

**Median water table elevation in
Christchurch and surrounding area
after the 4 September 2010 Darfield Earthquake
Version 2**

S. van Ballegooy, S. C. Cox, C. Thurlow,
H. K. Rutter, T. Reynolds, G. Harrington,
J. Fraser, T. Smith

GNS Science Report 2014/18 May 2014



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The following report is an update of the median water table elevation report for Christchurch and surrounding areas released in March 2013 (GNS Report 2013/01). The revision encompasses an extension of the period of groundwater monitoring (4 September 2010 to 30 November 2013) and new surfaces for improved definition of water table fluctuation.

BIBLIOGRAPHIC REFERENCE

S. van Ballegooy, S. C. Cox, C. Thurlow, H. K. Rutter, T. Reynolds, G. Harrington, J. Fraser, T. Smith, 2014. Median water table elevation in Christchurch and surrounding area after the 4 September 2010 Darfield Earthquake: Version 2. GNS Science Report 2014/18, 79 pages plus 8 appendices.

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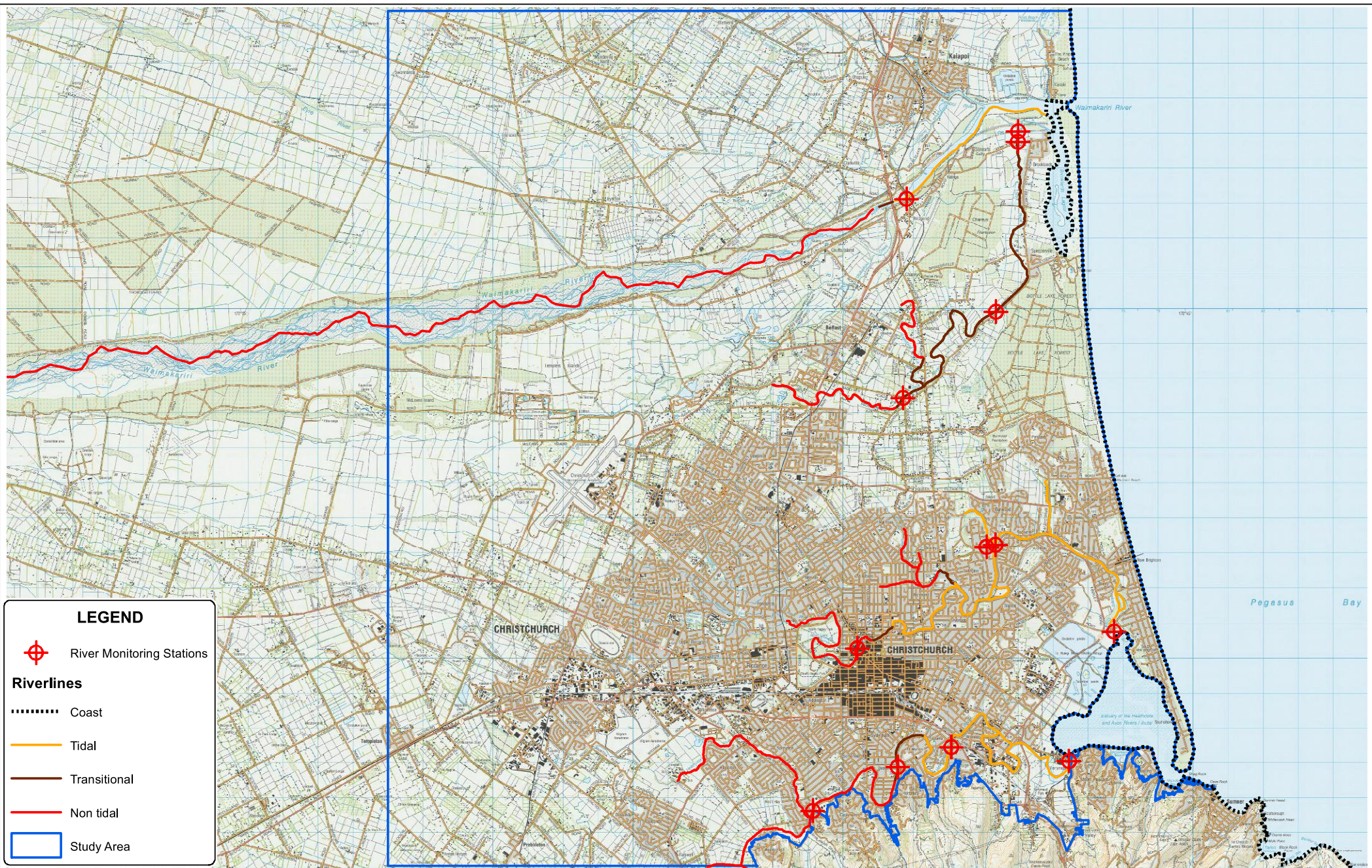
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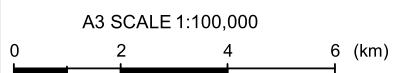
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APPENDIX E: RIVER LEVEL DATA

