

**Greater Wellington Regional Council****HEARING STREAM 3****Day 2****Rural Land Use, Forestry and Vegetation Clearance, and Earthworks  
Version 4**

Date: Tuesday 27<sup>th</sup> of May 2025

Hearing Stream: Three

Venue: Greater Wellington Regional Council Chambers  
100 Cuba Street, Te Aro, Wellington

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

[NRP PC1 – HS3 Day 2 – Part 1]

[Begins 00.55.05]

1 Chair: Mōrena everyone. Welcome to day two of Hearing Stream 3. We'll start with a  
2 karakia.

3  
4 Ruddock: *Tukua te wairua kia rere ki ngā taumata*  
5 *Hai ārahi i ā tātou mahi*  
6 *Me tā tātou whai i ngā tikanga a rātou mā*  
7 *Kia mau kia ita*  
8 *Kia kore ai e ngaro*  
9 *Kia pupuri*  
10 *Kia whakamaui*  
11 *Kia tina! TINA! Hui e! TĀIKI E!*

12  
13 Chair: Kia ora. Thank you Mr Ruddock.

14  
15 My name is Dhilum Nightingale. I am chairing the Freshwater Panel and Part 1  
16 Schedule 1 Panel. I am a Barrister and I live in Te Whanganui-a-Tara. We will  
17 just introduce the rest of the Panel and then for those who weren't here  
18 yesterday and tuning in online we will also do some introductions of the  
19 Council officers and other staff in the room. Thank you.

- 20  
21 McGarry: Kia ora koutou. My name is Sharon McGarry. I'm an Independent  
22 Commissioner based out of Ōtautahi, Christchurch.  
23
- 24 Kake: Ata mārie. I'm Puawai Kake, Planner and Independent Commissioner from  
25 Northland. Kia ora.  
26
- 27 Wratt: Kia ora, morena. I'm Gilliam Wratt, Independent Commissioner based out of  
28 Whakatū Nelson.  
29
- 30 Stevenson: Mōrena. Ngā mihi nui kia koutou. I'm Sarah Stevenson, an Independent Planner  
31 and Commissioner based here in Te Whanganui-a-Tara, Wellington.  
32
- 33 Ruddock: Tēnā koutou katoa. Ko Josh tōku ingoa. Hearing Advisor for Great Wellington.  
34
- 35 Nation: Kia ora, morena. I'm Tom Nation. I'm a Director and Spatial Analyst at  
36 Collaborations based here in Wellington.  
37
- 38 Blyth: Kia ora koutou. Ko James Blyth tōku ingoa. Also a Director at Collaborations  
39 and a Water Scientist based in Lower Hutt.  
40
- 41 Greer: I'm Michael Greer, the Technical Lead for the PC1 process.  
42
- 43 Vivian: Mōrena. Alisha Vivian. I'm the Reporting Officer for the earthworks topic and  
44 a Policy Advisor here at Greater Wellington.  
45
- 46 Watson: Mōrena I'm Shannon Watson. I'm a Consultant Planner from GHD and I am the  
47 Reporting Officer for the forestry and vegetation clearance topic.  
48
- 49 Pepperell: Mōrena. Josh Pepperell representing Greater Wellington Regional Council  
50 providing technical evidence on compliance.  
51
- 52 Reardon: Kia ora. My name is Kevin Reardon. I'm a Director at Form Consulting Group  
53 providing technical evidence on behalf of GW.  
54
- 55 Peryer: Kia ora. Jamie Peryer. I'm a Senior Environment Restoration Advisor for  
56 Greater Wellington providing technical evidence on rural land use issues.  
57
- 58 Willis: Mōrena. Gerard Willis, Consultant Planner and Reporting Officer on rural  
59 [58.23]. Thank you.  
60
- 61 Anderson: Kia ora tatou. Kerry Anderson, Legal Counsel for Greater Wellington.  
62
- 63 Chair: Thank you everyone. Mr Ruddock, did you want to go through some health and  
64 safety.  
65
- 66 Ruddock: Thank you Commissioner.  
67
- 68 For those who weren't here yesterday, in case of a fire, if a fire alarm sounds  
69 please head towards the exit located behind the Commissioners' seats. Do not  
70 re-enter the building until the all-clear is given by staff. If you require any  
71 assistance in the evacuation please come directly to me.

In the case of an earthquake drop, cover and hold. Do not evacuate unless instructed to do so. Wait for the shaking to stop and then follow the instructions of the Hearing Advisor or the safety wardens.

For those speaking today, please ensure that you are muted when not speaking. Your microphone will flash green when it is on but not in use. It will turn red to indicate that it is on and live. Only three microphones can be live at a time.

All speakers should introduce their name before each instance of speaking for transcription purposes. For those joining online you will have your camera and microphone locked to mute. These will be unlocked for you nearing your scheduled time slot.

The Hearing Advisor, myself, will ring a bell to indicate certain time points. One ring indicates that there is ten minutes left, two rings indicates that the submitter's time-slot has ended, though the Panel may choose to continue asking questions past the two rings if suitable.

Thank you.

Chair: Thank you. Does anyone want to raise any procedural issues or anything before we get underway?

[01.00.05]

Alright, well in that case we welcome Mr Watson. Thank you very much for your report. I understand you will be presenting to us issue by issue with support from the relevant technical experts as needed. We will hand over to you. I think we go through until the morning break at 10.30am. Thank you.

Watson: I'm Shannon Watson. I'm a Consultant Planner at GHD. I wasn't involved in developing the provisions for PC1, however I was involved in a couple of places throughout the development of PC1 in terms of summarising submissions for Council on behalf of GHD.

I guess to start off with, a couple of apologies to the Panel and submitters – this is my first foray into plan making or policy at this sort of scale. It's been a really challenging topic. I apologise if my analysis or recommendations throughout this process are not as polished as some might usually be accustomed to.

I guess another couple of important apologies: updates to evidence – Josh on my behalf circulated some updated amendments to Appendix 2 of my rebuttal evidence this morning. There is some pretty material updates in that set of documents. Firstly, some embarrassing drafting errors. WH.R20 and P.R19 apply where TAS are not met. Hopefully that was clear enough through the explanation of the rebuttal evidence, even though it wasn't clear through the drafting of the provisions themselves. I usually pride myself on attention to detail. No-one is more horrified than I am at the state of the provisions in Appendix 2 as they were published. Apologies to the Panel and submitters who quite rightfully may have been very confused as to what they were trying to understand.

The second quite important amendment was removal of the link to the RPS change definition of “highly erodible land” in the potential erosion risk land definition. That was a last minute addition during the rebuttal process based on Mr Nation and Mr Blyth’s rebuttal evidence.

I understand that the mapping layer which kind of links to that definition is no longer publically available – it's kind of been pulled down. James or Tom can talk more to that later if needed. That means that from an implementation perspective people not being able to access that mapping layer is really challenging. So, I recommend that inclusion be deleted. If the highly erodible land definition needs to be added into PC1 that will have to be through a plan change at a later date.

