

## HEARING STREAM 2 – Day 5

### **Greater Wellington Regional Council**

#### **HEARING STREAM 2**

#### **Day 5**

#### **Ecosystem Health and Water Quality Policies**

Date: Friday 11th of April 2025

Time: 8.45am

Hearing Stream: Two

Venue: Naumi Wellington

Hearing Panel: Dhilum Nightingale (Chair)  
Sharon McGarry (Deputy Chair)  
Gillian Wratt  
Sarah Stevenson  
Puawai Kake

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#### **[Hearing Stream 2 – Day 5 – Part 1]**

1 Chair: Mōrena everyone. We'll start with a karakia.

2

3 Ruddock: *Kia tau ngā manaakitanga a te mea ngaro*  
4 *ki runga ki tēnā, ki tēnā o tātou*  
5 *Kia mahea te hua mākihikihi*  
6 *kia toi te kupu, toi te mana, toi te aroha, toi te Reo Māori*  
7 *kia tūturu, ka whakamaua kia tīna! Tīna!*  
8 *Hui e, Tāiki e!*

9

10 Chair: Kia ora everyone. Welcome to Day 5 of Hearing Stream 2 for Proposed Change  
11 1 to the Regional Plan for the Wellington Region. We're at the second day of  
12 hearing from submitters. We'll start with some very brief introductions.

13

14 Ko Dhilum Nightingale tōku ingoa. I'm a Barrister and I have been practicing  
15 law for about 25 years. I am based in Taputeranga, Te Whanganui-a-Tara in  
16 Wellington.

17 Our Deputy Chair is joining us today online. I will pass over to Commissioner  
18 McGarry.

19

- 20 McGarry: Mōrena. Sharon McGarry. I'm an Independent Commissioner based in Ōtautahi  
21 Christchurch.  
22
- 23 Kake: Mōrena. Puawai Kake, I'm a Planner, Independent Commissioner from  
24 Northland, Te Tai Tokerau.  
25
- 26 Wratt: Mōrena, Gillian Watt. Independent Commissioner based in Whakatu, Nelson.  
27
- 28 Stevenson: Ngā mihi nui kia koe. I'm Sarah Stevenson, an Independent Planner and  
29 Commissioner based here in Te Whanganui-a-Tara, Wellington.  
30
- 31 Chair: Thank you. Maybe we'll just let everyone know who the Council team is, who  
32 is in the room. We'll start with the reporting officer, thank you.  
33
- 34 O'Callahan: Mōrena, my name is Mary O'Callahan. I am an Independent Planning  
35 Consultant with GHD and I am the Council's reporting officer.  
36
- 37 Rudy: Kia ora, I'm Rudy. I am a Policy Advisor at Greater Wellington.  
38
- 39 Ruddock: Tēnā koutou, Josh Ruddock here. I'm Hearing Adviser for Greater Wellington.  
40
- 41 Chair: Thank you very much. Unless anyone wants to raise any matters of process, if  
42 there is anything Ms O'Callahan would like to discuss?  
43
- 44 O'Callahan: Just confirming that I am tabling this morning the updated version with the full  
45 number of edits that have been discussed with the Panel through my presentation  
46 up until yesterday. There is just the further points that were discussed with  
47 Commissioner McGarry. There is an online copy I understand the Panel have  
48 got and that's been uploaded on the website, and there's possibly two paper  
49 copies here.  
50
- 51 Chair: That's very helpful, thanks very much Ms O'Callahan. We do encourage all  
52 submitters as well to refer to that version that will be online. That is now the  
53 Council's reporting officer's latest version of the provisions that are supporting  
54 for the Hearing Stream 2 provisions.  
55
- 56 With that, we know that you want have properly seen them Mr Van Berkel, but  
57 welcome to Hearing Stream 2. Good to see you again. We know that you've  
58 presented before to us. We'll pass over to you to present your submission. Please  
59 leave time for questions. Kia ora. Welcome.  
60
- 61 **Mr van Berkel**  
62
- 63 van Berkel: Kia ora Panel. Ko Pat van Berkel no ahau. I was a community member of the Te  
64 Whanganui-a-Tara Whaitua Committee as you know, also on Friends of Art  
65 River and I'm very keen to see that the work that we did on the Whaitua  
66 Committee comes into effect.  
67
- 68 I wonder whether you have the comments that I sent through about three weeks  
69 ago. Do you have a copy of that? It called 'Comments on the GW Objectives  
70 s42A Report'?  
71

72 Chair: Yes we do, thank you.  
73

74 van Berkel: I will just go through that. Feel free to ask questions as I go through.  
75 [00.20.05]  
76 The first item I want to talk about is paragraph 106 of s42A report which refers  
77 to my submission number two and that is about publishing the timeline to 2100.  
78  
79 The analysis was that there will be ongoing reporting on progress, but that wasn't  
80 what I was requesting. What I was requesting is that the whole timeline from  
81 now until 2100 be published. Of course it's ridiculous to go into the detail of  
82 what exactly will happen in in 2095 or whatever, and I'm not asking that, I'm  
83 just asking that there be a detailed timeline for the next five years, and less detail  
84 for years after that, through to broad detail all the way up to 2100.  
85  
86 If we don't have that then we are in the situation that we just are uncertain  
87 whether the achievement of 2100 will happen. So I'm very keen to see that and  
88 now that I have clarified what the intent of this, I hope that you can see that also.  
89

90 Chair: Mr van Berkel, are you okay if we take questions throughout? With your slide  
91 pack I would just hate to run out of time. Are you comfortable with that?  
92

93 van Berkel: Yes, very much so.  
94

95 Chair: Thank you. I just wanted to ask if you had seen the officer's new method M36  
96 which I understand was included at least partly in response to the submission  
97 point you have made. It's about having a programme to define and implement  
98 methods to reach waiora by 2100. If you don't have it there we might be able to  
99 put the wording up on the screen.  
100

101 van Berkel: I don't have it here.  
102

103 Chair: I appreciate you might not be able to comment on the spot, but just to note that  
104 I think the officer has tried to address this submission point you're making  
105 through this new method.  
106

107 van Berkel: When it pops up we can talk about that. I will go onto paragraph 118 which is  
108 my point 5 and that's requesting a reference to the Mangaroa peatland.  
109 Unfortunately the s42A report doesn't acknowledge the incredible value of  
110 peatlands from a carbon benefit, climate change benefit.  
111 [00.25.00]  
112 When a peatland is healthy it sequesters enormous amounts of carbon and when  
113 it is not healthy, and that is the case at Mangaroa, it's been used for farming,  
114 when it's not healthy not only it doesn't sequester it but it actually emits carbon.  
115  
116 I just really would like to see the peatland listed somewhere in the natural  
117 resource plan and preferably that there be some acknowledgement of preserving  
118 it or restoring it even.  
119  
120 I happened to listen a talk given on Tuesday this week that six percent of New  
121 Zealand's greenhouse gases come from New Zealand peat lands. It is quite a  
122 simple matter to make a peat land work well. It's all to do with the depth of  
123 water. If it's more than 30cm deep, and when I say more, I mean the level of the

124 ground water is more than 30cm away from the surface, then it is slowly being  
 125 destroyed. If it is less than 20cm then it is a healthy peat land. So there's a simple  
 126 measure.  
 127  
 128 Moving on. Any questions?  
 129  
 130 Chair: Thank you. Mr Ruddock has put up the new method that the Council officer is  
 131 proposing. If you can see that there on the screen.  
 132  
 133 van Berkel: No I cannot. No, unfortunately I cannot see it.  
 134  
 135 Chair: That's okay. What we will do is perhaps it's something that you can come back  
 136 to. It will be online, available on the Hearing web page. You can have a look at  
 137 that, but that is how the officer has attempted to provide for this staging or  
 138 progressive updating of actions to move towards waiora.  
 139  
 140 van Berkel: Okay. The key thing is that we actually see a description of what the actions will  
 141 be in the future, rather than a summary of what has taken place in the past.  
 142  
 143 Item 3 – paragraphs 131 and 137 refer to my submission six, which is about  
 144 primary contact sites. I am happy with not having a separate condition for  
 145 primary contact and just incorporating it into primary contact site.  
 146  
 147 Just a matter of interest: there is no mention of the danger to dogs and I just want  
 148 to reiterate that something like a dozen dogs have died on Te Awa Kairangi from  
 149 consuming toxic algae. I understand the reason – the natural resources plan is all  
 150 about humans, okay, that's fine.  
 151  
 152 I want to add one or maybe two primary contact sites but I will deal with that  
 153 later.  
 154  
 155 Any questions on that?  
 156  
 157 Chair: No, that's clear thank you.  
 158  
 159 van Berkel: The second point also relating to paragraphs 131 and 137 is just to make maps  
 160 searchable. So when you are reading in the text a reference to Map 85, you can  
 161 just simply do a find on Map 85 in the pdf and it will find it. It's a very minor  
 162 matter and good just to get that tidied up. Maybe it has now been tidied up.  
 163  
 164 Swimmable days: I requested that there be a parameter, a measure of swimmable  
 165 days or non-swimmable days and the assessment in the s42A report was there is  
 166 no scientific reason for having that, and indeed that is the exact reason why it  
 167 should be there. It is not for scientific reasons: it is for the public to be able to  
 168 know is the state of the river, from the point of view of swimming and contact,  
 169 picnicking and playing, is it improving or not.  
 170 [00.30.10]  
 171 I appeal to you to make that happen.  
 172  
 173 Chair: I don't know if anyone on the Council team who is with us knows the answer to  
 174 this, but the LAWA website, which I use to check if it's okay to go swimming

175 in Island Bay Harbour, does that give information on rivers and other  
 176 waterbodies? Does anyone know? If that gives that indication of swimmability.  
 177

178 O'Callahan: Have we got Dr Greer on the line? He's probably best placed to answer this.  
 179

180 Chair: If not, what we could do is we could ask the question in the minute that will  
 181 come following the hearing concluding and then we can get the response that  
 182 way to you Mr van Berkel.  
 183

184 van Berkel: Thank you.  
 185

186 Wratt: Just a question on that. If that information is in LAWA, and I think it is but it  
 187 would be good to get that confirmed with Dr Greer, if it is does that respond to  
 188 your concern or not? Because that's really just a record on any particular day.  
 189 I'm not sure how much it covers any trends. I guess we can look at that as well.  
 190

191 My question is, would having that in the LAWA website meet your concerns?  
 192

193 van Berkel: Yes if it records on a comparable basis from year to year at a particular site,  
 194 particular primary contact site; either records swimmable days or records non-  
 195 swimmable days. It might need to be not amended but taken into account the  
 196 days immediately after afresh. They are non-swimmable but it's not because of  
 197 toxic algae or E.coli – well, it is E.coli but it's not something that we can do  
 198 anything about, it's a natural occurrence.  
 199

200 If the definition was suitable then yes I would be happy with that.  
 201

202 O'Callahan: I can confirm that Dr Greer is online but he can't unmute.  
 203

204 Ruddock: Whilst I'm sorting that out, Mr van Berkel we have put up your Power Point on  
 205 our end. If you could just advise which slide you would like us to have presented  
 206 and then verbally confirm to jump back and forth when you need.  
 207

208 van Berkel: Can you move it to Slide 6 please and I will remove mine.  
 209

210 O'Callahan: I can see Dr Greer there, so I suspect he can answer the question about the  
 211 LAWA information.  
 212

213 Greer: LAWA for Wellington reports every day on whether it's suitable for swimming  
 214 based on monitoring data infilled with modelling data. So for every day at the  
 215 contact recreation site there is a model estimate of whether the site is suitable  
 216 for swimming, which I believe is based on weather and flow, and the calibrator  
 217 to measure data.  
 218

219 I can't confirm this, but I assume that when measure data is collected that it is  
 220 directly fed into LAWA, because that would make sense, but I would have to  
 221 confirm that.  
 222

223 O'Callahan: Does it include freshwater?  
 224

225 Greer: Yes. It includes all freshwater sites.  
 226

227 van Berkel: The fundamental problem with that is about signs of bacteria – that’s not taken  
 228 into account?  
 229

230 McGarry: Dr Greer could you maybe explain to Mr van Berkel what you explained to us a  
 231 couple of days ago in terms of that because it's only measured over the summer  
 232 that effectively if swimmable days went in there that it would be the same for  
 233 all the sites. Could you explain that to him please Dr Greer?  
 234

235 Greer: Yes. Mr van Berkel, the national bottom line for our primary contact sites is  
 236 swimmable.  
 237

238 [00.35.05] The numeric threshold for E.coli is the swimmable threshold above which there  
 239 is a requirement for signposting. While health risk reduces as you move from  
 240 the (c) to the (a) state, the number of swimmable days don’t actually change  
 241 between states because they are all based on the same assessment statistic and  
 242 they’re all safe for swimming. So basically for 95 percent of the time they are  
 243 all safe for swimming, just the risk of campylobacter infection is reduced  
 244 between the (c) to the (a) state, but the number of days swimmable between  
 245 those states do not change.  
 246

247 van Berkel: I hear that. I think I understand that. However, my point is about the  
 248 cyanobacteria. There are signs up at the river that say this river has got toxic  
 249 algae, it is unsafe to swim in, don’t swim; and yet LAWA ignores that.  
 250

251 So, swimmable days is not a measure of swimmable days on the LAWA website.  
 252

253 Greer: There is another website which is where Greater Wellington reports direct and I  
 254 can provide confirmation or non-confirmation to the Panel and Mr van Berkel  
 255 on whether that includes cyanobacteria on Tuesday if you like.  
 256

257 van Berkel: Thank you. I go back to my submission which is the additional swimmable days  
 258 parameter in Table 8.3 – that’s my request. Nothing I have heard today has  
 259 changed that request. It is something that is understood by the public, and indeed  
 260 that’s why it's used on LAWA - it's just that it's inaccurate.  
 261

262 Moving onto the next slide please.  
 263

264 Paragraph 281 this is now specifically referring to adding benthic cyanobacteria  
 265 or cyanobacteria blooms to the table of water quality measures. Just to reiterate  
 266 the point: if something is measured then we know of its existence and at present  
 267 there is no reporting of measures of cyanobacteria.  
 268

269 So we have this problem and it is not just in Te Awa Kairangi, it is in many  
 270 rivers throughout New Zealand – the presence of cyanobacteria. For some  
 271 reason there is silence on it. It needs to be measured. It needs to be reported.  
 272

273 I gave a little story there at the end of what I wrote which is being at one of the  
 274 swimming holes and there was a woman with her children. She was standing in  
 275 the water and she was just mulling over, “Do I let my children go into that water  
 276 or not?” and finally decided not to. That was a sad thing to witness. That was  
 277 because of the cyanobacteria. If there’s cyanobacteria there, yep good that she  
 278 had read the notice, but we need to measure it and we need to report on it.

279  
280 Next slide.  
281

282 Chair: Can we just clarify the Council's position on cyanobacteria. I know it's included  
283 in Objective WH.O8 as a primary contact narrative measure. That objective says  
284 that there will be a low risk of health effects from exposure to benthic  
285 cyanobacteria. But, Mr van Berkel are you saying that parameter should be  
286 specifically included in Table 8.3?  
287

288 Dr Greer I know we have covered this, but do you mind recapping I guess the  
289 scientific position on cyanobacteria and how it relates to 8.3?  
290

291 Greer: First off I can confirm that the LAWA suitability for swimming metric  
292 incorporates benthic cyanobacteria as well as E.coli. There are two factors into  
293 that. So when the river is unsuitable for swimming due to cyanobacteria and  
294 Greater Wellington has sign posted that is reflected on LAWA.  
295 [00.40.05]  
296 The reason why we haven't set a numeric attribute state for cyanobacteria is that  
297 the existing guidance, which goes back to 2009, is still interim. There's a high  
298 degree of uncertainty around the toxic affects at the different levels, and the  
299 process for setting NPS-FM attribute states for benthic cyanobacteria has been  
300 long and complicated. I understand I haven't seen it on any of the Panels for  
301 that, but an actual number still hasn't been derived yet because of the difficulty  
302 of doing so.  
303

304 Importantly cyanobacteria isn't like other periphytons where it simply responds  
305 nutrient concentrations and light. It's not well understood. The mechanism by  
306 which a specific target attribute state would be achieved are uncertain. It's not  
307 something that we can just implement actions to action planning and saying,  
308 "Through these actions we're going to achieve a benthic cyanobacteria attribute  
309 state." We still just don't know what drives it and at what levels it's toxic.  
310

311 van Berkel: Well some parts of rivers have benthic cyanobacteria and other parts of the river  
312 do not. There is a pattern to it. So that pattern suggest to me that there are causes  
313 for it. My understanding is those causes are warmish water, low flows, sediment  
314 and nutrients. Those are things that we can do something about – not the warm  
315 water but the other contributors to cyanobacteria.  
316

317 Chair: Sorry Mr van Berkel, just a further question on this. Dr Greer, how will the  
318 Regional Council know if objective WH.O8 is met so that there is a low risk of  
319 health effects from exposure to benthic cyanobacteria? If the other TAS are met  
320 that will be a consequence?  
321

322 Greer: The Council does monitor cyanobacteria at all contact recreation monitoring  
323 sites and does not need a plan driver to do that. As stated in my rebuttal evidence  
324 there's requirements under the Health Act to do that monitoring.  
325

326 They have the monitoring data to compare against the interim public health  
327 thresholds which is how they will define on LAWA whether a site is suitable for  
328 swimming or not. They can still use the existing data to assess how it contributes  
329 to suitability for swimming at each contact recreation site with the interim  
330 guidelines.



331  
 332 The reason to not include it in a specific target attribute state in the plan is  
 333 generally the actual actions to achieve it are still uncertain and also to allow for  
 334 uptake of new targets as they become available into the monitoring framework.  
 335  
 336 My understanding is that this work is still ongoing and to understanding the  
 337 courses and risks from benthic cyanobacteria.  
 338  
 339 Chair: Thanks very much. Sorry Mr van Berkel we'll let you continue.  
 340  
 341 van Berkel: Thank you. Moving on and my time is short.  
 342  
 343 Paragraph 380 is again talking about primary contact sites. There is a major  
 344 primary contact site which is the Whakatikei River at the Hutt confluence, the  
 345 red dot on the map, and that should be added to the tables.  
 346  
 347 My understanding is that Council wants to only add primary contact sites that  
 348 they do water quality measurements on. My point is that a primary contact site  
 349 is a primary contact site, irrespective of whether there is measurement taking  
 350 place. So I'm happy that at this particular site there is no measurement because  
 351 it may be 500 metres downstream there is a site at Poet's Park that is measured,  
 352 but nevertheless this site should be recorded as a primary contact site because  
 353 there are other things that can happen to damage a primary contact site, such as  
 354 river works. We have bulldozers that go up and down this river reforming it, so  
 355 it should be recognised that this a primary contact site and any bulldozing actions  
 356 should be done with great care.  
 357 [00.45.18]  
 358 I would like to see this site added to the list of primary contact sites.  
 359  
 360 I note that [45.29] Stream was suggested as a site. I think that could be added  
 361 also.  
 362  
 363 Next slide, unless there's any questions on that?  
 364  
 365 Chair: No thank you.  
 366  
 367 van Berkel: I didn't previously submit on this, I just wanted to make a point about the  
 368 sediment and that has come into the Pāuatahanui Inlet in the Onepoto arm there  
 369 is sediment that has come in from natural means and sediment from  
 370 development.  
 371  
 372 I just wanted to make the point that a huge amount of sediment has been  
 373 deposited through human action and that will take a long time to work its way  
 374 out into the sea, and to allow that to happen we need to reduce the amount of  
 375 development caused sediment.  
 376  
 377 [End of Part 1 recording - 46.38]  
 378  
 379 [Hearing Stream 2 – Day 5 – Part 2]  
 380



- 381 van Berkel: ... time to work its way out into the sea and to allow that to happen we need to  
 382 reduce the amount of development caused sediment to a level that is greater  
 383 than... I'm going around in circles a little bit.  
 384  
 385 We need to be reducing sediment by far more than just what is being emitted  
 386 from development. I just wanted to add that point.  
 387  
 388 Next slide.  
 389  
 390 Paragraph 290 is talking about who is going to carry out the work and it's not  
 391 clear to me where the responsibility lies and I feel that there needs to be a really  
 392 clear (I don't know whether it's a method or a policy) statement of who has  
 393 responsibility. Is it Greater Wellington or it Wellington Water, or is it the TAs?  
 394  
 395 That will become more apparent if this timeline that I spoke about earlier, which  
 396 is perhaps covered in Method M.36 (I haven't seen it) that timeline will explain  
 397 not just what the actions are but who will carry out those actions.  
 398  
 399 Next slide.  
 400  
 401 This is my summation of what needs to be done on making change. We've now  
 402 got the changes happening this year on 'Local Water Done Well' and the ability  
 403 to get the loans is going to ease; so I ask get the loans, do the work and get it  
 404 done by 2040.  
 405  
 406 Thank you. I think that's it.  
 407  
 408 Chair: Thanks very much Mr van Berkel. I have also actually been wondering that point  
 409 you make about sediment. We've had evidence from Council experts about the  
 410 sediment levels for Te Awarua-o-Porirua factoring in natural sedimentation rate.  
 411 I have wondered about whether there was need to reduce below those natural  
 412 levels, which is a point that you make. That is something that we will ask  
 413 Council to respond to in the minute that we issue. I don't think we've got the  
 414 Coastal experts in the room at the moment to address that.  
 415  
 416 Does anyone have any questions?  
 417  
 418 Kake: Kia ora Mr van Berkel. Just the last point you made with respect to a description  
 419 around the monitoring. There has been some discussion this week around that. I  
 420 just want to note and Ms O'Callahan can respond if she likes as well, but under  
 421 Objective WH.O9 at clause (e) there is some reference with respect to who might  
 422 undertake some of that monitoring with regards to Table 8.4.  
 423  
 424 I suppose the question is, is that something that perhaps should be provided  
 425 under another clause somewhere with respect to one of the other tables you  
 426 mentioned, I think Table 8.3?  
 427  
 428 Van Berkel: I think the monitoring under Table 8.3 and 8.4 are carried out by Greater  
 429 Wellington, but mana whenua are getting more involved in this space and I am  
 430 very happy with that. Also the citizen groups are also taking an interest. It's  
 431 something that ebbs and flows and goes up and down the interest in it from the

432 public. It's probably better that it sits with an authority that has the budget to do  
 433 it.  
 434  
 435 Is that answering your question?  
 436  
 437 Kake: Thank you, yes.  
 438  
 439 Wratt: Your comment or your last point about who is responsible, I certainly don't  
 440 disagree with you there, but I think it's different for Method 36, which I haven't  
 441 actually got in front of me, but there is Method 36A in the rebuttal report which  
 442 talks about a freshwater action plan; that Wellington Regional Council  
 443 implement the programme to define and implement methods to reach waiora by  
 444 2100 within a freshwater action plan or plans for Whaitua Te Whanganui-a-Tara  
 445 and Te Awarua of Porirua. It talks about developing partnership with mana  
 446 whenua. Published by 2036. Include methods to progressively deliver, monitor  
 447 and review progress. Identify responsibilities for implementing specific aspects  
 448 of the plans.  
 449 [00.05.35]  
 450 Does that sound like that addresses your concerns?  
 451  
 452 Van Berkel: If it's focussing on the monitoring and progress up-to-date then no, but if it is  
 453 looking all the way through to 2100 and having for the further away ones a broad  
 454 description of who is going to do it and what's to be done, then yes I would be  
 455 happy with that.  
 456  
 457 It really is do we have a reasonably clear timeline say covering every five year  
 458 period, or at worst every ten year period right through to 2100. We know that in  
 459 the 2070's Te Awa Kairangi will be tidied up and in the 2080's it will be the  
 460 Kaiwharawhara Stream or whatever. Whether it's done on a catchment basis or  
 461 whether it's done on the basis of this catchment half of it will be done in this  
 462 year, and that other catchment half will be done in this decade.  
 463  
 464 Wratt: Thank you. My read is that it does, but I guess when we come to it that method  
 465 is not a consideration in this hearing, but it will come up in a later hearing. You  
 466 might want to have a look at that and see if that does deliver what you're looking  
 467 for.  
 468  
 469 Chair: Thank you Mr van Berkel, we are overtime so we will have to leave it there  
 470 unfortunately. We really value having your experience brought from the  
 471 Whaitua Committee into this plan change process. We hope that you will come  
 472 back and present in future hearing streams. Thank you very much again for your  
 473 submissions.  
 474  
 475 Van Berkel: It's been a pleasure talking with you. Yes I intend to see this process through.  
 476 Thank you.  
 477  
 478 Chair: Thank you very much.  
 479  
 480 **Wairarapa Federated Farmers**  
 481  
 482 Wairarapa Federated Farmers, sorry we're a few minutes over. Welcome Mr  
 483 Matich.

