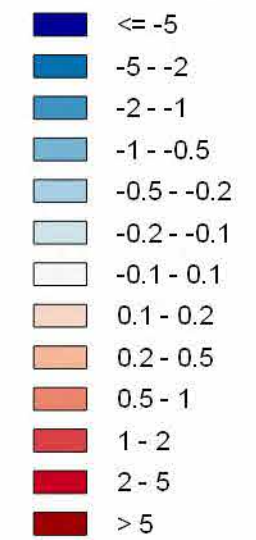
**PORT & COASTAL**  
SOLUTIONS

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**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

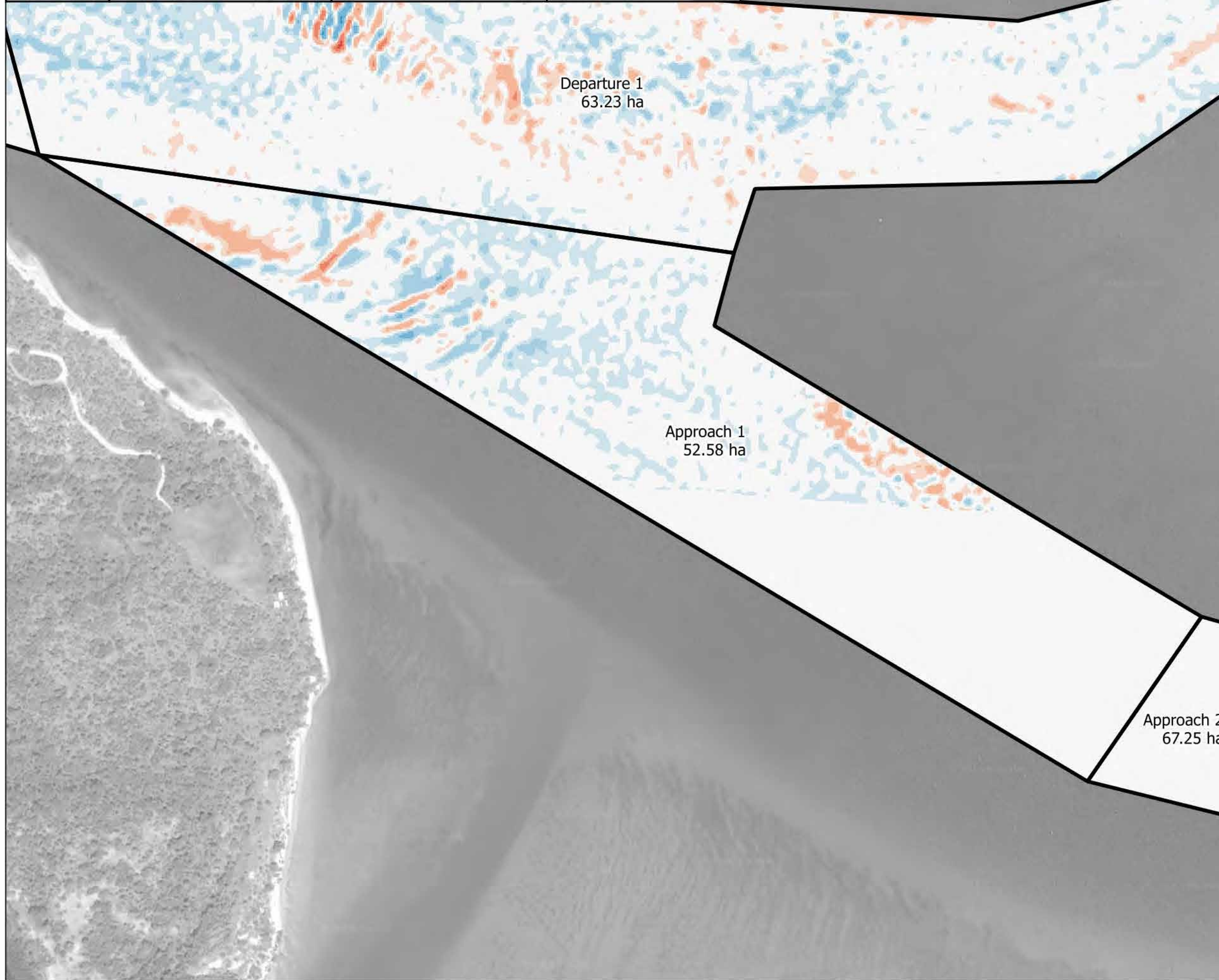
**Pre Dredge 2017 - Post  
Dredge 2016**

**S Channel Inner**

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 1	-23325	+6662	-16663



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**WATER MODELLING**

**Port Of Weipa  
Dredging Analysis**

**Legend**

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2017 - Post  
Dredge 2016**

**Approach 1**

A3 Scale: 1:6,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 1	-36253	+15150	-21103



**PORT & COASTAL**  
SOLUTIONS

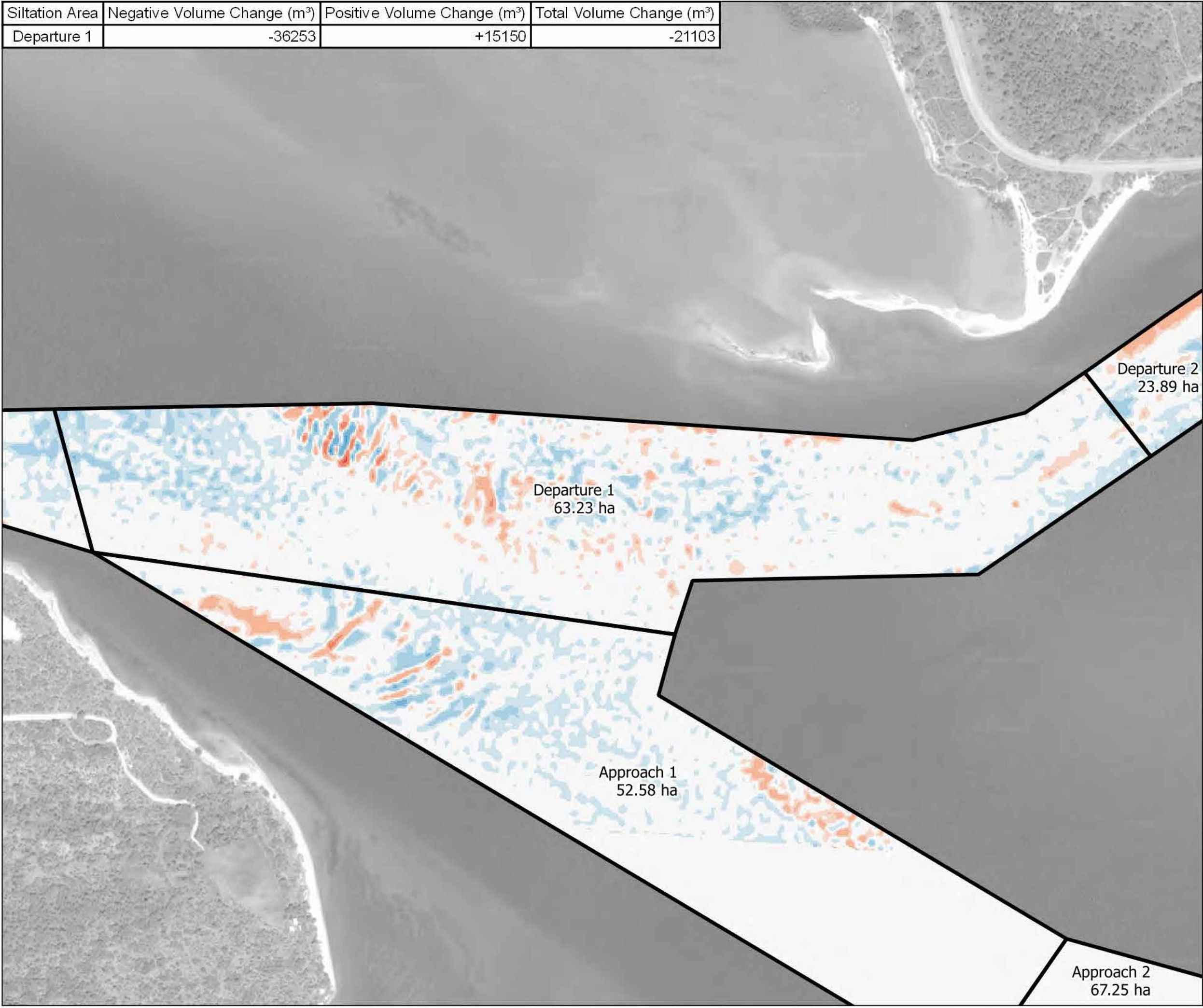
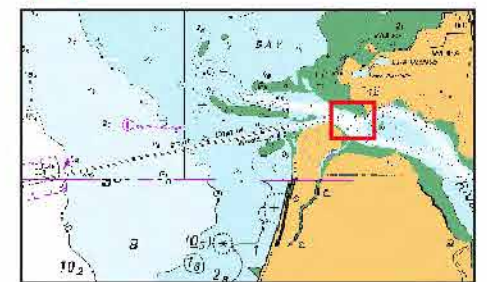
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual Siltation Bed Level Difference**

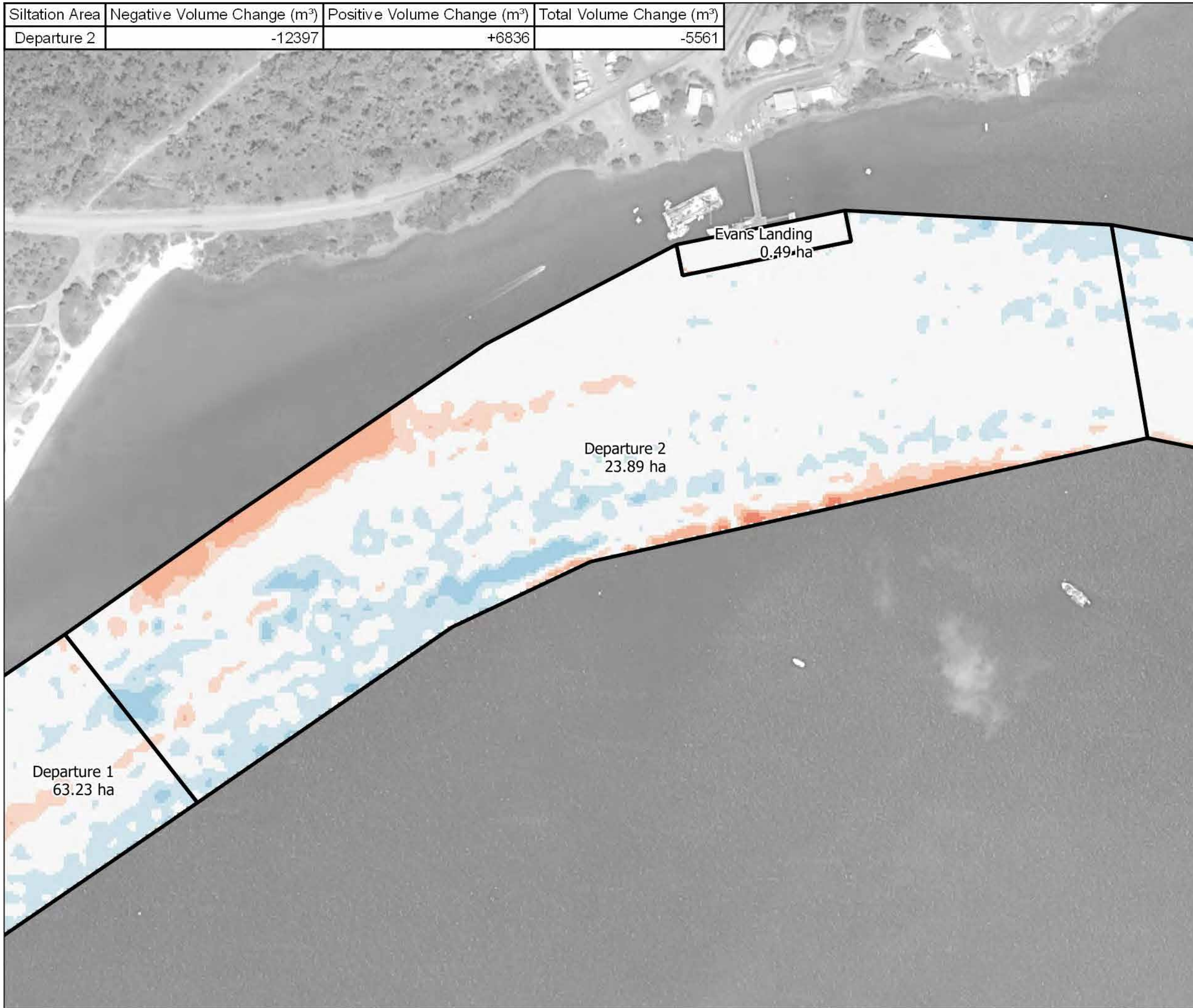
Pre Dredge 2017 - Post Dredge 2016

Departure 1

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 2	-12397	+6836	-5561



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 -- -2
- 2 -- -1
- 1 -- -0.5
- 0.5 -- -0.2
- 0.2 -- -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2017 - Post  
Dredge 2016**

**Departure 2**

A3 Scale: 1:3,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 3	-31166	+3081	-28086



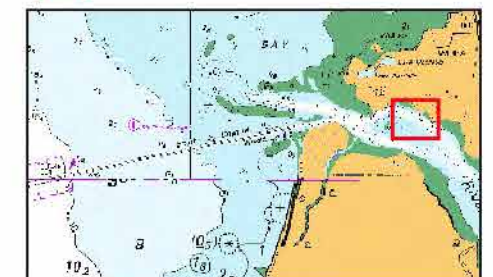
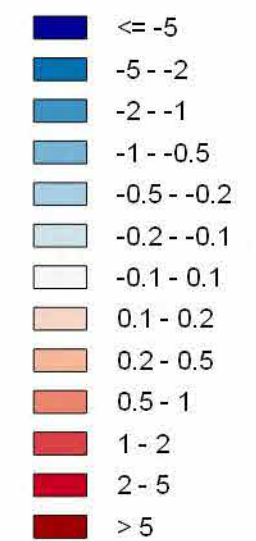
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2017 - Post  
Dredge 2016**

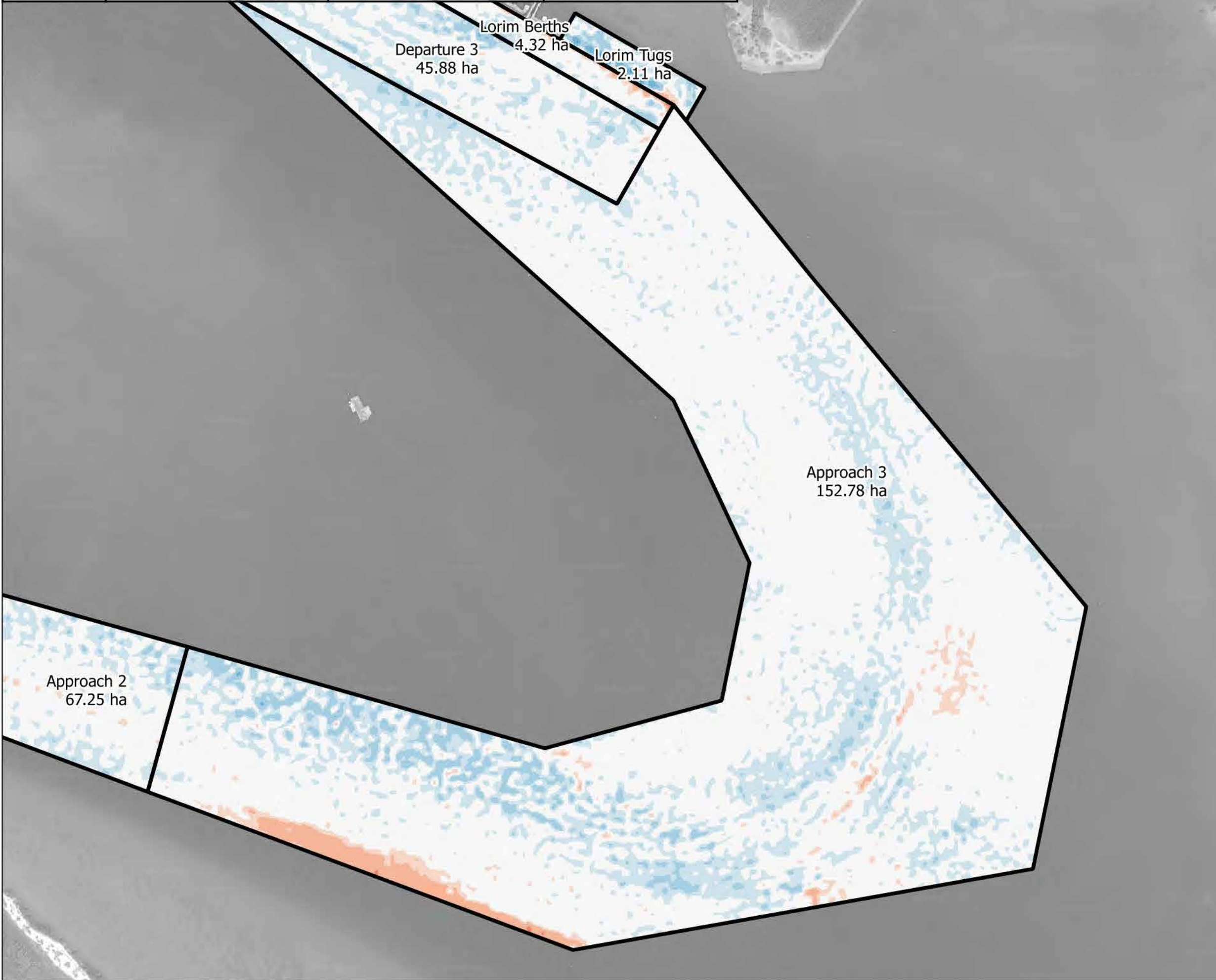
**Departure 3**

A3 Scale: 1:7,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 3	-96884	+19392	-77492



