

**BEFORE CANTERBURY REGIONAL COUNCIL HEARING
COMMISSIONERS**

IN THE MATTER OF the Resource Management Act 1991

AND

IN THE MATTER OF Proposed Plan Change 4 of the partly operative
Canterbury Land and Water Regional Plan

MEMORANDUM OF COUNSEL FOR THE CHRISTCHURCH CITY COUNCIL

22 MARCH 2016

CHRISTCHURCH CITY COUNCIL
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MAY IT PLEASE THE COMMISSIONERS:

1. At the hearing on 16 March 2016 the Commissioners informed counsel and Dr Margetts of the Regional Council's document answering questions from the Commissioners on the first day of the hearing.
2. I understand that document had been lodged on 15th March. The Regional Council had not served it on the Christchurch City Council and it was not available on the Regional Council's hearing webpage prior to the City Council appearing at the hearing. As a result, counsel and witnesses for the City Council had not seen it.
3. Accompanying this memorandum is supplementary evidence from Dr Margetts. That evidence addresses the Regional Council's response to the Hearing Commissioners' questions RvV1 and RvV2.
4. The Regional Council's response at RvV2 is a planning, or legal, response regarding scope rather than an ecological response. That submission by the Regional Council on scope is expanded in its response to DS 4.
5. The Regional Council submission seems to be that the changes sought in Dr Margetts' evidence are "...*arguably beyond scope*" as "*Arguably, the original submission of the CCC did not contemplate this level of change*"¹.
6. For the reasons stated in the City Council's legal submissions, the changes are within scope of the City Council's submission. The submission's reference to anomalies that may need correction does not imply either minor or major changes, just that changes could be required. Any person had the opportunity to join as a further submitter in support or opposition to that submission if they had any concern about the effect of such changes. Specific identification in the submission of the changes sought was unnecessary for people to be fairly on notice that there may be such changes, regardless of whether those changes are to sites on the Avon/Heathcote Rivers, or in other locations.

¹ Page 20 of the Regional Council response.

7. A further matter requiring clarification is the Regional Council's response to RvV 6 regarding discharge into and out of the City Council's reticulated stormwater system. The Regional Council's response suggests that there is currently an issue of duplication of consents, with the Regional Council consenting the same discharge both into the reticulated system and the final discharge out of that system (pp6-7).
8. There is no duplication. The evidence in chief of Mr Norton for the City Council (29 January 2016) described how sites that need site specific discharge consent are excluded from the City Council's catchment wide consents (paragraph 10). This was illustrated by condition 2 in the resource consent conditions for the Styx River catchment, appended as Appendix B to Mr Norton's original evidence.

Dated 22 March 2016

A handwritten signature in black ink, consisting of several overlapping, fluid strokes that form a stylized, somewhat abstract shape.

BK Pizzey
Counsel for the Christchurch City Council

**Before the Canterbury Regional Council
Hearing Commissioners**

In the Matter of the Environment Canterbury (Temporary
Commissioners and Improved Water Management)
Act 2010 and the Resource Management Act 1991

And

In the Matter of Submissions and further submissions on proposed
plan change 4 (omnibus) to the partly operative
Canterbury Land and Water Regional Plan

**SUPPLEMENTARY EVIDENCE OF DR BELINDA ISOBEL MARGETTS
FOR THE CHRISTCHURCH CITY COUNCIL**

22 March 2016

INTRODUCTION

Qualifications and Role

1. My full name is Belinda Isobel Margetts. I have been requested by the Christchurch City Council (CCC) to give evidence in relation to inanga (*Galaxias maculatus*) spawning sites. My qualifications and experience are set out in my evidence in chief dated 29 January 2016.
2. I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and that I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise except where I state that I am relying on the evidence of another person.

Scope of Evidence

3. This supplementary evidence is in response to the request of the hearing commissioners for me to review the following document (hereafter referred to as the 'response document') and provide comment on whether this addresses the Christchurch City Council submission regarding known inanga spawning sites:

Maw, P. & McCallum-Clark, M. (2016). Plan Change 4 to the Canterbury Land and Water Regional Plan: Response to Questions of Hearing Commissioners on Day 1 of PC4 hearing 3 March 2016.