484  
 485 Matich: I won't take much of your time.  
 486  
 487 Chair: Welcome. I think you were here before when we did introductions. I think  
 488 you've also presented to us before. If you're happy with who we are.  
 489  
 490 Matich: It might have been on the RPS.  
 491  
 492 Chair: We'll do a quick round just so you know who is here. Also we have  
 493 Commissioner McGarry online.  
 494  
 495 Ko Dhilum Nightingale. I'm chairing both panels.  
 496  
 497 McGarry: Kia ora. I'm Sharon McGarry. I'm an Independent Commissioner based in  
 498 Ōtautahi Christchurch.  
 499  
 500 Kake: Kia ora. I'm Commissioner Kake, from Te Tai Tokerau, Northland.  
 501  
 502 Wratt: Mōrena. Gillian Watt. Independent Commissioner based in Whakatu, Nelson. I  
 503 was on the RPS panel.  
 504  
 505 Stevenson: Ngā mihi nui kia koe. I'm Sarah Stevenson, an Independent Planner and  
 506 Commissioner based here in Wellington.  
 507  
 508 Chair: We have read your evidence and do note there are quite a few places where you  
 509 do agree with the reporting officer's provisions. These have just been updated  
 510 this morning. I appreciate you won't have had a chance to see them, but there  
 511 may be some further areas of agreement, but we'll let you present.  
 512  
 513 Matich: I was just refreshing my memory of Ms O'Callahan's recommendation in the  
 514 rebuttal this morning. I think there were two points that I'm not quite sure that I  
 515 agree with and I'm not quite sure where we are at with the updated version. I'm  
 516 sorry, I haven't had time to keep up with that.  
 517 [00.10.05]  
 518 The pointed about the suggested 20 metres riparian vegetation margin, I'm not  
 519 certain that that would be practicable from the point of view of the fact that it  
 520 seems a little bit arbitrary. To me nominating that measurement width I note that  
 521 the national stock exclusion regulations say 3 metres for a whole range of stock,  
 522 from the bed of a river or stream. It does allow for a Regional Council to make  
 523 a more stringent rule, but I would think that you would have to assess the costs  
 524 and benefits of increasing the distance from 3 metres in the regulation to 20  
 525 metres.  
 526  
 527 The other thing, the question I have is, would the type of vegetation included  
 528 pasture; because if it includes pasture, I don't think farmers would have a  
 529 problem with vegetation from that point of view. If it's not including pasture in  
 530 it's some other kind of vegetation, then what is that? How dense is it? How high  
 531 is it? What sort of specimens are they? Does that need to be worked out in terms  
 532 of the costs and benefits of increasing the effective riparian margin by putting  
 533 planted vegetation in it.  
 534

535 Also, I'm not a lawyer but I am not certain about whether any submitters actually  
 536 requested the 20 metres in terms of scope for putting 20 metres in. Federated  
 537 Farmers did request that the riparian vegetation requirement be deleted. Whether  
 538 that is scope for putting in 20 metres or not I'll leave to the lawyers, but that's a  
 539 question that I have.  
 540  
 541 The other point is the 2040 date. Wairarapa Federated Farmers and myself have  
 542 doubts about whether some of those aims will be achievable by 2040. There is  
 543 still a lot of water to go under the bridge in terms of how farm plans will be  
 544 implemented and the mechanism for that in the RMA and changes to the  
 545 Regulations.  
 546  
 547 I realise that's not a point that the hearing panel can take into account at this  
 548 stage because those things haven't been finalised, and we're dealing with what's  
 549 currently in legislation, but that gives me cause to ponder about practically  
 550 whether that timeframe is achievable.  
 551 Those are the only things that I have to comment on.  
 552  
 553 McGarry: I just want to ask the question, the objective that I can see the 20 metres has gone  
 554 into is WH.05 which only applies to the lakes and not to streams? I'm just  
 555 wondering if I've got that wrong or if it's somewhere else. I can't see it anywhere  
 556 else in the provisions.  
 557  
 558 Wratt: I was just looking for that as well. That's the only place I can find it. It's (d) of  
 559 Objective WH.05.  
 560  
 561 McGarry: I guess my question is whether that still gives you concern. We did ask Dr Greer  
 562 some questions about this, and he was of the view that much of the surround of  
 563 those lakes already was vegetated and that the 20 metres in most cases was  
 564 already indigenous vegetation, because it only applied to those two lakes.  
 565  
 566 Does that change your view sir?  
 567  
 568 Matich: I accept that. That's obviously the existing situation with those lakes.  
 569 [00.15.00]  
 570 Chair: I think it's also Council or Regional Parks. It's Council responsibility for the  
 571 planting.  
 572  
 573 Matich: That makes it simple doesn't it.  
 574  
 575 Kake: I don't have a question at this stage, but just to acknowledge that there are more  
 576 discussions coming through future hearing streams with respect to [15.48].  
 577  
 578 Matich: Indeed. I was to have a member of the Wairarapa Federated Farmers Provincial  
 579 Executive accompany me this morning but he's come down with a bad case of  
 580 the cold, so I came anyway.  
 581  
 582 Wratt: Perhaps just worth adding as well around that riparian vegetation. There is the  
 583 addition of a clause along the lines of "other than where physical constraints  
 584 may prevent this". It's certainly added in WH.05 in relation to the lakes. I think  
 585 it's been added in some other [overtalk00.16.34] riparian situations as well.  
 586

587 Matich: That would be workable.  
588

589 Chair: You make the point very well Mr Matich about the importance of having  
590 accurate baseline states. I think Ms O'Callahan also agrees and has undertaken  
591 to do some work and provide that to us in a table form – I think it's Appendix 3,  
592 which brings in updated information on the baseline states where the TAS tables  
593 currently say there's insufficient data. So that will also be available and online.  
594

595 Matich: That will be helpful. Thank you.  
596

597 Kake: Just one quick question for my understanding. Wairarapa Federated Farmers last  
598 time I think in Hearing Stream 1 we heard from Wellington Federated Farmers.  
599 Do you know how many federated farmers there are in Wairarapa that are  
600 captured by the two Whaitua?  
601

602 Matich: We do have members in the Wellington and Porirua Whaituas. There are not  
603 many members because there's not many farms left. The concern from  
604 Wairarapa Federated Farmers, as I understand, was they were thinking about  
605 what might come when it's their turn. That's why they have submitted the way  
606 they have.  
607

608 In Federated Farmers provincial system, the Wellington and Porirua areas are  
609 covered by our Wairarapa province - which I know doesn't line up neatly with  
610 the local government system. It's about a hundred years out of date.  
611

612 [00.20.10] Stevenson: No questions from me. The matters you've expressed in this hearing in particular  
613 are very clear. I would just tautoko Commissioner Kake's comment that we will  
614 see you in future hearing streams. It looks like the next one, rural land use and  
615 perhaps freshwater action plans in the hearing stream you've covered off in.  
616

617 Matich: Yes, thanks. I will probably be looking at evidence. I may not be appearing. I've  
618 got a knee operation on the 30<sup>th</sup> of April which is knee replacement surgery, so  
619 it depends how I go with that as to whether I can get along.  
620

621 Chair: Mr Matich, I think that was all that we had. All the best. Obviously, there's the  
622 ability to present online as well. Thank you very much.  
623

624 Matich: Thank you.  
625

626 **Mr Anker**  
627

628 Chair: If Mr Anker is available, otherwise happy to [inaudible 00.21.42].  
629

630 Welcome Mr Anker. We are ready for your presentation if you are ready.  
631

632 Anker: Thank you very much.  
633

634 Chair: Catch your breath and take a moment to get your papers.  
635

636 Anker: I made the mistake of following John's directions.  
637

638 Chair: We'll just take a couple of minutes. Thank you.

639  
640 [00.25.00]  
641  
642 Chair: We'll resume now. Good morning, Mr Anker. Thank you very much for coming  
643 along today. We have read your submission and also the speaking notes that you  
644 have provided. Thank you very much for that. We will let you present.  
645  
646 Would you like questions as we have them throughout your presentation or shall  
647 we keep them until the end?  
648 Anker: Entirely up to you. I'm quite flexible. I managed to get lost in exactly the same  
649 way as I did the first time we presented before when I brought Sarah, Phil and a  
650 couple of others. History repeats itself.  
651  
652 Chair: Mr Anker, the technical information for this hearing stream in particular, we  
653 have also found quite hard at times to get our heads around; so we do have  
654 empathy for that.  
655  
656 There is a friend of submitter who is available, and I just do encourage you to  
657 use that. There's an email address isn't there Mr Ruddock.  
658  
659 Ruddock: [Inaudible 27.35]  
660  
661 Chair: Anyway, we empathise. The science here there's a lot of it.  
662  
663 Anker: I do appreciate that. I wouldn't have even read Mr Blyth's evidence concerning  
664 water and the way in which sediment is measured. I wouldn't have even read  
665 that if it hadn't have been late coming in and ended up on my email as a  
666 standalone item. It did confuse me, the way that it was drafted confused me.  
667  
668 I think I'm a relatively intelligent person, but I got totally lost. When it comes  
669 around to various equations and squares and goodness knows what else I really  
670 got lost.  
671  
672 My original submission focused on whether the structure of monitoring water  
673 quality was fit for purpose. It was the opinion of our focus group that a single  
674 monitoring station situated at the confluence of the Mangaroa River and the Hutt  
675 River was not sufficient.  
676  
677 A similar question was raised in respect to the Akatarawa Valley where there's  
678 again a single monitoring station at the Hutt River, at Birchville. Both of those  
679 rivers have catchments that are 20-odd kilometres long, so what happens in the  
680 whole of the branch of that river cannot really be summed up with just one  
681 monitoring point at the end.  
682  
683 [00.30.00] I understand Mary O'Callahan's response to me in that she considered that one  
684 monitoring point was sufficient, but the thing that crossed my mind sufficient  
685 for what?  
686  
687 If the data that's collected is just intended to say whether water is of a particular  
688 quality at that singular point then it will be sufficient. But, if that is then used to  
689 suggest that something has happened within the catchment, it becomes  
690 insufficient because it cannot possibly identify the source of that change and



that's the concern that our group has got, in that the whole of the catchment becomes tarred with the same brush.

We believe that there is a strong probability that evidence that comes forward, data that comes forward through that catchment point will be used as a justification as to why properties four hectares and over need to be registered as farms. That would require those properties engage a series of measurements and monitoring as far as the quality of the water is at their boundaries. There are a lot of properties across the Mangaroa Catchment area that fall into that scope and I think that will be covered a lot more in Hearing Stream 3.

It was clear to us that the singular point can indicate that a change has taken place, but it can't identify where within the catchment that change occurred. The onus is then placed on the landowners to prove a negative. "It wasn't me. I didn't do it."

We're also concerned that in respect of nutrients the landowners are being required to solve a problem that doesn't exist.

When we originally looked at the information that came out prior to Christmas 2024, it was clear from that information that GW provided that nutrient levels in the Wellington region were about as low it's possible to get. There was also evidence put forward by them that a singular area in gorse would produce as much nitrogen as a dairy farm.

My colleague behind me, John, on his farm uses no fertiliser. He uses no fertiliser because economically it doesn't make any sense. It would cost him more to put on the fertiliser than he would get back from the produce of the farm. Therefore, he uses no fertiliser.

I think you will find over a period of time that the same things applies to every landholder in the Managaroa Valley.

A lot of the land in the Mangaroa Valley is now owned by the Monaghan's and they are strong believers in regenerative farming. They are organic. They don't put on fertiliser and they don't put on sprays. They rely on traditional farming methods to keep the fertility of their soil up.

The thing that concerned us was that Mary's response about the monitoring points indicated that there was a different use for the data that was being collected. Our question then is, once the data has been collected then what? What is the next step? What is the next logical progression that we go to after the data has been collected? We know the data can do lots of things, but it can't identify where within the catchment any problems originated.

[00.35.00]

We're also concerned that the majority of the land in the Mangaroa Valley and indeed in Upper Hutt as a whole is either owned by the Wellington Regional Council or DoC. The amount that's in private ownership is relatively quite small. We feel that the onus is being placed on the private landowner to do something, but that same onus is not placed on Greater Wellington or DoC.



I have said to you in my notes that the number of feral animals in the valley is just totally out of control. My granddaughter went out the other evening as she wanted to check on her pony. She walked out and in the paddock where her pony was there was one stag and six hinds. They don't belong to us but they do eat our grass and they do foul our waterways and they're not controlled at all. They come from Greater Wellington land. They come from DoC land.

We understand that some rules are always necessary for the common good. We understand that, but we are of the firm opinion that those rules should be equally applied to everybody in the catchment and not just private landowners.

When we come to the next hearing stream, we'll end up having to deal with a raft of situations where rules have been put in place in a rather haphazard fashion, because they seemed like a good idea at the time. We will be taking issue with that when it comes to Hearing Stream 3.

Thank you.

Chair: Kia ora. Thank you very much. Mr Anker, I'm so sorry, we didn't do introductions, and I apologise for that. Perhaps before we ask a question, we'll also just introduce ourselves. I'm sorry I got ahead. Commissioner Nightingale and I'm chairing both hearing panels. Thank you very much again for your very clear presentation.

I appreciate the modelling evidence from Mr Blyth is very complicated. Dr Greer and Ms O'Callahan have in their evidence and their rebuttal they have taken the conclusions from the modelling and they have then I think presented it, in what I find, in an easier to understand way.

I don't know if you have read Ms O'Callahan's and Dr Greer's rebuttal evidence but they do I think respond to this point about the one monitoring point, hopefully in a way that is easier to understand. We'll see from your presentation if there are further points that they wish to address in their right of replies.

I just appreciate the modelling is very complicated.

I will see if anyone else has any questions.

Anker: Just one correction to Bob. I would love to use fertiliser. It's just the cost at the moment is extreme and all costs that come would be my question... just correcting his.

Chair: We're at the outcome stage with this hearing stream and then of course the implications and how that applies will be Hearing Stream 3 and Hearing Stream 4. I think because we are still fully getting our heads around those provisions, it's not that we don't have questions. I think we need to wait until that point to engage with you fully on those issues.

[00.40.05]

Also, predator control, I don't know yet, but there may be something that comes out of the freshwater action planning requirements and obligations on Council regarding that, but we'll need to just wait and see when we get to that point.

- 794 Anker: Thank you.  
795
- 796 Stevenson: Thank you, Mr Anker. I appreciate you taking the time to come in this morning.  
797 Your points have been very clearly made.  
798
- 799 It's my understanding that Council's reporting of this will be updating those  
800 target attribute state tables, to lovely large number tables. They will be on  
801 Council's website, or in fact are now and may have been updated over the last  
802 few days as more data and information became available and then other changes  
803 have been made to the objectives.  
804
- 805 Anker: Thank you. I'm sure you'll appreciate that for a lay person to try and actually  
806 plough through the volumes of information that's coming out, just to simply read  
807 it takes a lot of time. If you're a professional and it's your job then you can focus  
808 time at it. If you're like me and you've got other demands that have been placed  
809 on your time with family and looking after your own property, you reach the  
810 point where you just simply run out of time. I would love to be able to go through  
811 and read thoroughly everything that's been put in front of us, but quite honestly,  
812 I just can't do it. It's not physical possible for a lay person to be able to go  
813 through and do that, so I have to cherry-pick. As a result of that I am the first  
814 one to admit that I have probably missed things, and I miss things that important.  
815 That's why we rely on this sort of forum to highlight those areas that really, we  
816 should have paid a bit more attention to.  
817
- 818 Thank you.  
819
- 820 Chair: Maybe then it might also be useful to note that since the notified version of the  
821 provisions, the Council's technical evidence now recognises that for Mangaroa  
822 there is naturally occurring brown water that's coming I think from that  
823 catchment and so the sediment that is factored into a reduction in the sediment  
824 TAS.  
825
- 826 That's just a change that I thought I would note in case you hadn't picked that  
827 up from the technical evidence, that they acknowledge the levels of the notified  
828 version didn't account of the naturally occurring brown water that's present.  
829
- 830 Anker: The waterway that runs through John's property is called Black Creek for a very  
831 good reason. It's basically rainwater that has drained through peat soil and has  
832 picked up the tannings from the peat soil. Black Creek is a most appropriate  
833 name for it.  
834
- 835 Chair: I can't actually put my finger on the maps that show the monitoring sites. Does  
836 anyone know the number of that? I just want to see where your community is in  
837 relation to the monitoring site. It's not Map 79.  
838 [00.45.00]
- 839 Ms O'Callahan do you recall the Map reference number for the monitoring sites?  
840
- 841 O'Callahan: I am just finding it. Its Map 79 and 78.  
842
- 843 Chair: Thanks very much. So, the yellow dot target attribute states sites, those are the  
844 monitoring points.  
845

846 Mr Anker, I don't know if you've seen this map, but it's Maps 78 and 79. I'm  
 847 happy to actually come and pass a copy to you, but I just wanted to see and make  
 848 sure I understand where your community is in relation to this. It's the yellow  
 849 dots are the monitoring sites.

850

851 Anker: As Les has just pointed out, there are Black Creeks everywhere. There's a Black  
 852 Creek in Wainuomata which is a fair distance away from us and not within our  
 853 watershed.

854

855 The Te Marua monitoring point would be somewhere around 5km [47.32]  
 856 location.

857

858 Wratt: My understanding was that your community that you're representing are all  
 859 upstream of that Mangaroa.

860

861 Anker: Correct. Absolutely right. The Mangaroa River runs for 20-odd kms to its source  
 862 and the vast majority of properties are at least 4 or 5kms away from that  
 863 monitoring point.

864

865 There's a lot of new development taking place at Te Marua. There is I think  
 866 about 110 new houses going in at the end there, but they're all within less than  
 867 one to two kms from the monitoring point.

868

869 The area of peat that generates the discolouration the water would be at least 5  
 870 to 6kms upstream from that point. There are a lot of tributaries coming down to  
 871 the mainstream of the Mangaroa River.

872

873 Wratt: From what I have been hearing the last few days and reading, and I certainly  
 874 appreciate your comment about the difficulty of getting your head around all the  
 875 information that's there, it's immense, and it's a challenge in terms of having to  
 876 have science base for setting these targets.

877

878 What I'm hearing from the Council is that the sites that on that map are the state  
 879 of environment reporting sites. Your concern is what then or how then is that  
 880 information that comes to that monitoring site used – which to me, and I'm not  
 881 trying to avoid the question, but it really comes to the methods and what the  
 882 Council does to then follow up, which really is (and you probably wouldn't have  
 883 heard because you were on your way here) but there's a method that's been  
 884 added to the plan change around freshwater planning, identifying  
 885 responsibilities.

886 [00.50.05]

887 So, I encourage you and again I appreciate the time it takes. I encourage you to  
 888 look at the more detail that comes into other methods and rules in the document,  
 889 to see what happens next in a way.

890

891 Anker: That really is a concern to community, in that the question "What then?" has not  
 892 been discussed with the community. That becomes very important.

893

894 My understanding, and I'm sure you'll correct me if I've got it wrong, that the  
 895 object of the exercise is to get buy-in from the community, because without buy-  
 896 in from the community officers in the Regional Council can achieve nothing.

- 897 You rely on the community to be part of the solution, as opposed to being part  
898 of the problem.
- 899
- 900 Wratt: Absolutely.
- 901
- 902 Chair: We are at time. It's been very helpfully pointed out that where the residents live  
903 is the Upper Hutt rural communities, is actually sort of south of the Mangaroa  
904 Te Marua monitoring point.
- 905
- 906 Anker: Yes, correct. The river is a result of geological movements actually does a  
907 reverse flow; it flows from the south to the north and then back south again down  
908 to Silverstream Bridge. It forms a sort of U-shape. That's as a result of  
909 earthquakes uplifting the valley and changing the direction of flow over tens of  
910 thousands of years.
- 911 [Attendee]: The problem with the community was the compliance costs of everything. That  
912 monitoring station you had grades. It was clear we were hoping it would stop  
913 any compliance costs for the rest of the valley. We all want clean water. If there's  
914 monitoring ideas through the valley if that monitoring station was absolutely  
915 tickety-boo, which it appears to be, we don't want to have to be doing things  
916 that are non-sensible further up the valley. That's the simplistic view of it.
- 917
- 918 Chair: I would be interested actually in the Council's response on this, but I feel like  
919 it's probably something that we need to ask for in their reply, rather than I think  
920 maybe 'on the hoof'. We don't have the scientists in the room here at the  
921 moment. And, because as Commissioner Kake says, it is also very relevant for  
922 Hearing Stream 3.
- 923
- 924 We understand the point that you're making and I have some questions. Is it the  
925 Te Marua monitoring point? Is it one that's further down the stream of the  
926 catchment? That might pick up the land use activities that are going on in your  
927 community. I think will get some more information from the scientists and that  
928 will come through in their reply, which will follow this hearing.
- 929
- 930 Thanks very much again for coming along today. Thank you.
- 931
- 932 **Upper Hutt City Council**
- 933
- 934 We have Upper Hutt City Council presenting. Are they available online?
- 935
- 936 Chair: Kia ora Ms Nes. Welcome. We'll do some quick introductions.
- 937 [00.55.00]
- 938 Ko Dhilum Nightingale tōku ingoa. I am a Barrister chairing the freshwater  
939 panel and the Part 1 Schedule 1 Panel. I will pass over to our Deputy Chair.
- 940
- 941 McGarry: Mōrena. My name is Sharon McGarry. I'm an Independent Commissioner based  
942 in Ōtautahi Christchurch.
- 943
- 944 Kake: Mōrena. I'm Puawai Kake, a Planner and Independent Commissioner based out  
945 of Northland, Te Tai Tokerau.
- 946
- 947 Wratt: Mōrena. Gillian Wratt. Independent Commissioner based in Whakatu Nelson.
- 948

949 Stevenson: Ngā mihi nui kia koe. Ko Sarah Stevenson tōku ingoa. I am an Independent  
 950 Planner and Commissioner based in here in Wellington.