**PORT & COASTAL**  
SOLUTIONS

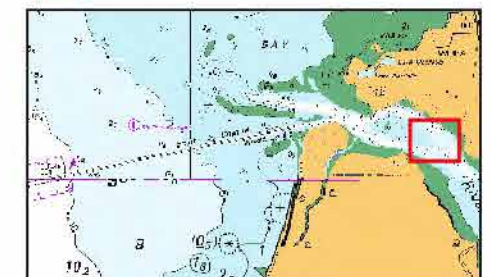
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2017 - Post  
Dredge 2016**

**Approach 3**

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 2	-17845	+1559	-16286

Approach 1  
52.58 ha

Approach 2  
67.25 ha



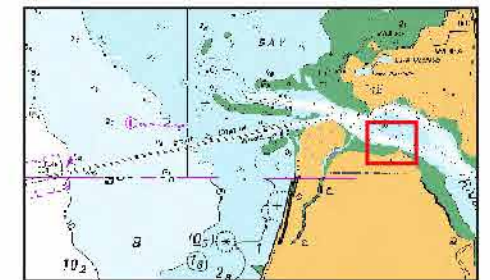
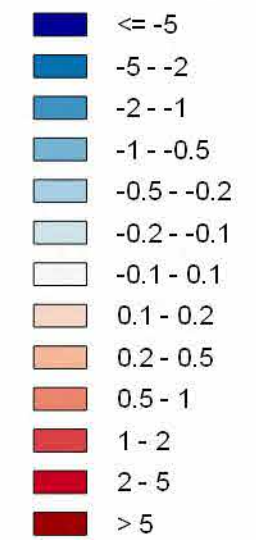
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2017 - Post  
Dredge 2016**

**Approach 2**

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Humbug Approach	-2475	+156	-2319



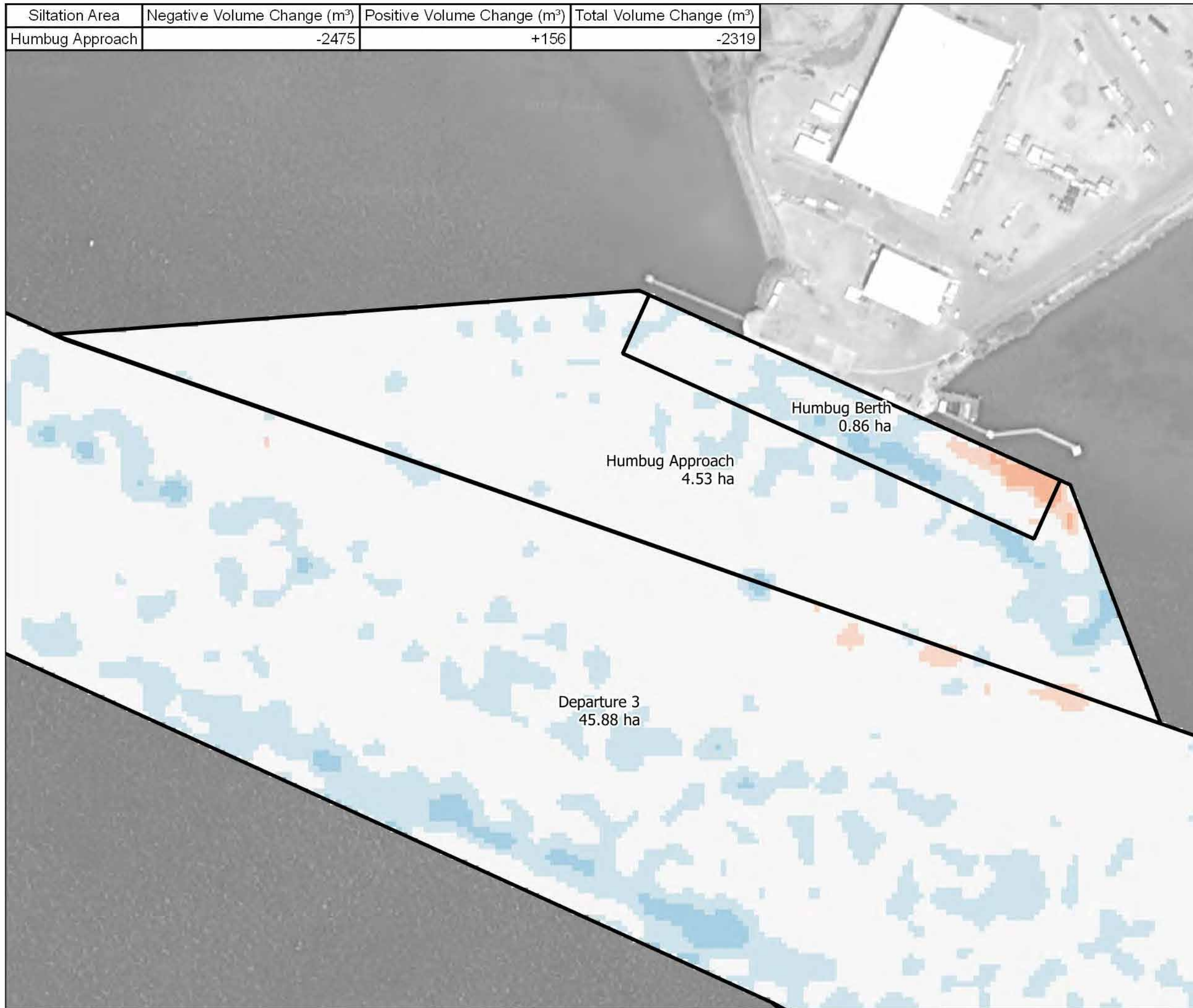
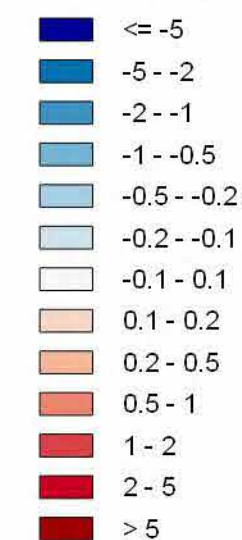
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

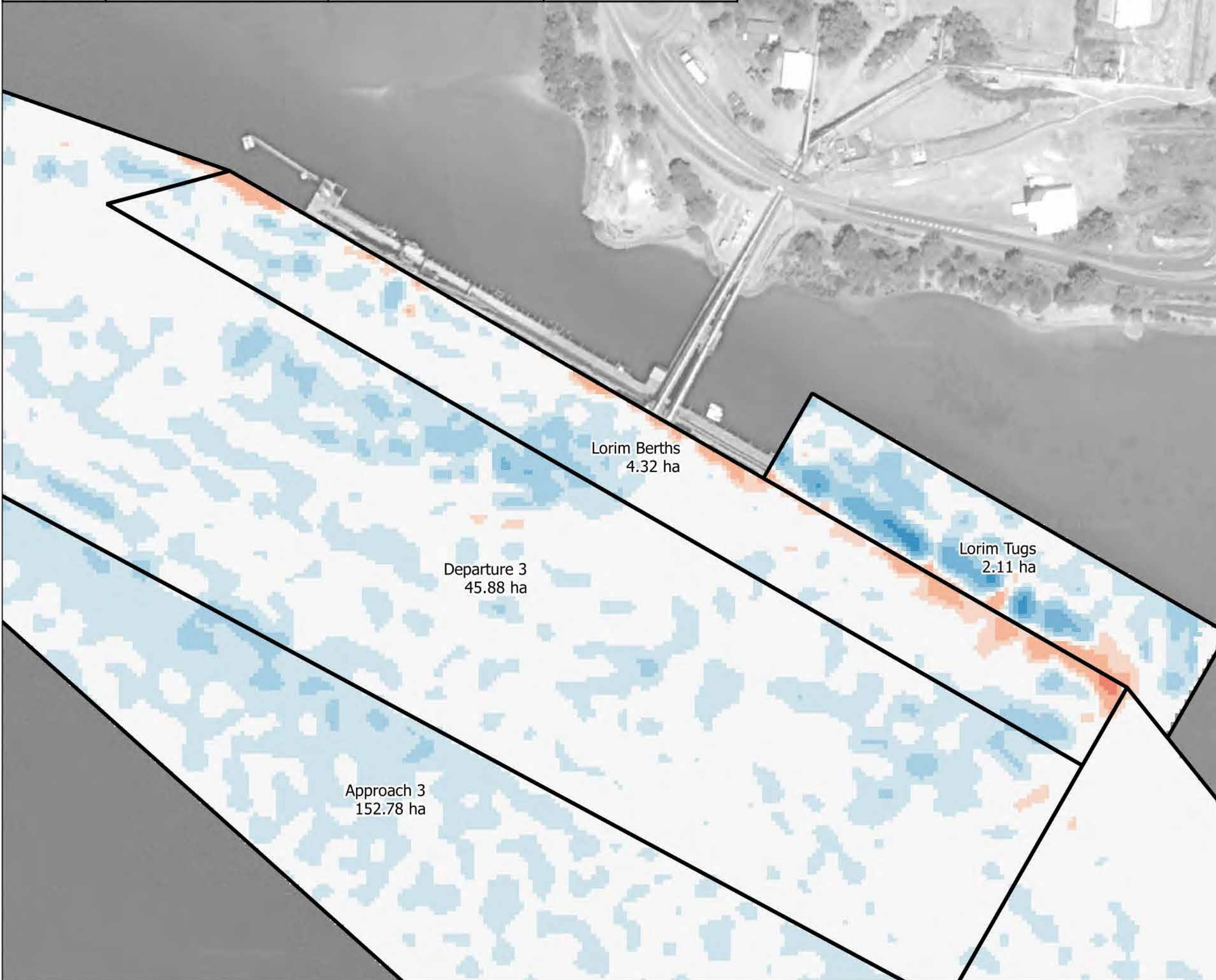
**Pre Dredge 2017 - Post  
Dredge 2016**

**Humbug Approach**

A3 Scale: 1:2,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Berths	-2774	+1470	-1304



**PORT & COASTAL**  
SOLUTIONS

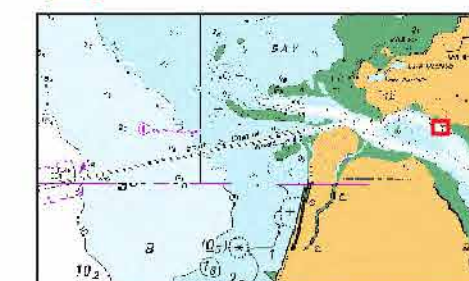
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

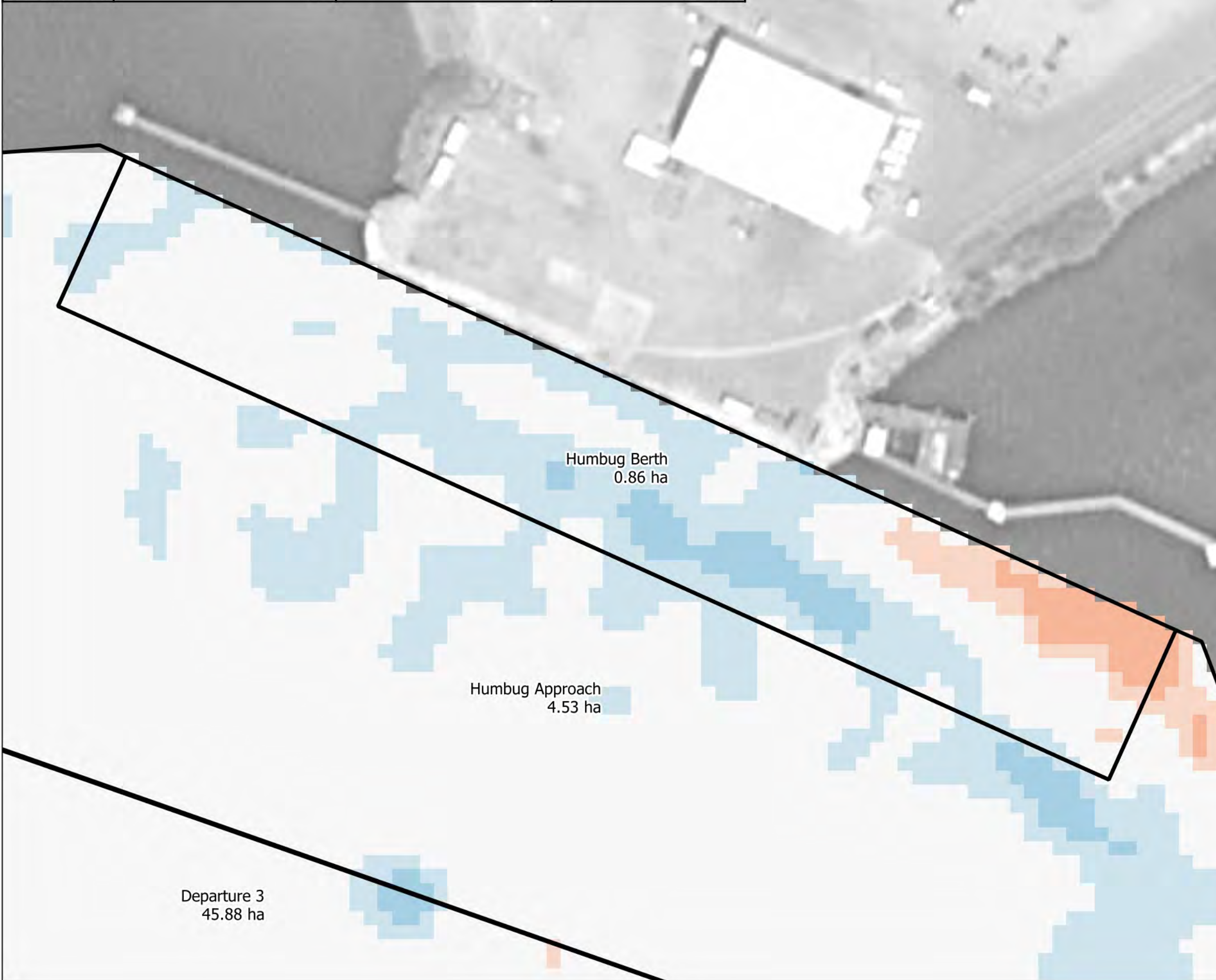
**Pre Dredge 2017 - Post  
Dredge 2016**

**Lorim Berths**

A3 Scale: 1:2,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Humbug Berth	-781	+210	-571



**PORT & COASTAL**  
SOLUTIONS

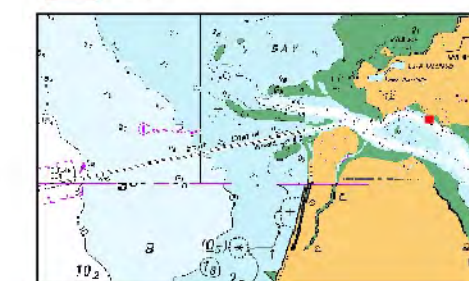
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2017 - Post  
Dredge 2016**

**Humbug Berth**

A3 Scale: 1:800 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Tugs	-4063	+353	-3709