Some minor amendments to M.44 to reflect changes in terminology made to Schedule 27 and changes to Schedule 27 to better reflect the intent. I think there was some kind of version control issues with that one, because that was an absolute disaster. There’s no change to intent as drafted, it’s just kind of a tidy-up thankfully.

[01.05.00]

I’ve been made aware by counsel that date of NES should be 2017 not 2023 – so I have made those amendments throughout and likewise for some reason there were still references to plantation forestry in the definitions and that should be commercial forestry.

I have highlighted all the amendments that I have made, so it's clear what has changed from what came out in rebuttal.

The only other thing is probably at the minor end of the scale the hyphen in “exotic continuous cover forestry” was not in the same place everywhere, so I have tidied that up as well.

I still want to draw attention to the supplementary evidence from Mr Reardon – that’s kind of largely factual updates to figures and scale of forestry expected in these whaitua over the next five years, and that’s occurred in the previous five years. I have reviewed this evidence and it doesn’t change any of the conclusions or opinions in my evidence.

I will move into context for this topic.

There were 607 submissions and 727 further submissions received; 149 submissions and 211 further submissions received on the vegetation clearance provisions – that’s Rules WH.R17 to WH.R19 and P.R16 to P.R18.

In Schedule 33 – 64 submissions, 76 further submissions on the definitions; 35 submissions and 40 further submissions on the highest erosion risk land mapping - although there are many more general submissions that comment on the erosion risk mapping approach. Then there was also 273 submissions and further submissions in general opposition to the forestry provisions in PC1. Those were submissions that opposed the general approach to forestry but weren’t linked to any specific rule, policy or schedule.

The key issues coming out of submissions were alignment of PC1 with national direction. This is as you would have heard a number of times over the past hearing streams and yesterday, the stringency test, relevant to what you're going to hear today.

The robustness of evidence: again that comes back to the stringency test, but also the efficacy and effectiveness of the operative NRP vegetation clearance rules. The methodology for the identification and classification of highest erosion risk land and the alignment of PC1 with what the community was expecting through WIP recommendations.

Alongside me today I've got my technical team. In terms of talking to the overall approach and impacts of provisions on ability or not to meet TAS Dr Michael Greer is going to be talking to that. There's a couple of observational pieces of evidence in terms of how things are operating on the ground in these whaitua prepared by Mr Reardon and Mr Josh Pepperell for Council. Mr Tom Nation is going to talk to the erosion risk mapping and limitations. A lot of this was covered yesterday so I'm not sure if there's going to be a lot more to add to that. Obviously the application is a little bit different today. And, Mr James Blyth who is going to be talking about certain loads from forestry and potential unintended consequences if you're going to be preventing or creating forestry on some pieces of land.

Chair: Sorry Mr Watson to interrupt. Thank you very much for tabling these revised provisions. The way you have identified the changes is very clear, so thank you for that.

Can I just check Mr Ruddock, are these now online? Great.

So when we are looking out the provisions we'll refer to this 26 May version. Acknowledge there were errors – these things happen. We had picked up that wording and in that Rule 20 should have “does not meet”. That was very clear in the evidence. But, thank you very much for tabling this.

[01.10.00]

Can I just check? One that jumped out at me Mr Watson, the definition of indigenous forest, I think that definition is also in the commercial forestry regulation. Is there a particular reason why that should be the plantation forestry?

Watson: No. I don't know how I've missed that, sorry.

Chair: That's alright. These things happen. That's fine. We'll just record that as a commercial forestry Regs.

Watson: Any definition is pulled from the National Standards and should refer to commercial forestry – for clarity, if I've missed any others.

Chair: You also mentioned the mapping and I know we will come to that and hear from the experts as well. Yesterday I mentioned that it wasn't completely clear in my head how that was working in its relationship with the erosion mapping that we looked at yesterday as well as the schedule. So, while I do acknowledge we did discuss it yesterday, it would be good to go through that with a bit of care to make sure we all do follow.

Was there anything else anyone wanted to ask on these revised provisions?

We're probably okay so thank you.

Watson: I guess we'll turn to the first issue which is categorisation of provisions. In short there's no changes to allocation of provisions recommended. R104 and R106 refer to the coastal marine area as they're drafted in the NRP at the moment. I guess there was mixed views from those around me as to whether or not that reference means the categorisation needs to change, so I have taken an **abouts and braces**, [01.12.11] or the most conservative approach and the path of least resistance I guess in light of submissions and recommend that these provisions be re-categorised to P1S1.

That's the only change to the provisions.

Wratt: Sorry, can you just say again which provisions that was?

Watson: R104 and R106, in terms of the not applicable applied to a linkage.

I will just summarise the vegetation clearance provisions as they were notified.

Permitted activity rules WH.R17 and P.R16 allowed vegetation clearance on highest erosion risk land, woody vegetation. As permitted if it was associated with erosion risk treatment as part of a farm plan or pest plant control and debris was not placed where it could enter a surface waterbody. If the vegetation clearance activity was not one of those and exceeded 200 metres consent was required as a controlled activity under rules WH.R18 and P.R17 if an Erosion Sediment Management Plan had been prepared and submitted in support of the consent application. If those rules weren't met consent was a discretionary activity.

Schedule 33 required an Erosion Sediment Management Plan specifically for vegetation clearance activities. Then there is some mapping – highest erosion risk land, woody vegetation mapping, which was linked to the vegetation clearance rules as notified.

In terms of submissions there was some support for vegetation clearance provisions in PC1 as notified – Forest & Bird, EDS and Taranaki Whānui in particular were quite supportive. But, largely submitters were opposed to the vegetation clearance provisions as notified.

Key things thought by submitters were carve-outs for specific activities, opposition due to the mapping accuracy and the methodology for classifying erosion risk; the restrictiveness of the thresholds for vegetation clearance; and a lack of clarity around what was and what wasn't pest plants; and the information requirements of Schedule 33 being too prescriptive – in particular the management objectives contained within that schedule being unrealistic in terms of seemingly driving a return to natural state, which was touched on yesterday.

[01.15.00]

Issue 2 in my s42A Report there is nothing substantive here. A lot of it was already covered in other hearing streams.

277 Transpower requested a reference to the [01.15.21] at the start of the chapter.  
 278 Ms O'Callaghan addressed this in Hearing Stream 1. Some explanatory text was  
 279 recommended to be added to the side of the plan change. I supported that  
 280 recommendation.

281  
 282 Submissions from Woodridge seeking the rules in the respective whitua  
 283 chapters be duplicated. Again Ms O'Callaghan addressed this in Hearing Stream  
 284 1 in the sense that it doesn't make sense for the rules to be combined because  
 285 the objectives in their whitua are different.

286  
 287 The other thing is that Ms O'Callaghan through Hearing Stream 2 recommended  
 288 deletion of WH.P2 and PP2, which was the only policy direction for vegetation  
 289 clearance in PC1 itself. However Policy P107 which relates to vegetation  
 290 clearance of the NRP is not recommended to be dis-applied to these whitua; so  
 291 there is no real policy gap created. It could be cleaner to rewrite Policy P107  
 292 into PC1, so all the provisions are in one place, but I haven't gone there at this  
 293 stage.

294  
 295 Chair: Mr Watson, are you happy to take questions on these provisions as we're going  
 296 through?