951

952 Nes: Kia ora Commissioners and Madam Chair. Ko Nes [Māori 55.57] ko Gabriella  
 953 tōku ingoa. I think I will just jump right in. I will just need to reconfirm my  
 954 stance in relation to the Code of Conduct. I'm sure you've all read my evidence.  
 955 I'm really happy to take that as read.  
 956

957 I have read the rebuttal evidence of Ms O'Callahan, Dr Greer and Mr Walker  
 958 and I have been listening into the proceedings over the last couple of days, or all  
 959 week I suppose. I don't propose to go into my evidence in any detail. I have  
 960 some comments to make in response to the rebuttal evidence. I will do so just  
 961 by going through the provision and note whose evidence I'm responding to as I  
 962 go. Hopefully I don't jump around too much. If that's okay with you all.  
 963

964 Chair: Yes, that sounds good thank you.  
 965

966 Nes: Just beginning with Ms O'Callahan's evidence, her responses to my statement  
 967 of evidence are in Table 10 of her rebuttal which starts on page-30. In relation  
 968 to row one about our general submission points that Upper Hutt did in terms of  
 969 the primary submission, a little concern that the general points are not being  
 970 considered at every hearing stream and it would be great for those to be given  
 971 consideration to the panel just overall.  
 972

973 I don't have anything further to say, but just from an ongoing point of view on  
 974 that.  
 975

976 In row three Ms O'Callahan states that there are no relevant policies or rules in  
 977 relation to WH.06, which I believe is a ground water objective. Just to give  
 978 clarity to the panel, the groundwater policies and rules I was kind of considering  
 979 which may be affected by that change to 06 for WH.P7, WH.P33, WH Rule 33  
 980 and 34, and WH Rule 36.  
 981

982 As I said in my evidence, we're really happy to leave that to further hearing  
 983 streams, just noting that those ones are the aspects which I was considering  
 984 which would have flow-on effects through from the changes to that objective.  
 985

986 Then jumping to the big ones, Table 8.3 and 8.4 and WH.08 and 09. I think it's  
 987 really important to begin by setting the context for the Territorial Authorities in  
 988 relation to the plan change, and particularly Upper Hutt. As I'm sure everyone  
 989 is aware the cost of living crisis is huge and it's hitting councils very hard. Our  
 990 ratepayers are bearing the brunt of that and to put it bluntly they're really hurting  
 991 in regards to everything that's happening at the moment.  
 992

993 One of the Council's main reasons for submitting is that as an infrastructure  
 994 provider the step change that was being regulated is really significant and has  
 995 really significant requirements on costs, on resources, on implications for rates,  
 996 which speaks to kind of the achievability of those outcomes.  
 997

998 On top of that we have a number of wastewater and stormwater consents, which  
 999 I'm sure Wellington Water will discuss this further, but will need re-consenting  
 1000 and viable consenting pathways within that time period of the plan.

Just in regards to what Upper Hutt is doing around water, we've spent upwards of 40 percent of our rates in the last year on Three Waters activities and we are really committed to improving our infrastructure and our waterways. As a council we have to consider that affordability and achievability aspect. We're really in between a rock and a hard place on this, and I appreciate that actually as a panel you all are perhaps even more so.

[01.00.05]

I part supported the Whaitua process and as a council we believe in the improvement of our waterways, of being able to swim, fish and enjoy our awa and Te Awa Kairangi in Upper Hutt is really a gorgeous place that makes up a huge part of our district. But the target attribute states as notified, and Dr Greer noted this in his primary statement of evidence, required a 76 percent rates increase sustained over 16 years to 2040, which was the highest of all the territorial authorities. Figure 9 of Mr Walker's primary evidence (and I'm sorry I don't have it right in front of me) it indicates that because of our demographic and the makeup of the city we also don't have the workforce to absorb that level of rates increase.

I do support the extension of the timeframes to 2060 which is recommended by Ms O'Callahan in her rebuttal evidence. I believe it's in response to Mr O'Donnell's Table 8, row 2.

I believe these changes will go a long way to making these more achievable and that isn't to say that the achievements can't be made earlier. The intention for us is not to kick the can down the road, but to give us time to not only innovate and to find better ways to fix our water, but to figure out the funding streams that we can leverage and stand up the workforce that we really need to get there.

One thing I'm not totally clear on, and this may just be because of the really large amount of technical evidence that we've been reading over the last few days, is that landing at the next implementation timeframes in regards to some being 2040, some being 2050 and some being 2060, and that may be a point of clarity that the experts can provide. I believe Dr Greer in Table 2 of his rebuttal evidence, which is the difficulties to achieve table, notes that the E.coli targets for both rural streams and the urban streams of Te Awa Kairangi will be quite difficult to achieve within the scope of PC1, but only the urban streams have been extended for the timeframes in Table 8.4 as a result.

Then I was also listening into the discussion a couple of days ago around the Pakuratahi River and the way it flowed. I'm sorry I'm not entirely sure where that landed in regards to the E.coli target given it's a rural area and the potential destocking that might be required in regards to it. I may leave that to however you decide to respond, the panel, right of reply or anything.

Moving on, I note that Ms O'Callahan's responses to my issues around consenting in Table 10, row 6, but I do remain concerned that the approach of WH.09 in relation to infrastructure consents may lead to unanticipated complexities where they are not able to demonstrate achieving the objectives. I know this is something that you've been discussing throughout the week, and I understand that it's a state of the environment outcome, but I think I'm finding hard because it doesn't totally track with my experience with writing and



processing regional consents for an application that doesn't meet a rule has a relationship back to and needs to be tested against those wider objectives. And, it may be that as Mr McDonnell suggested yesterday, this is something that could be solved by making these strategic objectives and separating out the aspects of the provisions which tended to be relevant to a consent application, or not.

I support the deletion of the dissolved copper and zinc at non-urban sites recommended in Table 7, row one of Ms O'Callahan's rebuttal. I think this is really practical given Greater Wellington has noted they have no intention to monitor those sites. I think that's really practical.

Just a note that I agree with the evidence of Ms Hunter from Wellington Water and the rebuttal evidence around where baseline information is not available and the kind of appropriateness of setting targets in those areas.

I don't believe I have anything else. I really wanted to just focus on remaining areas of concern or contention, or particular spots.

[01.05.05]

Really happy to hand over to the panel for any questions that you may have.

Chair: Thank you very much. Ms Nes, have you seen Mr Walker's rebuttal evidence where he specifically addresses what he estimates would be the Upper Hutt City Council rates increase to achieve the TAS on the modified timeframes?

He has read all the evidence presented by the TAs and Wellington Water and has projected a step-change in rates of 13.5 percent out to 2040 and then dropping to 12.5 percent from then out to 2060. There's quite a few things that doesn't include, but in terms of the infrastructure work required that is his projection.

Have you had a change to look at that? That is less than I think what Upper Hutt City Council's submission had originally estimated.

Nes: Yes. That's in regards to the lowered TAS's and the extended timeframe, I think, based on my understanding. Yes, it's that 13.5 percent. Yes, I have seen that and I do support. I think it sits in support of that 2060 timeframe and really shows the difference in between what was as notified and what we have got into so far.

Chair: Thank you. So given that economic evidence, and I appreciate that it's not a complete cost analysis, would you support the mixed timeframe approach that's proposed now, or are you still advocating for 2060 across the board with the TAS and coastal objectives?

Nes: We can't really speak to coasts considering we don't have one, so I will let my other colleagues say in regards to that. I don't want to put anything in their mouths.

I think from our perspective the mixed timeframe does go pretty far into making that quite a lot better. As I mentioned, I'm not entirely clear on how we've landed on the mixed implementation and that may be that with a little bit more clarity in regards to the science as well as the economics that we can support that



1104 mixed. With that I'm just not totally clear why some have been moved and some  
 1105 haven't.  
 1106  
 1107 One thing I was thinking is maybe it was in regards to some are more achievable  
 1108 than others, but as I said I'm not totally clear.  
 1109  
 1110 Chair: That will be coming through from Dr Greer and Ms O'Callahan, which I am  
 1111 hoping will summarise everything; so a final position on timeframes and better  
 1112 baseline information and also TAS.  
 1113  
 1114 Nes: Yes, I heard that one of the things the Panel asked for was that what has been  
 1115 achieved already and what needs to be achieved and how that connects back to  
 1116 the timeframes. I think where that lands in the right of reply will be really helpful  
 1117 for helping us all to understand exactly where we are sitting and what still needs  
 1118 to be prioritised.  
 1119  
 1120 Kake: Ms Nes, you've said you've been listening in over the last few days. I just want  
 1121 to get some clarity as to whether or not you were listening in yesterday with  
 1122 respect to the mana whenua submissions.  
 1123  
 1124 Nes: Yes I was.  
 1125  
 1126 Kake: Can you confirm Upper Hutt City Council has been involved through the  
 1127 Whaitua process since the beginning?  
 1128  
 1129 Nes: Before my time, but I do know that Upper Hutt was involved in the Whaitua  
 1130 process.  
 1131 [01.10.00]  
 1132 I can't speak to whether it was exactly from the beginning, but I do know that  
 1133 was something we were involved in yes.  
 1134  
 1135 Kake: Picking up on what you have just presented to us with respect to the level of  
 1136 investment that the Council has provided to infrastructure services, your Council  
 1137 is an infrastructure provider. I'm just trying to get an understanding I suppose in  
 1138 terms of these particular discharge points that are along the river that has been  
 1139 described and defined to us by mana whenua as a significant body of wai and  
 1140 that for generations the Council has under-invested in this infrastructure.  
 1141  
 1142 Can I get some clarification I suppose with respect to the long-term investment,  
 1143 and we've had some economic analysis around that, that there have been  
 1144 generations from mana whenua who have had to endure the impact of that under-  
 1145 investment. Can you respond to that, so we can clarify the Council's position on  
 1146 that?  
 1147  
 1148 Nes: We do have quite a significant investment identified in our long-term plan,  
 1149 which is from I believe 2040 onwards. Look, one thing that I have been  
 1150 discussing around this with my infrastructure colleagues, and the number that  
 1151 they have let me know is 40 percent of the rates that we collected in the last year  
 1152 have gone directly to Three Waters activities. That isn't to say that Council is  
 1153 not making a significant investment towards this infrastructure. That will only  
 1154 go up as we go along, as we figure out what the Three Waters I suppose form

1155 looks like. I believe the intention is for that to still continue to be a Council  
1156 controlled organisation, whether or not the structure changes.

1157  
1158 Upper Hutt will be in the room making sure that we are providing significant  
1159 investment towards these things. I'm sorry I can't speak to the future. I know  
1160 there is significant investment in our longterm plan, but from just what we have  
1161 been doing in the last year I've been told it's upwards of 40 percent of all the  
1162 rates we have collected.

1163  
1164 Kake: Just on that quickly if I may, the submission point around Te Awa Kairangi  
1165 urban streams and amending the target attribute state from a (c) to a (d) and  
1166 extending the timeframe to 2060, have you got a response to that? Do you think  
1167 that meets the aspirations and the goals of the Council towards meeting their  
1168 obligations with mana whenua?

1169  
1170 Nes: I think we definitely support the extension of the timeframe to 2060. To date the  
1171 Council has been a little agnostic, for lack of a better word. We haven't  
1172 formulated a specific position on the reduction of those TAS targets. We want  
1173 to be really aspirational if we can. We want to do that within the parameters of  
1174 what we feel ratepayers in our community can afford.

1175  
1176 Regardless, this is going to cost more money on top of what they have already  
1177 seen. I'm conscious that the evidence we've been provided so far doesn't  
1178 necessarily look at those things in connection to each other. We've had the  
1179 longer timeframes or the reduced targets. The reduced targets for 2040 or the  
1180 reduced targets for 2060 but not the notified targets for 2060. I believe that was  
1181 only touched on very briefly in Dr Walker's original primary evidence.

1182  
1183 If we can say that it's something that we might be able to absorb and it won't be  
1184 as low as the six percent of the reduced targets, but perhaps a step-change higher  
1185 than that for a longer period of time is something that we can do if we want to  
1186 be really aspirational.

1187 [01.15.05] I don't think Upper Hutt would necessarily push back if the Panel was of a mind  
1188 to keep the notified targets, considering that is what was agreed to with the  
1189 Whaitua. Our argument is that 2040 just is not something that we're practically  
1190 able to achieve, even with reduced targets.

1191  
1192  
1193 Wratt: Thank you Ms Nes. You've mentioned this 40 percent of your rates funding  
1194 going into a water initiative. Do you have a feel for how that much that will help  
1195 deliver on what's in PC1? That's a clear question for you.

1196  
1197 Nes: This may be slightly outside of my areas of expertise. I am not in our operations  
1198 team, and honestly it may be something that Wellington Water can speak to a  
1199 little bit more in regards to that. I know a significant portion of that goes towards  
1200 the wastewater treatment plant upgrade at Seaview, so that is money that is not  
1201 being pushed towards PC1 targets in particular. I know it will help along but it's  
1202 not those dry weather leak aspects that are being identified.

1203  
1204 The level of investment there I believe Mr Walker kind of talked about it in his  
1205 primary evidence, that there's \$1.47B across the four TAS, but a significant  
1206 portion of that is going to go to that wastewater treatment plant.

1207  
 1208 Sorry, I'm still not totally clear on what that proportional looks like.  
 1209  
 1210 McGarry: I'm just wondering, that 40 percent, I don't have any context for that, but I would  
 1211 imagine most councils around the country are spending a similar proportion on  
 1212 Three Waters – I would hope they are anyway, being a core function.  
 1213  
 1214 Is it possible Ms Nes for you to provide us with some information as to how  
 1215 much money has been spent in the last couple of financial years on trying to  
 1216 resolve dry water leaks and trying to resolve dry water leaks and trying to target  
 1217 some of those issues of contamination, which I would call faults in the system?  
 1218  
 1219 Nes: Yes I can provide that. I would have to do some investigating but I can provide  
 1220 that to the Panel in written form.  
 1221  
 1222 McGarry: That would be really useful, thank you.  
 1223  
 1224 Just one other question from me and it really relates to paragraph 39 of your  
 1225 evidence – you talked there about Greater Wellington working collaboratively  
 1226 with the TAs to achieve the outcomes by adding additional funding. I just wanted  
 1227 to know whether you acknowledge the fact that probably the biggest skill or the  
 1228 biggest contribution that GW can offer to this process is an information one, and  
 1229 in supporting the TAs with the science and the data to be able to prioritise and  
 1230 locate these hotspots of contamination so that moving forward they can actually  
 1231 try and address what I call the low-hanging fruit and getting the biggest bang for  
 1232 your buck. Would you recognise that that's probably the biggest contribution  
 1233 that GW can make?  
 1234  
 1235 Nes: Yeah. I think the information that Greater Wellington can provide us is massive.  
 1236 Them as well as us, we're in significant financial holes, for lack of a better word.  
 1237 I think we do all just need to work together.  
 1238  
 1239 I think my point that I was trying to make in that paragraph was those are really  
 1240 long-term aspects that we need time to really collaborate and get those things  
 1241 into place. With the way that I guess local government works and the  
 1242 bureaucracy works, all working together with Greater Wellington to both find  
 1243 new funding streams to work in that space, using their information, using their  
 1244 expertise, would still require a significant amount of time and practically I just  
 1245 don't think 2040 is necessarily long enough for those things to be investigated  
 1246 for the information to be used to create that, and stand up and then fund them,  
 1247 and then also see the reduction in water quality that we need to see by 2040.  
 1248 [01.20.20]  
 1249 There is lag time that needs to be pushed into that monitoring and all of those  
 1250 things.  
 1251  
 1252 Yes, I think we can recognise that Greater Wellington has a significant role in  
 1253 that.  
 1254  
 1255 McGarry: Thank you.  
 1256

- 1257 Chair: Ms Nes, thank you. I think the information that Commissioner McGarry has  
 1258 requested is going to be very helpful for us, and it's probably something that  
 1259 we'll ask all the TAs to provide.  
 1260 I am interested in the relationship Upper Hutt has with Wellington Water. As I  
 1261 understand it, within your rohe Upper Hutt owns the assets, but Wellington  
 1262 Water carries out the work that's required on them.  
 1263  
 1264 In terms of direction and identifying priority areas, where the data is showing  
 1265 there is degraded water, do you know if Upper Hutt City Council directs  
 1266 Wellington Water to be targeting those areas that are most in need? In terms of  
 1267 the available funding you're saying, "Go to those areas first," or do you rely  
 1268 more on Wellington Water to be providing you that information?  
 1269  
 1270 Nes: Sorry, I don't know the answer to that statement. I think Wellington Water might  
 1271 be a little bit... I'm not in the operations or infrastructure team so I'm not  
 1272 entirely clear on how those relationships function. Perhaps Wellington Water  
 1273 can give a little bit more information in regards to that.  
 1274  
 1275 Chair: Thank you. Perhaps when you are talking to the operations team and coming  
 1276 back to us [01.22.50 – nil audio] interested in that, to the extent you can provide  
 1277 that.  
 1278  
 1279 Nes: Yes, I'm sure that we can provide that as part of the written reply.  
 1280  
 1281 Chair: Thanks very much.  
 1282  
 1283 Stevenson: Thanks Ms Nes. We haven't really touched on Upper Hutt City Council's  
 1284 concerns about data or data uncertainty. You referenced compressed timeframes  
 1285 and incomplete modelling. I'm interested in your response to Greater Wellington  
 1286 Regional Council's legal counsel who noted that delays due to data uncertainty  
 1287 would be inconsistent with the National Policy Statement on freshwater  
 1288 management and that Councils acting on the best available information.  
 1289  
 1290 What's your view on that and the need to proceed?  
 1291  
 1292 Nes: I understand the need to proceed. I note that when we would be looking into  
 1293 acting under the plan that we would need to be looking at that current state data  
 1294 anyway, rather than necessarily the baseline.  
 1295  
 1296 So, while we appreciate that the data is not necessarily there, but that it needs to  
 1297 continue, it also is quite hard for us to form a stance or an opinion without all of  
 1298 the available information.  
 1299 [01.25.00]  
 1300 I think it's just there as a note from us and I believe the other Territorial  
 1301 Authorities will probably be in agreement here is, we can't know whether things  
 1302 are achievable if we aren't given the information that says it is and many of us  
 1303 don't have in-house economics or freshwater scientists to be able to review these  
 1304 pieces, like very large technical pieces of information to say, "Yes, we have that  
 1305 kind of ability to reduce the load reduction to achieve these targets by that  
 1306 much."  
 1307

- 1308 I think very similar to a lay person we're not in a position to state an opinion  
 1309 unless we know exactly what we are looking at and we have someone to tell us  
 1310 those things are achievable. I appreciate Dr Greer and Dr Walker's evidence  
 1311 goes a way into being able to provide that, but I suppose it's just the nature of  
 1312 preparing all these things at pace, that some of those things just aren't available.  
 1313
- 1314 Chair: Just one final one from me Ms Nes. You mentioned the Upper Hutt City's  
 1315 discharge consent or consents, are these global district wide?  
 1316
- 1317 Nes: Yes.  
 1318
- 1319 Chair: Is there one for stormwater? Are you able to just give a bit of context and also if  
 1320 you know when they're up for renewal?  
 1321
- 1322 Nes: Yes. That might be something I can provide a little bit more in that written reply  
 1323 if that's okay. I know that our global stormwater and wastewaters are coming up  
 1324 for renewal. I believe an application may or may not have been made by  
 1325 Wellington Water on behalf of the Territorial Authorities in regards to those.  
 1326 They may be able to give you a little bit more detail when you speak to them  
 1327 later on today, but I can also provide that as part of the written reply if that's  
 1328 helpful.  
 1329
- 1330 Chair: Thank you. Yes, they have actually talked about that. We're best to get that  
 1331 information from them. So Upper Hutt City's discharges are captured in that  
 1332 region-wide.  
 1333
- 1334 Nes: Yes.  
 1335
- 1336 Chair: I think that was all we had. Thank you very much for your time and evidence.  
 1337 We look forward to receiving the further information in time when you can  
 1338 provide it. We will make a note of it in the minute that's coming, so don't feel  
 1339 you've got to provide that in the next week or so. We'll put a reasonable  
 1340 timeframe in there. I appreciate there's a bit to put together.  
 1341
- 1342 Thanks very much.  
 1343
- 1344 Nes: Thank you. Thank you. Ngā mihi nui.  
 1345
- 1346 Chair: Kia ora. We'll take a break now and we'll be back in just over twenty minutes,  
 1347 so at 11.10am with the New Zealand Farm Forestry Association. Thanks very  
 1348 much.  
 1349
- 1350 [Adjourned – morning break 01.28.23]  
 1351  
 1352 [Hearing resumes – 01.51.43]  
 1353
- 1354 **New Zealand Farm Forestry Association**  
 1355
- 1356 Chair: Good morning. We'll resume again. Welcome is it Mr Cairns. I think you have  
 1357 been here this morning when the other submitters presented. Would you like us  
 1358 to quickly run through who we are?  
 1359

1360 Cairns: [Nil audible 01.52.02]  
 1361  
 1362 Chair: Thank you for your submission and also your evidence statement. I think we  
 1363 have some further notes, is that right?  
 1364  
 1365 Cairns: Yes. I'm not exactly sure how acceptable it will be but the rebuttal evidence of  
 1366 Mr Blyth sort of challenged my quoting of Dr Murray Hicks. I thought I would  
 1367 provide a copy of his actual email to me, just to show that we had actually had  
 1368 that conversation. You may not choose to accept that, but I will come to that  
 1369 perhaps more on the point.  
 1370  
 1371 Also, I have written some additional speaker notes if you like to my Slide 6, in  
 1372 relation to clarifying the slide there, partly in regard to the rebuttal evidence of  
 1373 Dr Greer and Mr Blyth. I thought I would put those up as additional documents  
 1374 if that's alright.  
 1375  
 1376 Chair: Yes, that's fine Mr Cairns. We'll pass over to you. We do have questions, so  
 1377 leave time for those at the end. Thank you.  
 1378  
 1379 Cairns: Thank you very much. Could I have my first slide from my slideshow please?  
 1380  
 1381 Allow me to point to a particular point in the slide. Thank you. Just a wee  
 1382 comment there that the photograph there is a confluence of the Mangaroa River  
 1383 and the Hutt River at [01.54.39] and you can see the dark water coming out on  
 1384 the right there is the Mangaroa River and the clear water from the Hutt  
 1385 Catchment in behind.  
 1386  
 1387 [00.55.00] My first point to reiterate and this is already picking bits out of my written  
 1388 statement there, I came across a note from MFE Guidance just emphasising that  
 1389 freshwater objectives should not ride the NES National Environmental Standard  
 1390 plantation forestry – I'm not sure of the exact date of that note. That of course  
 1391 has become the NES commercial forestry which does specifically allow for  
 1392 councils to make more stringent provisions than that outlined in the NES CF;  
 1393 but with the proviso that they'll need sufficient stringency to do so. This will be  
 1394 a part of our argument in the next hearing stream.  
 1395  
 1396 I want to just follow up, as I think other speaker have about what is the natural  
 1397 state. The photo there is by the way at the outlet of Black Creek where it drains  
 1398 the Mangaroa peatlands. That was taken in January this year. I will perhaps come  
 1399 back to that.  
 1400  
 1401 We have about 28 years of clarity of data that exists for Mangaroa River at the  
 1402 official monitoring point at Te Marua. While I haven't statistically analysed it  
 1403 you can just visualise it. There are no real significant trends over time. I will  
 1404 come back to this again, the monitoring point at Te Marua, but there appears to  
 1405 be no publically available for clarity or sediment in the tributaries or upstream,  
 1406 which is a point I want to come back to.  
 1407  
 1408 I make the point that while there is policy statements have an expectation for the  
 1409 natural state of sediment to revert to pre-human levels, I think that's there in the  
 1410 freshwater management policy statements and that's actually unrealistic.  
 1411



So what we have is the national bottom line seems to becoming the default natural state.

Just a little more on this. The Black Creek is a small tributary of the Mangaroa River. You can see the colour there, the tea-coloured tannins. I want to point out that the opalescence and murkiness of that stream in January 2025 shows the quite high levels of suspended sediment, which you can see the water is not clear there and reflects the light.

I am suggesting that that is a natural event from the peat swamp. I think Dr Greer and others challenge – that’s an aside, but while the peat lands have been highly modified there are very few grazing animals in there.

My notes there do refer to a long-term history of land use in Mangaroa Valley with many of the hills in the immediate area having been cleared in the 1950s and ‘60s onto pastoral farming incentives, with the ability to fly in fertiliser. A lot of that land has since reverted to scrub or been converted to plantation forestry.

So, the proportion of the entire catchment is substantially in pasture; so substantially less than it was forty to sixty years ago.