**PORT & COASTAL**  
SOLUTIONS

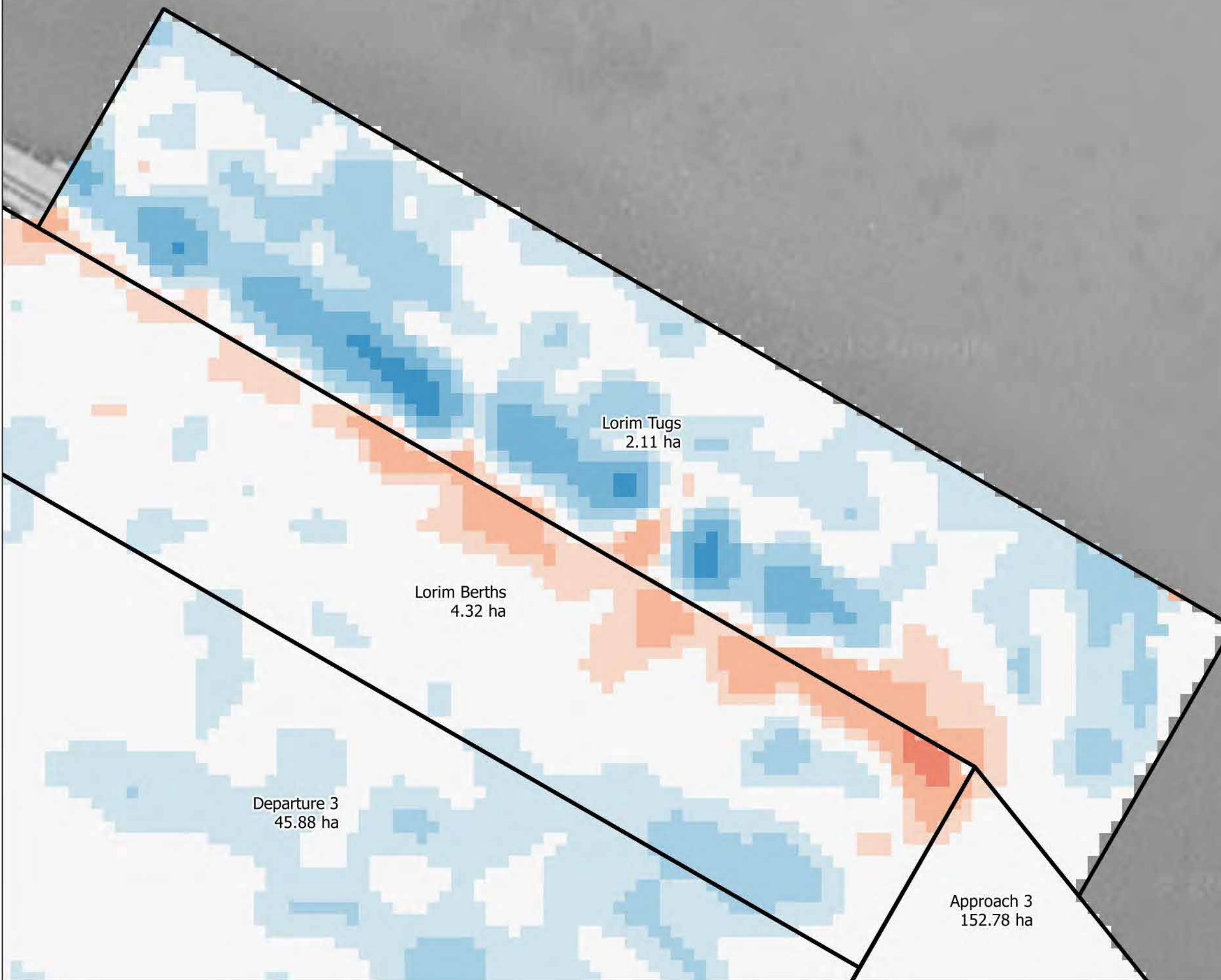
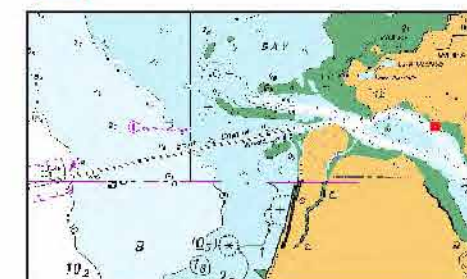
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual Siltation Bed Level Difference**

**Pre Dredge 2017 - Post Dredge 2016**

**Lorim Tugs**

A3 Scale: 1:1,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Outer	-676	+155491	+154816



**PORT & COASTAL**  
SOLUTIONS

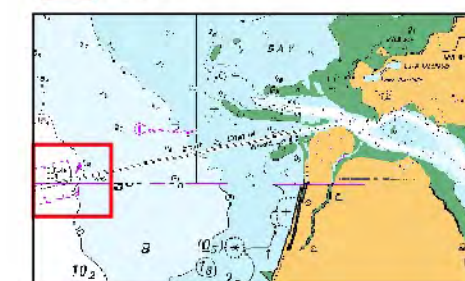
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2018 - Post  
Dredge 2017**

**S Channel Outer**

A3 Scale: 1:14,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid Outer	-318	+122535	+122217



**PORT & COASTAL**  
SOLUTIONS

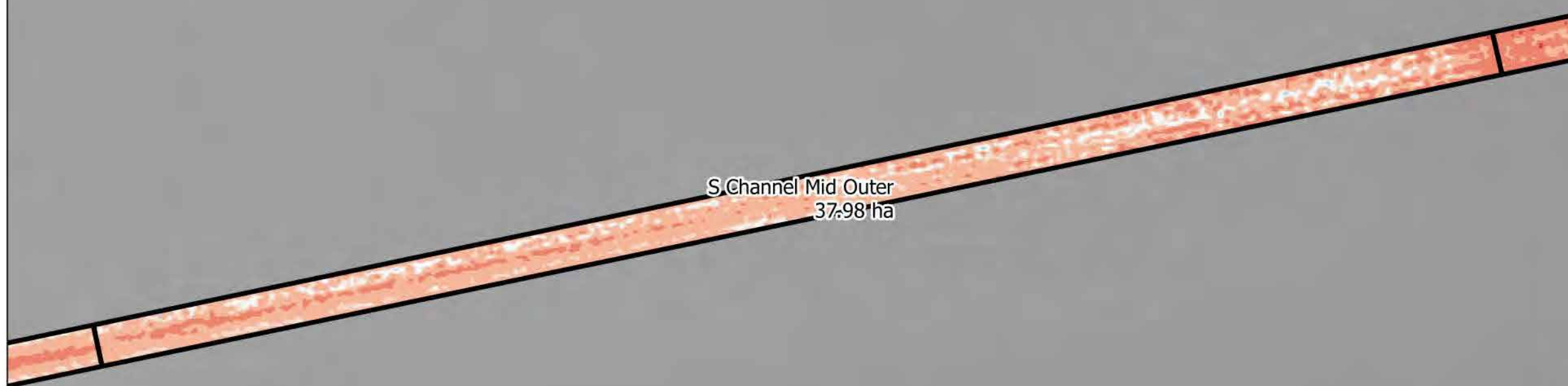
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

#### Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



### Calculation 1: Annual Siltation Bed Level Difference

Pre Dredge 2018 - Post  
Dredge 2017

S Channel Mid Outer

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid	-2635	+187311	+184677



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2018 - Post  
Dredge 2017**

**S Channel Mid**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Mid Inner	-6676	+36131	+29455



**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

#### Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5

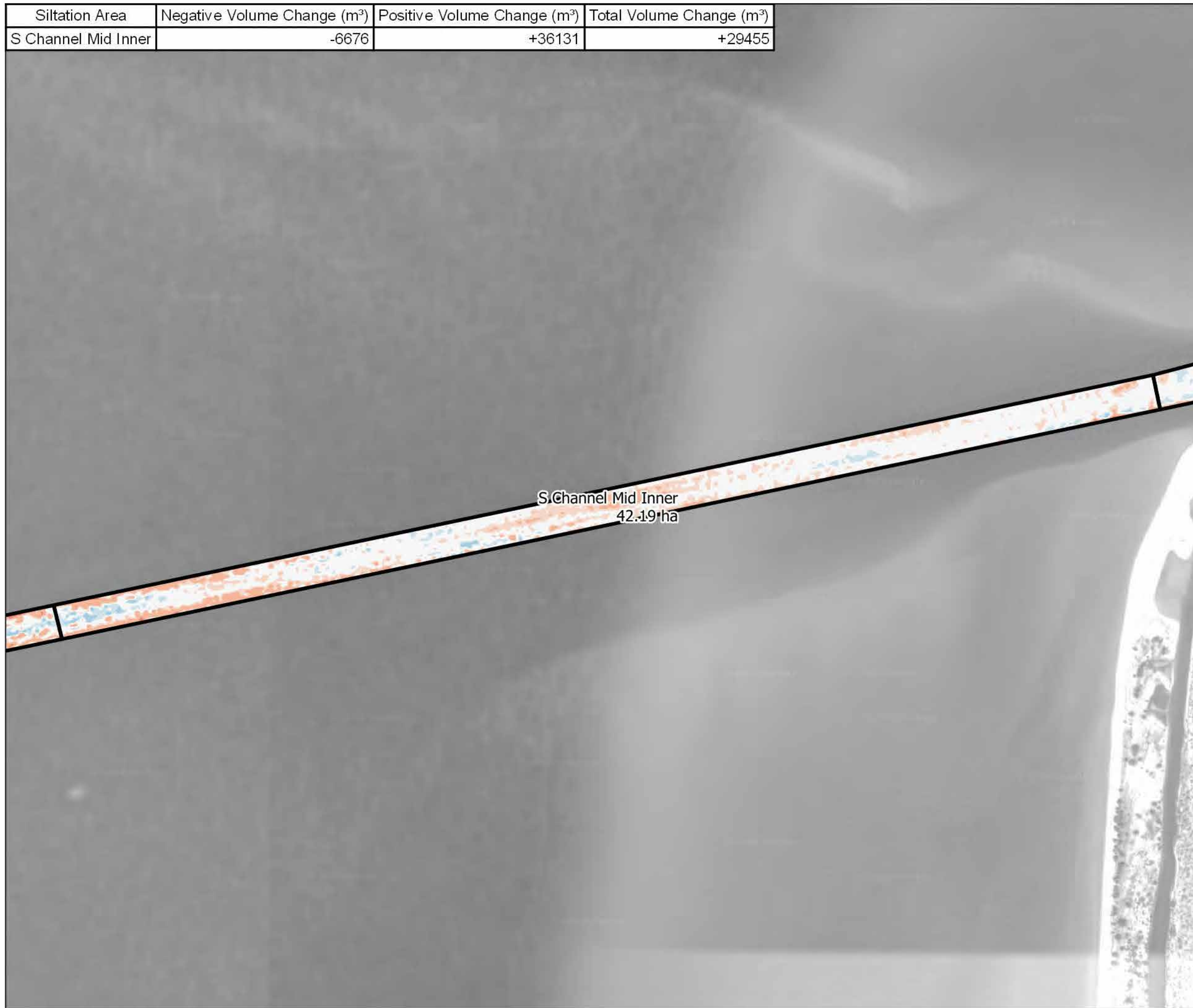


### Calculation 1: Annual Siltation Bed Level Difference

Pre Dredge 2018 - Post  
Dredge 2017

**S Channel Mid Inner**

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
S Channel Inner	-22496	+18843	-3653



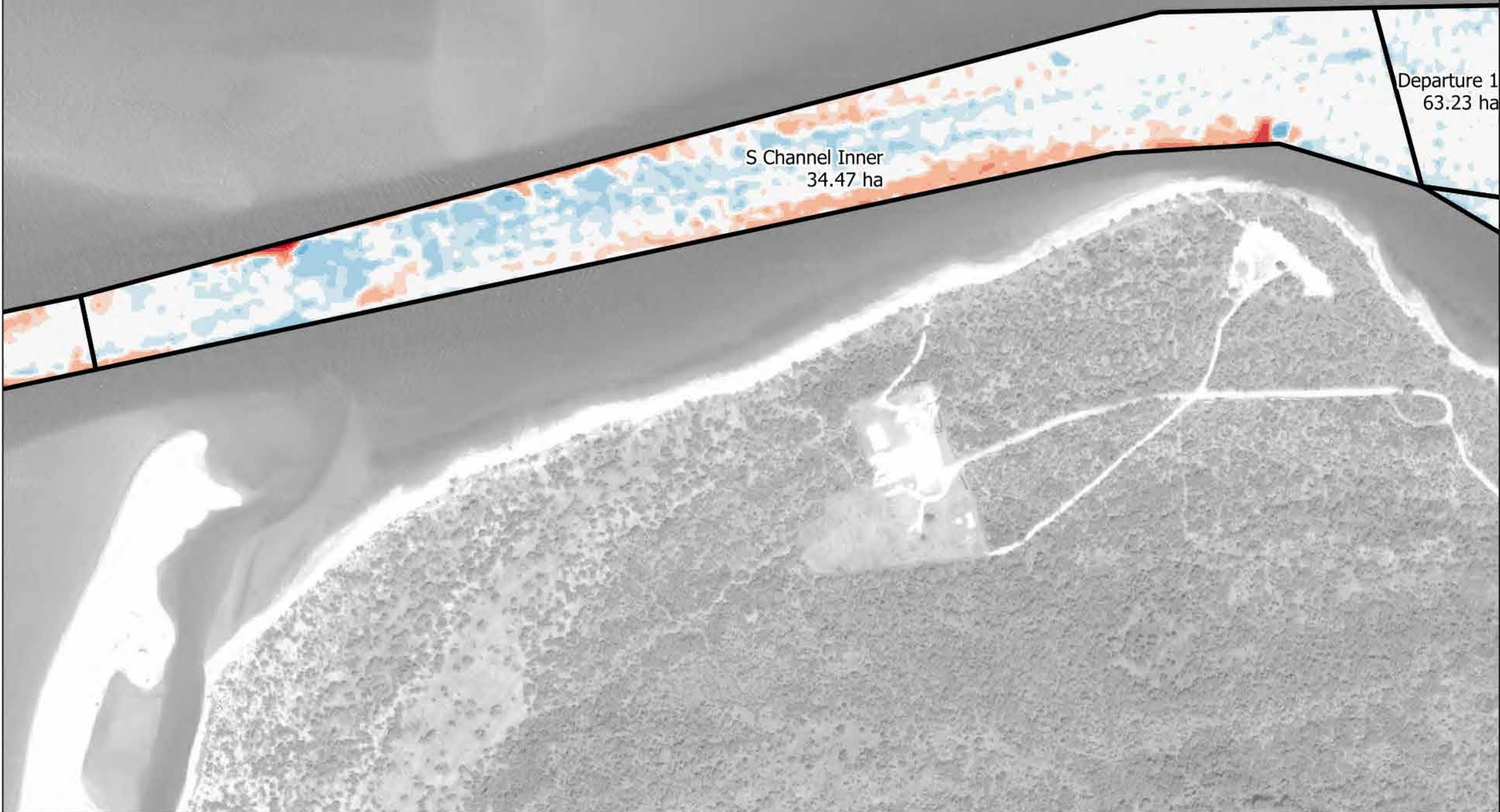
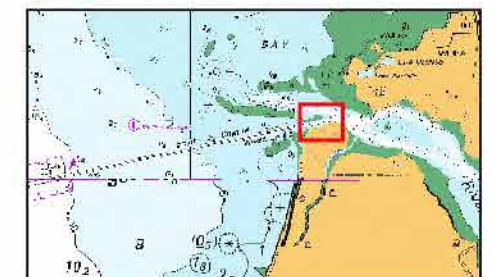
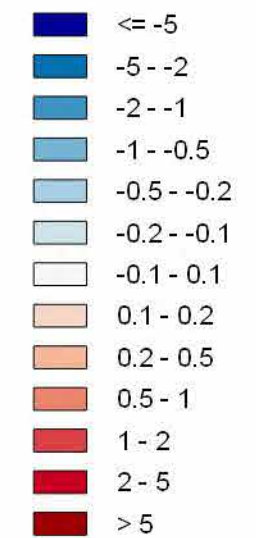
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

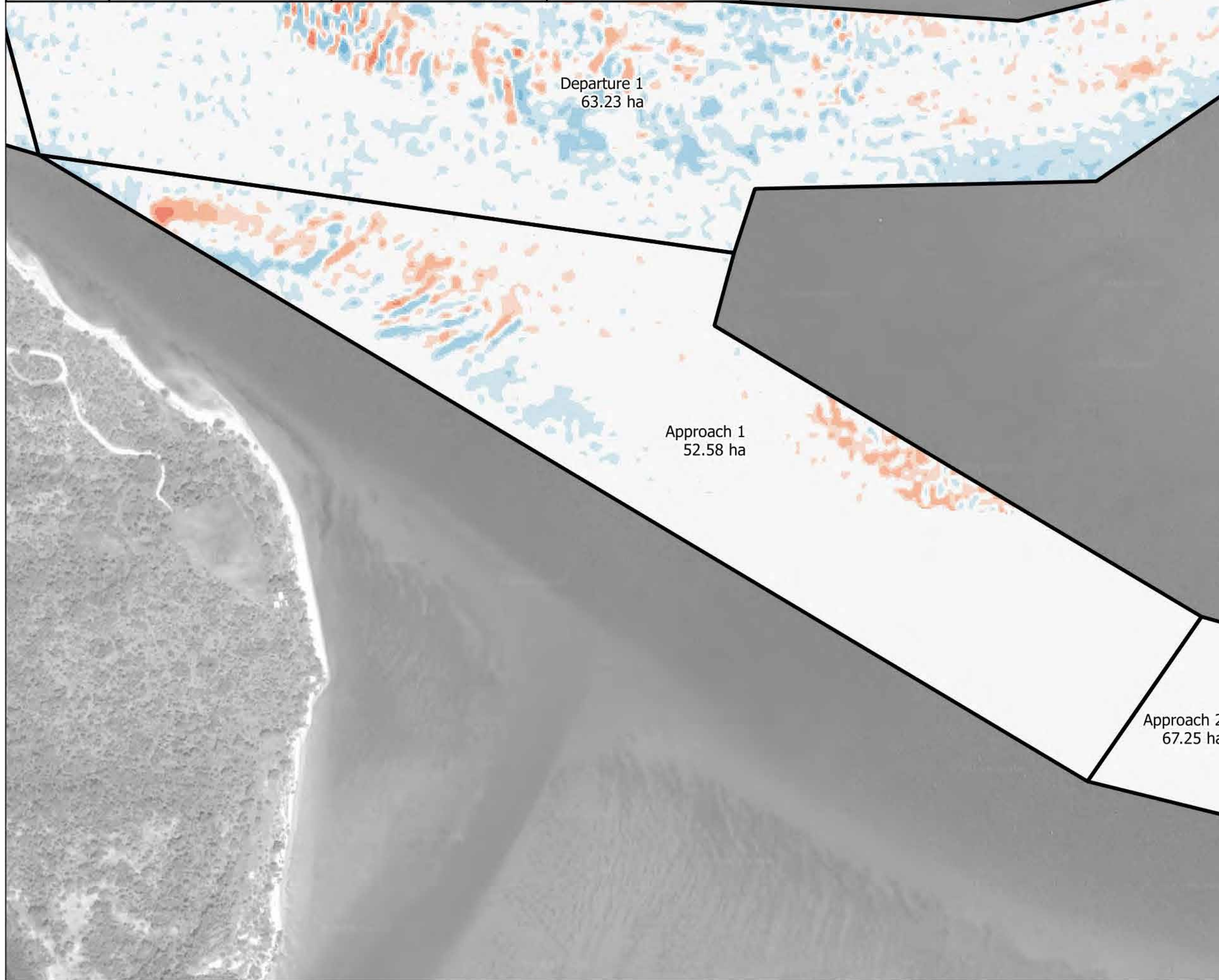
**Pre Dredge 2018 - Post  
Dredge 2017**