- Figure E.1** Location plan showing extent of rivers data strings and river monitoring stations used in groundwater calculations
- Figure E.2** Location plan showing Avon/Otakaro River string
- Figure E.3** Location plan showing Heathcote River string
- Figure E.4** Location plan showing Styx River string
- Figure E.5** Location plan showing Waimakariri River string



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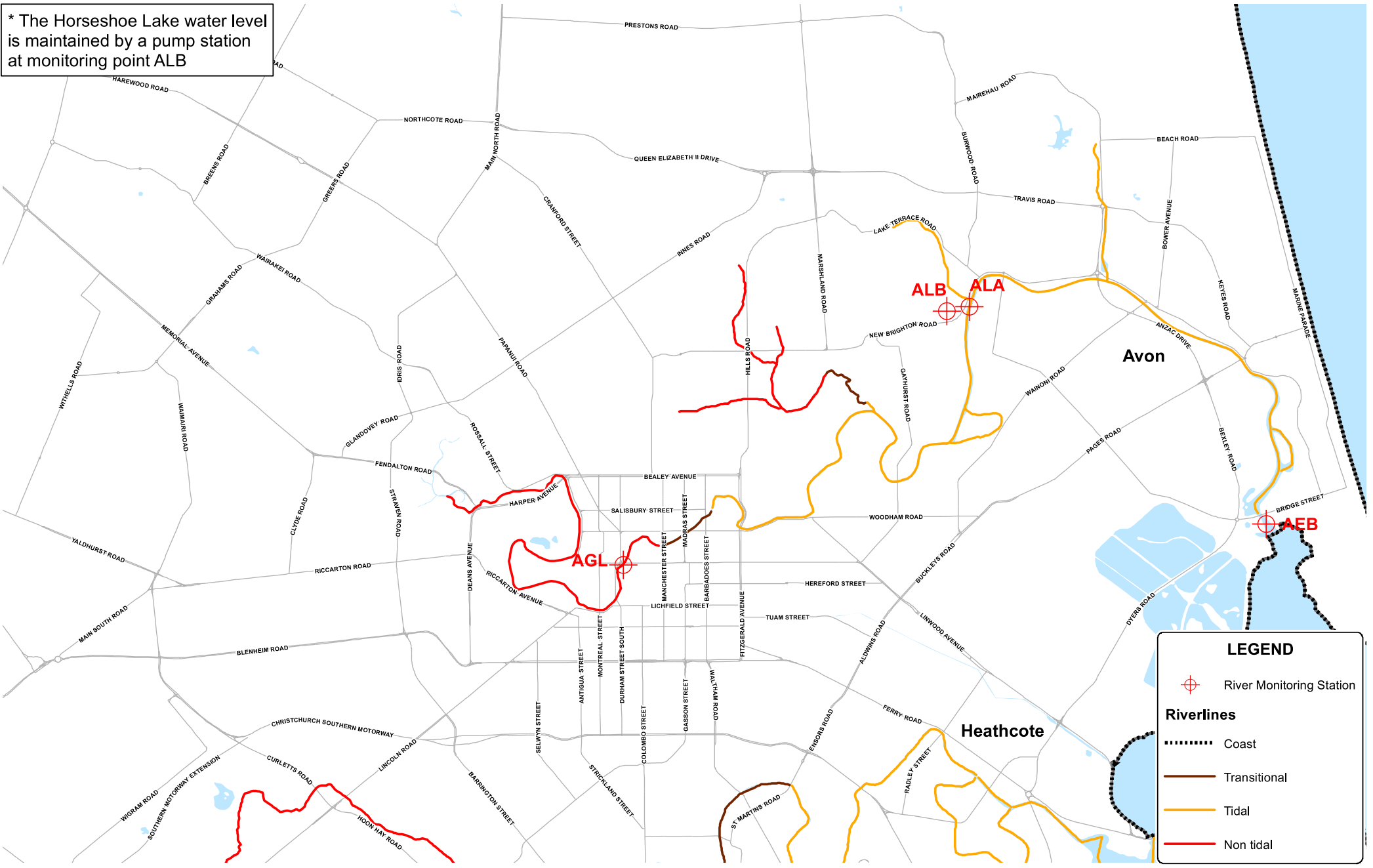
CHRISTCHURCH MEDIAN WATER TABLE ELEVATION REPORT
 Location Plan Showing River Strings and Monitoring Stations