We now have a lot of lifestyle blocks in the area and a more intensive infrastructure which still occupies a very small percentage of the overall catchment which I don’t have a slide for that, but the catchment will have been defined elsewhere.

The last eight or ten years there was no dairy farming exists in the Mangaroa catchment anymore. I’m saying that as a result of that there will be much less intensive winter grazing which might have been thought of as a major contributor to sediment.

The median visual clarity target attribute state for Managaroa, we’re very pleased that the Greater Wellington scientists and consultants have acknowledged the natural brown water source that prompts resetting the target attribute state.

This will be in the following slide – we know that the median historic collected data over 28 years still only meets the revised target for five months each year and that will be in the next couple of slides we’ll show graphs of that.

[02.00.05]

The revised median visual clarity of 1.67 metres rather than 2.2 is based on a limited dataset and only deals with subtracting the effects from the CON – that’s the coloured dark organic matter.

Of course, there are all sorts of natural sources and other sources of suspended sediment but that contribution there, that resetting revised level perhaps does not acknowledge that a significant source of peat debris might be coming out of the peat lands.

Based on the very limited dataset being used by Dr Valois on the nine data points and I’m not even sure over what time period, we’re actually asking that revised



target attribute state be treated as an interim value. I think Dr Valois has pushed back on that. I had a conversation with Dr Murray Hicks last night – Dr Murray Hicks being a retired NIWA scientist that has contributed a lot to the policy documents and procedures that are adopted and advised nationwide.

Dr Hicks believes that a target attribute state should be based on five years of data or 60 points, not nine points. It also tells me that I haven't been able to see the relevant publication that there is scope to use a seasonally adjusted attribute state.

There's about a two-fold between winter and summer months – a little further on there's variation in the visual clarity at Te Marua. Some of that may be explicable by the means, but the relative proportion of the CDOM from Mangaroa peat lands is not constant throughout the year – and maybe scope to reassess what the target attribute state actually is.

This slide we have on the screen there, just in passing, that is taken from just below the confluence of Mangaroa River and Black Stream. I have deliberately put in some logs there where there's been bank collapse as the stream under flood conditions has undermined a small pine plantation. Obviously that bank collapse contributes as a natural source of sediment.

I am concerned about measurement uncertainty for calculated reductions and sediment yields for the reason that if a large reduction is required and is a consequence of that land use changes, which seems to be the way the guidance documents have come through, required in terms of the proposed removal of ten percent of the plantation of forestry and ten or more percent of pastoral land. I think there's a need for some accuracy in those projected figures that justifies that stance.

This is why I am honing in on measurement uncertainty here because there's several slides here.

Ms O'Callahan I think and Mr Blyth have acknowledged that the suspended sediment based on dSedNet are unreliable. They change a lot from one year to the next and there's calculations, and they probably get in the way and are a bit of a distraction.

The revised target attribute states for Mangaroa River visual clarity, the calculations for reduction sediment have dropped from over 50 percent to between 17 to 22 percent. That's still a very substantial reduction required.

[02.05.10]

I want to refer to the calculations used here. There is some agreement already from Mr Blyth and Dr Hicks that the relationship between target total suspended solids and visual clarity at relevant levels that is close to the target attribute state are unreliable.

Our submission is that for Mangaroa River total suspended solids is an unreliable indicator of visual clarity and therefore calculated percentage reductions on total sediment load are invalid. I will come back to that shortly in the next slide.

What I have on this slide here, it's presented slightly different than in my earlier submission because I have changed the axis there to match the way the data is presented by Mr Blyth in earlier documents, with an adjusted clarity going on a downward scale.

This is effectively the data that Dr Valois has used to calculate amended target attribute state, but when you look at her data points there and there are only seven of them there, in the region of the relevant visual clarity, around about the 2 metres of clarity, there is a very poor relationship, or I will say there is no relationship between total suspended solids and visual clarity; but yet you need improvements in sedimentation that will bring the visual clarity to the target attribute state. This is my point. This is the critical value that Mr Blyth is attempting to dismiss, which Dr Hicks and I say is critical. You cannot rely on a calculated reduction and total sediment yield to give you the clarity you're improving, because this is the critical point and there is no good relationship between the two parameters there.

Rule of thumb with  $R^2$ , you've got about four or five percent of the variants between the two variables is explained on that graph. It's effectively not there.

My speaker notes have a few other explanations there but I think I'll be running out of time if I go into all of those, except perhaps to point out that clarity and turbidity and so on are affected by particle **size** [02.08.47] on the water and that's not easily dealt with on the sort of plots that the consultants have put up there. The type of sediment that's there in high flood levels and medium flood levels, and near base flows are different particle **size** and therefore affects the visual clarity and that sort of relationship.

I think as a consequence of this you need to look at other ways of dealing. Rather than justifying land use changes you need to look at the sorts of factors that affect the clarity at low flow levels – which I will come back down to.

My speaker notes have a lot more stuff there.

Part of this is that the limit of quantification for the total suspended solids method is 3mgs per litre. So, all that data point there is really below the limit of quantification for the method. Those data points are less accurate you might say.

[02.10.10]

I don't quite know how we got down to .3mg per there, that must have been a point right at the limit of detection. The accuracy of the total suspended solids on that graph is suspect but is critical to calculating a reduction in suspended solids required. We're saying that's inaccurate and this 17 or 20 percent reduction that is calculated by Mr Blyth and others could be wildly inaccurate.

My comment on the speaker notes: instead more work is required to investigate sources of natural sediment along with seasonal variations and that there is an appropriate water plan implemented. I understand there's a new method just been issued that may address that.

And, that research should be done before implementing significant land use changes.

We did take the data that's available on the Greater Wellington website for visual clarity going over, I forget how many years there, 28 years and calculated the median values by a month. You can see the blue plot on the left there, that the clarity is much better in March on average and worse than August. It pretty much mirrors if you like changes in median water flow.

I had suggested that perhaps flow rates out of Mangaroa peat lands, or relative flow rates rather, might impart or describe what's going on there. There appears to be other papers and I'll concede to Dr Greer that other papers that show a similar variation and clarity according to median water flow.

I'm sticking my neck out a little bit here in suggesting that there was a misalignment of policy advice. I think in the case of Mangaroa River, as Dr Hicks has pointed out, a proviso of councils being required to calculate total sediment yields and try and correlate that to visual clarity, the provisos were that there was a good correlation at the median clarity value. In the case of Mangaroa River that is definitely not the case, which sort of invalidates the process and calculations and makes the estimates very inaccurate.

My additional notes that have been provided for you are speaking notes for this slide.

The rebuttal evidence given by Dr Greer and Mr Blyth appears to me downplay the relevant importance of local sources of sediment. Their focus is very much on total annual sediment loads, as in that predicted by dSedNet models for an entire catchment.

Slips and similar erosion events during flood flows clearly make up the vast majority of total annual sediment load, but somehow a portion of the suspended sediment, and no-one quite knows how much in our case, becomes captured in the stream beds and periodically moves forward and forms sludge. This implies that leakage from that source of total sediment is the driver for visual clarity at low flow levels; and I'm imagining that is why they have therefore disregarded the poor prediction value between total suspended solids and visual clarity, which we saw in the previous slide.

One might then conclude that relatively frequent events such as livestock access to waterways, vehicle traffic on gravel roads and brief discharge of water with suspended sediment above the discharge limit are therefore unimportant, as collectively these form such a tiny part of the total annual sediment load, which was 11,000 tonnes a year I think – 200 tonnes a month out of the Mangaroa River of suspended sediment, not total sediment.

[02.15.30]

Clearly my last narrative there does not align with Council policy. What we are saying for Mangaroa River is that because the relationship of visual clarity and total suspended solids is so poor and supported by Dr Murray Hicks that something else must be significantly contributing to visual clarity at low river flows.

If because of this plan change you choose to restrict land use by preventing forestry harvesting or pastoral grazing on steep land, in combination with the

very wide annual variations and sediment yields, you may not achieve target visual clarity; and there is a high risk of mitigation effects being ineffective.

This is a slide you needed when the other speaker at Mangaroa was present. That's really the Mangaroa River. That slide there, right at the top Te Marua is where the monitoring point is. I have done some water sampling from the other red dots along the river there myself.

A point Dr Greer rebuts against us there, what we are trying to say is while the point at Te Marua averages everything upstream, it doesn't actually tell you what's happening up stream in terms of the differences – as my next table will show you.

The Mangaroa peat lands are just in this area, and that's Katherine Mansfield Drive. The peat lands are all in this area. There's a major urban subdivision happening just in here, [02.17.47] farms. There's been recent extensive harvesting in the Collett's Stream area, this one here, and in this area here.

What I am doing is it's based on a standard method but adapted for the equipment that I had there.

The photo on the right there happens to be a culvert where the new subdivision is running through. I'm not claiming the discharges limits exceeded the limit but there's some pretty murky water coming out of there for a long time – both branches of that stream.

This is the one I want to spend a bit more time on. The rows in brown there are affected by peat drainage, and the other ones are different catchments there. Different times during the month it's all relatively low flow levels. Sampled within a few hours of each other coming down there. We've got a day where 1.45 metres according to my not expert, but self-taught on this method, that would have failed the target attribute state. Other parts in the catchment though are well above, other streams there meeting suitable water clarity statements. You're not actually seeing that when you're all you're doing is monitoring it at Te Marua – the same as further down there.

[02.19.45]

There's bracketed data there using a [02.19.50] which is just about a metre long with a black duster you can slide backwards and forwards and it's more suitable for more murkier water than what we have got here.

Some of these streams you need to use the periscope and the black box. You need large pools of still water, so it's not easily possible to monitor greater than 3 metres there because the pools aren't long enough in the side stream to see that sort of difference.

What I'm really trying to show you is a lot of variation up and down the catchment that you don't see if all you're doing is monitoring at Te Marua. This one here is the urban subdivision and it's quite low clarity there. Collett's Stream was lower than I would have liked to have seen. We don't know how long it's actually going to take to recover.

This is following clear-fell harvest. This did improve the following month there but they were just finishing the actual logging out there. That's dreadful water clarity.

I'm acknowledging, contrary to Dr Greer and others trying to point out to me, forestry harvesting can cause some issues, particularly in the shorter term if the [02.21.22] minimal. I want to come back to that if I may.

As commented by the previous speaker, what are the consequences of not achieving a target attribute state? I think the rules are not spelled out. Potentially I think it's already proposed that perhaps forestry harvesting might be suspended if target attribute state is not met.

Even if sub-catchments comply with the water quality this will penalise innocent parties, but there may be little proof if any of alleged misdemeanours or poor practice.

We're saying that should target attribute states not be met there needs to be a proper investigation identifying the nature and sources of suspended sediment in sub-catchments and that there should be a focus on land use practices that could affect the median visual clarity, rather than necessarily total annual sediment yield. And there needs to be documented history going from way back of changes in land use practice; and how would you unbundle climate change effects from human induced [02.22.52] that are uncommon for stream veg to scour out under heavy rainstorms.

I will try and move on here.

This is another area where Dr Greer has criticised me for not having suitable methodology and controlled studies and so on. I don't see that's my job. I'm a scientist but in chemistry is not to provide the raw data but to challenge what's put in front of us.

Ten years water clarity data for Horokiri Stream from July 2015 to 2025. Over that ten-year period (which also covers the period of Transmission Gully motorway construction) forestry harvest has been only a very small amount of harvesting going on here. The last three years there's a lot of harvesting going on here. Motorway construction right through here. Not all of these very low visual clarity points here correspond to higher rainfall events, so something has clearly happened in there. I know that there were potential prosecutions of the highway contractor for alleged breaches of stuff during that period that may or may not have gone through.

What I'm saying is that all that ten years of data there the median value still exceeds the target attribute state and I think that's 2.6m and the target attribute state given as a Grade C, for some reason, was 2.3 metres.

[02.25.10]

My next slide will show a bit more graphically. If you can see, this is looking across Puketiro Forest. That's the Transmission Gully highway there. There's a cloud of dust here. There's a lot. [02.25.26 – nil audio] extent.

You can harvest forestry without failing your target attribute state.

1722  
 1723 How am going for time please? Is it alright to carry on? I don't have a lot more  
 1724 slides but they are important.  
 1725  
 1726 Chair: We do have questions, so we do want to leave time for that. I'm conscious of  
 1727 the next submitter as well.  
 1728  
 1729 Cairns: I'll be very quick then. What I'm trying to point out here is a number of  
 1730 substantial forest catchments had very good water quality.  
 1731  
 1732 To summarise, it's all there in the earlier submissions in place. I'll stop there and  
 1733 let you give me some questions, I think. It's all in front of you. Thank you.  
 1734  
 1735 Wratt: Could you just flick to your summary?  
 1736  
 1737 Cairns: There's two pages of summary there. The first one?  
 1738  
 1739 Chair: Thank you very much Mr Cairns. As I understand it you're not disputing that  
 1740 the black dust test is an appropriate way of measuring suspended sediment in the  
 1741 water column?  
 1742  
 1743 Cairns: I think it's the only way of doing it.  
 1744  
 1745 Chair: As I understand you're saying that there's at times not a good correlation  
 1746 between suspended sediment and visual clarity.  
 1747  
 1748 Cairns: Correct.  
 1749  
 1750 Chair: The Council scientists acknowledge that the naturally occurring processes from  
 1751 the peat land means that in Mangaroa visual clarity is lower, and so they've  
 1752 factored that into a lower target attribute state for the Mangaroa monitoring  
 1753 point.  
 1754  
 1755 Then I also get the subsequent point you make that there would be a whole lot  
 1756 of contributing factors to suspended sediment, and innocent parties shouldn't be  
 1757 penalised, which is I think how you framed it.  
 1758  
 1759 My understanding is that the provisions in Hearing Stream 3, the rural chapter  
 1760 are going to place requirements on a range of land use activities, and we'll hear  
 1761 your points about how you say that impacts forestry at that point, but as I see it,  
 1762 there's very much an idea of collective responsibility for people in the  
 1763 catchment. Is the main concern that the monitoring point at this location is not  
 1764 the best monitoring point to be assessing sediment loading upstream of the  
 1765 catchment?  
 1766 [02.30.05]  
 1767 Cairns: I don't think it should be the only point. I think if there are going to be failures  
 1768 with significant financial (I will use the word) 'penalties' but implications if you  
 1769 like, say stopping a harvest it's not really practical to tell a harvester to [02.30.28]  
 1770 when the catchment that's draining their forest is meeting target attribute state  
 1771 of visual clarity.  
 1772  
 1773 The reasons for failure downstream might be something else.



1774  
 1775 Just coming back a stage, the various laboratory methods for we'll call them  
 1776 surrogate methods, so total suspended solids, [02.30.57] attenuation and so on  
 1777 don't directly measure clarity; they are surrogate tests that look at suspended  
 1778 solids in different ways and different accuracies.  
 1779  
 1780 The Whaitua Committees and others have agreed that the bottom line thing is  
 1781 meeting medium visual clarity, which there's only way to measure that.  
 1782  
 1783 I think before you apply significant financial penalties on land use types there  
 1784 needs to be a reasonable level of evidence that they're not complying. Social  
 1785 responsibility and collective responsibility and yes we all have to do our bit, but  
 1786 I don't see why everyone should be 'pinged'. It's only forestry that's the  
 1787 controlled activity. The pastoral farming has freshwater plans and so on, but it's  
 1788 not a controlled activity.  
 1789  
 1790 Chair: Thank you. I will see if anyone else has any questions.  
 1791  
 1792 Kake: Thank you for your presentation. No questions from me, but just acknowledging  
 1793 we'll get into this discussion at the next hearing as well, quite substantially.  
 1794  
 1795 McGarry: Mr Cairns, I'm just wondering if you've read Mr Blyth's and Dr Valois'  
 1796 rebuttal?  
 1797  
 1798 Cairns: I did. I don't have it in front of me. I did read it, yes.  
 1799  
 1800 McGarry: I'm just struggling with the slide that you said Mr Blyth said there wasn't a good  
 1801 fit, because his rebuttal very clearly says there is a good fit and it's based on 43  
 1802 peer-reviewed samples. Then Dr Valois we particularly asked questions around whether  
 1803 this should be an interim limit and she said that she was very confident that the  
 1804 samples have captured seasonal variation, but what it hadn't captured was over  
 1805 the 95<sup>th</sup> percentile, which is those very high flows, and in her view CDOM would  
 1806 be a very small proportion given the high sediment loads and those very high  
 1807 flows.  
 1808  
 1809 I'm struggling with your slide that says that he agrees with Dr Hicks that it's not  
 1810 a good fit.  
 1811  
 1812 Cairns: In one of Mr Blyth's earlier statements he alluded to the method of uncertainty  
 1813 below TSS of 10mgs per litre. The calibration lines that they used earlier covered  
 1814 the full range of suspended solids and visual clarity. That was where the formula  
 1815 used to calculate percent reductions came from the whole line.  
 1816  
 1817 What I and Dr Hicks are saying is that it is very important if you want to meet  
 1818 visual clarity that that fit between total suspended solids and visual clarity is a  
 1819 good fit at that low flow level, where the target attribute state (and on this  
 1820 particular graph I will just put it in front of us here) it would 2.2 metres and not  
 1821 1.67 metres because of the way it is – right in the middle of the curve.  
 1822  
 1823 Mr Blyth is ignoring the caveat that Dr Hicks has expressed about needing a  
 1824 good fit at that critical point.  
 1825



- 1826 McGarry: Thank you sir. Thanks for providing Dr Hicks' paper. I will look at that with  
1827 great interest. Thank you.  
1828
- 1829 Cairns: There was one last point there from Dr Valois. Her data she says that the  
1830 proportional contribution from coloured dark organic matter was constant, when  
1831 in fact even her nine points there was a factor of two variation. A factor of two  
1832 is quite a lot in terms of setting a target attribute state. That was from her nine  
1833 or ten points that she had available for that.  
1834
- 1835 We don't know how much that variation will change over the season.  
1836
- 1837 McGarry: As I say, we did specifically ask her about that and she was very confident that  
1838 she caught seasonal variation, but what she hadn't caught was those high flows.  
1839 Thank you.  
1840
- 1841 Chair: Thank you Mr Cairns. We are over time so we do need to end there. I think that  
1842 the Council scientists will review the transcript and they will respond to the  
1843 points you've made in their reply. I think you have explained the areas of  
1844 disagreement clearly. There will be further information coming in response.  
1845
- 1846 If there is any sort of particular point that you would like the scientists to... I  
1847 guess if you've got any final questions.  
1848
- 1849 Cairns: I'll ask them to give Murray Hicks a ring.  
1850
- 1851 Chair: The difficult we've got obviously is that Mr Hicks hasn't presented evidence.  
1852
- 1853 Cairns: Yes, I do understand the shortcomings of that, yes.  
1854
- 1855 Chair: Thank you for the information. We will ask the Council team to consider it.  
1856
- 1857 Cairns: Thank you very much.  
1858
- 1859 Chair: Thank you very much.  
1860
- 1861 **Royal Forest & Bird Protection Society of New Zealand**  
1862
- 1863 Chair: We welcome Royal Forest & Bird Protection Society. Sorry we have kept you  
1864 waiting. As I understand it there is a little bit of [02.37.26 – nil audio].  
1865
- 1866 Welcome. Shall we do some introductions?  
1867
- 1868 F&B: Yes that would be helpful. I've got printed copies of our speaking notes so I'll  
1869 pass them over to Josh.  
1870
- 1871 Chair: Kia ora. Ko Dhilum Nightingale tōku ingoa. I'm a Barrister and Independent  
1872 Commissioner and am chairing both the freshwater panel and the Part 1  
1873 Schedule 1 panel. Welcome. I will pass over to our Deputy Chair.  
1874
- 1875 McGarry: Good morning. My name is Sharon McGarry. I'm an Independent  
1876 Commissioner based in Ōtautahi, Christchurch.  
1877

1878 Kake: Kia ora. Puawai Kake, Planner and Independent Commissioner based in  
 1879 Northland, Te Tai Tokerau.  
 1880  
 1881 Wratt: Kia ora. Gillian Watt. Independent Commissioner based in Whakatu, Nelson.  
 1882  
 1883 Stevenson: Kia ora. I'm Sarah Stevenson, an Independent Planner and Commissioner based  
 1884 here in Te Whanganui-a-Tara, Wellington.  
 1885  
 1886 Downing: Tēnā koutou katoa. Ko May Downing tōku ingoa. [02.39.33] Forest & Bird.  
 1887 With me today I've got some excellent flankers, I've got Mr Tom Kay and Ms  
 1888 Samantha Dowse, Planner – and Tom in his capacity as a freshwater ecologist.  
 1889  
 1890 Chair: Thank you. Welcome. We've read obviously Forest & Bird's submission and  
 1891 the two evidence statements and your legal submissions. We've just been given  
 1892 some speaking notes. Thank you. We'll pass over to you.  
 1893 [02.40.05]  
 1894 Downing: Thank you. I will take you through the speaking notes, that's probably easiest.  
 1895 It might be helpful to make more sense of the speaking notes if you've got  
 1896 Appendix 2 of the recommended amendments attached to the rebuttal on hand.  
 1897  
 1898 Chair: [02.40.22 – nil audio] the rebuttal version, but there have been changes that have  
 1899 been made to that.  
 1900  
 1901 Downing: Apologies.  
 1902  
 1903 Chair: That's fine. They were only put online this morning. Perhaps maybe where we  
 1904 notice that a point you're making has now been accepted by the officer we might  
 1905 just note that for you.  
 1906  
 1907 Downing: That would be helpful, thank you.  
 1908  
 1909 Paragraph 1: Forest & Bird's concerns are narrowing following rebuttal  
 1910 evidence of Mary O'Callahan on behalf of Wellington Regional Council dated  
 1911 28 March 2025. However, some outstanding issues remain which are addressed  
 1912 in this presentation.  
 1913  
 1914 I will just talk through three major points that I've identified. The first is the use  
 1915 of 'deteriorated' instead of 'degraded'. In my submission "degraded" is still the  
 1916 appropriate term to use. Ms Dowse's planning evidence will deal with this.  
 1917  
 1918 I just also point out that the definition of "degraded" isn't exclusive to an FMU  
 1919 or part of an FMU to which target attributes state applies and extends to include  
 1920 an FMU or part of the FMU that is less able to provide for "any value described  
 1921 in Appendix 1A or any other value identified for it under the NOF".  
 1922  
 1923 This broader construction is consistent with Policy 5. I set that Policy out again  
 1924 at paragraph 4.  
 1925  
 1926 There is nothing major in this point. It is just to also acknowledge that Policy 5  
 1927 is that regional plans cannot provide for anymore degradation in the health and  
 1928 wellbeing of waterbodies and freshwater ecosystems.  
 1929

1930 I have highlighted in the brackets “including through a national objective  
 1931 framework,” to demonstrate that the national objectives framework is a key but  
 1932 not sole vehicle to achieving this.  
 1933

1934 The next point relates to Objective WH.01 and that again [02.42.46 – nil audio]  
 1935 and the first is the introduction of the terms “to the extent practicable”. In the  
 1936 speaking notes, and again these provisions are set out in my legal submissions,  
 1937 I just note that natural form and character is also recognised in the Regional  
 1938 Policy Statement and the RPS doesn’t include that qualification.  
 1939

1940 The other aspect of that, that I have to add, is that I understand that hasn’t been  
 1941 appealed, those provisions under the RPS, because they were under the  
 1942 freshwater planning process.  
 1943

1944 Having another look at this morning, and I’m not sure if this a provision that has  
 1945 been revised, but we understand that this is response to the submission by or the  
 1946 evidence of Wellington Airport who acknowledge that there are parts where  
 1947 natural character is already degraded; so if you’ve got a permanent structure then  
 1948 it makes it hard to restore to some previous form.  
 1949

1950 So we did think if “to the extent practicable” was to be retained it might need to  
 1951 sit somewhere else in the sentence. So where you’re talking about restoration  
 1952 where there’s deterioration then it might be okay to refer to the extent  
 1953 practicable, but when you’re talking about maintenance we don’t think that  
 1954 qualification is really something that’s envisaged by the higher order policy  
 1955 documents.  
 1956

1957 The next point was regarding the third bullet point, which refers to “all rivers  
 1958 and lakes and their margins, natural wetlands, ground water and coastal waters  
 1959 have healthy functioning ecosystems and their water conditions and habitats  
 1960 support the presence, abundance, survival and recovery of at-risk and threatened  
 1961 species and taonga species,” and the introduction of the terms “where naturally  
 1962 present in those environments,” in my submission that could raise some  
 1963 problems.  
 1964

1965 [02.45.20] It leaves room for lawyers and ecologists to argue what does it mean if it's  
 1966 naturally present? Does it mean the species were naturally present in a pre-  
 1967 human state, or does it mean they were recently naturally present?”  
 1968

1969 Chair: Sorry to interrupt Ms Downing but this is one where the Officer is now  
 1970 recommending a change; so it would say “taonga species where they would have  
 1971 naturally occurred.” I appreciate you might not be able to respond on the fly  
 1972 about that but just noting there is a word change recommendation there.  
 1973

1974 Downing: I think Forest & Bird, the third issue with that, and it could be a question that  
 1975 Tom could talk to I think, or Mr Kay could talk to, it's in his wheel-house with  
 1976 his ecological background.  
 1977

1978 Chair: We’ll just get you the revised wording so at least you’ve got that there.  
 1979

1980 Downing: People undertaking these translocations tasks will be required to move these  
 1981 species into an area that can still sustain them. It might be that a waterbody never

sustained a species but it could potentially provide that last refuge for a threatened or at-risk species and therefore in my submission it is still worthy of that protection.