Amendment to my Evidence

4. In preparing this supplementary evidence, I have become aware that the wrong site coordinates were referred to within Table 1 of my Evidence in Chief. Table 1 below shows the correct coordinates as tracked changes. My original Table 1 was intended to include the upstream and downstream suitable habitat I referred to in Paragraph 12 of my Evidence of Chief, but the coordinates in my Table 1 were only upstream and downstream extents of observed inanga eggs. It is my understanding that it was Environment

Canterbury's (ECan) intent to include this suitable habitat within the sites, as outlined in Response RvV 1 of the Response Document.

Response RvV 1

5. I agree with the intent behind the proposed changes to the Avon and Heathcote River sites, as outlined in response RvV 1 and Table 1 of the response document. These changes for the Avon and Heathcote Rivers are the ones that I recommended in Paragraph 19 and Table 1 of my Evidence in Chief. This includes 'Corsers Stream', which is a tributary of the Avon River. However, I note that these sites will need to be updated with the amended coordinates within Table 1 of this document.
6. Response RvV 1 states that the reaches in Table 1 do not encompass the 'Heathcote River 325m upstream of Opawa Road bridge' site and therefore this site should remain within Schedule 17. This site is now included within Reach 9 (Opawa) in Table 1. Therefore, I consider the 'Heathcote River 325m upstream of Opawa Road bridge' site should also be deleted from Schedule 17 to avoid repetition and therefore confusion.
7. In my rebuttal evidence (Paragraph 8), I also requested that an additional site in the Heathcote River be added due to a recent survey¹. This site is also shown as tracked changes in Table 1 below (Reach ID 35, Catherine Street footbridge on the Heathcote River). However, this has not been assessed in the response document. I still consider this spawning site should be included in Schedule 17, so that protection can be afforded to this area.

Response RvV 2

8. Response RvV 2 addresses legal matters regarding the scope to make the requested changes and counsel will address these. This response also pertains to the sites referred to in Table 1 of my Evidence of Chief that are outside of the Avon and Heathcote Rivers, including the three outstanding sites referred to in Paragraph 19 of my Evidence in Chief: Wharf Road Stream, Styx River tributary and Allandale Stream.

¹ Orchard, S. & Hickford, M. (2016). Spatial effects of the Canterbury earthquakes on inanga spawning habitat and implications for waterways management. Report prepared by Waterways Centre for Freshwater Management and Marine Ecology Research Group, University of Canterbury, for IPENZ Rivers Group. Christchurch, New Zealand.

9. I still consider that the CCC sites outside of the Avon and Heathcote River should be included within Schedule 17, to ensure consistency in sites between councils.
10. Regardless of this, I note the following errors in the ECan Schedule 17 sites:
 - It still appears there are errors in the site coordinates in Schedule 17 for the Wharf Road Stream site, with the LWRP location not lining up with the coordinates or site description shown in the original Golder's report². This is important, given the site is only small in size.
 - As identified in my Evidence in Chief, whilst the GPS coordinates for the Allandale Stream site are correct, the waterway is incorrectly named (stemming from the same naming mistake in the original Golder's report). The Christchurch City Council's GIS database shows that this waterway is actually called Bamfords Road Drain, not Allandale Stream (which is an immediately adjacent waterway). I therefore still consider that this site name should be changed to the correct waterway name, to avoid confusion.
11. Regarding the Styx River tributary, I have clarified this with the original surveyor, Mark Taylor, who provided the data for both the CCC maps and Schedule 17 of the LWRP. He has clarified that the LWRP coordinates are the correct ones, as they refer to the wetland adjacent to the tributary referred to in the CCC maps. Accordingly, I no longer seek that the CCC site be included in Schedule 17, as the LWRP site is correct.

B Margetts

**Dr Belinda Isobel Margetts
Waterways Ecologist
Christchurch City Council**

22 March 2016

² Hickford, M. 2012. Potential Submission Regarding the Protection of Inanga Spawning Sites. Golder Associates Ltd, No. 9 p.