297  
 298 Watson: Sure.

299  
 300 Chair: If it's okay to just slow down a little bit just so we can keep up.

301  
 302 I have a question on Rule 17. WH.R17, can you just talk me through. I am not  
 303 sure I completely get the difference between these definitions.

304  
 305 Erosion prone land – in Rule 17 I think erosion prone land should be in bold  
 306 text, or a heading, because that's relying on the definition in the operative plan  
 307 where the pre-existing slope is 20 degrees.

308  
 309 My first question is a drafting one. In that rule and in Rule 18, you've got the  
 310 use of land and the associated discharge of sediment. Is there a reason why you  
 311 prefer that wording as opposed to saying "vegetation clearance in the associated  
 312 discharge of sediment"? Is there a reason for referring to use of land?

313  
 314 Watson: I guess the fundamental change to R17 and P.R16 that's important to understand  
 315 is I've basically rewritten the operative NRP rules into those rules, on the basis  
 316 that there was no evidence base for the vegetation clearance rules as they were  
 317 notified in PC1. The wording that's reflected in that rule will be what's come  
 318 through from the operative NRP as it stands. It will be an alignment issue  
 319 between what's in the NRP.

320  
 321 Chair: Thank you. One of the standards that you've permitted – that the clearance is  
 322 permitted if it's implementing an action in the Erosion Risk Treatment Plan. So  
 323 this links through to where actions have been identified in a Farm Environment  
 324 Plan?

325  
 326 Watson: Correct.

327 [01.20.00]

- 328 Chair: But, that area of land has to be on a pre-existing slope that exceeds 20 degrees,  
 329 is that right, or is it anywhere where the Farm Environment Plan has identified  
 330 that an Erosion Risk Treatment Plan is required?  
 331
- 332 Watson: As drafted it would be only on erosion prone land.  
 333
- 334 Chair: That's not mapped. What we have mapped in Maps 90 and 93 are potential  
 335 erosion risk land, which are the steeper slopes?  
 336
- 337 Watson: Correct.  
 338
- 339 Chair: So that includes pasture, woody vegetation and forestry.  
 340
- 341 Watson: The erosion prone land definition from the NRP is not mapped, so it relies only  
 342 on the definition and from a compliance perspective I guess if you're on site you  
 343 make an assessment as to whether or not the pre-existing slope is 20 degrees. So  
 344 given the uncertainty with the mapping and the evidence base for vegetation  
 345 clearance, as I provided in PC1, I have just replicated the existing framework of  
 346 the NRP through PC1.  
 347
- 348 Chair: Yes, that was my question – just whether it was clear when you were on erosion  
 349 prone land, but as you say it's taken from the NRP.  
 350
- 351 Watson: Correct. It might be a question as to whether or not that farm management plan  
 352 vegetation clearance activity needs to be broader than just where it meets erosion  
 353 prone land to align with Mr Willis. I haven't thought about that until your  
 354 question to be honest – that potential overlap.  
 355
- 356 Chair: I think I need to have a quick look at Schedule 36. Just bear with me. I was just  
 357 seeing if there was anything specific. There's the Erosion Risk Treatment Plan  
 358 in E which we did look at yesterday.  
 359
- 360 Watson: The erosion prone land definition from the NRP will be broader than the  
 361 mapping in PC1. That's kind of the conflict that I hadn't appreciated until your  
 362 question. That's probably something that I need to look at a bit further. I don't  
 363 think it's necessarily a major, but it's just tidying up.  
 364
- 365 Chair: Yes. Presumably if your land is on one of those maps it will also be erosion  
 366 prone land. It's just that additional requirements might apply to you if your land  
 367 is potential erosion risk land.
- 368 Watson: I guess the difference is the mapping for PC1 my understanding is it's based on  
 369 a slope of 26 degrees. The mapping in PC1 is based on the highest erosion risk  
 370 land for those land uses where they are greater than 26 degrees. The definition  
 371 in the NRP is 20 degrees, so there would be land not identified on the PC1  
 372 erosion risk mapping recognised through Mr Willis' provisions that would then  
 373 be subject to vegetation clearance rules potentially. It's just needing to work  
 374 through that issue.  
 375
- 376 I see where you are coming from.  
 377
- 378 Chair: Thank you very much. Mr Willis is nodding. Is there anything you want to add  
 379 to that Mr Willis, or you are just in agreement with what Mr Watson said?

380 [01.25.00]

381 Willis: There's two things going on. Obviously there's the erosion treatment  
382 requirements which apply to the mapped area over 26 degrees as Mr Watson just  
383 said; but then there's separately the earthwork and vegetation clearance rules  
384 which apply on the 20 degree slope. That would apply on a lower slope area, so  
385 a bigger area I suppose.

386  
387 As I would understand it, the vegetation clearance rules will apply both over the  
388 mapped area on potentially erosion prone land, but also a broader area, if that  
389 makes sense.

390  
391 McGarry: I'm just wondering in terms of this vegetation clearance rule. I know you have  
392 taken it from the NRP. There is no setback so you could clear vegetation right  
393 up to a waterbody?

394  
395 Watson: I think there is a setback in the revised rules, WH.R17 and P.R16. In clause 3 at  
396 the bottom, vegetation clearance shall not occur within five metres of a surface  
397 waterbody.

398  
399 Wratt: You have the vegetation clearance does not exceed a total of two hectares per  
400 property per twelve month period. Has that per hectares been brought through  
401 from the operative plan?

402  
403 Watson: Correct.

404  
405 Wratt: Because I notice in the original version of Rule 18 it was a 200 metre square per  
406 property in any consecutive twelve month period. That's now been crossed out  
407 and I just wonder what... but I guess if it's just carried through from the operative  
408 NRP.

409  
410 Watson: Yes, it's come from Rule R104 of the permitted activity rules of the NRP.

411  
412 Wratt: Thank you.

413  
414 McGarry: With that five metres one of the reasons to not rely on the NES-CF is the  
415 inadequacy of that five metre setback from waterways. I'm just wondering why  
416 that's still the same as the NES standard on erosion prone land. I understand  
417 you've taken it from the NRP but whether or not that's something that should  
418 be looked at. It could be seen as duplication but the evidence says it's not  
419 sufficient in all circumstances.

420  
421 Watson: The vegetation clearance rules in PC1 are separate from vegetation clearance in  
422 the forestry context, so it's not duplication in terms of the NES-CF. It's got no  
423 relationship to the NES-CF.

424  
425 McGarry: Understood but the evidence says five metres as a setback for planting is not  
426 sufficient in erosion areas. I am just wondering why vegetation clearance is only  
427 five metres and not a greater setback.

428  
429 Watson: I'm not entirely sure how to answer that other than the rules are pulled through  
430 from the NRP and that's how they were drafted in the NRP. It can be looked at.  
431 I saw submissions from I think it was Forest & Bird and EDS requesting a ten

432 metre setback, which I did consider but in terms of consistency I agreed with the  
 433 recommendation of Ms Vivian in terms of the setback that she applied for  
 434 earthworks. Otherwise, you'd be in a situation where you would have a more  
 435 stringent setback for vegetation clearance than you would for earthworks which  
 436 seems a little bit counterproductive.