FIGURE No. Figure E.1

Rev. 0

Date: 22/04/2014 Time: 11:33:44 a.m.

* The Horseshoe Lake water level is maintained by a pump station at monitoring point ALB



LEGEND

- River Monitoring Station
- Riverlines**
- Coast
- Transitional
- Tidal
- Non tidal

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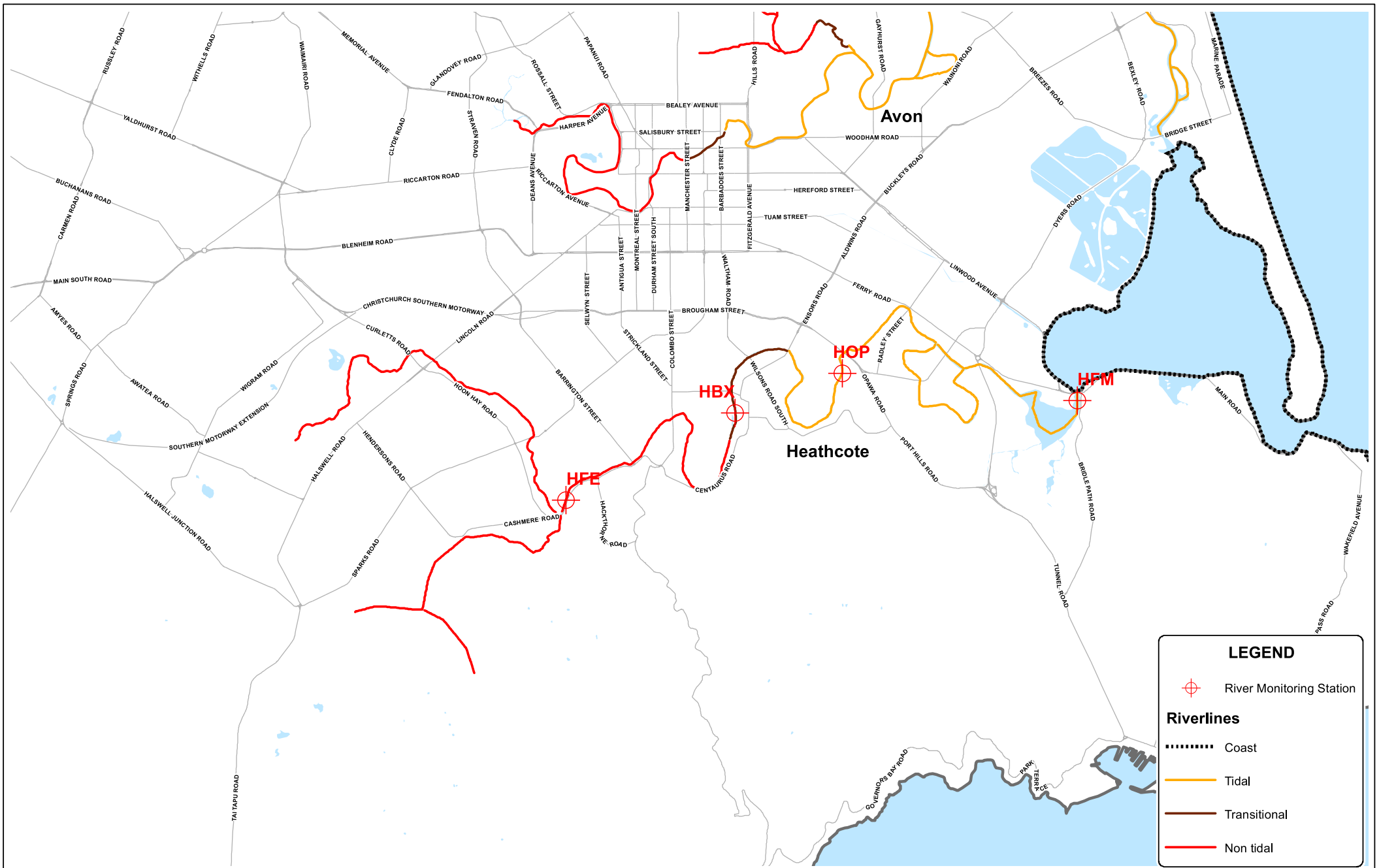


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Prepared By Tonkin & Taylor Ltd.		
Ref: 52020.0200		

CHRISTCHURCH MEDIAN WATER TABLE ELEVATION REPORT
 Location Plan Showing Avon River String

FIGURE No. Figure E.2

Rev.