**S Channel Inner**

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 1	-10626	+11825	+1199



**PORT & COASTAL**  
SOLUTIONS

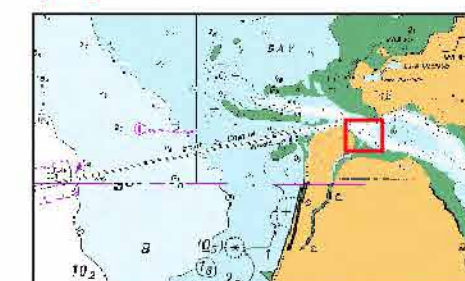
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2018 - Post  
Dredge 2017**

**Approach 1**

A3 Scale: 1:6,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 1	-38809	+14427	-24382



**PORT & COASTAL**  
SOLUTIONS

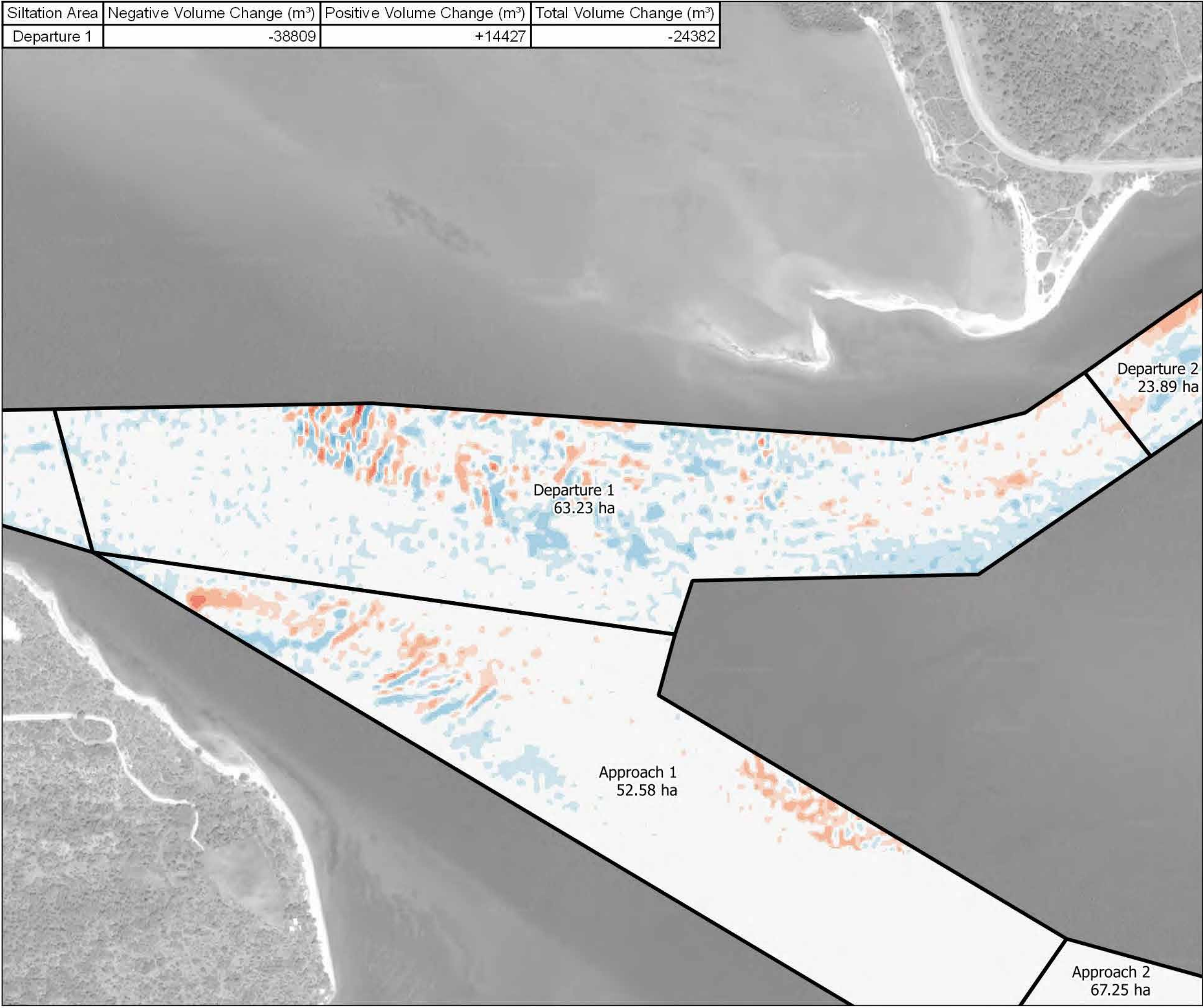
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual Siltation Bed Level Difference**

Pre Dredge 2018 - Post Dredge 2017

Departure 1

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 2	-11034	+8563	-2471



**PORT & COASTAL**  
SOLUTIONS

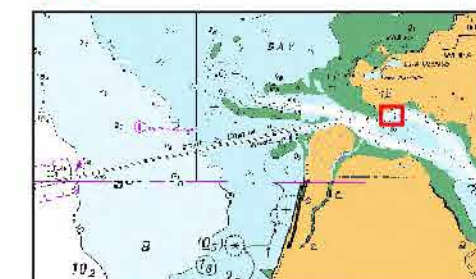
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- -5 - -2
- -2 - -1
- -1 - -0.5
- -0.5 - -0.2
- -0.2 - -0.1
- -0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2018 - Post  
Dredge 2017**

**Departure 2**

A3 Scale: 1:3,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Departure 3	-10400	+18868	+8468



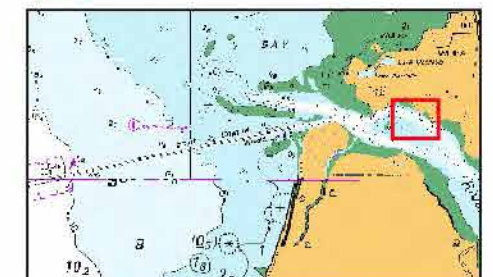
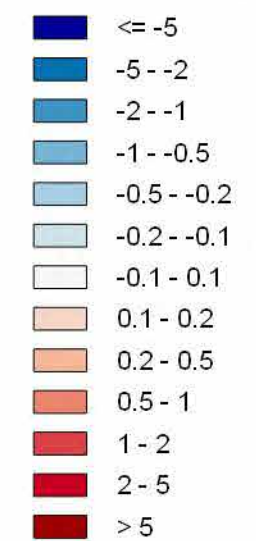
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

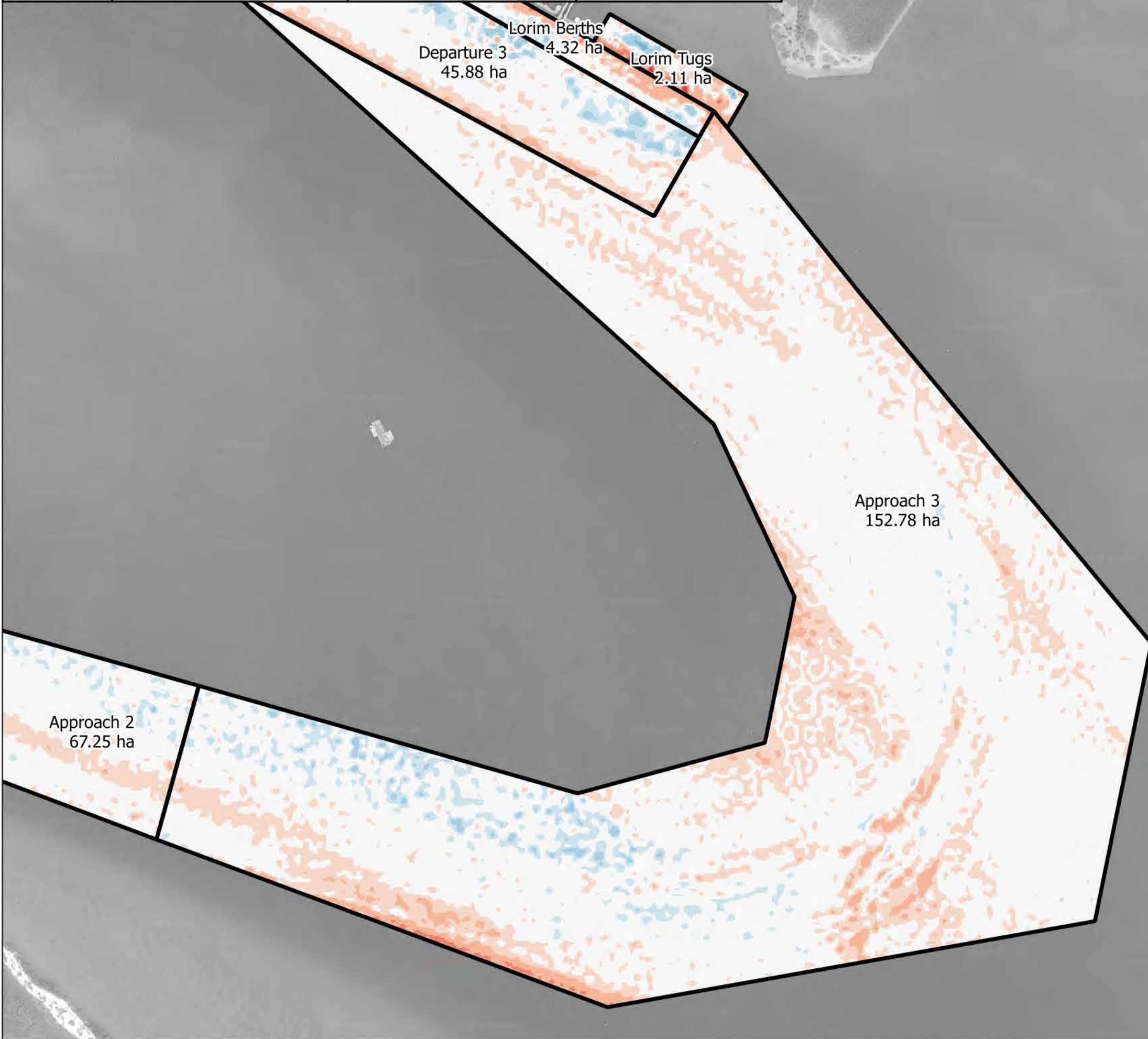
**Pre Dredge 2018 - Post  
Dredge 2017**

**Departure 3**

A3 Scale: 1:7,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 3	-20073	+87171	+67099



**PORT & COASTAL**  
SOLUTIONS

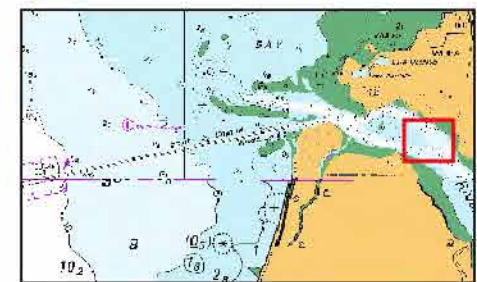
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2018 - Post  
Dredge 2017**

**Approach 3**

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Approach 2	-7774	+9888	+2114

Approach 1  
52.58 ha

Approach 2  
67.25 ha



**PORT & COASTAL**  
SOLUTIONS

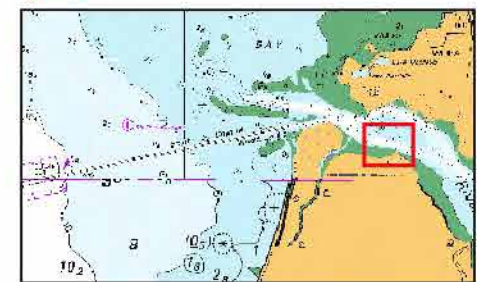


## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 -- -2
- 2 -- -1
- 1 -- -0.5
- 0.5 -- -0.2
- 0.2 -- -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

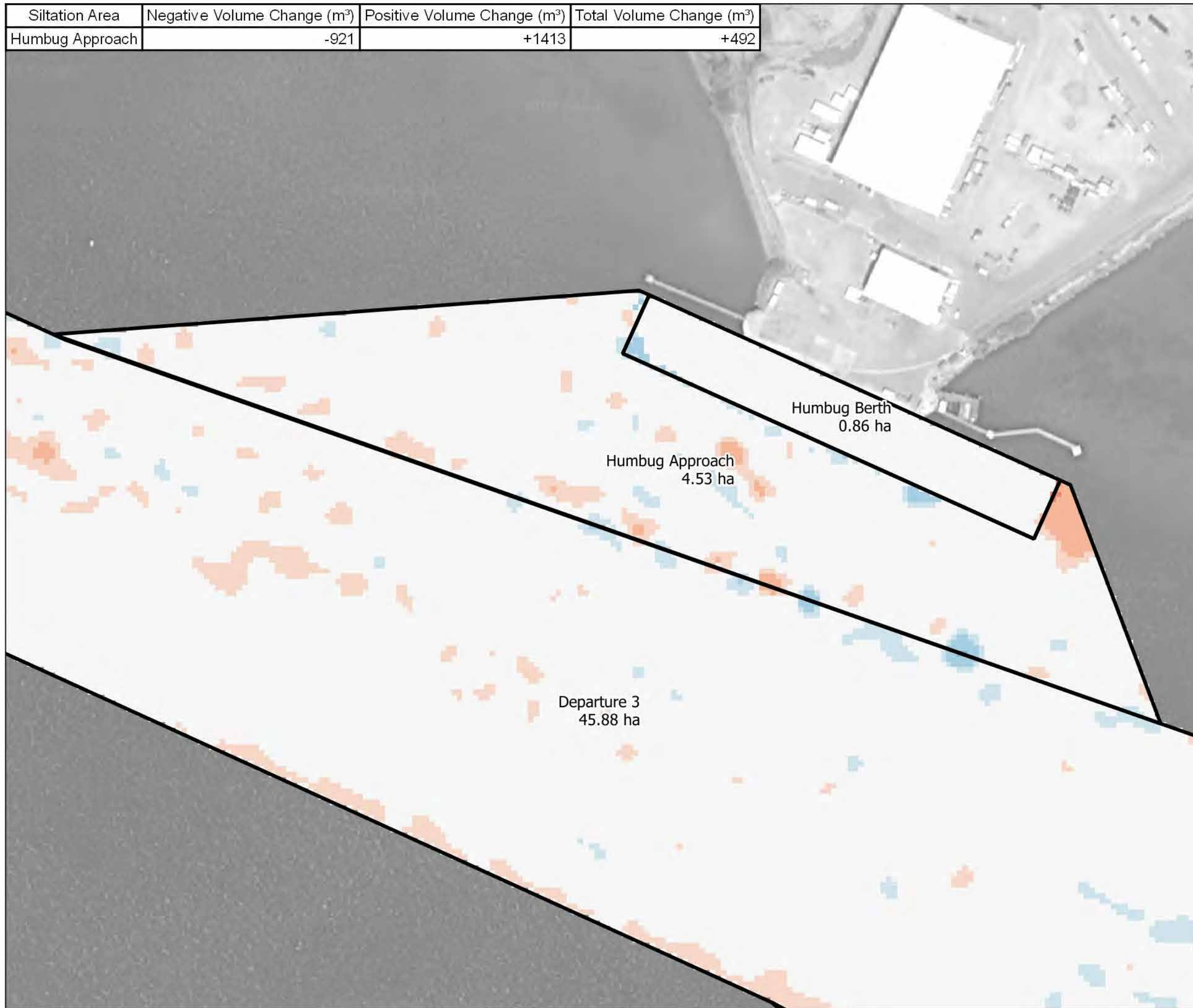
**Pre Dredge 2018 - Post  
Dredge 2017**

**Approach 2**

A3 Scale: 1:8,000      Job ID: 10244  
GDA 1994 / MGA Zone 54      15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Humbug Approach	-921	+1413	+492



**PORT & COASTAL**  
SOLUTIONS

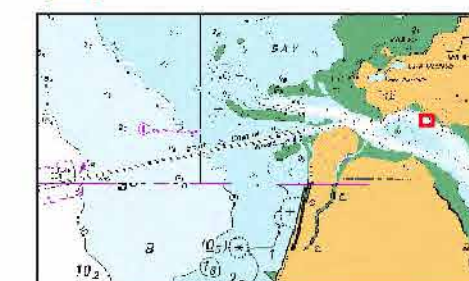
solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

- <= -5
- 5 - -2
- 2 - -1
- 1 - -0.5
- 0.5 - -0.2
- 0.2 - -0.1
- 0.1 - 0.1
- 0.1 - 0.2
- 0.2 - 0.5
- 0.5 - 1
- 1 - 2
- 2 - 5
- > 5



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2018 - Post  
Dredge 2017**

**Humbug Approach**

A3 Scale: 1:2,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Berths	-1230	+6038	+4809