437 [01.30.00]  
 438 Stevenson: Thank you Mr Watson. On the same tack as Commissioner McGarry I am  
 439 interested in the evidence behind some of these s.42A recommendations. It's my  
 440 understanding that neither Dr Greer nor Mr Blyth could tie in a quantitative  
 441 sense sediment loss to vegetation clearance, or at least not in a significant way;  
 442 so that leaves me to wonder how those permitted activity thresholds were  
 443 determined – 200 square metres and what the evidence was to inform those  
 444 thresholds?

445  
 446 Watson: I can't answer that question. I wasn't involved in the development of PC1. The  
 447 author of those provisions refused to engage with the PC1 process so I didn't get  
 448 a lot of information out of him on vegetation clearance, forestry provisions, or  
 449 their original intent or the machinations behind them unfortunately. I was  
 450 operating in an information void.

451  
 452 Stevenson: Dr Greer, is there anything you could possibly add? I realise the planning  
 453 approach is not your purview it's the technical.

454  
 455 Greer: I was involved in a lot of discussion during provision drafting – though not this  
 456 one. As far as I know that number was drawn I wouldn't say arbitrarily but it  
 457 was purely at the discretion of the drafter who made that call.

458  
 459 Stevenson: Thank you.

460  
 461 A related question: I understand Dr Greer advised caution that vegetation  
 462 clearance thresholds aren't supported by direct science but rather they're driven  
 463 by an equity principle. I can almost anticipate the answer will be similar to your  
 464 previous one, but how does that advice gel with the s.42A recommendation  
 465 around those thresholds?

466  
 467 It's okay to say the same as last time.

468 Watson: Sorry, can you clarify the question around what do you mean about the s.42A  
 469 threshold? Are you talking about the two hectares?

470  
 471 Stevenson: Totally. My first question was about the proposed permitted activity thresholds,  
 472 200 square metres. The question was are they appropriately evidence informed.  
 473 I didn't get an answer to that, but now I'm asking if there is any other link  
 474 between Dr Greer's evidence and these vegetation clearance thresholds? Or, is  
 475 it an equity concern that is driving these thresholds that was suggested in Dr  
 476 Greer's evidence?

477  
 478 Watson: If you're talking about the two hectares that are now referenced in the rules in  
 479 terms of vegetation clearance threshold, that was on the basis that there is no  
 480 evidence to justify any change so you kind of stick with what you've got, which  
 481 is the threshold that's prescribed in the NRP at the moment. That's the rationale  
 482 for that. Evidence base for that two hectares I couldn't talk to either because I  
 483 wasn't involved in the NRP process.

484  
485 Stevenson: Thank you.

486  
487 Watson: Was there any other questions?

488  
489 This builds on what Commissioner McGarry and Commissioner Stevenson were  
490 just asking in terms of the evidence base. I think I have sort of covered that.

491  
492 One of the WIPs considered vegetation clearance as part of the WIP process.  
493 That was based on the NRP rules as they were drafted in 2015 from memory.  
494 That was the Porirua WIP. They determined that the vegetation clearance rules  
495 were appropriate for managing that activity. Vegetation clearance wasn't  
496 specifically assessed through the Te Whanganui-a-Tara whitua process.

497  
498 I guess the second big information gap we are working in is that Council has no  
499 real understanding of the scale of vegetation clearance being undertaken in these  
500 whitua.

501 [01.35.05]

502 Forestry is a little bit different. You will see in management plans there's enough  
503 of an understanding of where and what's happening.

504  
505 Vegetation clearance is a little bit different. It also overlaps quite significantly  
506 with earthworks. As outlined in the evidence of Dr Greer there is no  
507 understanding of the influence of activities on the TAS in these whitua as a  
508 result.

509  
510 Turning to Schedule 33 which was a requirement of the controlled activity rule  
511 as notified, in my view the effects that Council are trying to manage through the  
512 vegetation clearance rules and that schedule are better covered by other  
513 provisions in PC1 such as the earthworks provisions. That's on the basis that in  
514 my view vegetation clearance doesn't include the disturbance of soil for stump  
515 removal and extraction, in which case the effects of vegetation clearance that  
516 you're dealing with are potential surficial erosion due to loss of canopy cover  
517 and potential increase erosion over time as the roots and things start to decay.  
518 None of those activities were specifically referenced in Schedule 33. Earthwork  
519 activities are better managed through earthwork rules and the Erosion Sediment  
520 Management Plan requirements for that activity.

521  
522 I guess probably most importantly, which I have touched on, is that there is no  
523 evidence that the existing NRP rules won't achieve TAS. In my view there's no  
524 need to replace them at this time – wouldn't be able to meet the s.32 tests. I  
525 started down the track of coming up with some revised limits that might be  
526 appropriate which better aligned with earthworks and things, but just kind of  
527 getting to the s.32 tests at the end of the day there's no way to justify them.  
528 Anything that would be done in that space would be token or arbitrary, on the  
529 basis that it's more than what's in the NRP at the moment and therefore it could  
530 be said to get you closer to meeting TAS.

531  
532 I guess we've spoken about these. I'm happy to answer any kind of other  
533 questions, but I think they've all been covered – other than maybe the pest plants  
534 clarification and the circumstances where the clearance limits are restricted from

535 where they were as notified – being linked to when there’s an authority kind of  
 536 issue to biodiversity, agent or council to prevent a biodiversity risk.  
 537

538 Chair: I think it was Winstones that raised this point about the definition of erosion  
 539 prone land in the operative plan is not a freshwater provision – it applies in the  
 540 coast as well. They say as a consequence these rules, 17, 18 and the equivalent  
 541 in Porirua, should be identified as Part 1 Schedule 1 provisions.  
 542

543 I am not sure if you’ve addressed that in your rebuttal.  
 544 Watson: My understanding as to the categorisation of provisions is that it applies as they  
 545 were notified. Erosion prone land wasn’t in those rules as notified. It was the  
 546 highest erosion risk land, woody vegetation definition which was designed with  
 547 PC1 in mind I guess, on the basis of minimising certain impacts of water  
 548 qualities to meet TAS.  
 549 [01.40.00]  
 550 Chair: Sure, but then if the s.42 recommended wording is now incorporating definition  
 551 of erosion prone land, does that mean... so maybe the short question is, does  
 552 Rule 17 for instance apply also in coastal areas? So, discharges of sediment into  
 553 the coast.  
 554  
 555 This is something that you could address in your reply.  
 556  
 557 I think one other issue that came through in submissions, I think NZTA had  
 558 framed it as conjunctive versus disjunctive issue – vegetation clearance  
 559 associated with repair and maintenance of existing roads and cracks; or as  
 560 opposed to and.  
 561  
 562 I think you do cover this in your rebuttal, but you think that, as I understand it,  
 563 just practically it's not going to be read as requiring all elements of that definition  
 564 to be achieved.  
 565  
 566 Is there any risk in granting that relief just so it's very clear it is disjunctive?  
 567