LEGEND

- River Monitoring Station

Riverlines

- Coast
- Tidal
- Transitional
- Non tidal

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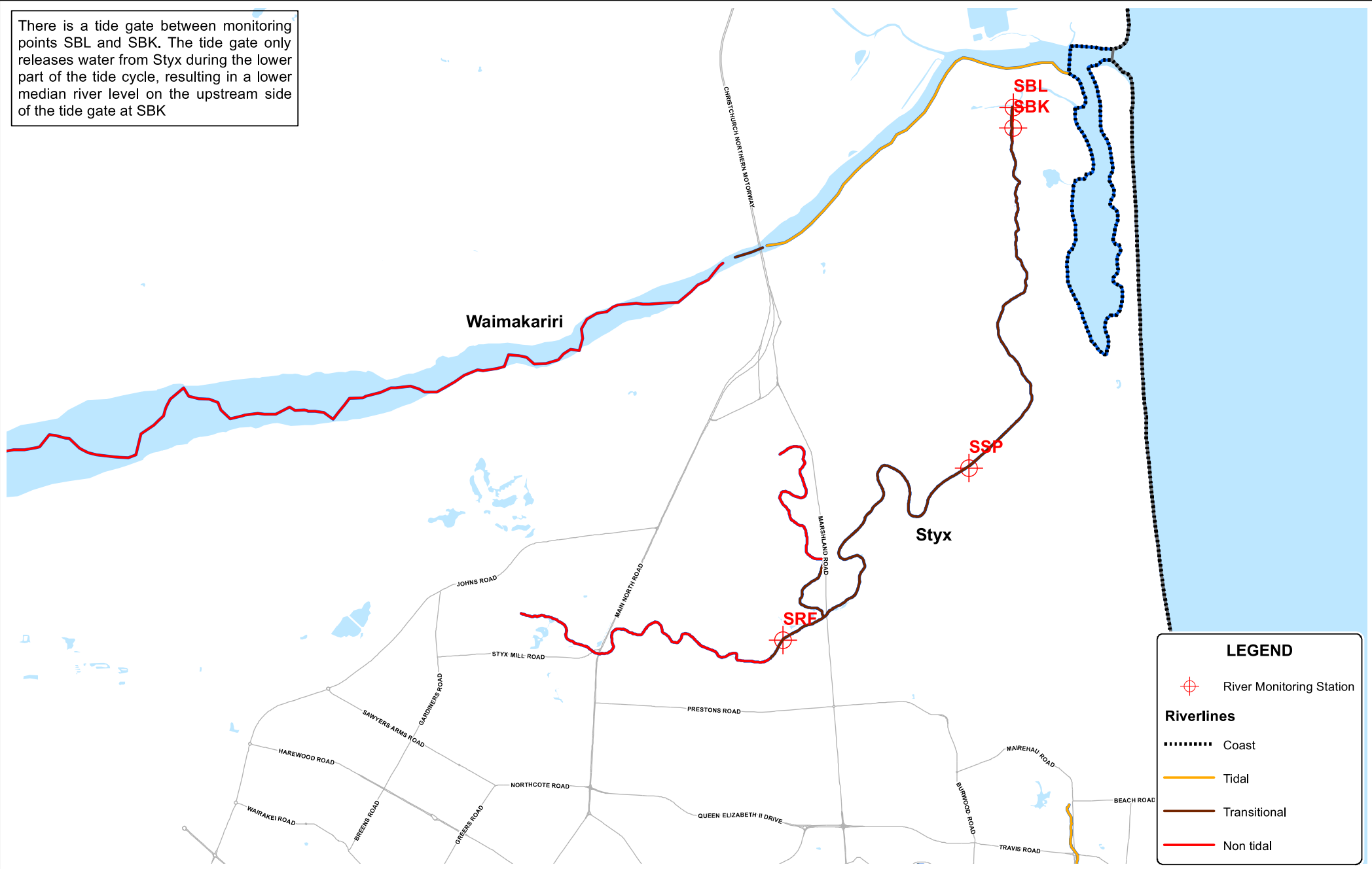


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CHRISTCHURCH MEDIAN WATER TABLE ELEVATION REPORT
 Location Plan Showing Heathcote River String

Date: 22/04/2014 Time: 11:52:19 a.m.

There is a tide gate between monitoring points SBL and SBK. The tide gate only releases water from Styx during the lower part of the tide cycle, resulting in a lower median river level on the upstream side of the tide gate at SBK