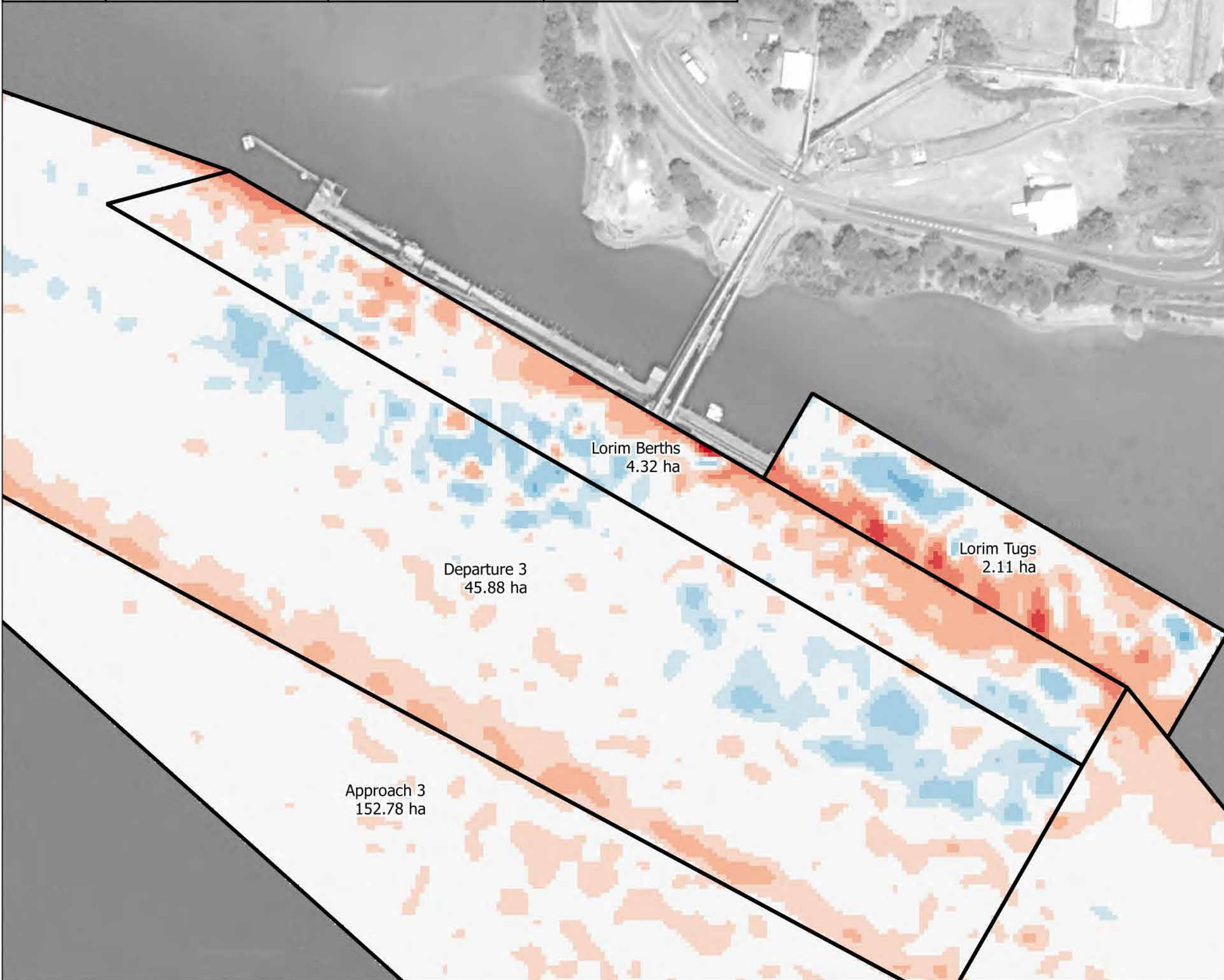
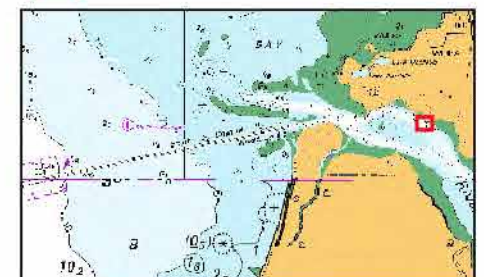
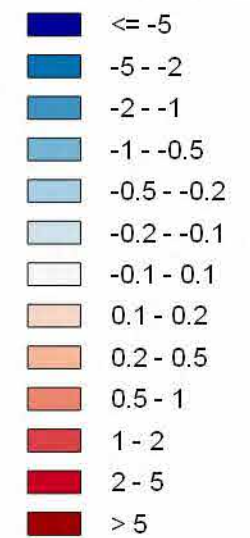
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual Siltation Bed Level Difference**

**Pre Dredge 2018 - Post Dredge 2017**

**Lorim Berths**

A3 Scale: 1:2,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Siltation Area	Negative Volume Change (m <sup>3</sup> )	Positive Volume Change (m <sup>3</sup> )	Total Volume Change (m <sup>3</sup> )
Lorim Tugs	-892	+4050	+3157



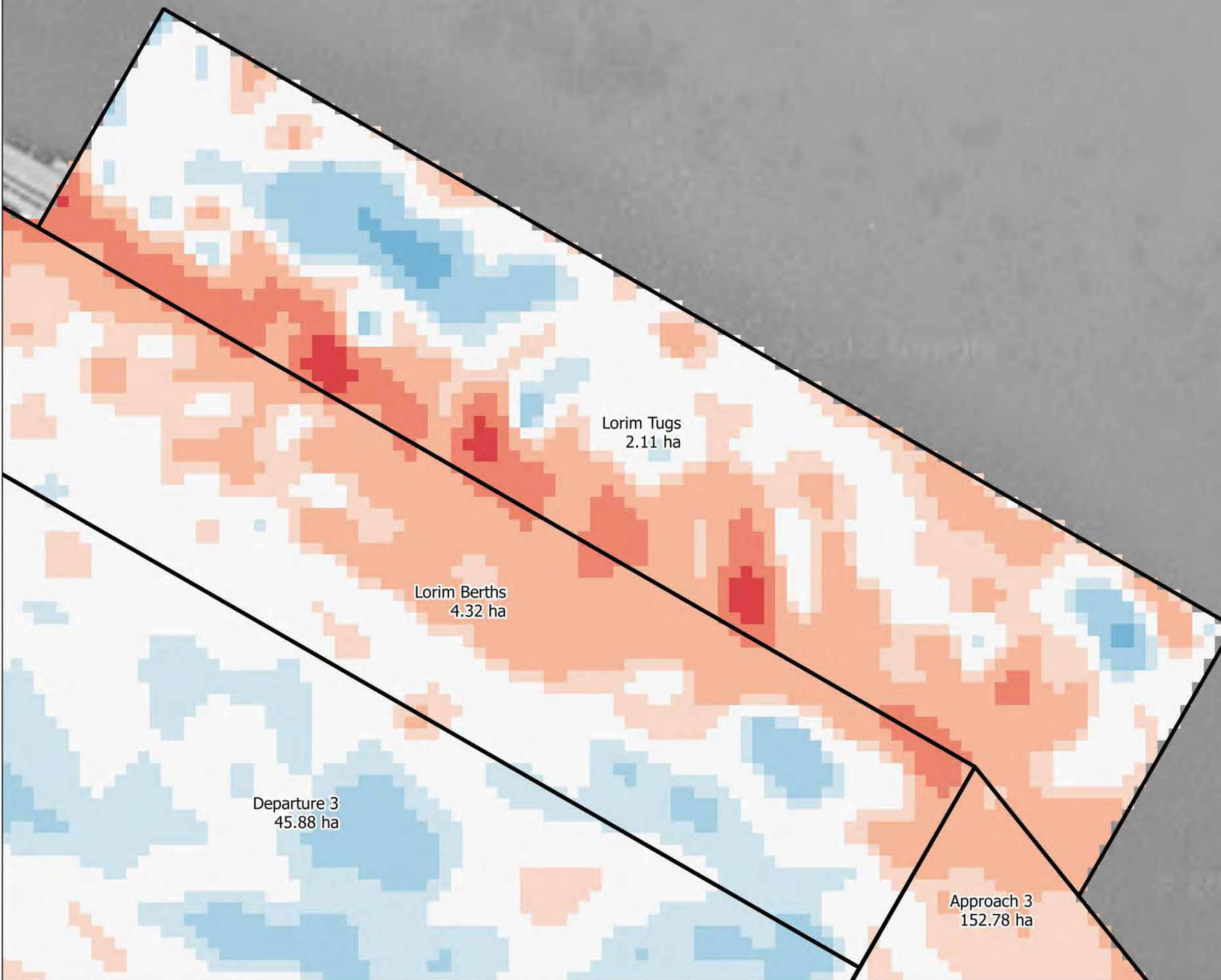
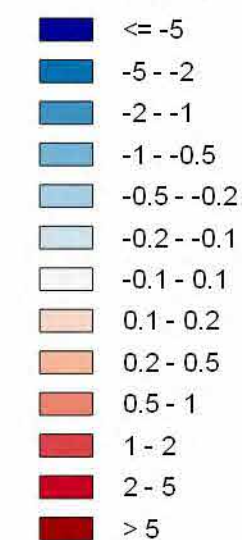
**PORT & COASTAL**  
SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Pre Dredge 2018 - Post  
Dredge 2017**

**Lorim Tugs**

A3 Scale: 1:1,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





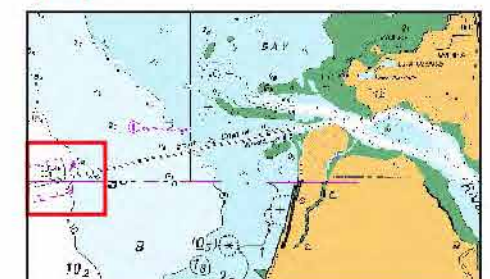
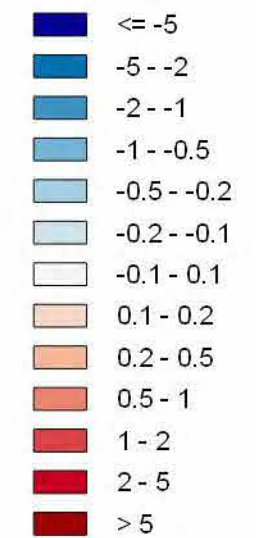
PORT & COASTAL  
SOLUTIONS

WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

S Channel Outer

A3 Scale: 1:14,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



S Channel Outer  
46.31 ha



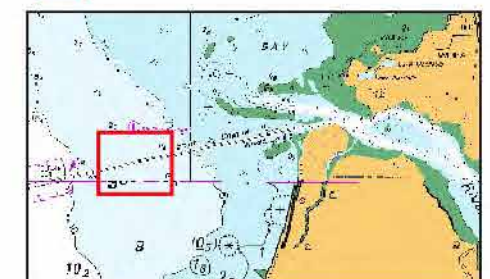
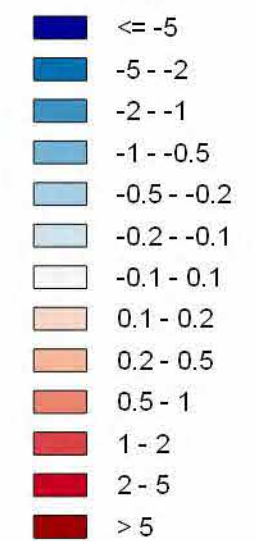
PORT & COASTAL  
SOLUTIONS

solutions  
WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

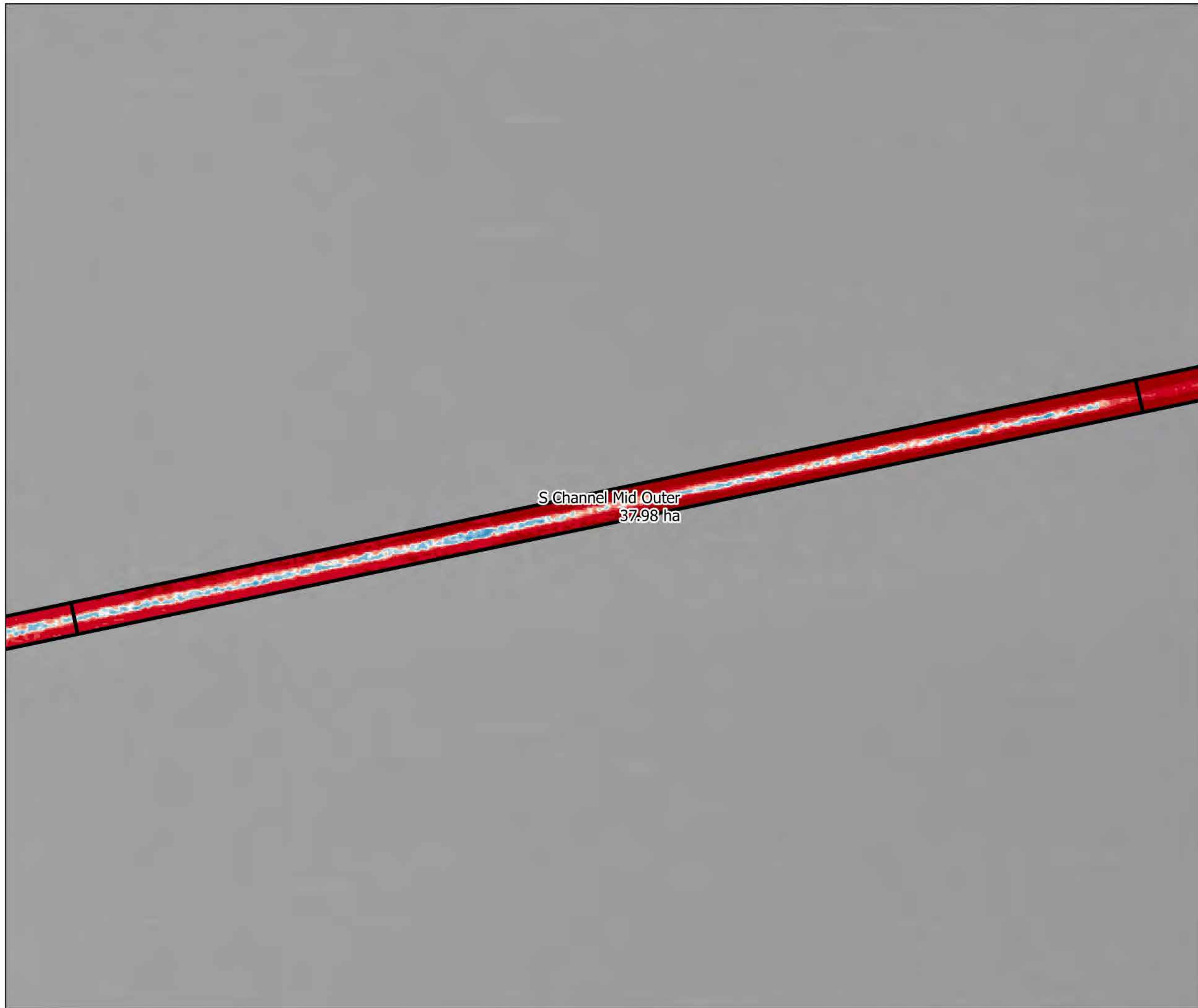


Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

S Channel Mid Outer

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





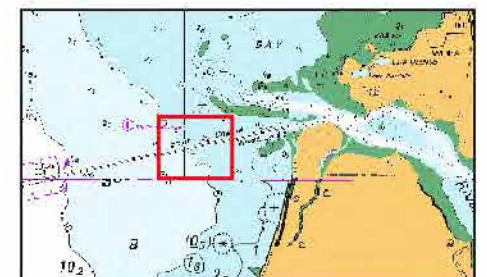
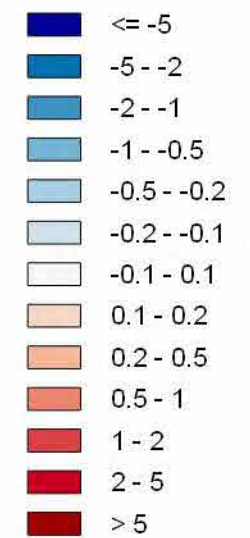
PORT & COASTAL  
SOLUTIONS