Moving onto the next page, Objectives WH.10 and P.07, Forest & Bird is pleased to see interim targets recommended in these objectives, but we've identified some elements of the drafting that cause concern.

The redrafted objectives leave room for future debate and may lead to unintended outcomes which do not achieve the NSP-FM objectives.

I probably can talk through WH.10, but before I do, I will just double-check if that was something that's recently been revised.

'No revision' so that's easy.

The first point I have identified is in clause (a) it refers to "no deteriorating trend is sought by 2030." In my submission that language is no longer as directive; so to "seek no deterioration" provides less certainty than to direct that there is no further decline.

Then the second point identified is (i) and (ii) – that phrase that "the state of that attribute must be improved by 50 percent of the overall improvement required in the part freshwater management unit."

The reference to overall improvement is unclear. It could be read as enabling some parts of the part FMU to decline if other parts are improved. This is akin to the "unders and overs" approach which Judge Thompson's division of the Environment Court and Ngāti Kahungunu and Hawkes Bay Regional Council found was legally incorrect.

I have set out the footnote 3 where that was addressed, granted that it was dealing with the previous NPS-FM, but I think the principle still remains true.

In the case the court said that an "unders and overs" approach could result in a more degraded and unacceptable water outcome. So for example it does not address localised effects and may be a poor way to manage cumulative adverse effects of multiple activities.

Chapter 3.4 of the Greater Wellington RPS intro states that the region's range of uses and values leads to multiple pressures on the quantity and quality of freshwater which can cumulatively impact on the availability and value of the resource for use.

[02.50.35]

It's also unclear how overall improvement would be monitored.

The last thing is just the note, which on first reading looks like it provides more than guidance. The note does look like it contains substantive material which may need to go into the body of the objective itself. Otherwise, again it could be fine but it does leave it open for debate as to whether it has legal force or not.

2033 I might, if I may, move onto the first witness Mr Kay – unless the Panel has  
 2034 questions, or would you rather ask them at the end?  
 2035  
 2036 Chair: Maybe we'll wait. We'll ask them at the end. Thanks.  
 2037  
 2038 Downing: Mr Kay, your full name is Thomas James Kay?  
 2039  
 2040 Kay: Correct.  
 2041  
 2042 Downing: You've prepared a statement of evidence dated 14<sup>th</sup> March 2025?  
 2043  
 2044 Kay: Yes.  
 2045  
 2046 Downing: Could you confirm that the evidence is true and correct to the best of your  
 2047 knowledge?  
 2048  
 2049 Kay: Yes, with some minor...  
 2050  
 2051 Downing: You have corrections?  
 2052  
 2053 Kay: Minor corrections.  
 2054  
 2055 Firstly, paragraph 3 notes that I work at Forest & Bird. Until Friday I did. I no  
 2056 longer work for Forest & Bird. I can give you specific words there if you need  
 2057 them, but otherwise that's just a note.  
 2058  
 2059 Then at paragraph 16(c) I refer to "riffles, runs and pools" instead of "riffles" it  
 2060 should be "instead of ripples" which you had probably already figured out.  
 2061 Otherwise correct.  
 2062  
 2063 Downing: Thanks. Please remain and answer any questions of the Panel.  
 2064  
 2065 Kay: Just in brief before if you do have any questions, or if you want to save them to  
 2066 the end that's fine. I have basically provided this evidence in quite a narrow  
 2067 sense, in terms of the connection between ecosystem health and natural form  
 2068 and character.  
 2069  
 2070 As I understand it, from the rebuttal evidence there's no competing perspectives  
 2071 on that, and no subsequent changes to revert back out referring to that connection  
 2072 that's been put in. But, I can be corrected on that if I have missed something.  
 2073  
 2074 I haven't addressed the wider ecological issues. Happy to take some questions  
 2075 on them if there's something I might be able to help with, but I should note that  
 2076 I haven't gone into the depths of all the other target attribute states and things  
 2077 like that, so I'm probably of limited use from a broad perspective over the plan.  
 2078  
 2079 In summary, I think it's hopefully quite straight forward from my evidence that  
 2080 there's a very clear and inherent connection between natural form and character  
 2081 and ecosystem health, both in terms of how it's treated across the science and in  
 2082 terms of how it's treated in the NPS-FM, and improvements to those ecosystem  
 2083 health variables will naturally be linked to improvements in the natural form and  
 2084 character perspective – whether you're considering it as natural form and

2085 character under the NPS or how you would refer to it from a geomorphological  
 2086 perspective.  
 2087  
 2088 That's probably all I really need to say. If you have questions we can take them  
 2089 afterwards.  
 2090  
 2091 Chair: Thank you. Shall we hear from Ms Dowse? You're welcome to affirm or swear,  
 2092 but otherwise we are very happy.  
 2093  
 2094 Downing: Great. I think it was more for Tom because he did have that significant change  
 2095 to make.  
 2096  
 2097 Chair: No problem. Thank you very much.  
 2098  
 2099 Downing: I'll let you take the lead.  
 2100  
 2101 Dowse: I'll take my evidence as read. I have some speaking notes which you've got. I  
 2102 will take you through those before you have any questions.  
 2103 You know who I am so I will skip over that first paragraph, except to say that I  
 2104 prepared planning evidence on behalf of Forest & Bird on the ecosystem health  
 2105 and objectives, for which their submissions sought amendments.  
 2106  
 2107 [02.55.00] My evidence covered natural form and character in objectives, the use of  
 2108 "deteriorated" rather than "degraded"; drafting of objectives and policies for  
 2109 greater consistency with PC1 and NPS-FM provisions; drafting of Policies  
 2110 WH.P1 and P.P1 to ensure maintenance of aquatic, ecosystem, health and  
 2111 waterbodies that are not degraded are included.  
 2112  
 2113 The appropriateness and drafting of financial contributions.  
 2114  
 2115 I have read the rebuttal evidence of Ms O'Callahan. I agree with many of her  
 2116 responses and recommend further amendments. However, I have a different  
 2117 view on the following matters, being: the use of "deteriorated" rather than  
 2118 "degraded" and the addition of maintenance to Policies WH.P1 and P.P1. That  
 2119 is just a minor point in relation to where it sits in the Policy.  
 2120  
 2121 At paragraph 4 now and natural form and character.  
 2122  
 2123 One of the primary focuses of my evidence was natural form and character. As  
 2124 set out in paragraphs 11-19 and 36-47, natural form and character is relevant to  
 2125 PC 1 provisions for two reasons.  
 2126  
 2127 Firstly, as set out in Mr Kay's evidence, natural form and character are  
 2128 intrinsically linked to the compulsory value of ecosystem health. Secondly, the  
 2129 NPS-FM requires the Regional Council to consider whether other values  
 2130 including natural form and character apply to the Whaitua.  
 2131  
 2132 Through the Whaitua committee process, community engagement and plan  
 2133 making process Council found natural form and character are a value that do  
 2134 apply to both Whaitua.  
 2135  
 2136 I'm at paragraph 5 now and the use of 'deteriorated' rather than 'degraded'



In my Evidence in Chief, at paragraphs 21-26 and 53-54, I recommend the use of degraded rather than deteriorated in Objective WH.O1 and policies WH.P1 and P.P1.

I have read Ms. O’Callahan’s rebuttal evidence where she has responded to my evidence. I acknowledge her reasoning for considering the use of deteriorated more appropriate.

I have reviewed the NPS-FM definition of "degraded". I disagree “degraded” only refers to when target attribute states are below a national bottom line or not meeting target states.

The definition at clause 1.4 of the NPS-FM provides three ways in which an FMU or part of an FMU is considered degraded, including: (c) The FMU or part of the FMU is less able (when compared to 7 September 2017) to provide for any value described in Appendix 1A or any other value identified for it under the NOF.

In my evidence, at paragraphs 40-47, I established that natural form and character were identified values through the NOF process. In the case of policies WH.P1 and P.P1, I consider aquatic ecosystem health to be the compulsory value of ecosystem health described in Appendix 1A of the NPS-FM.

The NPS-FM definition of “degraded” does not just relate to target attribute states, but values too. I maintain "degraded" remains the more appropriate term to use in the objectives and policies given these provisions cover Appendix 1A values and values identified through the NOF process.

I’m at paragraph 9 now - Objectives WH.O10 and P.O7

At paragraphs 48-52 of my evidence I covered these objectives. I recommended rewording to include all other waterbodies and their margins. Ms. O’Callahan has recommended these objectives be redrafted so their intended purpose is better reflected. I agree with this and support this recommendation. However, I think there are opportunities to make these objectives clearer. Should the Panel wish, I am happy to work with Ms. O’Callahan on this.

Policies WH.P1 and P.P1 – I’m at paragraph 10 now.

At paragraphs 55-57 of my evidence I recommend refining the chapeau of the policies so that “maintenance” of aquatic ecosystem health is covered in addition to degradation. This ensures there are no gaps in the policy framework.

I agree with Ms. O’Callahan’s recommendation to address maintenance within these policies. However, I consider that maintenance should be included in the chapeau of these policies rather than after the chapeau and the list of improvement actions, which respond to degradation.

This is because a chapeau outlines the scope and purpose of a policy, and placing key matters within it ensures the policy’s intent is clear from the outset. This

2188 helps avoid potential misunderstandings that might arise if such intent were  
 2189 introduced later.  
 2190  
 2191 I'm at paragraph 13 now.  
 2192  
 2193 I want to acknowledge that my evidence and speaking notes today have been  
 2194 narrow in scope. This is a direct reflection of Ms O'Callahan's and the Greater  
 2195 Wellington Regional Council's experts thorough and well-considered approach  
 2196 to date.  
 2197  
 2198 I am happy to take any questions the panel may have.  
 2199  
 2200 Chair: Thank you very much.  
 2201 [03.00.00]  
 2202 Chair: Mr Kay, your evidence I think explains really clearly for me that the relation of  
 2203 the connection between natural form and character, habitat and ecosystem  
 2204 health. Thank you.  
 2205  
 2206 I know we are hearing from Fish & Game I think on Tuesday and I think they  
 2207 make the same point.  
 2208  
 2209 In terms of this issue is the remaining point of disagreement the "degraded" and  
 2210 "deteriorated". From my reading of the provisions they do acknowledge the  
 2211 connection between the two.  
 2212  
 2213 Kay: That's my understanding, which would then be a question for these two probably  
 2214 as to which word.  
 2215  
 2216 Chair: I just want to understand that that is the remaining point.  
 2217  
 2218 Kay: Yes, there weren't any further points raised in response to my evidence.  
 2219  
 2220 Downing: Probably if I could add that addition of the qualifier "to the extent practicable".  
 2221  
 2222 Kay: Yes, sorry, that's a subsequent change.  
 2223  
 2224 Chair: Sorry Ms O'Callahan, did you have a comment on that.  
 2225  
 2226 O'Callahan: I'm just wanting to clarify [03.01.44 – nil audio]  
 2227  
 2228 Chair: Yes, so that in that version you've just handed up, that second bullet point is  
 2229 changed, but I understand that in relation to natural form and character you want  
 2230 "to the extent practicable" deleted?  
 2231  
 2232 Downing: Correct.  
 2233  
 2234 Chair: The point you make about the higher order instrument, that's always there. I  
 2235 don't immediately have those policies in front of me, but...  
 2236  
 2237 Downing: I did footnote them if that's helpful. They're in the footnote.  
 2238  
 2239 Chair: Of your speaking notes?

2240  
 2241 Downing: Of the speaking note.  
 2242  
 2243 [End of Part 2 recording – 03.02.39]  
 2244 [Hearing Stream 2 – Day 5 – Part 3]  
 2245  
 2246  
 2247 Downing: Note 1 in the legal submissions, paragraph 12 of the legal submissions as well.  
 2248  
 2249 Chair: What’s that? Recognise... [nil audio 00.41]  
 2250  
 2251 Downing: 18(h) might illustrate it more clearly. That says, “Rules and methods that give  
 2252 effect to te mana o te wai and in doing so maintain and improve the health and  
 2253 wellbeing of waterbodies and freshwater ecosystems including by retaining  
 2254 natural features such as pools, run [01.16 – nil audio].  
 2255  
 2256 Chair: Again that first bullet point, it's possibly arguable that “to the extent practicable”  
 2257 applies to fresh waterbodies that are deteriorated and not actually a natural  
 2258 forming character. Āhua is restored where deteriorated is the first part in that to  
 2259 the extent practicable applies to the second part, but I don’t think that is the  
 2260 officer’s intention.  
 2261  
 2262 I think we understand the point and the reference back to the RPS is really  
 2263 helpful. I did see that in your original legal submission. We will just reflect on  
 2264 that some more, unless anyone has any questions about that particular point.  
 2265  
 2266 McGarry: The internet was cutting out and forgive me but I think I’ve just missed this  
 2267 point. Is the concern in terms of “where practicable” only in relation to bullet  
 2268 point one? Is that clarified? Will it cut out, or is it both referenced in bullet point  
 2269 one and two?  
 2270  
 2271 Downing: It's more in bullet point one. We do take the point that it stems from which is  
 2272 that in some instances... sorry, this is really poor paraphrasing of that evidence  
 2273 but that in some instances there will be a permanent structure, which means it's  
 2274 just not practicable to restore to a former state. But, one way around it we  
 2275 thought would be to move to the extent practicable after “where deteriorated”.  
 2276 So that āhua is restored where deteriorated to the extent practicable, and then  
 2277 leaving the rest as it is, so that where fresh waterbodies are exhibiting natural  
 2278 quality rhythms they can be left to do so.  
 2279  
 2280 McGarry: We asked a few questions during this week of Ms O’Callahan and whether there  
 2281 was a difference where practicable and where possible. I just wondered if “where  
 2282 possible” was in fact a higher threshold, whereas “where practicable” brings in  
 2283 technical concerns. I just wondered whether you’ve got a view. I know you have  
 2284 referred back to the wording in the NPS, but just a view whether you see there’s  
 2285 a different threshold for “where possible” and “where practicable”.  
 2286  
 2287 Downing: I do. Sorry, you cut out for a bit. I think summary your question is what’s the  
 2288 difference between where practicable and where possible?  
 2289  
 2290 Where practicable introduces cost elements and where possible is a higher  
 2291 threshold to meet, and where you can do it you have to do it. It would be no

2292 surprises that Forest & Bird always prefers where possible in these instances. If  
 2293 that was being considered it's something we would endorse.  
 2294

2295 Chair: It's certainly been something we have discussed as Commissioner McGarry has  
 2296 said. We have also discussed the other provisions in the operative plan which  
 2297 are not on the table for PC1, which recognises not only the benefits of RSI but  
 2298 also their technical and operational constraints. If that provision is of concern to  
 2299 RSI they do have that other policy support.  
 2300

2301 Downing: Yes, I didn't think about that, that's a really good point. Read accumulatively  
 2302 there would still be that ability to provide for that.  
 2303

2304 Chair: We'll definitely give the point some further thought. I feel like I should know  
 2305 the High Court cases that you have referred to.  
 2306

2307 Downing: [05.47] is Tauranga Environmental Protection Society.  
 2308

2309 Chair: The Transpower case?  
 2310

2311 Downing: The Transpower case, yes.  
 2312

2313 McGarry: One other change that the officer has agreed to in bullet point three, which would  
 2314 be to replace "coastal waters" with the coastal marine area, which kind of just  
 2315 gives a nod to the chapeaux; where in the chapeaux it uses the coastal marine  
 2316 area and it's not narrowed down to coastal waters. I just wondered what your  
 2317 view would be on that change in the third bullet point to the coastal marine area.  
 2318

2319 Downing: Off the top of my head I actually would endorse that change because coastal  
 2320 marine area is predominantly coastal water but I guess there would be those  
 2321 elements of the brackish and the freshwater coastal marine areas are arguably  
 2322 broader.  
 2323

2324 McGarry: It does refer to functioning ecosystems and conditions and habitats. It sort of fits  
 2325 better. Thank you.  
 2326

2327 Kake: Thank you for your submissions and thank your speaking notes which clearly  
 2328 set out the key points. I think we as a Panel are working through.  
 2329

2330 I just wanted to ask and this might be a planning question. With respect to the  
 2331 new provisions Objectives WH.O10 and P.O7, the inclusion of the wording  
 2332 around "all other water bodies". Just acknowledging that we've had some  
 2333 discussion [nil audio – 07.53] talks about the importance of the  
 2334 interconnectedness of other water bodies. I just wondered if you wanted to  
 2335 elaborate on that so we can understand the key matters of contention there.  
 2336

2337 Downing: I think my point in there I may have got myself in a little bit of a knot. Through  
 2338 Ms O'Callahan's rebuttal she has said that policy underneath it sits a whole  
 2339 bunch of rules and standards that relate to only I think was it ground water, or  
 2340 not the other waterbodies that I was suggesting for inclusion.  
 2341

- 2342 Wratt: I would just like to explore a little more of the natural form and character. Ms  
 2343 Dowse you have referred to that. [Nil audio 09.15] inclusion of reference to  
 2344 natural form and character?  
 2345
- 2346 Dowse: No. Just to qualify, I haven't looked down in the later hearing streams at the  
 2347 revisions that will be dealt with later.  
 2348
- 2349 Chair: The objective WH.O10, I understand the "overs and unders" concern you've got  
 2350 drawing from the cases and the words "overall improvement" but given that the  
 2351 monitoring points are where they are and the Council's modelling has said,  
 2352 "These are the ones..."  
 2353 [00.10.20]  
 2354 For instance, we were talking before about the Mangaroa monitoring point at Te  
 2355 Marua and I think Dr Greer's evidence drawing on the modelling was that  
 2356 captures 90 percent of the land use in that catchment.  
 2357
- 2358 Given that monitoring can't take place everywhere, there are limitations on how  
 2359 it occurs, what other options are there. I understand the unders and overs point  
 2360 but if someone in one area is complying with say the Hearing Stream 3 rules  
 2361 around land use and they've got their consent and they're contributing towards  
 2362 achieving the TAS, but someone somewhere else isn't. That can only be picked  
 2363 up through that consenting framework, right? So I understand the unders and  
 2364 overs but practically how else can it occur. You've got to monitor water quality  
 2365 at a point and that will recognise that there will be some people that are  
 2366 complying and some people that are not. You can only really manage that  
 2367 through consenting status and managing activities in that way.  
 2368
- 2369 Do you have any other views on how?  
 2370
- 2371 Downing: I guess the submission stands in that it ignores a localised effect. This might not  
 2372 be a very scientifically appropriate example but, say someone is keeping within  
 2373 their limits for fine sediment and someone else is exceeding it, that person  
 2374 exceeding it is going to then have an effect on a threatened species.  
 2375
- 2376 I guess the upshot of Forest & Bird's position on this is just that overall the term  
 2377 "overall" is not necessary.  
 2378
- 2379 Is there anything you would like to add from a science perspective, because  
 2380 you've been more familiar with how things are monitored over time?  
 2381
- 2382 Kay Only in brief. I have only just been looking at this briefly this morning and it is  
 2383 confusing, or seems to be to me and I could have this wrong, that it's referring  
 2384 to specific target attribute states being improved by 50 percent, which are being  
 2385 monitored at individual sites, but then it adds the qualifier "overall", which is  
 2386 then generally used across an area and it does refer to the area of the part  
 2387 freshwater management unit.  
 2388
- 2389 Again I'm just coming to this fresh, but reading it from an ecological perspective  
 2390 it is a little bit like, "What is it specifically referencing? Is it an overall  
 2391 achievement across the part freshwater management unit, or is it specifically a  
 2392 50 percent improvement in the specific target attribute state and it's specific site

2393 as per the table of objectives?” But, you’re probably looked at it much more than  
 2394 I have and maybe there is an answer to that question.  
 2395  
 2396 Chair: I think that is a good point. My understanding is it's the latter. I don't know if  
 2397 it's fair to ask Ms O'Callahan if she's got a view on that.  
 2398  
 2399 O'Callahan: I was thinking about the pipe network when I wrote the word “overall”. I think  
 2400 it's superfluous and can come out.  
 2401 Chair: Thank you. Yes, by 50 percent of the improvement required in the part FMU.  
 2402  
 2403 Kay: In which case it's referring specifically to each of those target states and  
 2404 objective table.  
 2405  
 2406 Chair: Yes.  
 2407  
 2408 Downing: Just while I have him with the mic, and sorry, I have to jump to another  
 2409 provision, if I may, WH.O1 that third bullet, where they would have naturally  
 2410 occurred may not account for changes resulting from climate change.  
 2411  
 2412 Kay: Just in terms of shifting species distributions that we might see with changing  
 2413 water temperatures and things like that for example.  
 2414 [00.15.00]  
 2415 I'm not sure exactly what words could go in there, but something just to capture  
 2416 that that might change naturally. Well, it's human in gest, but change within the  
 2417 scope of climate change.  
 2418  
 2419 Chair: I can't actually now recall the reason for even needing those words. I would need  
 2420 to go back to Ms O'Callahan's evidence on that, unless... because if it ended  
 2421 just after “taonga species” the translocation and now the climate change point is  
 2422 a good one.  
 2423  
 2424 I'm pretty sure the officer has talked about this, so I think I need to go back and  
 2425 have a look. Thank you. We've noted the point and we'll consider that.  
 2426  
 2427 The degraded and deteriorated...  
 2428  
 2429 Kake: I just want to understand that from a consenting perspective I suppose a little bit  
 2430 further. Some of the examples that come to mind, where some of those trans  
 2431 locations might happen. I suppose in your experience as an ecologist now some  
 2432 of those key threats with respect to that translocation of taonga species of  
 2433 threatened species, have you got any comment around some of those aspects?  
 2434  
 2435 Kay: In terms of what the threats to those species are and going back to these places?  
 2436  
 2437 Kake: Just trans-location in general and considering the effects of climate change and  
 2438 perhaps that not being a suitable habitat. I'm not sure just off the top of my head.  
 2439  
 2440 Kay: Specifically, and you can tell me if I'm not answering your question correctly,  
 2441 or if I'm not getting to the point of it, but the things that initially came to mind  
 2442 to me with freshwater ecosystems would be things like shifting ocean  
 2443 temperatures which is meaning that a lot of our species are diadrimus, so they  
 2444 go upstream and then they go all the way out to sea to breed; where they are then



going in the ocean I understand is changing because of changing ocean temperatures. I don't know if that would then change where they come back to, but that could mean that they start to prefer different streams when they return.