568 Watson: The vegetation clearance definition referred to is in the NRP, so it's out of scope  
 569 for me to make changes or recommend changes to that definition. I’m not sure  
 570 if it's within your scope to make consequential changes as you see fit to the  
 571 operative NRP.  
 572

573 Chair: I think that they were seeing that that change somehow come through in Rule  
 574 17. I understand the point.  
 575  
 576 Sorry, one very final one on definitions. Rule 18 refers to renewable energy  
 577 generation. I think the defined term in the NRP is renewable energy generation  
 578 activities. Why I think that potentially matters is because it might assist with  
 579 some of the relief I think Transpower had sought.  
 580  
 581 I don’t think there’s a definition of renewal energy generation. I think it's  
 582 renewable energy generation activities which also then picks up connections to  
 583 the grid.  
 584

585 Watson: I’ll just be a minute.  
 586

- 587 Chair: Sure. Again you can come back in the reply on that point.  
588
- 589 Watson: I think I've pulled those rules straight from the NRP so that's how they're drafted  
590 in the NRP. So if there's a disconnect there it's existing. I will double-check that.  
591 From memory I haven't touched those rules, other than dragging and dropping  
592 them into PC1.
- 593 Chair: Thanks. Mr Watson, the two square metre issue that Commissioner Stevenson  
594 had raised, could you just briefly take me through again. So that's in your s.42A,  
595 you're recommending that comes out and it be replaced with a permitted activity  
596 standard of two hectares. In the slide you've got up here, you say that the  
597 evidence base doesn't support limiting clearance as a permitted activity to only  
598 200 square metres.  
599
- 600 I do appreciate you have covered this, but could you just explain the two  
601 hectares? Has that come through in submitter relief? Where has that come from?  
602
- 603 Watson: A number of submitters requested that the operative NRP rules for vegetation  
604 clearance be retained. That is ultimately what I have done through my  
605 recommendations. I have combined PC1 WH.R17 and P.R16 as notified with  
606 the permitted activity rules in the NRP, such that their application doesn't  
607 change. But, they are one kind of essentially permitted activity rule which  
608 covered all of the activities which would have been permitted as notified under  
609 both PC1 and the operative NRP.
- 610 [01.45.00]  
611 Does that make sense?  
612
- 613 Kake: Just quickly to check if I may. With respect to what you just mentioned there,  
614 WH.R17 the numerical three reference there to vegetation clearance in the rules  
615 that you've referenced are 122, 125, 126 so on and so forth. Those are essentially  
616 the permitted activity rules that have been pulled through from the NRP into this  
617 particular clause?
- 618 Watson: No. Those rules listed in clause three are the beds, lakes and rivers rules. That  
619 clause talks about why vegetation clearance five metres might be appropriate in  
620 those situations, because they're beds, lakes and river activities. The rules pulled  
621 through from the NRP into PC1 are R.104 and R.105 in terms of the permitted  
622 activity rules. Then R.106 and R.107 for the restricted discretionary and  
623 discretionary activities respectively.  
624
- 625 Kake: Just double-checking then. So, R.29 under the NRP just because it references  
626 the structures that are site identified in Schedule C, which is the mana whenua  
627 ones that's been pulled through. Sorry, I haven't got that far down just yet.  
628 Because it's an RDA.  
629
- 630 Watson: It would only be those rules that are specifically referenced in the existing NRP  
631 permitted activity rules that are pulled through. Again I haven't tweaked the  
632 material or the scope of those rules. I have just dropped them into PC1 on the  
633 basis that there's no evidence that they aren't effective and therefore no reason  
634 to change them as they stand at the moment.  
635
- 636 McGarry: Mr Watson, forgive us if we seem to be a computer that you keep having to  
637 punch the information into repetitively, but Rule WH.R18, again you've just  
638 dropped that straight in from the NRP, correct?

639  
640 Watson: Correct.  
641 McGarry: Ms Anderson, I wonder if you could reply and respond to us. I look at this rule  
642 and I think it's only recognising renewable energy which is obviously the NPS-  
643 REG but then I think about the NES-ET and then I think about RSI. I just think  
644 that the obligations of this Panel to not just take the provision and plop it in, but  
645 we also need to give effect to these other NPSs. I see what this trying to achieve,  
646 but it's only achieving it for one small part.  
647  
648 I just wonder if you could respond to us on our ability to give effect to those  
649 other NPSs, rather than just merely popping something in because it's in the  
650 current plan. I am not sure that gives us the ability to give effect to the higher  
651 order.  
652  
653 Anderson: Thank you. Yes I can do.  
654  
655 Chair: Thank you Ms Anderson. Yes, if there is some restriction based on scope or at  
656 least whether that definition could be renewable energy generation activities  
657 which is broader as a defined term in the NRP, than renewable energy  
658 generation, which I think is a mistake. I don't think there's a definition of  
659 renewable energy generation in the plan.  
660  
661 Stevenson: I have been sitting with this for a while. The wording in the national direction is  
662 very specific around renewable electricity generation – so this is a national  
663 policy statement for renewable electricity generation, and NES for electricity  
664 transmission etc.  
665 [01.50.05]  
666 Why the wording “energy generation”? Perhaps a question for legal counsel as  
667 well. Is there a difference?  
668 Watson: Again it's just pulled from the NRP so it's a hangover from whatever is in the  
669 NRP. Obviously the national direction has changed in the terminology used in  
670 the RPS and some of these other higher order documents has changed since then.  
671  
672 McGarry: I guess the question is a bit broader Ms Anderson too for the RPS. We've also  
673 got an updated RPS now. Same thing there is how do we actually give effect to  
674 those documents if we are just taking what's been...  
675  
676 Chair: Thanks Mr Watson. I think we've made the point. Continue. We might be up to  
677 Issue 4.  
678  
679 Watson: We've kind of covered this in discussion. I'm happy to take more questions or  
680 we can move on. I don't think there is anything there that we haven't already  
681 covered.  
682  
683 Are you happy for me to move on?  
684  
685 Thank you. I will now turn to the forestry provisions. I will just provide a bit of  
686 introduction and some context.  
687  
688 There 177 submissions, 257 further submissions on the specific forestry  
689 provisions, so that's WH.P28 and P26 which are policies; rules WH.R20 to

WH.R22 and P.R19 to P.R21, and Schedule 34 which was the Erosion Sediment Management Plan for forestry activities.

Again there was some support for PC1 as notified from EDS, Forest & Bird and Taranaki Whānau, but the general tenure of submissions was one of what I could describe as strong opposition. There was quite polarising views on this topic, as you can imagine. It's quite an emotive one at the moment given recent weather events in the Central North Island.

On one side the forestry sector and land owners are kind of saying the provisions go too far and it's an unreasonable restriction on the use of their land; and on the other, the likes of EDS, Forest & Bird and mana whenua have considered the provisions don't go far enough.

I guess the main concerns coming through with submissions obviously were the stringency test and the robustness of evidence or rules which go beyond the regulations of the NES; the implications of the erosion risk mapping methodology; financial implications of forced retirement, or forced re-vegetation on highest erosion risk land and potential are quite significant cost implications under the ETS; and general lack of investment certainty and attractiveness as an investment activity for landowners and potential flow-on effects in terms of climate change. You could end up with activities happening on land that are worse for the environment than forestry in terms of emission generating activities.