Table 1 CCC known inanga spawning sites

| Reach ID | Catchment | Waterway Name | Spawning Site Location | Upstream Easting | Upstream Northing | Downstream Easting | Downstream Northing |
|----------|------------|----------------------|--|---------------------------|---------------------------|---------------------------|---------------------------|
| 1 | Styx River | Styx River Tributary | The upstream limit is 2.45 km downstream of where the un-named vehicle track intersects with Seddon Street | <u>248405724</u> 84304 | <u>575711057</u> 57152 | <u>24845272484</u> 420 | <u>57570595757</u> 157 |
| 2 | Styx River | Styx River | Immediately upstream of the tide gates | <u>248500624</u> 85015 | <u>575618357</u> 56430 | <u>24850142485</u> 006 | <u>57566485756</u> 644 |
| 3 | Avon | Avon River | Avondale | <u>248433924</u> 84351 | <u>574434257</u> 44647 | <u>24854632485</u> 041 | <u>57450465745</u> 015 |
| 4 | Avon | Corsers Stream | Immediately downstream of New Brighton Road | <u>248547424</u> 85465 | <u>574520457</u> 45128 | 2485462 | 5745072 |
| 5 | Avon | Avon River | Orrick Crescent | <u>248546124</u> 85657 | <u>574503857</u> 45101 | <u>24859312485</u> 699 | <u>57450895745</u> 106 |
| 6 | Avon | Lake Kate Sheppard | Immediately upstream of New Brighton Road | <u>248593924</u> 85868 | <u>574590957</u> 45327 | 2485953 | 5745157 |
| 7 | Heathcote | Heathcote River | Aynsley Reserve | <u>248236624</u> 82776 | <u>573836057</u> 38333 | <u>24828482482</u> 816 | <u>57383615738</u> 348 |
| 8 | Heathcote | Heathcote River | Aynsley Reserve | <u>248284924</u> 82877 | <u>573835957</u> 38374 | <u>24830062482</u> 900 | <u>57387515738</u> 384 |
| 9 | Heathcote | Heathcote River | Opawa | <u>248300624</u> 83104 | <u>573874757</u> 39162 | <u>24836962483</u> 249 | <u>57397145739</u> 346 |
| 10 | Heathcote | Heathcote River | Woolston Park | <u>248369724</u> 83862 | <u>573971457</u> 39917 | <u>24840722483</u> 871 | <u>57398555739</u> 928 |

| Reach ID | Catchment | Waterway Name | Spawning Site Location | Upstream Easting | Upstream Northing | Downstream Easting | Downstream Northing |
|-----------|------------------|------------------------|--|--|--|--|--|
| <u>35</u> | <u>Heathcote</u> | <u>Heathcote River</u> | <u>Catherine Street footbridge</u> | <u>2484405³</u> | <u>5739477</u> | <u>2484049⁴</u> | <u>5739335</u> |
| 11 | Heathcote | Steamwharf Stream | Immediately upstream of Dyers Pass Road | 248500024 85052 | 573946457 39405 | 2485128 | 5739394 |
| 12 | Allandale | Bamford Road Stream | 10 m upstream of Governors Bay Teddington Road Bridge | 248170424 81716 | 572953157 29544 | 24817362484 718 | 57295635729 552 |
| 13 | Charteris Bay | Te Wharau Stream | 110 m downstream of Marine Drive Bridge | 248595624 85941 | 572818057 28191 | 24858982485 910 | 57282245728 214 |
| 14 | Port Levy | Wharf Road Stream | 145 m upstream of Wharf Road | 249472724 94741 | 572724957 27252 | 24947622494 750 | 57272405727 246 |
| 15 | Port Levy | Te Kawa Stream | At and upstream of, Fernlea Point Road | 249507624 95084 | 572707657 27090 | 24951482495 141 | 57272165727 196 |
| 16 | Pigeon Bay | Pigeon Bay Stream | 170 m upstream of Wharf Road Bridge | 250158125 01581 | 572411957 24145 | 25015572501 552 | 57242205724 200 |
| 17 | Okains Bay | Opara Stream | At and upstream of the intersection of Schoolhouse Road Bridge | 251287325 12884 | 572154757 21608 | 25129772512 945 | 57217325721 681 |
| 18 | Le Bons Bay | Le Bons Stream | Downstream end adjacent to Le Bons Bay and Dalglis Road Intersection (spawning reach includes a side stream) | 251632725 16382 | 571676757 16778 | 25165662516 538 | 57168545716 811 |
| 19 | Goughs Bay | Goughs Bay Stream | 650 m upstream of the beach | 251724425 17255 | 571118557 11151 | 25174162517 382 | 57111515711 132 |