solutions  
WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

S Channel Mid

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





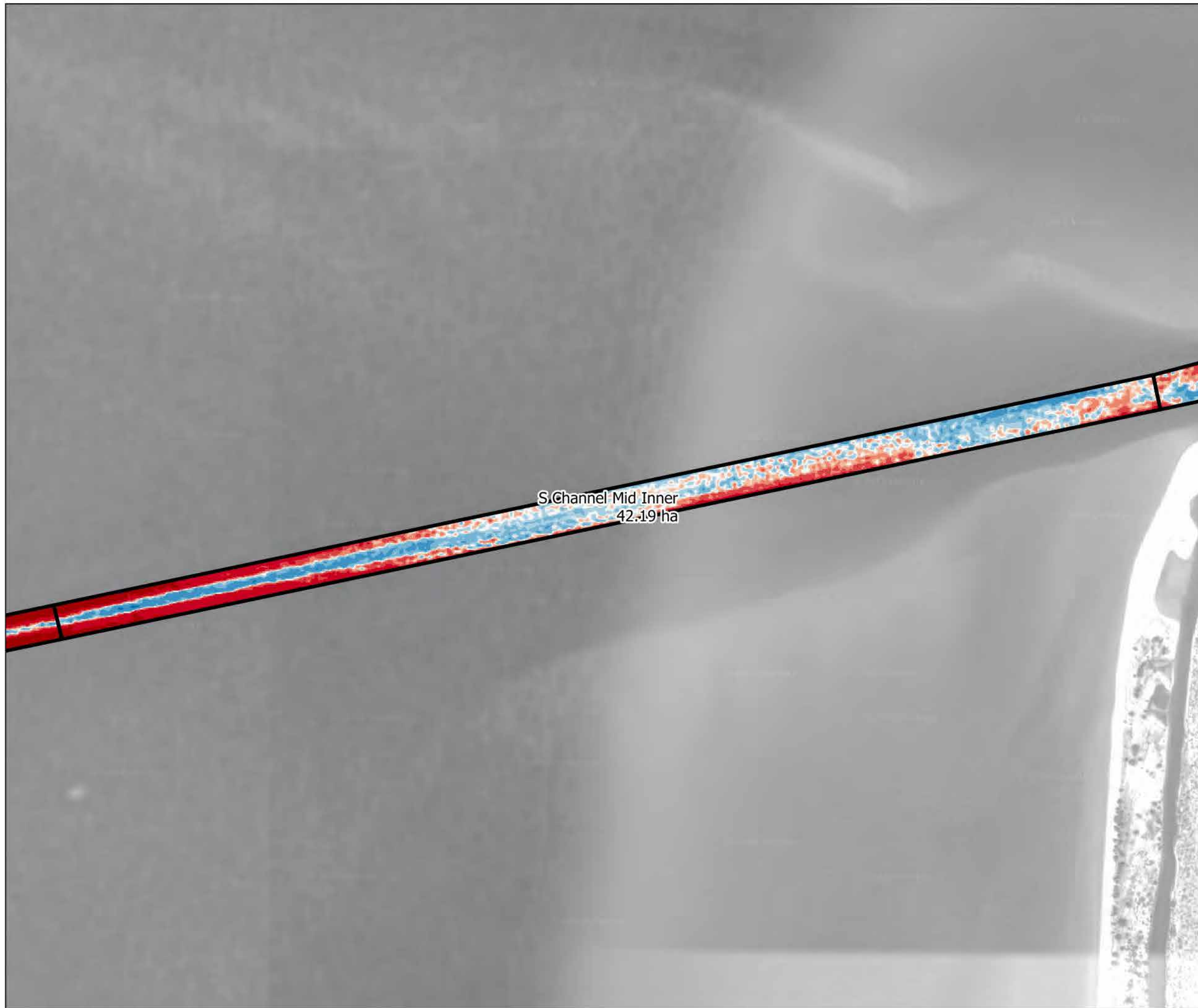
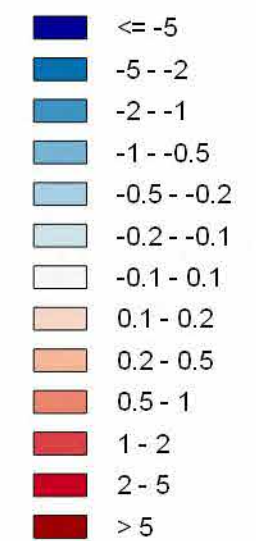
PORT & COASTAL  
SOLUTIONS

solutions  
WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

S Channel Mid Inner

A3 Scale: 1:12,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018







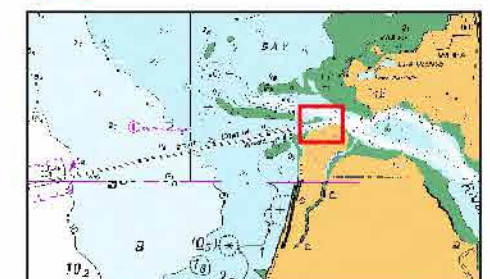
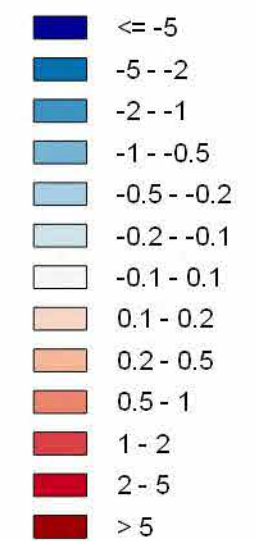
PORT & COASTAL  
SOLUTIONS

solutions  
WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

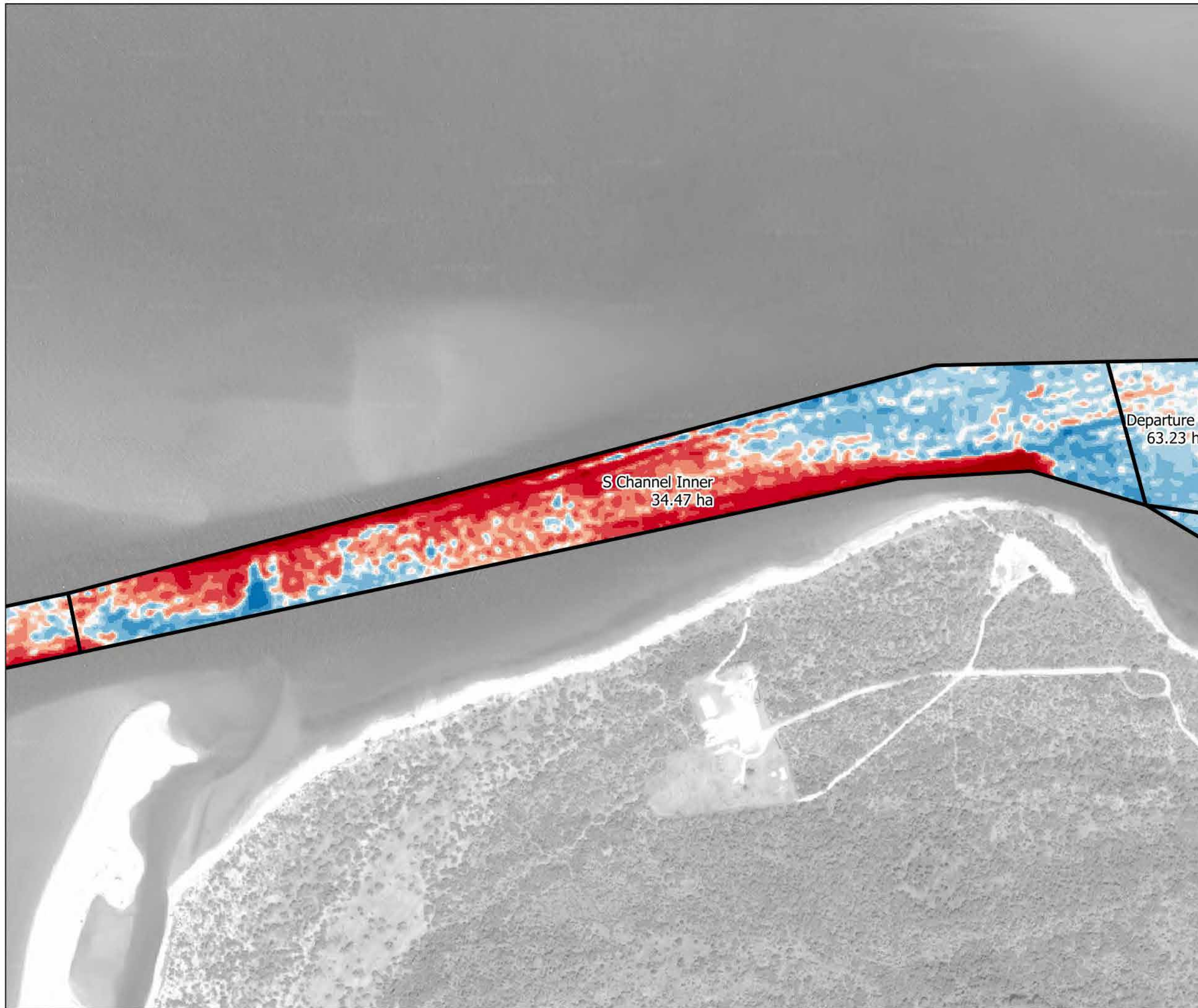


Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

S Channel Inner

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





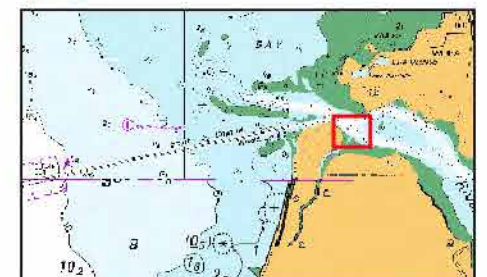
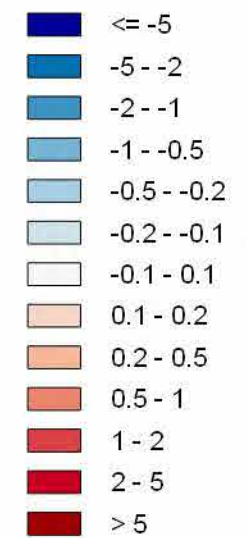
PORT & COASTAL  
SOLUTIONS

solutions  
WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

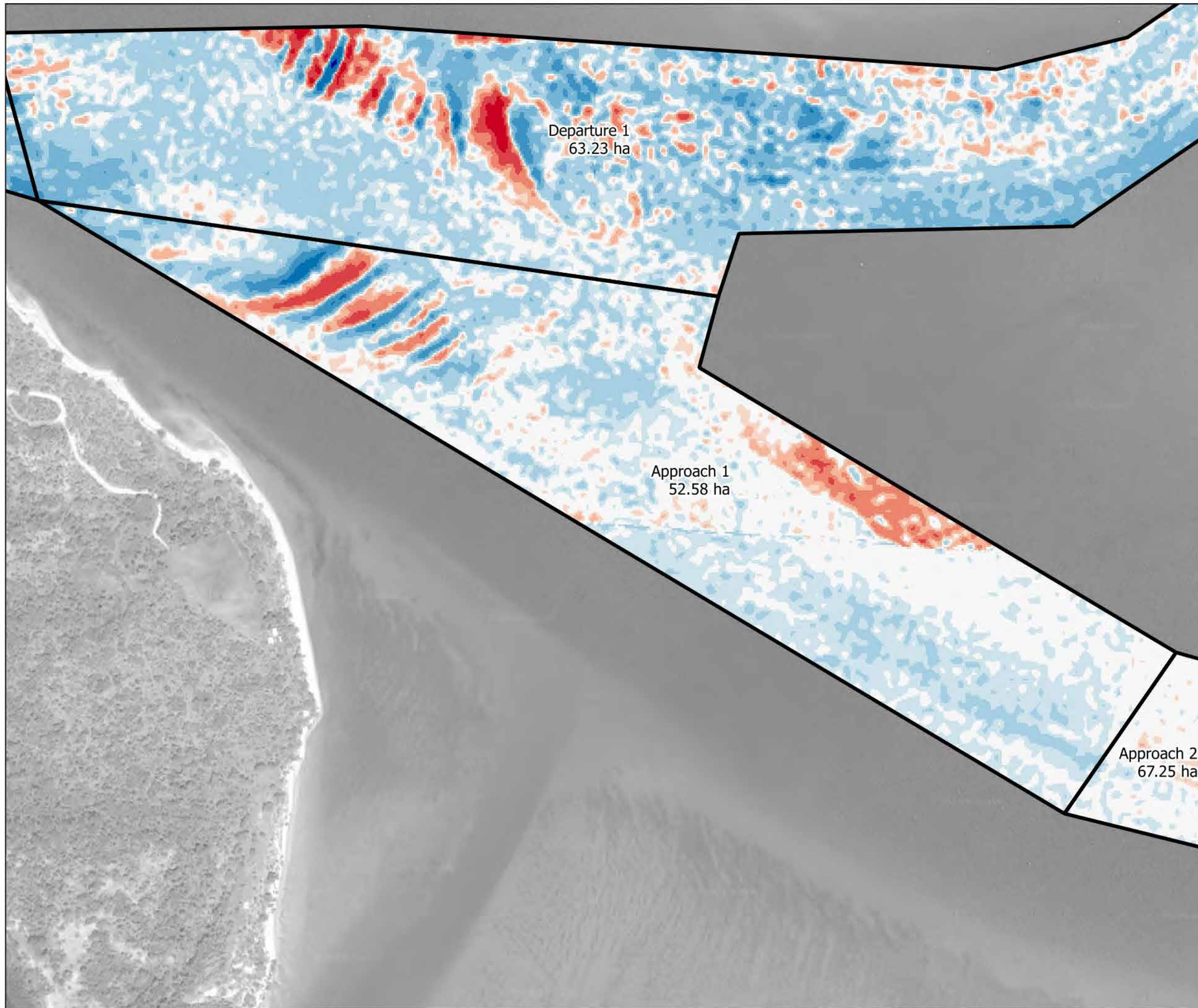


Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

Approach 1

A3 Scale: 1:6,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





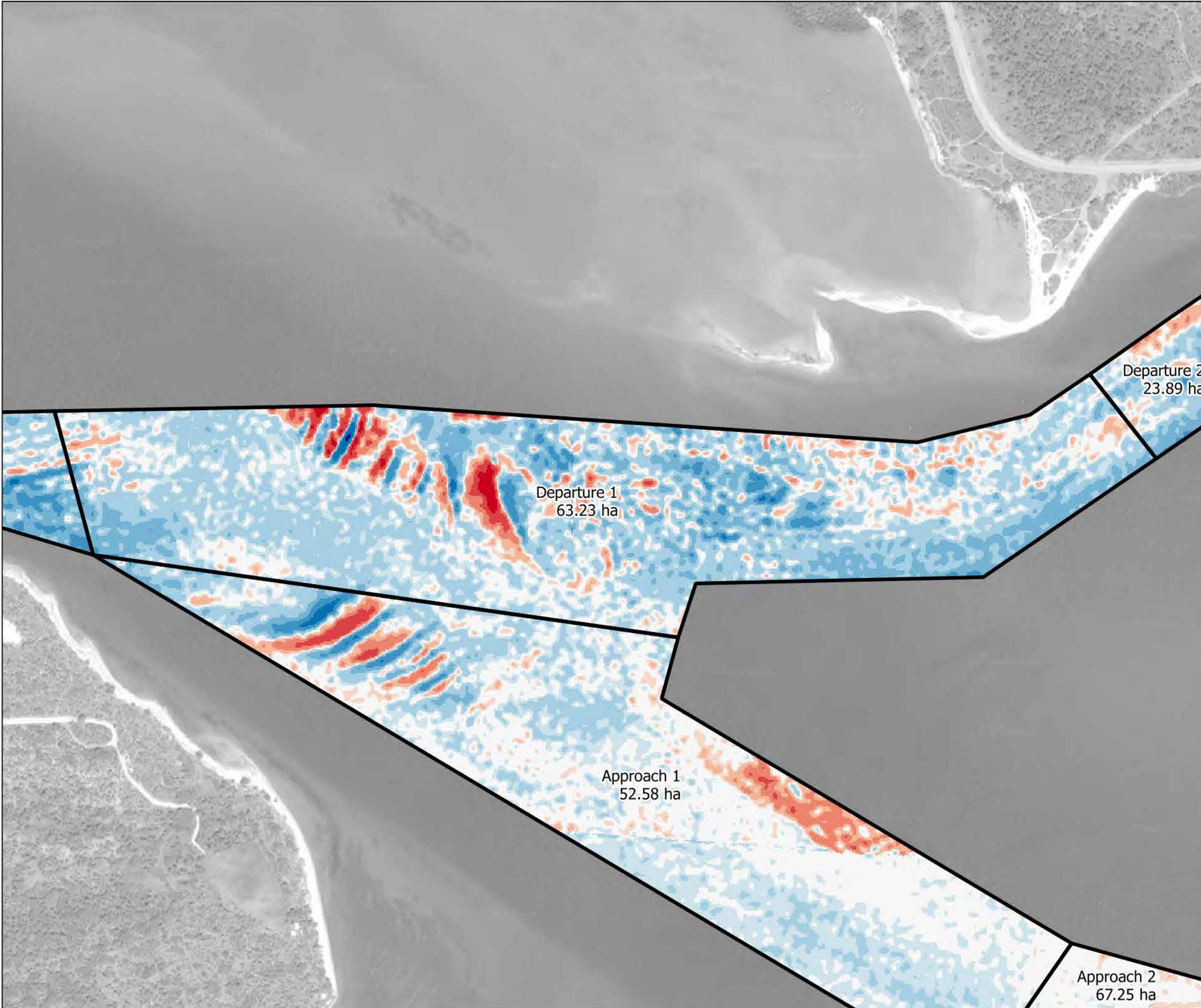
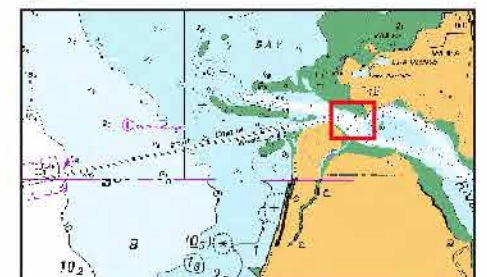
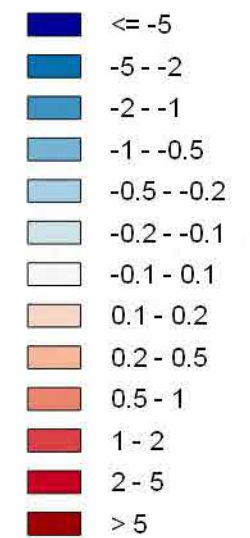
PORT & COASTAL  
SOLUTIONS

solutions  
WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

Departure 1

A3 Scale: 1:7,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





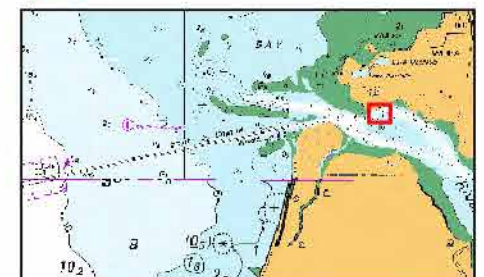
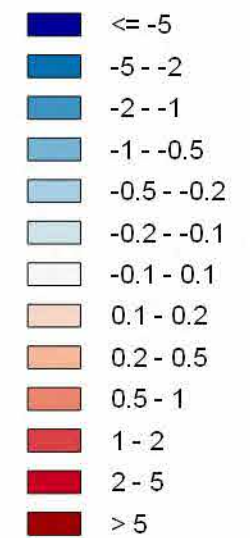
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WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