I guess kind of key and sort of outside of the scope of PC1 but a really important context, is that the forestry provisions go beyond the WIP recommendations which sought a very focused and non-regulatory approach – given I guess the recency of the NES at the time that the WIPs were being considered. PC1 provisions go well beyond those recommendations and it came as a bit of a shock to the forestry sector.

[01.55.35]

I've got a slide up here summarising the NES. I don't know if you want me to go through it. I can probably assume that you guys understand enough about the NES.

I guess the forestry provisions in PC1 as notified. I will just summarise them at a high level so it's in front of everyone's mind what they cover. Policies WH.P28 and P26 they have three criteria to them I guess. One was to identify highest erosion risk land to plantation forestry; the second was to require an Erosion Sediment Plan for all forestry activities; and the third and probably the most controversial or definitely the most controversial was to prevent establishment of new plantation forestry and continuation of existing plantation forestry post current harvest cycle. That's important as it provides the policy direction for the prohibited activity rules, which I will talk to a bit later.

The rules WH.R20 and P.R19 in essence all of the listed forestry activities that were occurring in PC1 whaitua required at a minimum controlled activity consent. To be considered a controlled activity a number conditions needed to be met and this included a discharge limit which aligned with that for the earthworks rules, requirement for an Erosion Sediment Management Plan to be

certified to submission and prepared in accordance with Schedule 34, and also the visual clarity TAS for any relevant catchment had to be met.

The other thing that wasn't really an issue raised by submitters as such was that there was also another controlled activity condition which required to be a controlled activity that the land couldn't be in pasture prior to being afforested I'm assuming.

If controlled activity conditions couldn't be met consent was required as a discretionary activity. Then the rules WH.R22 and P.R20 were the prohibited activity rules. They prevented afforestation earthworks and mechanical land preparation on highest erosion risk land.

Another thing that's important to note here is there was a drafting issue and replanting was intended to be included in that rule, which essentially would have meant that any kind of harvest post the latest or the most harvest cycle would also have been prohibited, because you wouldn't have been able to replant.

Then Schedule 34 required an Erosion Sediment Management Plan for forestry and that needed to be prepared and certified by a registered forestry advisor. The intent of that schedule was to give Greater Wellington the ability to withhold consents until management plans were of an appropriate standard. Schedule 34 also included some quite prescriptive management objectives, which were strongly opposed through submissions.

Then there's the Maps 92 and 95 which identify what areas of land currently in plantation forestry were subject to prohibition or prevention of any further forestry.

I guess Issue 7 from my s.42 Report deals with the scope of PC1 forestry provisions.

[02.00.00]

The key one I think in this space is the lack of alignment between PC1 and the NES-CF. Section 32 recognised that the NES-CF was kind of impending, but it didn't incorporate any of the anticipated requirements of the NES-CF, so this is important in the context of permanent or carbon forestry, or exotic continuous cover forestry as it's kind of defined in the NES.

Following submitter evidence from NZCF and discussions with counsel we agree that some of those activities are outside the scope of PC1 as notified. I will talk to that a bit more shortly.

I touched on this briefly as well but there as an omission of replanting as an activity. Replanting was supposed to be included as an activity in all of the forestry provisions. It was missed during drafting. Counsel submitted basically saying it was an omission and they needed to be added back in. Vegetation as an activity was also missed from Rule P.R29.

The omission of replanting, as I mentioned, was quite significant because it basically resulted in prevention of any kind of further harvest or replanting post the current cycle.

And there were some other explanatory notes that had drafting errors in them which needed to be tidied up – so the notes explaining which rules the PC1 prevailed over referred to the National Environment Standards for freshwater rather than the forestry standards, or the plantation forestry standards at the time; and also included some regulations which weren't relevant to PC1 as they were in the beds, lakes and rivers.

Any questions on that, or should I continue?

Chair: Mr Watson, is this an appropriate time to ask questions about Rule 20, or will you be coming back to that?

Watson: I will be coming back to those, but if you want to ask questions now I can answer them.

Chair: No, that's okay. Thank you.

Watson: I guess the key matter of contention, as we've heard, and you would have read through evidence [02.03.10] is Regulation 6 of NES or the stringency test. Although the first issue I am going to talk to is policies and the stringency test isn't directly relevant to policies, I think it's important context to understand why the policies are needed and how they support the stringency aspect of things.

Particularly in terms of what matters need to be considered as part of a future consent process, or to encourage the outcomes sought by Council or the community through other higher order direction such as the RPS.

The NFS doesn't provide policy direction. This is left to councils to develop based on the specific nature of the issues that they're managing. The NRP provides limited direction for forestry activities in the event consent is required either under the NES or the NRP. In my opinion regardless of whether or not the Panel accept my recommended rules and the stringency argument, I think it's important PC1 provides a better policy direction that exists in the NRP.

I guess the only other thing to summarise my position on stringency in terms of why I'm recommending what I'm recommending in the next discussion is my position is that in freshwater PFMUS where suspended fine sediment is not needed TAS; to achieve TAS the NPS-FM at the moment requires rules to be set as limits and these need to go beyond the NES. In my view stringency is justified in those situations.

[02.05.20]

Where TAS are being met my view is there is no need for stringency. It's the principle of 'no harm, no foul'. Ultimately there's no evidence of effects, so you can't prove that something needs to be done to meet objectives if they're already being met.

I guess this is the other key test which has come up through evidence and legal submissions. I just wanted to summarise my view on this to assist the Panel when they are thinking about stringency, s.32 and the overlap between the NPS-FM and s.32 of the RMA in particular; and I guess the lens of clause 1.6 that the legal submissions draw on.

In part-FMUs where the stringency test is met obviously you need to assess the appropriateness of any kind of recommended provisions against s.32 of the RMA. My thought process for this followed clause 3.12 of the NPS requires Council to identify and set limits as rules to meet TAS. In my interpretation this means rules beyond those in place are needed to give effect to NPS where TAS is not met.

The evidence and advice I've got from Mr Reardon and also a number of other stakeholders, both internal and external as part of the s.42A process, seemingly indicates a disconnect between the NES and its ability to manage its effects on water quality both in these whaitua and more broadly. This is in part confirmed by the evidence of Mr Pepperell noting Council's limited information on performance of the NES in these whaitua.

Dr Greer and Mr Blyth their evidence illustrates that where TAS are not being met forestry activities will be contributing to those TAS not being met, and that's not just a kind of one and done situation. There's a window of vulnerability where effects may endure for potentially up to eight years.

I recognise and appreciate the evidence is limited and more could be done to understand the influence of forestry activities on the achievability of TAS, and obviously the effectiveness of the NES in these whaitua as well; but my strong view is that the evidence suggests more than the current requirements of the NES required to meet TAS, and if not through PC1 I question where this will come in – where this additional control or protection for the environment will occur.

This is in the face as outlined in Mr Reardon's evidence as an approx. 47 percent increase in harvest area expected in these whaitua in the next five years. This leads to a higher risk of degradation and continuation of failure to meet TAS and by association the objectives of PC1 and also the NPS-FM. So applying s.32 tests through the lens of clause of 1.6 of the NPS.