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A3 SCALE 1:50,000



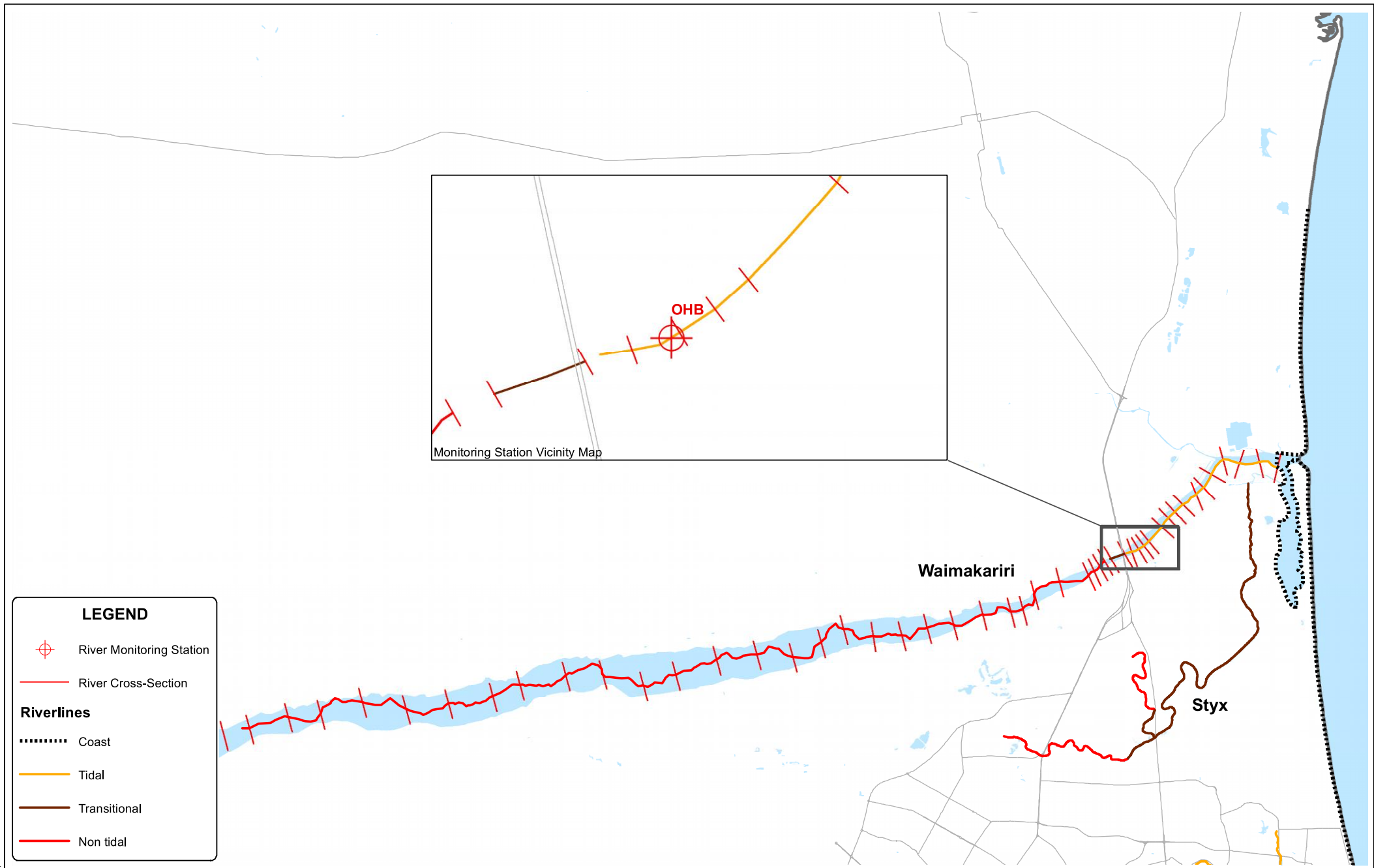
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APPROVED		
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Prepared By	Tonkin & Taylor Ltd.	
Ref:	52020.0200	

CHRISTCHURCH MEDIAN WATER TABLE ELEVATION REPORT

Location Plan Showing Styx River String

FIGURE No. Figure E.4 Rev.

Date: 22/04/2014 Time: 11:50:57 a.m.



LEGEND

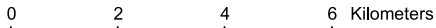
- River Monitoring Station
- River Cross-Section

Riverlines

- Coast
- Tidal
- Transitional
- Non tidal

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A3 SCALE 1:100,000



DRAWN	DAP	Apr,14
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ARCFILE 52020-0200-CPT018		
SCALE (AT A3 SIZE) 1:100,000		
Prepared By Tonkin & Taylor Ltd.		
Ref: 52020.0200		

**CHRISTCHURCH MEDIAN WATER
 TABLE ELEVATION REPORT
 Location Plan Showing Waimakariri River String**

FIGURE No. Figure E.5

Rev.



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