³ Site H8 in Orchard & Hickford (2016)

⁴ Site H1 in Orchard & Hickford (2016)

| Reach ID | Catchment | Waterway Name | Spawning Site Location | Upstream Easting | Upstream Northing | Downstream Easting | Downstream Northing |
|----------|-----------------|---------------------------|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| 20 | Flea Bay | Flea Bay Stream | (Western Stream) 40 m downstream of Flea Bay Road Bridge | 251039725 10400 | 570440957 04397 | 25104222540 411 | 57043785704 384 |
| 21 | Takamatua | Takamatua Stream | 90 m upstream of the termination of Takamatua Beach Road | 250753125 07506 | 571398657 13993 | 25074562507 480 | 57139945713 990 |
| 22 | Robinsons Bay | Robinsons Bay Stream | 10 m upstream of Christchurch Akaroa Road | 250703425 07030 | 571594157 15934 | 25069912507 013 | 57159225715 924 |
| 23 | Duvauchelle Bay | Pipers Stream | Downstream of Christchurch Akaroa Road | 250538325 05373 | 571711857 17108 | 25053432505 355 | 57170925717 098 |
| 24 | Duvauchelle Bay | Pawsons Stream | 2 m upstream of Christchurch Akaroa Road | 250447225 04473 | 571741757 17406 | 25044832504 477 | 57173915717 402 |
| 25 | Barrys Bay | Barrys Bay Stream | 20 m upstream of Christchurch Akaroa Road | 250280725 02800 | 571624257 16231 | 25028002502 792 | 57161705716 185 |
| 26 | French Farm Bay | French Farm Bay Stream #2 | 25 m upstream of Wainui Main Road Bridge (70 m north of French Farm Bay #1) | 250254725 02560 | 571426657 14260 | 25026042502 605 | 57142095714 221 |
| 27 | French Farm Bay | French Farm Bay Stream #1 | Upstream of Wainui Main Road Bridge (adjacent to Bantry Lodge Road) | 250255625 02560 | 571417257 14166 | 25025612502 560 | 57141495714 156 |
| 28 | Long Bay | Long Bay Stream | 20 m upstream of the beach | 249857724 98573 | 570341057 03400 | 24985552498 558 | 57034065703 396 |
| 29 | Peraki Bay | Peraki Creek | 100 m upstream of the beach | 249571524 95711 | 570534757 05329 | 24957342495 713 | 57052805705 303 |
| 30 | Tumbledown Bay | Tumbledown Bay Stream | Downstream of Te Oka Bay Road, 45 m upstream of the beach | 249149624 91493 | 570607057 06058 | 24915002491 494 | 57060315706 045 |

| Reach ID | Catchment | Waterway Name | Spawning Site Location | Upstream Easting | Upstream Northing | Downstream Easting | Downstream Northing |
|----------|-----------------|---------------------|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| 31 | Magnet Bay | Magnet Bay Stream | Just below footbridge and 200 m upstream of the beach | 248930424 89306 | 570711957 07116 | 24893112489 311 | 57070965707 101 |
| 32 | Hikuraki Bay | Hikuraki Bay Stream | 45 m upstream of the beach | 248937424 89371 | 570785257 07850 | 24893772489 372 | 57078295707 835 |
| 33 | Head of the Bay | Waiake Stream | 120 m upstream of Charteris Bay Road | 248360024 83590 | 572658657 26601 | 24835512483 565 | 57266395726 617 |
| 34 | Lake Ellesmere | Kaituna River | 1.2 km upstream of Christchurch Akaroa Road | 248274524 82625 | 571575557 15757 | 24824832482 575 | 57157265715 770 |