Also things like shifting distributions of pest species, pest plants and things and the risk of introduction of those pests, like with the Waikato River with the clam and things like that.

So there's a change from both sides; potentially that the species have a different preference because of the habitat changing through something like temperature, or that there's a new risk introduced through things like pest, plant or aquatic plant species or whatever that now can live in those places where they couldn't before. This is not necessarily a realistic example but koi karp for example generally don't really breed in certain places because of temperatures and things like that. It could be that that shifts and then they become a risk, for example. That's a hypothetical but that kind of thing.

Wratt: Could I just explore that a little bit more? So that, for example, might mean that if koi karp are expanding in a particular ecosystem that might cause an endangered New Zealand indigenous fish to be excluded; so you then might want to take that indigenous fish and introduce it somewhere else. Is that an example of what you're thinking of?

Kay: Again it's a hypothetical and just a species that came off the top of my head. But, yes, it could mean that for some reason you want a species that we don't know whether it was in a habitat in the past to now go somewhere that it wasn't.

The kind of places where it happens a lot are like Otago with a lot of the land-locked galaxiid species and things like that. That seems to be where they are thinking more about where they limit trout and salmon getting to and things like that. As I understand it, in the North Island we have a bit more of a regular distribution and less of those land-locked threatened specific things; but it's totally plausible. There has been some work done quite recently by Dr Adam Canning looking at what are the expected drops and increases in distribution of different native and pest species based on that. Whether that's substantive to what the words say is another thing, but it is interesting.

Wratt: It could also be that with climate change a previous or a current habitat of some endangered species isn't suitable any longer, but it may be possible to keep that endangered species by shifting it to a new habitat that has now also been changed by climate change – temperature for example.

[00.20.00]

Kay: Feasibly yes.

Wratt: Again it's just hypothetical but I guess that was the sort of thing I had in mind when you were talking about translocations.

Kay: The reference to healthy ecosystems or ecosystems health maybe captures that in the sense of what you're looking for is healthy ecosystems, and that definition might shift as some of those other parameters around it shift, the specifics then that are listed is up for you grapple with I guess.

2497 Chair: The reporting officer in relation to the natural form and character point in  
 2498 WH.O1 and O2 does not support including the Appendix 1B specifics into the  
 2499 natural form and character concept on the basis that PC1 is aimed at achieving  
 2500 numeric objects and does not manage all these aspects of natural form and  
 2501 character, such as geomorphological and morphological aspects. Presumably  
 2502 you disagree with that. This is page-13 of the officer's rebuttal evidence.  
 2503  
 2504 I was thinking that as you point out, it's not just the numeric is it, it's also the  
 2505 narrative and the narrative value is in Appendix 1B and that also links to the  
 2506 point I think you're making about degraded, because it's that Part C of the  
 2507 definition of degraded which links to 1B.  
 2508  
 2509 I think the question is of the list of matters that are valued there under natural  
 2510 form and character that list in (a) to (g) do you have any points on that view  
 2511 about scope? I think the point the officer is making is that some of these things  
 2512 in here are just outside the scope of PC1. A hard question I'm sorry.  
 2513  
 2514 Dowse: I considered this when I was preparing my hearing notes and took Ms  
 2515 O'Callahan's point that the scope of the PC1 provisions underneath these  
 2516 objectives and policies don't deal with those matters. I hadn't put any further  
 2517 thought to it.  
 2518  
 2519 Chair: I think what I'm probably really asking, and maybe Mr Kay might be able to  
 2520 help on this, I don't know if I fully understand geomorphological and  
 2521 morphological aspects is I think what I am trying to get at.  
 2522  
 2523 Kay: I can come at this from a couple of angles maybe. Purely from an understanding  
 2524 what WH.O2B is saying is a change in wording could be useful in that at the  
 2525 moment it says "natural form and character is maintained or where degraded  
 2526 improvement has been made to the hydrology of rivers, banks stability," so  
 2527 you're improving the hydrology of rivers, you're improving the bank stability,  
 2528 and then it implies that you're improving sources of sediment are reduced –  
 2529 which doesn't actually make much sense from a wording perspective.  
 2530  
 2531 So I think there is maybe a wording issue that could be cleared up there.  
 2532  
 2533 The introduction of the full list of things from 1B is I guess sort of a separate  
 2534 question, as to whether those words are the right ones to put in there.  
 2535 [00.25.05]  
 2536 I kind of address in my evidence how different parts of the target attribute states  
 2537 and the plan address many of those things, and this is the inherent struggle and  
 2538 difficulty that there has been. River management and flood management has  
 2539 generally been kept separate to ecological matters. You often see entire [25.25]  
 2540 but you end up with a whole lot of river management activities happening  
 2541 generally with relative disregard for the ecological and ecosystem health impact.  
 2542  
 2543 If you look at the biological things, you've got things like the MCI and the fish  
 2544 measures. If you look at the visual you've got things like suspended sediment.  
 2545 If you look at physical characteristics you've got deposited sediment. Then those  
 2546 are addressed in (a).  
 2547

If you're going down to things like (d) relative dominance of indigenous flora and fauna you've got riparian, cultural significant species, you're looking at mahinga kai, clarity of the water, and you're looking at things like suspended sediments. Then you step back and go, "What does this plan do?" It manages land use and whatever which will then affect how run-off is coming down and sediment is coming off the hillsides into that river, which then influence the geomorphological processes, which is simply the processes that form that river, shape and habitat.

The difficult is that in the way that I read it from an ecological perspective, is that that has sort of slipped through the cracks. This is why in some ways I struggle to say I'm coming at this as an ecologist or a geomorphologist because there's not actually that many people that try and merge those two things together, and there's this little grey area that's lost.

I think there's a lot of value in trying to get the plan to acknowledge that there's a connection there, with the limitation maybe that you feel, as I understand from the reporting officer's report, that this doesn't change the rules for the activities in the beds of lakes, rivers and things. So you can't control what flood protection works are happening and the impact of those on natural form and character, but a lot of what you are regulating from an ecological perspective will have an impact on natural form and character and habitat – if that's helpful.

Chair: The drafting you've proposed, I know length alone shouldn't mean it shouldn't be included, but I was wondering if there is an alternative way of capturing those Appendix 1B matters into the drafting; because particularly for WH.O2 it would become a very, very long clause.

It might just be that we need to reflect on that and see if the officer has any views on that in reply. I think we get the point and it's well-expressed.

Shall we just see if anyone else has anything further on natural form and character or degraded? I am interested in the officer's view, not now but in reply, on that clause (c) issue. Looking again at the rebuttal I think it responds specifically to the target attribute states point and not clause (c). We will see if that changes anything.

Does it matter do you think that clause (c) refers specifically to the 7 September 2017? I don't think it does. I know there's different options for assessing baseline and that's just one of them. I don't think it would matter.

Downing: Sorry is this specifically with reference to natural character?

Chair: It's the definition of "degraded". Just that clause (c) which I understand you're relying on for why "degraded" should be used instead of "deteriorated". It compares the situation to September 2017.

[00.30.08]

Dowse: Rather than the baseline monitoring information that Greater Wellington has prepared through this plan change.

Chair: Natural form and character, we're talking about longer term things aren't we. The fact it's compared to 2017 probably doesn't matter.

2600  
 2601 Dowse: I would have to go away and think about that.  
 2602  
 2603 Chair: Anyway, I think the key point is that we will ask if that reference back to the  
 2604 clause (c) issues changes anything for the officer's assessment.  
 2605  
 2606 Kay: Sorry, I'm not sure about the full context of the question, but I guess just in brief  
 2607 one advantage of natural form and character, not necessarily habitat at a really  
 2608 detailed level, but we have quite good aerial imagery at regular years that if you  
 2609 wanted to establish a baseline for some point in time, particularly within the last  
 2610 ten or twenty years, it's actually quite easy to go back and say, "Look the river  
 2611 was over there, or the channel was this wide," whereas with nitrate monitoring  
 2612 you go, "We weren't monitoring so we just don't know." We have actually got  
 2613 points in time that you can revert to if you had to, so that might be useful context.  
 2614  
 2615 Kake: One last question I wanted to explore. It's a quick one I hope. It might have been  
 2616 addressed already through some of the rebuttal from the reporting officer. It is  
 2617 in your planning evidence with respect to the financial contribution, which I  
 2618 think has been struck out anyway, but just as a general I was interested in the  
 2619 commentary at paragraph 67 in your evidence around the policies covering  
 2620 financial contributions and application to the effects management hierarchy.  
 2621 We've been getting a lot of economic analysis provided to us as well and no  
 2622 doubt there's going to be some more discussion coming up particularly this  
 2623 afternoon – I think we've got Wellington Water coming in.  
 2624  
 2625 Some of the commentary you've made around the financial contributions to I  
 2626 think it is maybe stormwater you've referenced, we've heard that it's easier to  
 2627 do this in new urban greenfield development areas, but we've heard that it's  
 2628 obviously really challenging to retrofit stormwater upgrades in particular. I just  
 2629 wanted to know if you wanted to elaborate a little bit on your view that you've  
 2630 expressed there in relation to that policy around financial contributions, and the  
 2631 reference to the affects management hierarchy.  
 2632  
 2633 Dowse: I think the key point there is just that the NPS-FM is telling you to apply the  
 2634 effects management hierarchy and so the policy should indicate that if you  
 2635 decide not to delete it.  
 2636  
 2637 Chair: There was one further point, sorry to come back to this, about "degraded". Just  
 2638 looking at that again – so if the natural form of a river say was artificially  
 2639 changed quite a long time ago is it relying on clause (c) only saying you need to  
 2640 assess it compared to how it was in 2017 and the change might have occurred a  
 2641 lot earlier than that? So actually couldn't it be overly restrictive?  
 2642  
 2643 I think Ms O'Callahan makes this point in her rebuttal in relation to the 2100  
 2644 waioira point. Sorry, maybe just the first one.  
 2645  
 2646 If form and character has changed prior to 2017, you're only requiring it to go  
 2647 back to how it was in 2017.  
 2648 [00.35.00]  
 2649 Kay: The difficulty with natural form and character from my perspective and habitat  
 2650 and that it kind of crosses over, is that in falling through that gap between  
 2651 ecology and natural character we haven't looked to set targets or community

aspirations for those things. Everything else can have a baseline as its minimum, with then a community aspiration. You could be in a (c) band now but the community says, “Actually we want (b) or (a) with natural form and character,” because the NPS does arguably direct you to come up with targets for that value if you consider that value is part of the catchment. Because that hasn’t been done necessarily it means there is a gap. It doesn’t tell you how much to restore that by.

You’re right, I think it might be there’s that challenge. A lot of the change to natural form and character has been quite historic from the ‘40s onwards with flood protection and things like that.

In an ideal world I think we’d have targets where we would say “This waterbody we’re going to just maintain its natural form and character because it’s currently really high. This waterbody is degraded but practicably we can’t move the entirety of Lower Hutt to restore the Hutt River’s floodplain, but the Waiwhetu Stream there’s some space to do some stream restoration and rehabilitation and put some meanderings in. You would have some sort of quantifiable targets. But, because of that difficulty of this plan change affecting one thing but not activities of birds at rivers and lakes it difficult to put those in out of nowhere.

Chair: Certainly in the context of the waiora state, which is the longer term of 2100, just looking at that first bullet point there, do I have it right that you would prefer that to say “āhua natural form and character is restored” and freshwater bodies exhibit natural quality... to the extent possible.”

Downing: That would be a preference to the extent possible if that is to be retained, but also if it is to be any kind of notion of where practicable or possible is there, we thought it would fit more nicely after “where deteriorated”.

Chair: I see.

Downing: “Natural form and character is restored where deteriorated to the extent practicable or possible,” and then freshwater bodies exhibit their natural quality, [37.52] flows.

Chair: But, you would still prefer “degraded”?

Downing: You’ve raised some really good points. We don’t want to land on where we think it should go. If there as an opportunity to provide more planning.

Dowse: I would like to talk with Mr Kay as well before I land on something.

Chair: We do have the integration stream coming up. I think we have probably given quite a lot of airing time – we appreciate it’s an important issue. Let’s see where the officer comes back within the reply and then of course there is how this objective WH.O2 are going to be implemented as a subject of further hearing streams. So we could just see how all of that is shaping and then if you want to come back in the integration stream maybe that might be the best approach; only because we’ve got Hearing Stream 3 coming up quite soon after this one. I think if we allow more time for further evidence and then time for the officers to



2704 respond, I think we are going to be running too close to Hearing Stream 3  
 2705 unfortunately. But, that is why we have the integration stream.  
 2706  
 2707 McGarry: I just wonder if they could just reflect after the discussion today and provide  
 2708 something in writing in terms of updating what their position is at this point  
 2709 perhaps.  
 2710  
 2711 Chair: Sure. We might need that quite soon, just so then the officer can also consider  
 2712 that as part of the reply, if that's okay. We're at the end of the week now, but by  
 2713 the end of next week if that's possible. That's also Easter.  
 2714 [00.40.10]  
 2715 Downing: Thank you Commissioner.  
 2716  
 2717 Chair: Thank you so much. Sorry to keep you so long over.  
 2718  
 2719 Downing: That's fine. Thank you.  
 2720  
 2721 Chair: We will take the break now and come back at 1.45pm. Thank you.  
 2722  
 2723 [Hearing adjourned – 40.35]  
 2724 [Hearing resumes – 01.21.00]  
 2725  
 2726 **Cawthorn**  
 2727  
 2728 Chair: Kia ora Ms Cawthorn. Welcome.  
 2729  
 2730 We will start the session for Day 5 of Hearing Stream 2. Ko Dhilum Nightingale  
 2731 tōku ingoa. I'm a Barrister and Independent Commissioner practicing as a  
 2732 lawyer for the past 25 years and based in Te Whanganui-a-Tara. I will ask the  
 2733 other Commissioners to introduce themselves.  
 2734  
 2735 McGarry: Kia ora. My name is Sharon McGarry. I'm a Hearings Commissioner based in  
 2736 Ōtautahi Christchurch.  
 2737  
 2738 Kake: Kia ora. I'm Puawai Kake, a Planner and Independent Commissioner based in  
 2739 Northland Te Tai Tokerau.  
 2740  
 2741 Wratt: Kia ora Gillian Wratt. Independent Commissioner based in Whakatu Nelson.  
 2742  
 2743 Stevenson: Ngā mihi nui kia koe. I am Sarah Stevenson, an Independent Planner and  
 2744 Commissioner based in here in Te Whanganui-a-Tara, Wellington. Welcome.  
 2745  
 2746 Chair: Ms Cawthorn we have your submission, thank you very much. It's from quite a  
 2747 long time ago now, December 2023. We have read that. However you would  
 2748 like to present to us we do note that the officer has provided some revised  
 2749 recommendations which are now up on the website. A lot of information for this  
 2750 hearing stream.  
 2751  
 2752 If we note that there's a point you're making and we think the officer is  
 2753 supporting that, we might just note that once you've presented. Otherwise over  
 2754 to you.  
 2755



Cawthorn:

Kia ora koutou katoa. Thank you very much for the opportunity to speak here. I am Isabella. I'm one and a half generation Pākehā from just north of Porirua and Plimmerton, regional name of Taupō. I am here in my capacity as a citizen and a nerd I guess. I have generally been interested in how we interact with our environment and the [01.23.35] instructions that we make to ensure that we tread a bit more lightly and get best value, so on and so forth for many years. I even run a meet-up called 'Urban Nerds'. That's my principal capacity here.

I have had a very brief professional deeper dive into this space. I worked for Greater Wellington facilitating Te Awarua-o-Porirua Whaitua Committee in the early days, like 2015-16. But, I wasn't involved all the way through. I'm bringing that context to essentially bring a little bit of renewed emphasis to the points I was making in my original submission, and a bit of just the context now that we're getting through the Schedule 1 process where the world is at.

I've basically got three big points to make really. One is just a general reiteration about the NRP as an instrument for strategic direction setting in the job we need it to do, especially now.

The second one is around the popular mandate for the proposed water quality stuff in the NRP and the mandate at a population level I suppose; sort of a regional governance level.

Then the final one is around the popular mandate for that content specifically developed by the Whaitua processes at a catchment level – the popular mandate for that.

[01.25.00]

Forgive me for telling my proverbial grandmothers how to such eggs with any of this stuff. I am just wanting to bring the points into the space.

Firstly, NRP as an instrument has this really vital job it has to do. It needs to do it really thoroughly and we need it to do it really well particularly now. I'm talking about this stuff because you'll probably be hearing many arguments that because the wider landscape around infrastructure is changing a lot at the moment basically that we should probably be a bit more conservative with some of the [01.25.35] or we don't know what the structural environment will be at local government, even local central. We've got an affordability crisis at the moment around infrastructure. We need to be more responsible with spending and there's just so much change. Everything is up in the air at the moment. There's these new institutions. It would be pre-emptive to set a strong direction with all this uncertainty around, so on and so forth. There's a lot of merit in those arguments.

Disruption and change is scary even when it is two things that we love to hate, like water regulations and structural local government. There's a lot of instinct for us to kind of hunker down.

But, all of this change and destruction in infrastructure is precisely because we are starting to change a lot of the structural things that have landed New Zealand in you're looking at graphs of the LECD and different dimensions of infrastructure. We're down in the bad spots New Zealand, like quite a lot. We spend quite a lot but we get really poor value for money. We have poor strategic alignment between what we spend on with infrastructure and the things we say

we want to do. We get poor value for money in construction delivery and outcomes. All of these things are not just for water by any stretch, but they are making big contributions to the tough state we find ourselves in with water quality right now and why it's hard and expensive to make things better.

The big reforms in play making it really uncertain at the moment, everything from structural local government, central government, infrastructure funding and financing, spatial planning, combinations of all of that, that uncertain environment is precisely because things are finally starting to get changed and that actually makes a stronger case for our strategic directions to be really clear and strong and unequivocal to help us have a navigational star through all of that churn and mess.

You know this better than many I suppose, but it's worth reminding, what is the power of a really strong strategic direction even in normal times let alone really swirly and churning structural times. It tells what the point is of doing all that structural stuff. It tells us what tangibly is the better world that we are aiming for with all these structural reforms, investment and all the good stuff.

It says, "This is how our lives are going to be better at point x." It helps us set a course. It's not a precise course dictated out minute by minute with little GPS points every mile, it's an arc of the compass. This is like Pacific navigation. This is large scale journeying as a nation. Good strategic direction provides a clear description of that promised land which is over the horizon and it provides navigation points along the way; so that as we head across different latitudes we can tell if we are getting off course. Wherever that strategic direction is, present case it's in the NRP, it has to be clear, it has to be strong, it has to be long-term so over the horizon and it has to be really unequivocal. The fact that we might fail to get to one of our weigh points exactly when we wanted to is actually okay, because we know where we are going and we can get better at travelling on the way. We can get better at the how stuff.

Having a clear direction of where we are going doesn't magically fix all of those how's and magically get us consensus on all those tricky details, but it unblocks us all those really tricky and important conversations; and lots of them are ones that are starting to happen right now.

I will just pull out a couple of examples. One tricky important conversation is what should be in a non-partisan pipeline of genuinely essential consensus infrastructure for our region? A big live conversation. That pipeline would be a great thing to have. It would allow us to do all sorts of things around infrastructure investment in a coordinated way which would make the OCD graphs look a lot better for us and make us genuinely happier.

[01.30.00]

It would help us figure things out around what workers might we need, what regulatory screens, what different kinds of investment do we need, do we want to do big wastewater treatment plan or do we want to do lots of distributed sewerage infrastructure and what are the mechanisms for that investment. How we're developing – how much outputs, how much outwards, how much retreating.

That pipeline would be a great thing but good luck trying to get one if we don't know where we are going with water quality.

Same thing for another big conversation of funding and financing. What should be the funding and financing framework for Wellington for infrastructure? What tools should we be using in what places? How do we want to leverage renewals versus using debt finance? How much do we want to [01.30.52] vehicles and financing things we don't even know about yet?

These are conversations in which there's a really hard core which we can't outsource to scientists, economists or spatial plans or technical people, and that's a conversation about distributional equity, right? A fancy economics term for who is bearing the burdens and who's enjoying the benefits – are across society now and out towards our children and their children.

Again, you have as much technical conversation as you like but good luck landing it and getting into that really hard stuff about distributional equity if you don't know where you're going and why you're going there.

All of this, don't take it from me, take it from the DIA in water economics and Water New Zealand, Infrastructure New Zealand, Treasuries, National Infrastructure [01.31.46] OCD according to our Land & Water National Science Challenge and the list goes on.

Clear, strong, unequivocal, long-term direction setting from the NRP is very important.

You're going to hear lots of very articulate and well-reasoned arguments to make a few little tweaks here and there. "Look, it's too expensive, it's too difficult to reduce sediment loading from development or sediment loading for forestry at the pace it's proposed in the Whaitua Chapters, so could we just dial that back a little bit." Or, in terms of the old E.coli counts and the bands we're going to get one decent storm and it's going to ruin all our stats; we've got so many cross-connections; it's just the current state, so can we just shift the band down a little bit?" It's reasonableness, affordability and all of these good words.

Or, "Look, we can't be imposing extra costs on housing developers in a housing crisis. It's just not the time."

All these little tweaks may be sold to you as little bit collectively they take what is currently proposed as a strong long-term clear unequivocal direction and they introduce inconsistency, they introduce fudging, they introduce hedging, and I've outlined already what happens if we try to have big important conversations and try to move forward as a nation and fix all those structural problems without that clear direction of where we are going.

And, let us remember – and again, sorry for teaching you how to suck eggs – it is the job of the NRP to set a course, to set a destination and some navigation points. It's not a budgeting document, it's a direction setting document. And, again lest we forget, within our legal framework (because yay, laws and rules still do mean something in New Zealand at least) under the NPS-FM we have

that obligation to maintain or improve. If you kind of bullshit on that you're abrogating responsibility to manifest the intent purpose of the law.

So, all in all, combine that with the importance of good strategic direction setting and it's going to need a very good reason, a really compelling reason, to weaken what is currently proposed in terms of water quality bits [01.33.54].

Moving on now from the technical and procedural stuff to the other side of the coin of the government activity, which is your democratic mandate [01.34.06].

I have got two points to make here. The first one is at that population level, kind of at the regional governance level; and the second one is about the specific catchments. I'll box on real quick.

Again these pressures will come up of "Goodness, are we really sure we should be doing this right now? There's a massive costs of living crisis. It's very expensive. It's going to be very difficult. It's going to piss off a lot of people." But, for once you can be confident in that setting a strong direction with those proposed Whaitua generated bits of material this is greater Wellington doing its job, exercising good leadership as an entity of government. And, the reason you can feel confident about this is that around the world when ordinary people are surveyed 'properly' about what they deeply value and they're big priorities, what comes up again and again in the top five, regardless of the economic cycle, regardless of the affluence of the community concerned or the country your surveying in, what's in that top five over and over again is protecting the life supporting capacity of water and water ecosystems – again and again and again throughout modern history.

[01.35.25]

There's a huge amount of research on this. Loads of citations I can point you to. New stuff coming through all the time simply emphasising the point. There are very few universal things in this world, but that is one of them.

There's an interesting contrast here, because when you ask people simply what they care about the most, or what they are most concerned about, or you ask them to rank investments, things go up and down. Right now for example, I think there's that new [01.35.55] survey that says there's a lot more concern around hospitals and medical care access. And, when there was a lot of talk about ram-raids and other high profile violent crime, there was a lot more concern about crime and safety – that bubbled up. If you ask people about a percentage increase in their rates in the next LTP again it's predictable answers.