I don't consider the NES on its own with supporting non-regulatory methods is an appropriate response where TAS aren't being met. In my view, this equates to delaying to decision-making because of uncertain information, which is inconsistent with clause 1.6 of the NPS.

Any questions on that?

Stevenson:

Thanks Mr Watson. I'm still grappling with the link between the scientific evidence and the rule framework proposed through Plan Change 1. I have wound it back to the evidence of Mr Blyth and Dr Greer and it seems that Mr Blyth has said that forestry activities generate significantly less sediment than farming or pastoral activity.

[02.10.00]

Dr Greer has said that in his view the basis for the Plan Change 1 provisions is not scientific evidence, it's again this aspect of equity.

In your kōrero and whakaaro that Council is acknowledging that lack of scientific evidence and is relying on the need to act despite having that evidence.

Is that a general summary of where we are going with the scientific evidence and the policy framework? Are you saying the NPS-FM requires us to do this despite the lack of information?

Watson:

Correct, that's essentially what I am saying, yes, correct. Recognising the limitations of the evidence base. There is some evidence there and doing nothing on that basis would be inconsistent with clause 1.6 of the NPS.

Should I continue?

I guess this is just a summary of my approach to recommended amendments. There is obviously conflicted evidence and uncertain evidence. There's a lot of balls in the air with this topic and this issue generally, both in these whaitua and throughout the country, as I'm sure Mr Reardon can talk to later.

In the face of that uncertain evidence base and issues of fairness and equity, and I guess managing cost implications for those people going to be affected by PC1, my recommendations seek to strike a balance between direction of the NPS and those costs. There is still, I guess, a bit of work for Council to do to work out the implementation framework for TAS and how that is reported on and made available to the public in terms of the questions about certainty and how that might affect activities in the future.

I acknowledge that I would also quite like to have more specific or nuanced rules, as has come through on similar evidence. I agree with those viewpoints. My limitation, again coming back s.32 and trying to hang my hat on something, is that there is no guidance or evidence being provided to me around what those more specific restrictions might look like. So what is the magic number? What sort of harvest limits, setbacks or areas of earthworks and things might be appropriate? Probably less of an issue for earthworks in areas of disturbance and things, but it does have quite significant potential implications when we are talking about setbacks and things if people can't replant their current stocked area in terms of ETS.

I am also seeking to I guess provide some support for the direction of travel in RPS Change 1, noting that's under appeal at the moment – or the key policies which PC1 attempted to give effect to as notified have been appealed by Federated Farmers and there's an ongoing mediation process on that point. The relationship and impact of erosion risk mapping and the connection between highly erodible land and what's been presented in PC1 is I guess a little bit of a balancing act as well.

Ultimately there's two key principles to my recommendations I guess. The key one is holding the line in the face of that uncertain evidence. Doing nothing, I think there's a real risk that effects on water quality is going to get worse.

[02.15.00]

The harvest period for the next five years and the effects of that five year harvest period could endure for fifteen years.

And, the other reason for recommendations based on the evidence and the advice I have received throughout this process, is kind of shifting more to a proactive space for Council to be in, rather than having to respond to adverse effects after

- 947 they occur; so kind of moving away from the ambulance at the bottom of the  
 948 cliff kind of compliance response space that Council is in at the moment.
- 949
- 950 Chair: Mr Watson, on that need for allowing Council to be proactive in its management,  
 951 and we've also been talking quite a bit about plan clarity and certainty for users  
 952 of the plan, can I just talk through a couple of examples of how rules P.R19 and  
 953 WH.R20 might work in practice?
- 954
- 955 I don't know if you've got the TAS tables handy – 9.2 and 8.4. I am just looking  
 956 at the version in Ms O'Callaghan's reply evidence.
- 957 Maybe I will just go to Table 9.2 for Te Awarua-o-Porirua. Suspended fine  
 958 sediment, I'm just interested in understanding the baseline TAS and how these  
 959 apply to these rules in the forestry provisions. If we take for instance Takapū  
 960 which is a current baseline of (d) and it has a target attribute state of (c) – and  
 961 TAS is expressed in numeric as well; assuming that is the baseline in the TAS  
 962 when and if these provisions become operative, if I'm a forestry owner first of  
 963 all my first question is, is it clear to me that my activities are within the Takapū  
 964 part-FMU – could discharge into the Takapū part-FMU? Is that clear from the  
 965 mapping?
- 966
- 967 Watson: Are you talking about the PFMU mapping or the erosion risk mapping? The  
 968 PFMU mapping I'm assuming.
- 969
- 970 Chair: Yes.
- 971
- 972 Watson: I believe so. All of that information is available online and really accessible for  
 973 the public to work out where their property is located in relation to those PFMU  
 974 layers.
- 975
- 976 Chair: So then I will know that because currently suspended fine sediment does not  
 977 meet the target attribute state that if I want to carry out afforestation, replanting  
 978 or activities that result in discharge of sediment, I would need restricted  
 979 discretionary activity under P.R19.
- 980
- 981 Then conversely if my forest is in the Taupō catchment it meets the target  
 982 attribute state, so afforestation replanting and discharge of sediment, that's all  
 983 regulated by the NES-CF?
- 984
- 985 Watson: Correct.
- 986
- 987 Chair: You were here yesterday when we were talking about this dynamic monitoring  
 988 issue. If in the life of the plan, which we could assume is ten years assuming  
 989 there's not another plan change, if the current state of the suspended PSS  
 990 changes so it meets a (c) state or better, then those activities would default again  
 991 to the NES-CF, right? They don't need restricted discretionary consent?
- 992 [02.20.25]
- 993 Watson: Provided that the reporting has been published which shows that TAS has  
 994 changed from not meeting to meeting. That's the trigger I guess for working out  
 995 whether or not a consent is required. There is I guess a window based on Dr  
 996 Greer's recommended approach which is still be ironed out, as you heard  
 997 yesterday, of there's at least five years of certainty for a landowner in terms of  
 998 activity; so they might be able to undertake over that five year period. If they're

999 aware that their activity needs to be staged over a long period of time than that,  
 1000 in my view, there's nothing to prevent them applying for a consent on the basis  
 1001 of the certainty they have when they start that activity – if they can reasonably  
 1002 assess and explain the effects of those future activities to Council and they be  
 1003 considered as part of the consent application.  
 1004

1005 Chair: I'm guessing if there's a chance someone doesn't need to apply for consent they  
 1006 won't be, or they won't want to rather.  
 1007

1008 We look forward to getting Dr Greer's conclusions or recommendations on that  
 1009 TAS issue. It is something we're still thinking about.  
 1010

1011 Watson: I recognise the uncertainty and the implications for landowners in the forestry  
 1012 sector. I have done my best to limit the damage, I guess, for lack of a better term,  
 1013 by aligning requirements to those that they are most familiar with and that they  
 1014 would reasonably be expected to do anyway if they were acting in accordance  
 1015 with best practice or good management practice. That's the advice that I've been  
 1016 receiving. It's not unreasonable to be requiring Council to be able to review the  
 1017 appropriateness of information that landowners and forestry managers should be  
 1018 preparing anyway.  
 1019