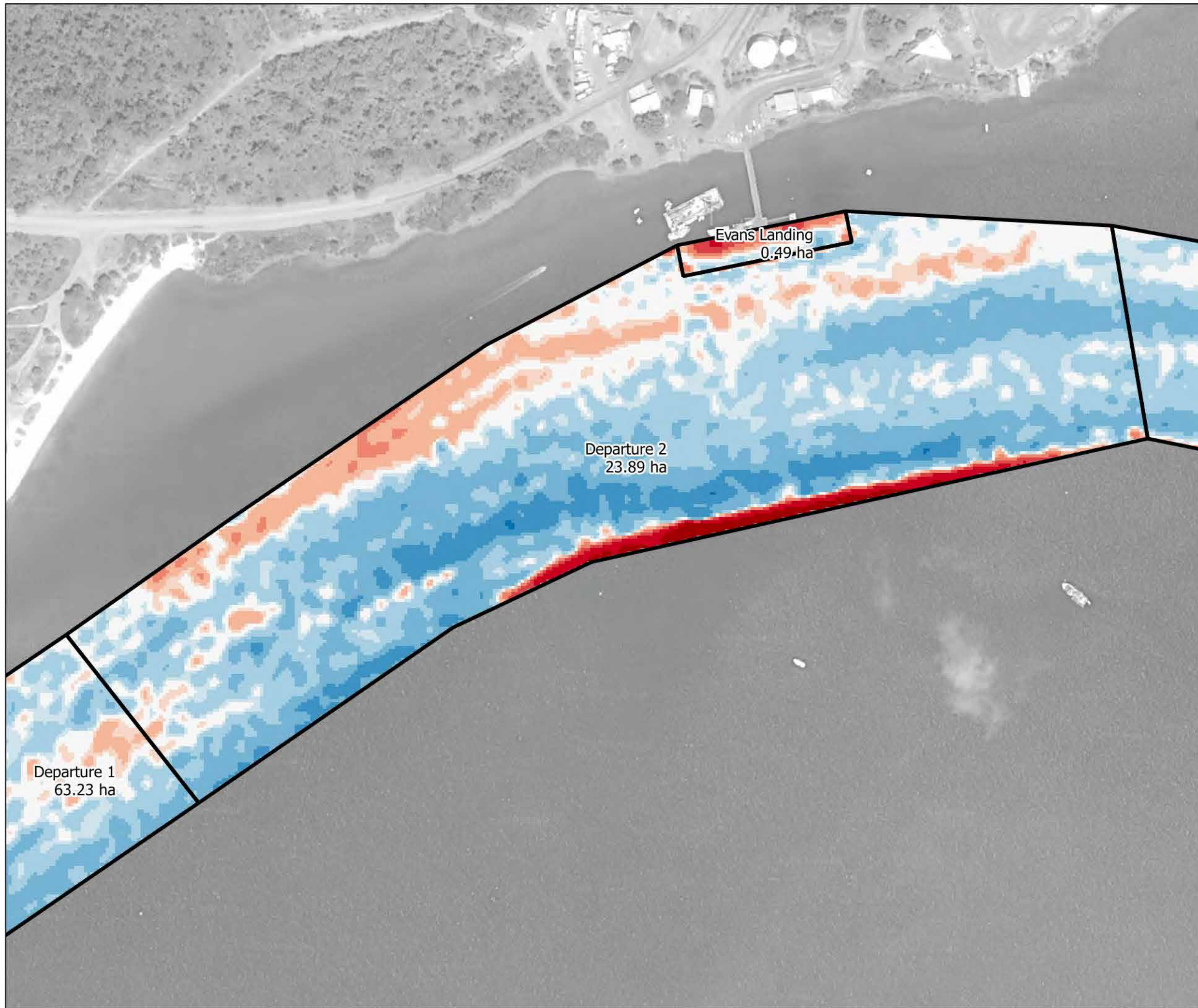


Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

Departure 2

A3 Scale: 1:3,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





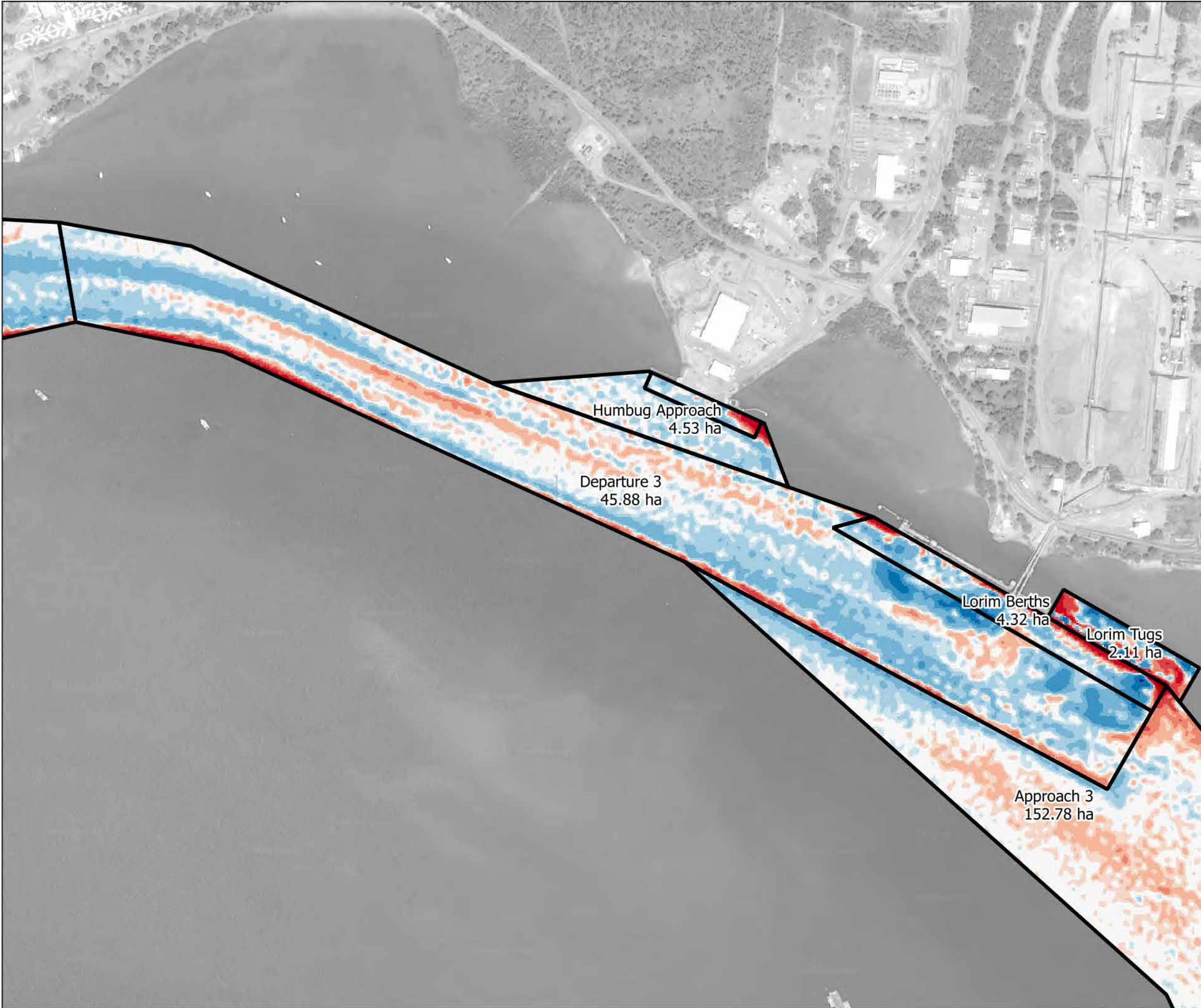
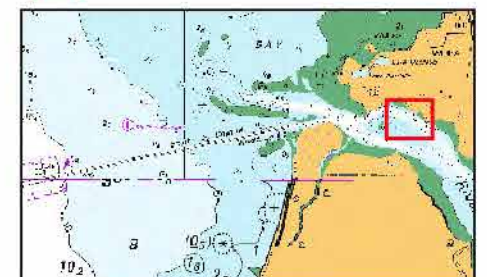
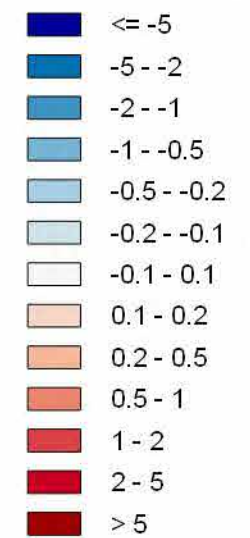
PORT & COASTAL  
SOLUTIONS

solutions  
WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

Departure 3

A3 Scale: 1:7,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





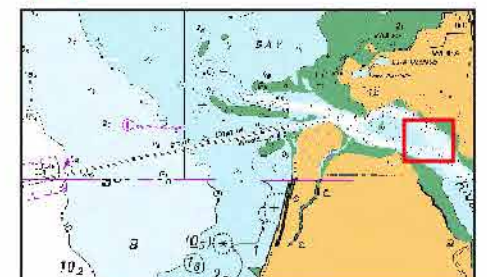
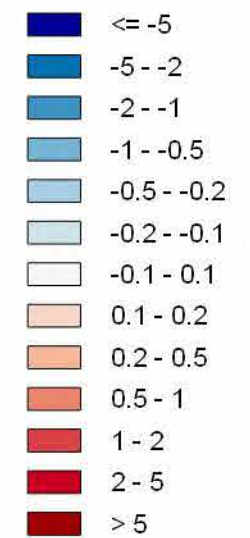
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SOLUTIONS

solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

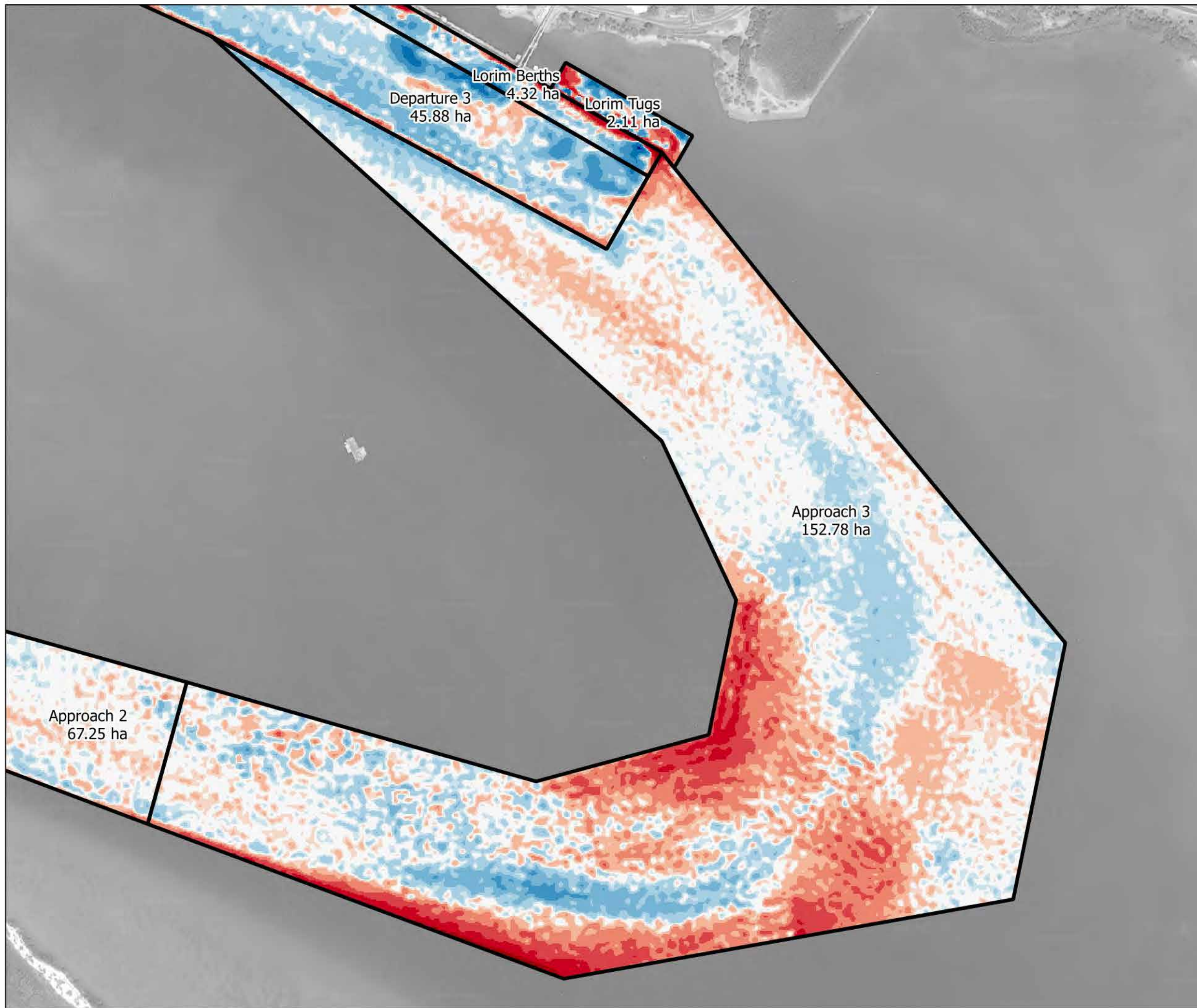


**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Summed Differences  
2003 - 2018**

**Approach 3**

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





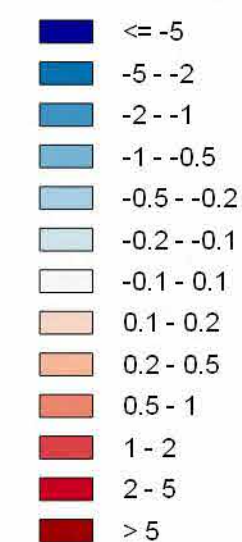
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SOLUTIONS

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WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

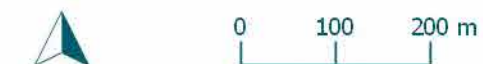


Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

Approach 2

A3 Scale: 1:8,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018



Approach 1  
52.58 ha

Approach 2  
67.25 ha



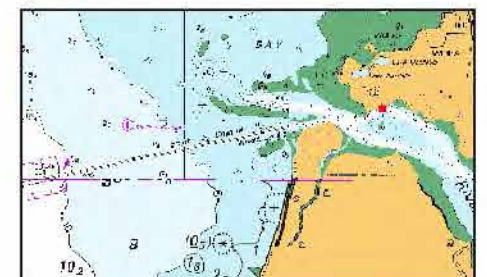
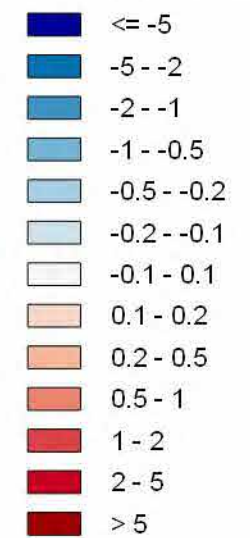
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WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