These are valid questions, but they don't actually illicit what people generally care about big picture. What they generally want to know, what their children and grandchildren are being left with, it's that stuff, that large scale long-term stuff that is the sole preserve of government for better or worse. Even libertarians will grudgingly admit that point.

Given that when most people were asked properly about what they value most for their children and their grandchildren, here nation-wide, worldwide, it's that life supporting capacity of water, waterways, water ecosystems.

Greater Wellington can feel confident that there is that popular mandate for a strong, clear unequivocal strategic direction on water quality.

But, it gets better – and this is my last point.

The third reason why you can feel confident from a democratic legitimacy perspective in these Whaitua generated chapters is those bits have been developed by a best of breed process; and I can be a little bit of ‘dial up the nerd’ here because this is actually my field.

I’ve been paying a lot of attention to deliberative processes and natural resource management over the last 15 or 20 years or so. I’m a massive nerd and I can say that with a couple of exceptions you will struggle to find anywhere in the country, regional plan material on water quality that has been developed better than that developed in the Whaitua processes.

The two exceptions – and basically there’s only one that’s really ended up in a regional plan, which is the Waioira Healthy Rivers Process in the Waikato; the other one is Watercare Citizens Assembly, but if I’m not wrong that hasn’t actually made it into a regional planning document yet.

Whaitua for all their flaws, and there were some significant flaws, but they are still best of breed and they reason why you can feel they give you a lot of democratic confidence is that again another universality worldwide in New Zealand, in the Wellington region, in the Ruamahanga, in Porirua and Te Whanganui-a-Tara, when you get a representative group of ordinary people and you put them through a really well-supported, really well-framed, really well-structured deliberative process, you provide them with all of the information support on economics, on science, on mātauranga Māori, on development economics, on public health, they show significant sophistication in making really difficult decisions in considering multiple kinds of information at once, and considering really gnarly trade-offs and arriving at really solid, really sound decisions.

It’s better than to be honest many of our normal decision-making entities with [01.39.10] representatives – embarrassing but true.

The Whaitua in this region have arrived at the Whaitua Chapter’s material, those objectives and those targets, with this best of breed process. The ordinary people have been supported to bring their best selves, their collective best selves to those really hard decisions in setting a strong and clear and unequivocal direction into the future.

There are very times in government you can put your hand on your heart and say not only the people have spoken but the people have spoken with wisdom. It’s really incredible.

[01.40.00]

One of the saddest things about the Whaitua from my perspective is that they were very weakly promoted. That process is not well-known. It is not well-understood, because it was incredible. Flawed in many respects, yes, and it’s a shame that we’re not keeping on with them and doing better and better and better around the country. But, the people have spoken and they have spoken with



wisdom in generating those objectives, limits and targets in the Whaitua chapters.

Add that to the fact that Greater Wellington is on very solid ground as a governance entity, securing the life supporting capacity and restoring the life supporting capacity of water, and the fact that it is exactly that strong clear, unequivocal direction we need right now in our messy infrastructure environment, and there needs to be a very compelling reason to weaken any of that proposed material.

I hope you can take this into account in your decisions. Thank you for listening.

Chair: Thank you very much Ms Cawthorn. Your messages are very, very clear.

We have heard from some submitters this week that are concerned that these provisions are not properly honouring the Whaitua process and the outcomes that came out of them. We are, I see, in a bit of a tricky position because yes we have got Te Mahere Wai and we've got the WIPs, but we have also since then received further information that says on the back of more refined modelling, on the back of taking in more detailed economic considerations, actually a lot of the target attribute states are better, in a better baseline and better current state than we have originally thought; and I think that that perhaps speaks a bit to your concern that there are so many TAS's that are saying "maintain" rather than "improve".

My question, and just perhaps drawing on your self-proclaimed nerdiness, given all of the science, and the science from the Council is now telling us actually in many places current state is better than in the notified version and so we can now support some more relaxed timeframes and even some lower TAS outcomes.

How do you think that we approach that?

Cawthorn: I suppose it's good news on one respect. It's always nice to learn that you're not as sick as you thought you were.

I guess if I come back to the point about the power of setting a strategic direction, and this is a direction setting document, as we go forward into the inevitable messy processes of figuring out what we're going to do with our urban environments, and I'm thinking particularly here about Porirua and the urban environments and urban activity having the most impact, particularly with sediment, I think there's still a really strong case not to weaken the direction that we're setting. I guess if the NRP is able to drive, pull or impel all the different infrastructure sector actors from whatever our water entities end up being, through to councils and developers and catchment communities and so on, to draw them in a stronger direction.

Erring on the side of stronger I think is good. Going so far, to say everything should be pristine, that's clearly bonkers and you're into almost paralytically impossible territory.

[01.45.00]



3063 If there's an edge case, erring on the side of a stronger compulsion I think is  
 3064 really healthy, just because a human is going to 'human' when it comes down to  
 3065 it. And, an institution is going to 'institution'.  
 3066

3067 Wratt: Just exploring that a little more and I guess the supposed fine-tuning that's been  
 3068 happening into the document since it was notified; you noted that we get into  
 3069 the messy part of the process and I guess I would be tempted to say that we are  
 3070 probably already in the messy part of the process, which is taking the aspirations  
 3071 and the WIPs and **Te Haere Mai** [Māori 01.45.51] into the Council regulatory  
 3072 context. You've talked about the importance of strong strategic direction.  
 3073

3074 I think my question is, with the refinements and in some cases a weakening of  
 3075 what's in there, do you think that the strong strategic direction has been lost?  
 3076

3077 Cawthron: I think it's been weakened, yes. I'm an optimist but I think it's safer to extrapolate  
 3078 to a degree some of the bad behaviours or typical behaviours of humans and  
 3079 institutions at least out a little way into the future. I think it's important not to be  
 3080 naïve about how institutions will not collaborate or not cooperate, or will find  
 3081 ways to make their KPIs look better. Developers for example, unless they are of  
 3082 a particular breed and perhaps iwi run developers might be different, but they  
 3083 are there fundamentally to make some profit off their product.  
 3084

3085 I just think it is on principle, and I have not looked at the specific details of  
 3086 individual bits because I'm sorry I haven't had the band-width, but as a general  
 3087 principle again I think it's bordering on the naïve to think that general bits of  
 3088 weakening are going to be something we'll thank ourselves for in the future.  
 3089

3090 Wratt: I'm proposing this, or I'm postulating this I suppose, but one could say that what  
 3091 the Council have done is set a high bar and then is starting to look at what's  
 3092 achievable and working with the entities that are going to have to make this  
 3093 happen, to actually set something that balances the aspirations which are in this  
 3094 process.  
 3095

3096 From my perspective, and I'm not a Wellingtonian I come from Nelson, but this  
 3097 process has been an amazing process to understand some more about; but it's  
 3098 that getting the balance between the aspiration and the workability. Maybe that  
 3099 sounds like compromise but compromises do have to get made.  
 3100

3101 Cawthron: How we get things done. The framing I find interesting.  
 3102

3103 Balance: implying two ends of the scale and a trading off. If you have more of  
 3104 one you have to have less of the other.  
 3105

3106 Aspiration versus workability, aspiration versus practicality: again that's a pretty  
 3107 loaded binary.  
 3108

3109 Where there have been the most successes around the world, particularly with  
 3110 things like deliberative processes which are the ones that have had the most  
 3111 success, it's where there has been some kind of sense of crisis and a sense of  
 3112 "Holy shit, okay, wow, we really have to do something." Sometimes that's come  
 3113 from a natural disaster – earthquakes or floods, or whatever. Sometimes it's  
 3114 come because there has genuinely been some kind of horrific stuff that cuts the

heart of what people think their nation is about – like little kids getting waterborne diseases or whatever. But, that sense of some kind of sense of crisis, or some kind of intensity of compulsion is the thing that helps people break free of what they consider currently to be affordable, to be doable, or to be workable, which are things we generally define as adjacent.

[01.50.00]

We can conceive of one or maybe two steps away from where we currently are, but we are not good at imagining different.

So, I genuinely think there is a role again as a direction setting document; not a document that designs new institutions or stipulates new funding regimes, but as a direction setting document the NRP can do us a service by setting that context that makes all of the other bits go, “Woah, okay, we’re going to have to do some stuff differently now everybody.”

One of the nice examples are what you see happening out of Tairāwhiti after the floods, in Porirua after Covid with the Citizens Assembly and the new democratic processes that are going on there, or in Christchurch after the earthquakes. It's those kind of almost like cataclysmic things where people go, “Whew, okay, right, woah, we’re ready to step more than two steps adjacent from what we currently know.”

Chair: Thank you Ms Cawthron. You clearly think that we are at that point here with freshwater. That’s very, very clear. Thank you so much. We are unfortunately out of time. Unless a Commissioner has a burning question we might have to unfortunately leave it there.

We’ve got more hearing streams and if you would like to come back we would very much welcome that.

Kake: Just a quick comment, not a question. Just with respect to the future hearing streams and what is presented in your submission around particular standards, your thoughts on that might be quite useful for us to hear as we go forward.

Cawthron: Thank you.

Chair: Thanks so much. We wish you a good weekend.

## **Wellington Water**

We will welcome our final submitter of the day – Wellington Water. Would you like to come up?

Kia ora. Welcome. I think you were all here when we did our introductions for the last submitter, unless you would like us to go through that again.

We’ve got a lot that we want to talk to you about obviously and we are also time constrained. We might just cut straight to it.

Viskovich: We have prepared some summaries and a couple of brief comments in response to some of the rebuttal evidence which is currently being passed up. For those who don’t know me on the Panel my name is Catherine Viskovich. I am the newly appointed Head of RMA and Environment at Wellington Water.

The Wellington Water team today I have Julie Alexander who will be presenting, Steven Hutchison, Paula Hunter is our Planner and she online. Mr Hutchison is our wastewater expert and we also have a stormwater expert Liam Foster who should also be online. Hopefully Liam you will pop up.

I think I will hand over to Ms Alexander to kick us off. I am not sure or the best way and I'm in the Panel's hands as to how you would like to run this; whether you would like the Wellington Water team to run through the summaries and then to pose questions to the team, or whether you would prefer to ask questions of each witness.

Chair: I think we probably have some questions that go more to the operational issues and then probably some specific planning related questions. One way to do it would be to have I guess the network experts talk and then maybe if we can cover those issues and then switch to Ms Hunter that could be a way.

Viskovich: That sounds sensible. I will hand over to Ms Alexander.

[01.55.00]

Alexander: Kia ora. I'm starting off. I'm Julie Alexander the Chief Strategy and Planning Officer at Wellington Water.

I'm going to give you an overview of Wellington Water, who we are and what we cover, so you can get that really important context for the rest of our submission.

Wellington Water's job is deliver safe and healthy drinking water, collect and treat wastewater and ensure the stormwater network is well-managed. We are owned by Wellington City Council, Hutt City Council, Upper Hutt City Council, Porirua City Council, Greater Wellington Regional Council and South Wairarapa District Council.

These councils own their assets and they set the level of funding. They decide how much funding to provide to Wellington Water. We then manage the infrastructure and provide services within that funding envelope. This is all set out for us in a management services agreement. We have our board of directors and we are overseen by the Wellington Water Committee, which is made up of representatives from each of the six councils. But, ultimately as a council controlled organisation Wellington Water does not have the same power as councils.

The Wellington region faces significant challenges with aging infrastructure. Many of the assets that we manage are near or at end of their operational lives and the cost and effort to maintain and replace them is growing. This is a symptom of historical under-investment and means that water assets in the region are aging at a faster rate than they can be replaced.

We are working with our councils to develop a sustainable level of renewals to address this backlog of work, and to implement a proactive programme to replace these aging assets.

This requires a substantial increase in the rate of renewals over a period of 25 years, potentially more.

We estimate that at least a hundred kilometres of pipe needs to be replaced every year for the next thirty years to address the renewals backlog and meet future needs of the region. The current rate of pipe renewals is around 20kms per year.

Along with the renewals backlog the water infrastructure challenges faced by the region are well canvassed. These include insuring an adequate supply of drinking water over the short, medium and long term; reducing the risk of failure of critical assets in the network as well as in the treatment plants; reducing the environmental impacts of discharges from the network and from the wastewater treatment plant; and more broadly ensuring the region can grow and that this is not limited by capacity in both the networks and the treatment plants.

Importantly, we need to meet the expectations of mana whenua iwi and our customers.

One of our strategic priorities is improving environment water quality but we do need a workable regulatory framework. We need to ensure that the targets put in place are not so aspirational that they can never be met.

Fixing the aging infrastructure will go some way to achieving the proposed target attribute states and coastal water objectives; however, as signalled in the technical evidence of Mr Foster and Mr Hutchison additional investment will be required to achieve environmental improvements over and above the renewals programme.

The scale of investment required informs what can feasibly be achieved and therefore the workability of the regulatory framework that Plan Change 1 seeks to put in place.

In terms of our position for Hearing Stream 2, as we advised in Hearing Stream 1, we are not actively pursuing the relief sought regarding timeframes for achieving the proposed TAS or CWO. This was on the basis that Wellington Water considers that these are essentially valued judgements or political choices that would be more appropriately addressed by Wellington Water's councils, who ultimately decide the affordability for their communities.

[02.00.12]

Our evidence is based on the practical workability challenges associated with achieving the proposed TAS and CWO.

Although we are not seeking changes to the timeframe associated with the TAS and CWO, we are seeking amendments to the plan provisions proposed in Change 1 to provide for appropriate recognition of stormwater and wastewater discharges and to enable these activities.

Wellington Water applied for global discharge consents in mid-2023 from the wastewater networks and stormwater networks across the Wellington, Porirua, Upper Hutt and Lower Hutt areas.

The proposed approach in the consent applications was to undertake improvements sub-catchment by sub-catchment, as network improvements cannot be made all at once.

The global consent applications were lodged before Change 1 was publicly notified and therefore did not consider the amended provisions. We are now reviewing the consent strategy in light of that.

I thought it would be helpful to give you some context around the uncertainty of the environment for the delivery of water services for us and across the region.

Proposed changes include: the implementation of the government's local water done well; policy settings which are aimed at improving New Zealand's water challenges, and this will impact how water services are funded and delivered; the Resource Management Act system reform; the revision of national direction, particularly in those signalled with the National Policy Statement for Freshwater Management; and Taumata Arowai the water services regulator is currently consulting on a proposed set of wastewater environmental performance standards.

You will be aware that currently our councils are consulting with their communities on future arrangements for new water companies and respective water services delivery plans are due to the Department of Internal Affairs in September 2025.

It will be the new water companies, rather than Wellington Water, that will be responsible for undertaking activities that will contribute to achieving the TAS and the CWO.

Lastly, I need to respond to the rebuttal evidence of Mr James Blyth.

I agree with Mr Blyth that there is no readily available tool at Wellington Water's discretion to assess stormwater loading and receiving environment concentrations around Plan Change 1 in respect of the TAS.

In response to Mr Blyth's further comments that Wellington Water has had sufficient time to develop its own tool, I disagree.

For Wellington Water to develop its own tool Wellington Water modelling staff requested approval to use the Regional Council's recent contaminant models in order to align the base assumptions.

Wellington Water staff have sought approval and confirmation of assumptions from Regional Council officers on several occasions over the last few years to no response.

So whilst Wellington Water has in theory had sufficient time to develop its own model the lack of approval has not allowed Wellington Water to proceed as far as we would have liked.

The only exception where approval was given is or one sub-catchment, the Black Creek containment model that Wellington Water built as a pilot study to assess the methodology set out in the 2023 consent applications. This has been correctly pointed out by Mr Blyth.

Wellington Water would welcome working more closely and collaboratively with the Regional Council so that we proceed with the development of a model which aligns to the greater Wellington work for the metropolitan area.

Thank you.

Chair: Thanks very much. I think we'll hear from Mr Foster and then we'll come back and ask questions.

Thank you for the talking points. Feel free if you would like to even do a bit of a summary. I am just conscious of time. Over to you. I think we would probably like to have at least fifteen minutes on the planning side. Thank you.

Foster: Thanks very much. Kia ora koutou. Ko Liam Foster tōku ingoa.

I will leave I suppose the first six or seven bullet points that I identify with the evidence and I suppose I will just concentrate on the ones that come after that point really.

[02.05.05]

If I start with number eight, I would like to identify the ability to meet the TAS attributes through and at the end of network solutions require appropriate stormwater discharge consents in place; and the scale of planning design works and funding required to support these is of a significant scale that requires the service delivery providers like Wellington Water to shift their approaches to delivery.

Given how Wellington Water is funded, as Ms Alexander has identified and network investments are only carried out.

It is my opinion that if there is no ability to control the source of contaminants recognised as being difficult, time consuming and expensive, then Wellington Water will be required to address these improvements at a discharge point.

The current practices and techniques available require land to be set aside for the function of treatment are equally costly and time-consuming to deliver, and the effectiveness of these devices to reduce the dissolved contaminant state means there is the potential to not achieve the TAS requirements within the timeframes as currently proposed. The rebuttal evidence of Ms Ira agrees with this.

I agree that improvements can be made with these compromises in place. I would like to note that these may result in either driving more innovation into this space, or result in greater numbers of or larger assets to be put in place to support the reduced efficiencies all in heavily urbanised areas already.

This has a likely impact on cost and time to deliver and the confidence that the investment will support the network operator to achieve the target attribute states within the time periods identified.

The evidence of Mr Norman appears to be in agreement with this. The fact that there are some differences in relation to the opinion of the scale of investment required is natural at this stage, as there is little clarity about what interventions



are required where in the urban environment and how these can be consented to be implemented, and as such certain assumptions have had to be made to support increasing our awareness of the scale of the challenge that could be ahead.

I noted in my evidence that Wellington Water does not currently have access to the data or analytical tools required to assess the correlation between contaminated load out of the pipe and contaminated concentrations within the receiving environment.

The evidence of Mr Blyth agrees with this point when considering analytical tools, but Mr Blyth identifies there to be appropriate levels of data to help inform tool development.

I do agree with Mr Blyth to this end and his point that Wellington Water may not have had the information on discharge quality at every pipe. As such, I agree with Mr Blyth's call for a pragmatic modelling application with robust monitoring being put in place to track changes and improvements over time.

I draw attention to the experiences and approach that Christchurch City Council followed to support their comprehensive stormwater network discharge consent and its stated aim of improving water quality.

As Ms Alexander stated, Wellington Water do not hold the appropriate powers to enforce contaminating land use or activities to implement improvements when these parties are unwilling or unwilling to act. Again, the experiences from operation of the Christchurch City Council's comprehensive stormwater discharge consent point to this, requiring additional bylaws to be written and agreements to be made between the consent holder and the regulatory authority.

Finally, even with the necessary ongoing investment and resources being available to deliver that necessary infrastructure by the stated timelines for each catchment, the outcomes are not certain to be achieved.

I am of the opinion that good practice stormwater management devices will deliver an enhancement to the quality of the current stormwater discharges, but I am unable to state that they will satisfactorily achieve the TAS for zinc and copper in a dissolved state.

Force control remains our best option for avoiding or minimising the generation of these contaminants requiring catchment wide integrated management of stormwater quality.

Kia ora koutou.

Chair: Thank you very much. That was very clear. We will pass onto the final Mr Hutchison, thank you.

Hutchison: The public wastewater network and the private pipes that connect to that public network are a significant contributor to the E.coli contamination to freshwater and enterococci in the urban coastal environment due to the condition and performance both in wet weather and dry weather.

[02.10.05]

The proportionate contribution of the wastewater network to the contamination each location is not to our understanding well-known and in my view will need further work to clarify.

As Ms Alexander referred to, the proposed standards will require a major uplifted investigation, repair, renewal and upgrade work to meet. While we have undertaken studies, particularly on reducing wet weather overflows, in general I am unable to quantify the degree of the work required to achieve these standards because the standards are well-beyond what we have experience or knowledge of.

The evidence from Mr Walkers appears to a reasonable estimate of the scale, but I do not that there are significant uncertainties.

With regard to rebuttal with Dr Greer's evidence, first of all the load reductions in Table 1 are helpful, noting the uncertainty there. The urban rural load estimates in Table 4 of Dr Greer's rebuttal are also helpful, noting that the commensurate issue still has to be worked on.

I do have some remaining concerns about the assumptions in the Table about the urban E.coli relating solely to the wastewater network; in particular, as a practitioner we understand other contaminant sources are present – avium is a notable source which hasn't been well understood and doesn't really appear to be acknowledged in the work to date – and that again relates to the commensurate issue.

With reference to s28 in Dr Greer's I do have remaining concerns about the understanding of the 95 percentile loads. First of all the monitoring and reporting of wet-weather overflows is not generally all that well managed. Water services authority Taumata Arowai are currently consulting on a standard to improve that visibility and consistency of reporting, but from my perspective there are some overflows in our network which are up to twenty times a year and quite a few are ten times a year; so it's more than the acknowledgement in the rebuttal evidence.

Obviously the wet weather overflows vary across the FMUs, across the region, but the principle remains unclear to me that if dry weather load has been the main source then logically in wet weather those concentrations would decrease, because the relative loading is the other way. We clearly see an increase in wet weather E.coli concentrations compared to dry weather – a significant increase. So it's really around the source of that and it gets beyond my expertise as a wastewater engineer to entirely understand this – whether it's a resuspension of E.coli, which I have some doubts about in terms of E.coli is from warm guts basically and so it doesn't survive well in a cold environment under UV. Hence the reason for my assumption in my evidence that the 95 percentile loads are primarily due to those wet weather overflows.

We can talk to this further in future hearing streams.

Chair: Thank you very much. Questions about operational issues – who would like to start?