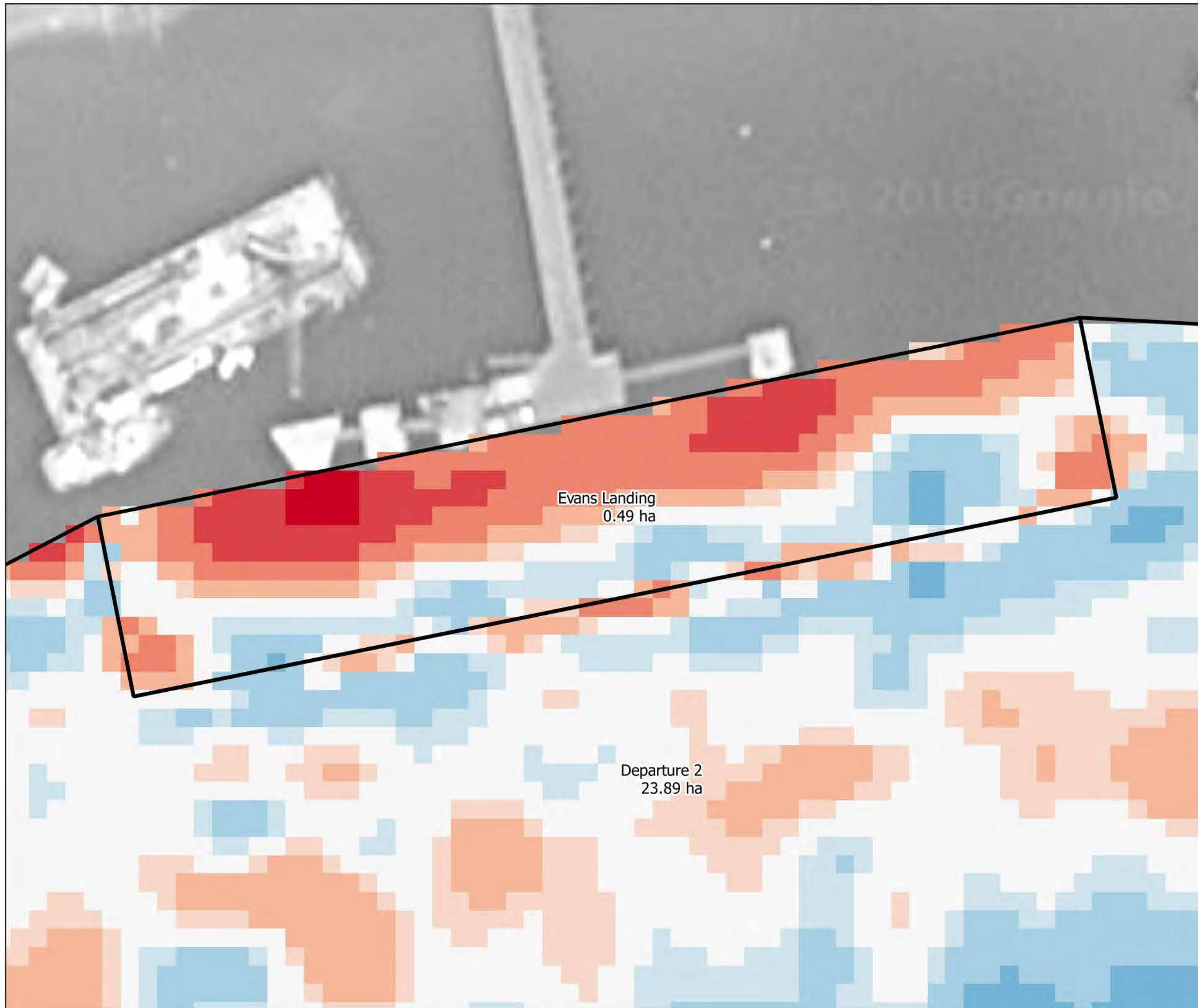


Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

Evans Landing

A3 Scale: 1:600 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018







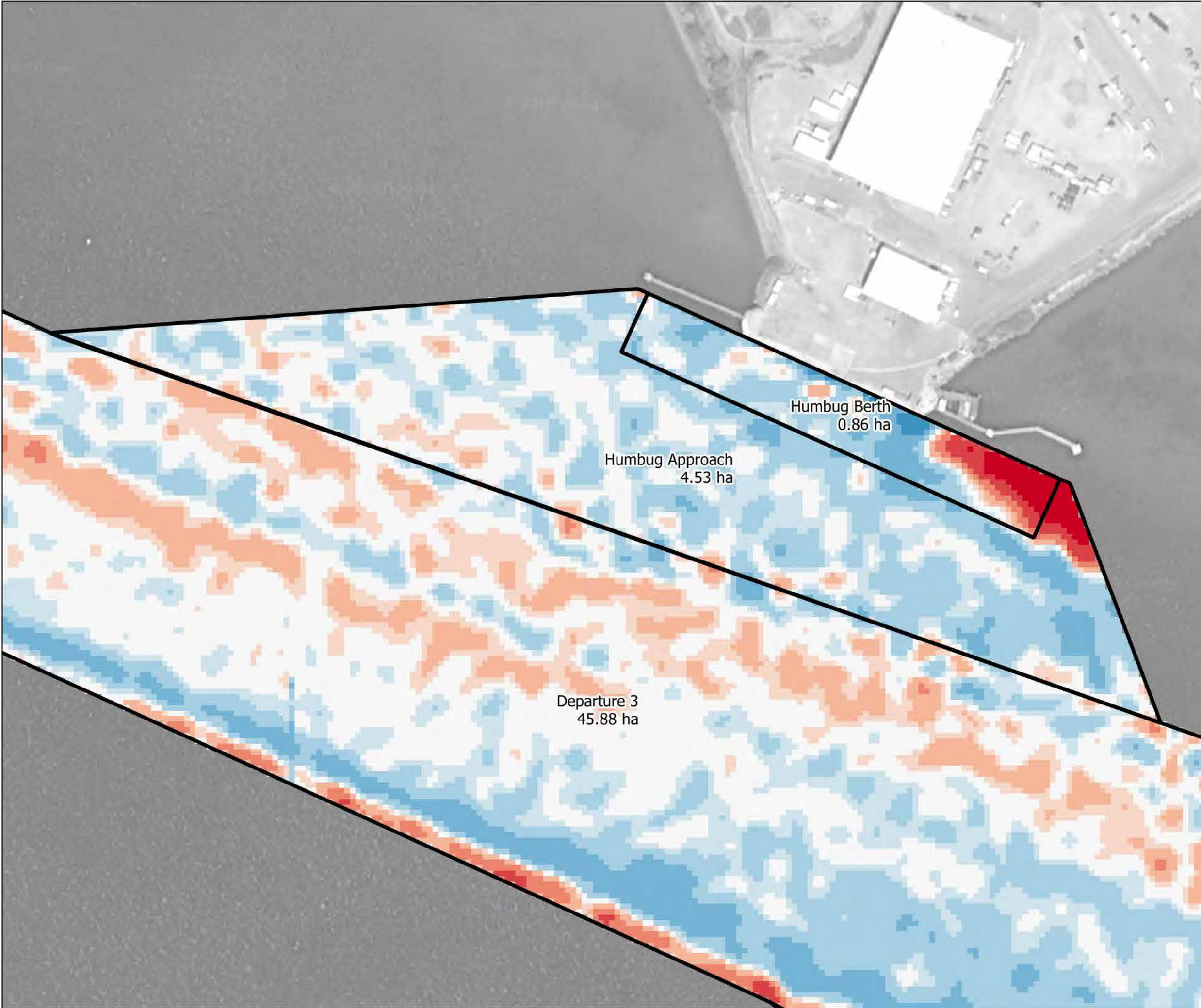
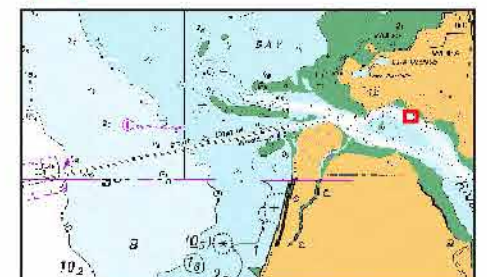
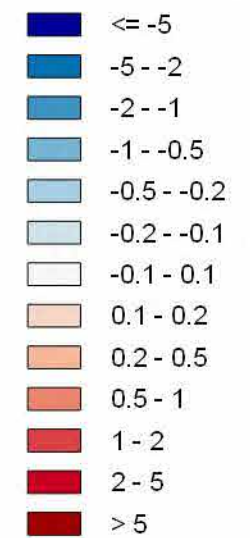
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solutions  
**WATER MODELLING**

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



**Calculation 1: Annual  
Siltation Bed Level  
Difference**

**Summed Differences  
2003 - 2018**

**Humbug Approach**

A3 Scale: 1:2,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





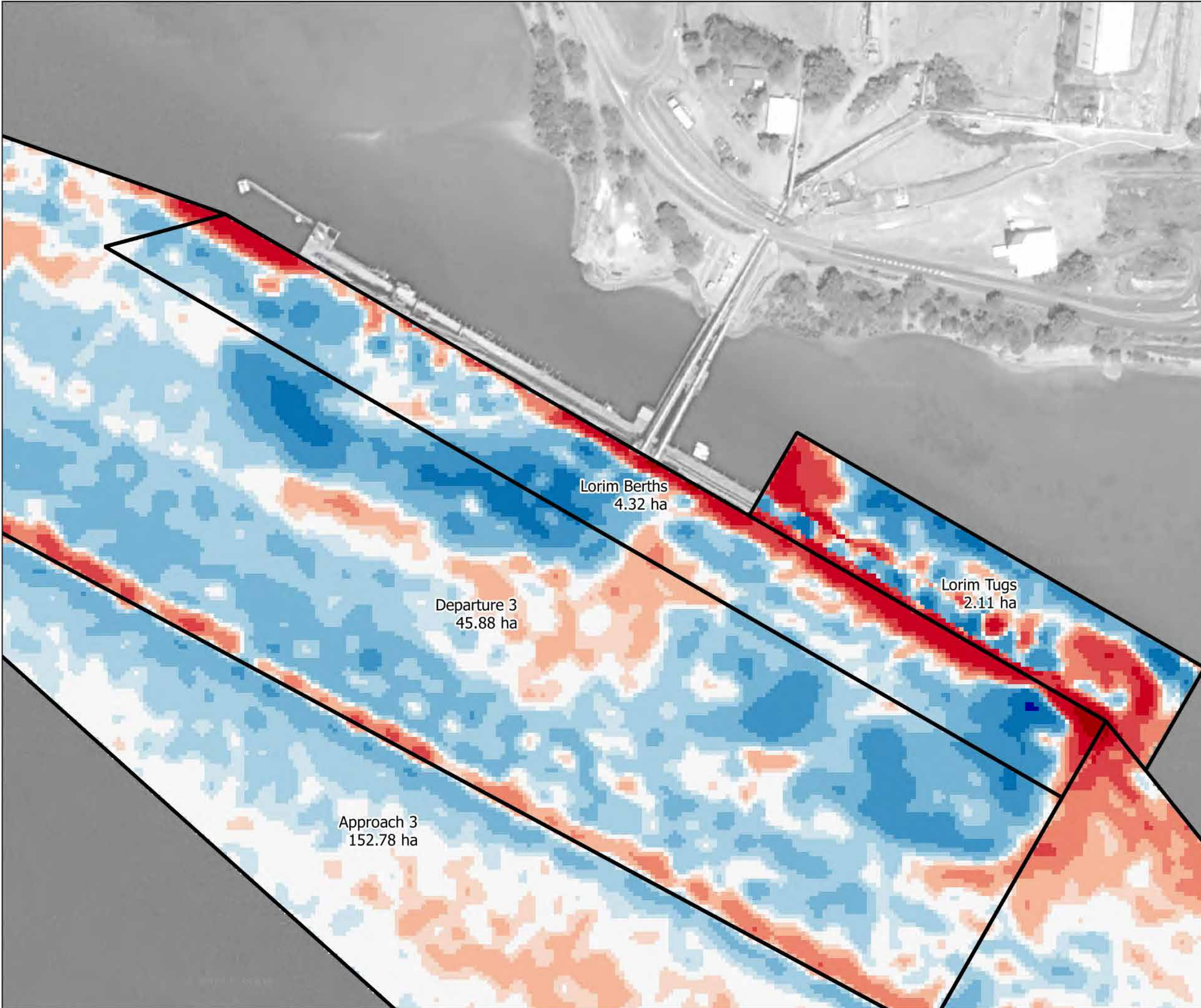
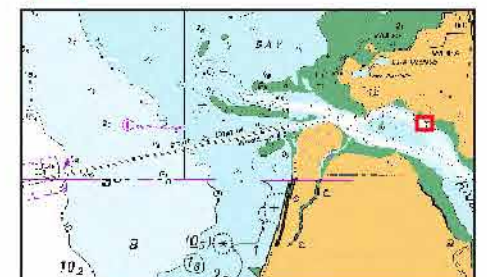
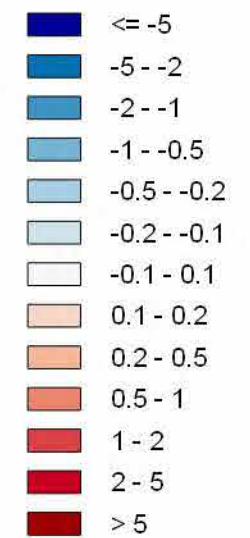
PORT & COASTAL  
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WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

Lorim Berths

A3 Scale: 1:2,500 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





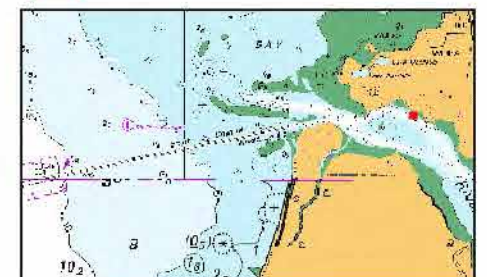
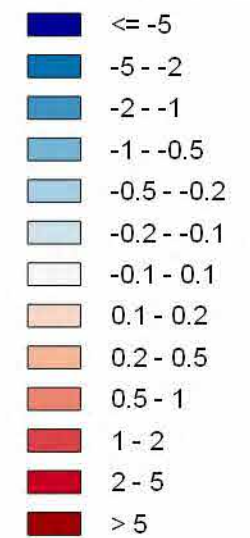
PORT & COASTAL  
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WATER MODELLING

## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)

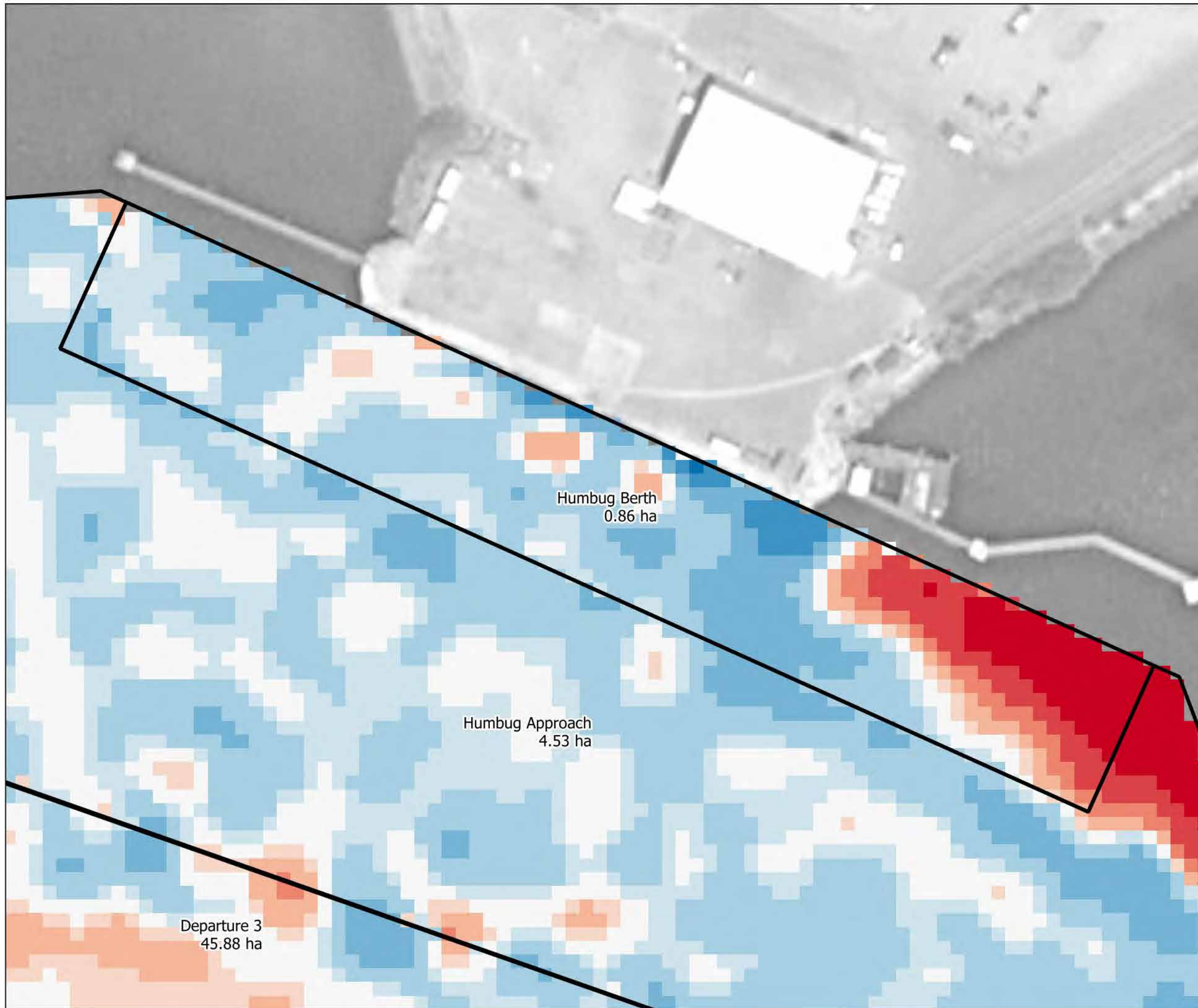


Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

Humbug Berth

A3 Scale: 1:800 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018





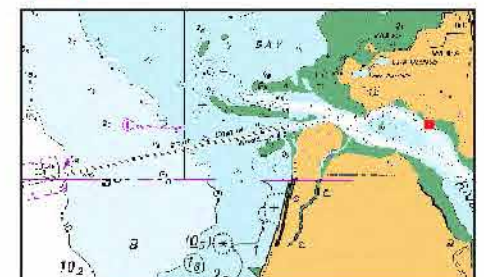
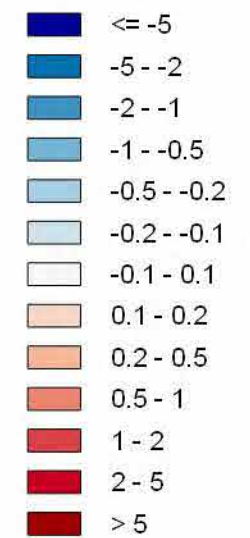
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## Port Of Weipa Dredging Analysis

### Legend

Bed Level Difference (m)



Calculation 1: Annual  
Siltation Bed Level  
Difference

Summed Differences  
2003 - 2018

Lorim Tugs

A3 Scale: 1:1,000 Job ID: 10244  
GDA 1994 / MGA Zone 54 15/05/2018