- 3478 Wratt: Kia ora. Thank you for that succinct summary of Wellington Water's role and  
3479 concerns.  
3480
- 3481 One question to start the ball rolling. To what extent have you looked at your  
3482 planned work within the funding level you currently have and how much that  
3483 would deliver on the target attribute states that are in PC1. I guess I would say  
3484 in the notified version and/or the rebuttal version?  
3485
- 3486 Hutchison: To a limited extent. I have noted in s12 of my evidence what our current funding  
3487 allowance was in the long-term plan, \$268m for wastewater. We've got one  
3488 specific intervention there which is building a big storage tank in Porirua, which  
3489 will be a significant reduction in those wet weather overflow loads; otherwise,  
3490 first of all we haven't got specific projects clearly defined for the remainder of  
3491 that funding and then we don't have a dollars per E.coli understanding of how  
3492 much it would achieve in terms of meeting those states.  
3493 [02.15.25]  
3494 It is worth noting that our long-term funding applications to councils was  
3495 premised on a 2060 date and the 2040 dates came in subsequent to that.  
3496
- 3497 Wratt: The follow-up question really is, you've identified that your approach has been  
3498 on a catchment by catchment basis, I think. If you were now to go back and look  
3499 at it, where are the 'big bang for the bucks' essentially? Where would we  
3500 prioritise to get the best return in terms of delivering on the targets in PC1.  
3501
- 3502 Hutchison: I guess the 'best bang for buck' would be looking at those contaminant load  
3503 sources and just focusing on those, and trying to work up an understanding of  
3504 getting them down quickly but not necessarily all the way. So with work weather  
3505 overflows, interventions like that Porirua storage tank get a point reduction;  
3506 otherwise it really varies. In our experience our drainage investigation crews will  
3507 sometimes quickly locate a source and sometimes it's a needle in a haystack and  
3508 they'll fix a pipe or something and it turns out it's not directly connecting to the  
3509 stormwater in urban streams and they have to keep hunting. It varies.  
3510
- 3511 Wratt: So that's not a process that you've done yet. I guess perhaps an associated  
3512 question is through the WIP process my understanding is you weren't  
3513 represented on the WIPs as members, but you had opportunity to engage with  
3514 the WIP committees. Perhaps I guess the question from that is, would that not  
3515 have provided an indicator for you that maybe some of that work needed to start  
3516 being done?  
3517
- 3518 Hutchison: We certainly contributed to the WIP process. In terms of starting work we have  
3519 work that's underway. It's probably a question of the quantum of work. We have  
3520 these drainage investigation crews I've been talking about who work on meeting  
3521 the current standards.  
3522
- 3523 Alexander: When we provided advice to our counsels for the long-term plans we requested  
3524 \$7.6B worth of investment, based on what we are ramping up our deliver to  
3525 achieve a broad range of outcomes including improving environmental water  
3526 quality. Council has funded us around just over half of that. It's a challenge. We  
3527 have to prioritise within those budgets. That's high level.  
3528

- 3529 Viskovich: Can I just add as well? My understanding is that the network discharge consent  
 3530 applications included the premise was that yes we would make improvements  
 3531 sub-catchment by sub-catchment. That's sort of been the basis on which  
 3532 Wellington Water had previously been working. Those consent applications  
 3533 were lodged pre the notification of Change 1, and so we are now very much  
 3534 looking at the applications, figuring out if they are fit for purpose and  
 3535 determining what if a future application or retooling could be, as you say  
 3536 Commissioner, to try and deliver 'best bang for buck' so that we're achieving  
 3537 the greatest gains across the Wellington region.  
 3538
- 3539 Chair: Just a follow-up to that. So the sub-catchment by sub-catchment approach,  
 3540 because I was wondering how amongst all of your five Council clients...  
 3541
- 3542 Alexander: Six.  
 3543
- 3544 Chair: Six. Sorry, within this PC1. Because hypothetically if someone came along and  
 3545 said, "Actually we can make available a lot more funding that we had  
 3546 anticipated, but actually the need for improvement was lower for that particular  
 3547 council compared to another.  
 3548
- 3549 With this new retooling that you're talking about, would that allow you to  
 3550 reprioritise workforce and efforts into the areas where the improvements are  
 3551 needed more?  
 3552 [02.20.10]
- 3553 Alexander: Under our current arrangement, which is obviously as Wellington Water, that is  
 3554 what we would do. We would be able to identify where we would want to focus  
 3555 and request funding from the Council, and then we would deliver accordingly in  
 3556 that part of the region. We would have time to scale up to do that.  
 3557
- 3558 Viskovich: But, we couldn't move... so for example, if one city provides us with funding  
 3559 but the greater need is in a different city, we can't move the funding from one  
 3560 area to the other – just to make sure that's clear under the current arrangement.  
 3561
- 3562 Chair: But, that might change. We don't know yet, but it might change.  
 3563
- 3564 That really comes to the point, I think you were here for the previous submitter  
 3565 who was talking about the importance of having the NRP providing that really  
 3566 clear strategic direction on what is needed and where.  
 3567
- 3568 We've heard the officers talk about how the TAS role is a state of the  
 3569 environment monitoring tool, but will having the TAS really help you with that  
 3570 prioritisation and provide that greater strategic direction, and would we see that  
 3571 then following through into the funding, into the long-term plans?  
 3572
- 3573 Hutchison: The prioritisation will help. I guess previously in our applications the approach  
 3574 had been to engage and work out the prioritisation, because deciding one  
 3575 catchment over another is a difficult thing for us to do. So yes, that will help.  
 3576
- 3577 In terms of funding there is a bit of a lead time in terms of the funding cycle in  
 3578 local government which is three year long-term plans and having to prepare the  
 3579 information about twelve months before that process starts – which that process  
 3580 will change to an undetermined process.

- 3581  
 3582 Kake: Thank you for setting out the summaries, that was incredibly helpful. The  
 3583 context around the complexity of working across multiple local authorities is no  
 3584 easy fete. I am not sure if you had the opportunity to hear yesterday the mana  
 3585 whenua submissions that came through. It was made very clear in understanding  
 3586 now the arrangement, I suppose for lack of a better word, with respect to the  
 3587 organisation of Wellington Water and the funding streams.  
 3588  
 3589 The comments that were made from mana whenua that E.coli is probably the  
 3590 most offensive contaminant into the freshwater bodies that essentially end up in  
 3591 the coastal area that are their mahinga kai.  
 3592  
 3593 Just looking at figure in your primary evidence Mr Hutchison there are a raft of  
 3594 pump stations in the upper catchment of Te Awa Kairangi that then flow through  
 3595 to Lower Hutt and then into the wastewater treatment plant at Seaview. I suppose  
 3596 just flagging that we heard very strongly from Taranaki Whānui that that  
 3597 particular site has essentially resulted in generations of their whānau not being  
 3598 able to consume, swim, practice their tikanga in these waterbodies. Do you have  
 3599 a response to that?  
 3600  
 3601 Hutchison: I guess the context would be that the goal of wastewater collection and  
 3602 conveyance disposal systems has been historically focused on public health  
 3603 protecting the community from cholera, typhoid and so on. As the time has  
 3604 evolved the environmental concerns and cultural concerns have become more of  
 3605 a consideration. It's really an evolution of the priorities that's expected from the  
 3606 infrastructure that serves the community.  
 3607 [02.25.00]  
 3608 All I can say is, we can apologise for the standards of the past.  
 3609  
 3610 Kake: We also heard from Ngāti Toa about the collective responsibility of agencies  
 3611 and we hear about the investment going into Porirua and the new treatment plant  
 3612 there to deal with the overflows. I suppose it's all up in the air at the moment  
 3613 with respect to what's happening through reform, but I suppose the intent behind  
 3614 the collectiveness demonstrated by agencies in Porirua I would hope would be  
 3615 demonstrated in the other catchment of Te Whanganui-a-Tara.  
 3616  
 3617 Alexander: As I said before, we are governed by the Water Committee which has  
 3618 representatives from each council, usually the mayors. The water committee has  
 3619 given us five strategic priorities of which one is improvement environmental  
 3620 water quality. We have that intent and that commitment. We do the work that  
 3621 we do. We have people in the company that are so passionate about this  
 3622 themselves, but of course we act within the arrangements that we've got and  
 3623 how the organisation is set up.  
 3624  
 3625 Kake: One final question around that funding and the prioritisation and acknowledging  
 3626 that you are reliant on that rate base from these local territorial authorities. If  
 3627 they highlight where some of the priorities are required I'm assuming  
 3628 Wellington Water responds and prioritises those as well based on their  
 3629 aspirations or community aspirations. Let's just say the 'tickle' in the stream.  
 3630  
 3631 Alexander: Yes that is important. We are a council controlled organisation. Ultimately we  
 3632 are beholden to them and the ratepayers and communities.



3633  
3634 Viskovich: Could I just add to this discussion that in the net word 'discharge consent  
3635 applications' some of the prioritisation was always intended to be undertaken in  
3636 collaboration with mana whenua. There was a collaborative committee with  
3637 mana whenua that was intended to be set up and that would drive where  
3638 investment was going to go and which sub-catchments would be looked at, at  
3639 which times and so on.  
3640  
3641 I think just to also add to this discussion, since I've been at Wellington Water I  
3642 have been quite impressed with the extent of collaboration and consultation that  
3643 Wellington Water undertakes with mana whenua. We have partnership  
3644 agreements with Taranaki Whānui and Ngāti Toa. We are in frequent  
3645 conversations with them, but of course we are dealing in a funding constraint  
3646 environment as well.  
3647  
3648 Kake: Just a quick one on that then, so through the review of the consent, the network  
3649 discharge consent, you're continuing with that collaboration through the  
3650 reassessment I suppose of the notified Plan Change?  
3651  
3652 Viskovich: Yes. It's not to revisit. The purpose of looking at the consent applications is not  
3653 to revisit that approach; it is to make sure that the applications are fit for purpose  
3654 given the change in the regulatory environment.  
3655  
3656 McGarry: I am interested in you saying it's difficult in deciding what sub-catchment to  
3657 work on. I understand there's a lot of competing issues. Have you looked at the  
3658 evidence of Dr Greer, which very much suggests that in terms of driving and  
3659 achieving a TAS that it's actually the dry weather flows, the leaks and cross-  
3660 connections and things, that will actually have the biggest 'bang for buck'.  
3661  
3662 I am really interested in what you're actually doing now in terms of prioritising  
3663 those kind of areas and whether the information that's come through this process  
3664 will now enable you to put a bit more science and a bit more priority based  
3665 around driving those TAS down.  
3666  
3667 Hutchison: I would say we haven't been idle. We've been working under a stormwater  
3668 consent to get contamination below the 1000 E.coli limits and we have a dozens  
3669 of monitoring points beyond what the TAS covers – back further up the pipe so  
3670 to speak, up the streams.  
3671 [02.30.05]  
3672 We've had a drainage investigation crew for the last three or four years, which  
3673 I have outlined some of their work in terms of interventions and efforts to  
3674 maintain that standard.  
3675  
3676 When I was referring to the prioritisation being helpful, I guess I was referring  
3677 to the approach that we outlined in our proposed consent application to work  
3678 with mana whenua to decide which areas to focus on, because it's not just about  
3679 the E.coli loads it's about the values as well.  
3680  
3681 Wratt: A slightly different question and I think it's one for Mr Foster. I'm looking at  
3682 Appendix 1 to your statement Mr Foster which has some tables with information  
3683 on current states. I am just curious as to where that current state information has  
3684 come from, because we have had quite a bit of conversation about we've got



3685 baseline states and that was the starting point for the WIPs I think, and certainly  
 3686 for PC1. Then there has been discussion around, “Okay we’ve now got some of  
 3687 our current states are actually better than what was the baseline state.”  
 3688

3689 I guess, where do those current states come from and they have made their  
 3690 way... is Greater Wellington Regional Council and the work being done for PC1  
 3691 picked up on that information that’s in your tables?  
 3692

3693 Foster: I suppose I can’t really speak to how Greater Wellington are utilising the  
 3694 information I provided. The source of the material has been prepared and my  
 3695 understanding is based on some of the more initial target attribute state settings  
 3696 of the time. Probably around about the February to March period of time was  
 3697 when the work was re-undertaken by supporting organisations that have helped  
 3698 to produce this information, and which I have been relying on for that role.  
 3699

3700 I think it's on the resubmitted version of about March when we submitted our  
 3701 original submissions, and not the notified version; but I can confirm with you  
 3702 once I’ve had a chance, after the meeting.  
 3703

3704 Wratt: I think that would be useful thank you, because it's quite a lot of information  
 3705 there. There’s a table on sub-catchments, current states, TAS and required load  
 3706 reductions. Thank you.  
 3707

3708 Foster: We’ll come back to you on that one.  
 3709

3710 Chair: Maybe one more before we move to Ms Hunter. This might really be something  
 3711 that’s more for Hearing Stream 4 but I’m interested in your views on the  
 3712 commensurate load reduction point.  
 3713

3714 This does actually come into some of these objectives – if achieving a TAS or a  
 3715 coastal objective requires hypothetically a 20 percent load reduction. The entity  
 3716 could be NZTA, could be yourselves. Is required to demonstrate a  
 3717 commensurate reduction.  
 3718

3719 From an operational perspective – and I take your point Mr Hutchison about  
 3720 how you’ve got limited control about the sources of the contaminants – but what  
 3721 operations operationally are there at the end of pipe point? We have talked a  
 3722 little bit about retrofitting and urban settings. We heard from NZTA a couple of  
 3723 days ago and I’m paraphrasing, but they said, “There’s not really too much we  
 3724 can do about the brake pads in cars.” Zinc and copper.  
 3725

3726 Practically what options are there at the end of pipe discharge point to achieve  
 3727 contaminant load reductions?  
 3728

[02.35.00]

3729 Foster: I suppose will start the source. There’s still some activity that could be  
 3730 undertaken across the roading network that has a potential beneficial impact in  
 3731 terms of reducing the amount of contaminants that enter into the pipe network  
 3732 and that’s through for example street sweeping on a more regular frequency, but  
 3733 I can’t necessarily comment as to what the impacts of that might have on terms  
 3734 of operational budgets of councils or NZTA. But, certainly that will help some  
 3735 of the dry deposition of material and the sediment load that’s sitting on the  
 3736 pavement waiting for the next rainstorm to push it down into the pipe network.

3737 That would certainly help with that ability to restrict some of the material  
3738 coming into the pipes or the urban stream settings.

3739  
3740 When it comes to the bottom end of the network we're talking about I suppose  
3741 retrofitting either large open space areas such as wetlands, pulling out and  
3742 putting into proprietary devices which might include things like filtration  
3743 devices, bio-retention, features on the landscape which can be integrated as nice  
3744 parts of the urban street scape, but do come at a cost in terms of the land available  
3745 for whatever the purpose is that the land is currently used for.

3746  
3747 A range really and certainly when it comes down to trying to achieve benefit for  
3748 the dissolved state, the longer can have a filtration and bio retention in contact  
3749 with that water the better.

3750  
3751 Chair: Thank you very much. Mr Foster (Hutchison), do you have any comments from  
3752 the wastewater perspective?

3753  
3754 Hutchison: E.coli end of pipe is not practicable to the best of my knowledge. Ultraviolet  
3755 disinfection is the technique that we would use at a treatment plant, but that  
3756 would be extremely hard. I investigated it once in my career and it would be  
3757 very, very hard and quite impracticable at the end of a pipe to put these  
3758 ultraviolet lights to try and break up the E.coli.

3759  
3760 There are a handful of places in New Zealand which have done it. There are one  
3761 or two in Whangarei that I have heard of where they've got a storage tank and  
3762 then ultraviolet disinfection at the end. There would be a handful of examples in  
3763 the country and there's many thousands of pipes just in Wellington.

3764  
3765 Chair: Thank you so much. We do hope we'll see the technical experts again for future  
3766 hearing streams because it is really, really helpful getting your perspective.  
3767 Thank you. I think we should spend the remainder of our time with Ms Hunter  
3768 looking at the planning provisions, unless there's anything else that you feel you  
3769 would like to cover that we haven't already.

3770  
3771 So the planning provisions, Ms Hunter, did you want to take us through a  
3772 summary, just the remaining points of difference between you and the reporting  
3773 officer? Are you happy just to take questions?

3774  
3775 Hunter: I thought that I would just start off with I was involved with the preparation of  
3776 the resource consent applications for the wastewater network overflows. Just to  
3777 provide some context, the approach that was taken historically was to consent  
3778 individual overflows. I think there were about seven or eight consents for just  
3779 individual overflows within the Hutt City area.

3780  
3781 The other overflows in the Wellington metropolitan area are currently not  
3782 consented. It's not like you're re-consenting global consents for these overflows.  
3783 This is the first step that has been taken to do a comprehensive metropolitan area  
3784 by consents for these.

3785  
3786 There were real challenges with the current plan in terms of finding a viable  
3787 consenting pathway for these to actually be consented. That's why there's been

3788 this pause and Plan Change 1 is attempting to address and provide a viable  
3789 consenting pathway for these applications.

3790 [02.40.10]

3791 I just want to make the point also that these discharges happen whether they've  
3792 got consents or not. These aren't discretionary discharges. They happen in the  
3793 network and that's just the reality of the situation. They will continue to happen  
3794 in the network. You can't eliminate these. They need to be regulated and there  
3795 needs to be a workable consenting pathway in order to do this.

3796  
3797 In my talking points I have responded to the rebuttal evidence of Ms O'Callahan.  
3798 If you're happy I could just step you through those points there.

3799  
3800 Chair: Just while we are getting the paperwork sorted, Ms Hunter in the operative plan  
3801 and I'm just trying to make sure I understand, there's Rule 52 which is the  
3802 stormwater from a local authority and there's activity classifications here  
3803 ranging from control to RD, and sorry I haven't come across it, but if there not  
3804 an equivalent for wastewater?

3805  
3806 Hunter: What has happened is there's a series of rules that apply to the wastewater  
3807 network overflows and they've got various classifications, one of which is non-  
3808 complying activity. When you bundle those various rules and things and you do  
3809 that bundling exercise the whole application becomes a non-complying activity.  
3810 Then there are a series of objectives and policies are avoid policies; so it's rather  
3811 hard to find a way through the policies to say that you're not contrary to them  
3812 when you've got avoid policies. Then of course there's the effect side of things,  
3813 and I really struggled in terms particularly in terms of mana whenua and the  
3814 policies that relate to that, to say that you're less than minor effects. So that's  
3815 why the pathway is very difficult to obtain consents.

3816  
3817 These applications they only relate to wet-weather overflows. We didn't apply  
3818 for dry weather because we just thought that was even harder to consent those  
3819 as well.

3820  
3821 Chair: Thank you. So there are existing regulations but just haven't sought the consents  
3822 is what I've understood from that.

3823  
3824 Hunter: Yes it's a real challenge under the operative plan for these applications to be  
3825 granted. It's been very helpful of Greater Wellington to promulgate Plan Change  
3826 1 and use I suppose the framework of the applications to try and imbed that into  
3827 the plan change, to help create a pathway through.

3828  
3829 Chair: Thank you. I think we've all got your talking points now. Going through the  
3830 rebuttal would be great.

3831  
3832 Hunter: Yes, so I have just got a list there and I will just go over the key ones.

3833 [02.45.00]

3834 The first one is around the lack of information around baseline. I do  
3835 acknowledge that Ms O'Callahan and the technical experts have proposed a  
3836 number of amendments to the target attribute state tables and I do apologise, but  
3837 we will address those in detail when we get to Hearing Stream 4. We are just not  
3838 in a position to be helpful for you in terms of understanding the implications of

the amendments that have been made to date, to those tables. That will definitely be addressing that in Hearing Stream 4.

I will just move onto number 3. This is about the retention of an objective in the operative plan, to bring that through into Plan Change 1. I suppose my point there is that I think there really needs to be an anchor with that objective which sets the framework from which the policies and the rules ought to support the policies and the rules relating to stormwater and wastewater networks. Wellington Water has requested some amendment to that and those amendments are set out in 8.10 of my evidence. So I can continue to see the need to have let's say an anchor in the objectives for the provisions that flow on from that relating to wastewater network overflows and stormwater discharges.

Then I also continue to see the need in those objectives, number 6 in my response to the rebuttal, with those objectives listed there too include reference to public health, rather than just seeing that public health is like a sub-set of social. I think given the critical importance of public health that should be referenced in those objectives.

Then the final point I just want to make, and I do support in principle Ms O'Callahan's proposal to set out the inclusion of provisions around prioritisation of improvements and that will be really helpful in terms of the consenting context.

I suppose the position, and we will comment on this further in Hearing Stream 4, because I think this needs also to be seen of the context of other policies that set prioritisation as well. I think there's potentially competing provisions around prioritisation that will address those in Hearing Stream 4.

Chair: Thank you very much. Are you still of the view that the amendments Ms O'Callahan supports to Objective WH.O2(i) which is bringing that third tier of te mana o te wai into the provision, do you think that doesn't talk specifically to Wellington Waters' needs; and so Objective 6 needs to be retained for these two Whaitua.

Hunter: Yes I do. As I say in my rebuttal, I think they could be made Whaitua specific if Ms O'Callahan's concern around the scope and so forth. I can draft up and provide that for Hearing Stream 4, more Whaitua specific objectives relating to that, rather than just relying on leaving Objective 6 where it is. I can bring that into the Whaitua sections. I think that would be helpful.

Chair: Yes, thank you. Any questions for Ms Hunter?

[02.50.00]

Kake: Just a comment I suppose. I suspect this will come out again through the next Hearing Stream 4 on this topic, but the topic with respect to the prioritisation policies the note that you've made at the bottom of your last page with respect to the schedules, I would really encourage Wellington Water to think about those scheduled sites, those mahinga kai areas, those Māori customary areas that we heard very strongly about from mana whenua yesterday that have been discussed through the WIPs, through Ta Mahere Wai and just understand I suppose the generational trauma that they've been through with respect to these pump

3890 stations being put in their back yard. I will leave it at that and wait until the next  
3891 one.

3892  
3893 Thank you.  
3894 Hunter: If I can just comment on that. It has been mentioned by the other witnesses, but  
3895 in the waste [02.51.24 consents there is this collaborative committee that has  
3896 been proposed through consent conditions, which is equal representatives from  
3897 the consent holder and from mana whenua. That was proposed as a decision-  
3898 making committee and not just a recommendation committee. It was very much  
3899 front of mind that these schedules would come into play significantly in  
3900 determining a prioritisation of how at the moment that is set up through the sub-  
3901 catchments, but I think there's some rethinking around how this is spatially let's  
3902 say administered in a consent process, because the thinking has moved on a little  
3903 bit in terms of the practicalities of the sub-catchments and the sub-catchments  
3904 don't necessarily in all cases align with the part FMUs.

3905  
3906 So there's some complexity I suppose around how this is spatially distributed in  
3907 a consent process.

3908  
3909 Chair: Thank you very much Ms Hunter, yes that additional information will be really  
3910 useful going into Hearing Stream 4. Thank you. I think those were all the  
3911 questions we had on your planning evidence.

3912  
3913 There was something else I wanted to ask and this might be a question for Ms  
3914 Alexander. Mr Walker's comments regarding the workforce capacity constraints  
3915 – given we know that these changes are going to be happening and more is likely  
3916 to be required, can you talk at all about lead-in times and just levers for getting  
3917 more people who are available to do the actual work.

3918  
3919 Alexander: Of course there's quite a bit to it, depending on the skillset you're looking for.  
3920 Mr Hutchison could probably comment more around engineering skillsets and  
3921 where we are at with those.

3922  
3923 Generally, certainly a few years ago when we were looking at this as a company  
3924 and trying to grow the workforce we were looking at you need to know how  
3925 much funding you're going to get so you can make that investment. You need  
3926 to have a wrap around building the skills that you're going to need. Then you  
3927 need people who are on the tools to be able to guide and show new people as  
3928 they come in.

3929 [02.55.00]  
3930 It's an endeavour that needs investment and commitment. Wellington Water has  
3931 never been in that position because we've always been caught in various waiting  
3932 for reform; but certainly you would expect a future water company to be able to  
3933 make that investment and look at growing the skillset longer term.

3934  
3935 Hutchison: I guess with the engineering angles there's an element of market. At the moment,  
3936 the construction market economy is down, so there's more engineers and  
3937 contractors available. But, beyond that it's really that certainty of workload  
3938 which drives contractors to invest in plant and firms to retain engineers and so  
3939 on.

3940

3941 Chair: Thank you. And, yes, the certainty of funding that goes with that. We are  
 3942 probably at time. I see this as a good starting point for the discussions. We look  
 3943 forward to talking with you more. Also just acknowledging the huge amount of  
 3944 change that's going on for you all. It could perhaps seem that it's quite easy for  
 3945 other people to be always pointing the finger at Wellington Water, but certainly  
 3946 just in the submissions we've heard so far there is very much an  
 3947 acknowledgement that it is a collaborative effort that is needed by all parties to  
 3948 achieve improved water quality for the region. I haven't seen too much at all of  
 3949 everyone saying that this is all Wellington Water's responsibility. Your  
 3950 messages I think are being heard and we acknowledge the scale of the problem.  
 3951  
 3952 Thank you very much. That probably brings us to an end for this week. Thanks  
 3953 again very much to everyone who has participated – all our submitters, Ms  
 3954 O'Callahan, the Council team, Mr Ruddock. It's been I think a very interesting  
 3955 week full of information that is going to be really helpful for us as we deliberate  
 3956 on these provisions.  
 3957  
 3958 With that we will end with a karakia. Thank you Mr Ruddock.  
 3959  
 3960 Ruddock: Unuhia, unuhia  
 3961 Unuhia ki te uru tapu nui  
 3962 Kia wātea, kia māmā, te ngākau, te tinana, te wairua i te ara takatā  
 3963 Koia rā e Rongo, whakairia ake ki runga  
 3964 Kia tina! TINA! Hui e! TĀIKI E!  
 3965  
 3966  
 3967 [End of Part 3 recording – 02.57.59]