1020 Chair: If it was to just be tagged to the baseline TAS in the operative plan, what do you  
 1021 see are the potential risks or consequences of that? Is it that there's potential  
 1022 over-regulation of an activity? Does it need to be because the target attribute  
 1023 state is now in the course of that whatever timeframe is now being achieved?  
 1024

1025 Watson: I guess in terms of that certainty argument, my understanding from discussions  
 1026 with Dr Greer, and I don't want to leap outside my area of expertise, but there  
 1027 are a number of PFMUs that are probably never going to meet TAS in the life  
 1028 of a plan change; and so certainty in those situations isn't really an issue. There  
 1029 are a couple of others where, as Dr Greer spoke to you yesterday, the variability  
 1030 in water quality and atmospheric conditions and things means they may fluctuate  
 1031 between meeting and not meeting TAS over the life of the plan. It's more of a  
 1032 question for Dr Greer I think in terms of how many are expected to drop in and  
 1033 out of the meeting versus not meeting TAS space.  
 1034

1035 Greer: There's a theoretical environment risk that things get worse in a catchment,  
 1036 that's always there. Then you want the additional control in those catchments  
 1037 that are currently meeting TAS that might not be in the future.  
 1038 [02.25.05]

1039 Probably the greater risk, although it's not really a risk, it's probably good for the  
 1040 forestry, the Pāuatahanui Stream in particular is very close to meeting it's TAS.  
 1041 Theoretically a plan has a life of ten years. We can see how much a central  
 1042 government delay can add onto that. There are still first generation plans now in  
 1043 the country. So this plan may well last a lot longer than ten years.  
 1044

1045 There's TAS that might be met through that time, allowing for a less restrictive  
 1046 consenting pathway for foresters. It's not going to happen in the next ten years  
 1047 probably that the Council is going to come out and say, "This TAS has now been  
 1048 met and the NES-CF applies to you," apart from maybe in the Pāuatahanui. All  
 1049 things going well it may in 2040. That's kind of the plan.  
 1050

- 1051 Chair: Having a buffer then allow for when there's a major storm event and natural  
1052 sedimentation. But, I get the point. It perhaps comes back to the equity issue.  
1053
- 1054 Greer: I think it does need to be ironed out how the Council are going to do this, but  
1055 once a site meets its TAS any degradation that results from climate after that  
1056 should not be considered as the TAS no longer being met. It can't be a pass/fail.  
1057 So that's not a real risk of a natural event coming through and causing the TAS  
1058 not to be met on paper and all of sudden needing consent.  
1059
- 1060 In my mind you would go, "Is this because of natural events?" "We can't see  
1061 that in the data." "Has there been land use change? Is there an actual increase  
1062 source of sediment in this catchment?" If not, even then the Council may not say  
1063 the TAS has been met. If the catchment is unchanged in its nature then they  
1064 wouldn't make that call.  
1065
- 1066 Watson: I think the other important thing to note, or for the Panel to understand, is that  
1067 the driver of the TAS in pretty much everywhere but the Hutt is meeting the  
1068 national bottom line, so it's not really an option to do nothing because then  
1069 you're still not meeting the national bottom line. Dr Greer spoke to the  
1070 achievability constraints about the Hutt at Boulcott TAS yesterday so I won't go  
1071 over those again.  
1072
- 1073 McGarry: I'm not sure what issue I'm talking to, I'm just out here somewhere. I'm just  
1074 looking at your rebuttal Appendix 1 which has a few other amendments  
1075 responding to submitters, but then when I look at Appendix 2 of 26 May that  
1076 you've updated, you haven't brought some of those across. So I'm looking at  
1077 the one for the WH.R17 and there's a new clause AA there, which I don't see  
1078 on this version.  
1079
- 1080 My request Mr Watson is if you could consolidate or double-check any of your  
1081 rebuttal changes. There's another one there as well in terms of WH.20. It showed  
1082 in the rebuttal but if we could see it in full in its context in the tracked change  
1083 version.  
1084
- 1085 Watson: Sorry, are we talking about Appendix 1 of my rebuttal evidence?  
1086
- 1087 McGarry: Yes.  
1088
- 1089 Watson: That was changes requested by submitters. That's not my recommended  
1090 changes.  
1091
- 1092 McGarry: [02.29.24].  
1093
- 1094 Watson: I have incorporated some of those recommendations. I've acknowledged in my  
1095 rebuttal statement where I have. But, no, not all of them. I guess I haven't added  
1096 a column where I've said whether or not I've adopted some of those  
1097 recommendations in that table. But, that Appendix 1 was just pulling through  
1098 any kind of recommended changes to provisions that had come through in  
1099 submitter evidence, rather than my recommendations. Sorry for the confusion.  
1100
- 1101 McGarry: That's okay. So you're confident you've picked up all of your recommended  
1102 changes in this 26 May document?

1103 [02.30.02]

1104 Watson: Yes. If I've accepted the submitter evidence or the recommended relief sought  
1105 by the submitters then I'm confident that it's included.

1106  
1107 McGarry: It's here.

1108  
1109 Watson: Yes.

1110  
1111 McGarry: Thanks for that clarification.

1112  
1113 Chair: We'll take a break very shortly but Mr Watson, and this might be slightly left  
1114 field but it relates to this maintain versus improve point we've been talking  
1115 about. I know that Ms O'Callaghan in her reply provisions for HS2 and actually  
1116 also in her rebuttal, she has recommended that the policy that talks about the  
1117 TAS where it's being met to be maintained, and recommending deleting the  
1118 words "at least maintained". That came through I think from might have been  
1119 relief from the Airport.

1120  
1121 I'm interested in this issue and Policy 5 of the NPS-FM which says that where a  
1122 waterbody and freshwater ecosystem is not degraded then Policy 5 says health  
1123 and wellbeing is maintained and if communities choose it's improved.

1124  
1125 I appreciate that the WIP processes acknowledge that there isn't a lot of evidence  
1126 about the contribution of forestry to sediment levels and that they supported a  
1127 non-regulatory approach working with landowners.

1128  
1129 I guess I just want to test a little bit more with you – because I think it's quite a  
1130 fundamental concept that the TAS if it is met, the activities are managed so that  
1131 the TAS is maintained, and that improvement isn't required.

1132  
1133 We know based on Mr Reardon's evidence that increasing a large percentage of  
1134 anticipated harvesting activities, and I forget the timeframe...

1135  
1136 Reardon: Yeah, there's an increase in harvesting occurring in the next five year period –  
1137 a 47 percent increase.

1138  
1139 Chair: So 47 percent in the next five year period. I guess I'm just asking about  
1140 maintaining the sediment TAS where it's already being achieved. I'm  
1141 questioning. I don't think that is what the community had necessary had  
1142 necessarily sought. I think they recognised very much that sediment is an issue.  
1143 Then in light of what's anticipated in a very short period of time, five years,  
1144 could there be more recognition in these forestry provisions that more than  
1145 maintenance TAS is required, even where it's currently being achieved?

1146  
1147 It's really quite a fundamental concept of maintain where you're achieving and  
1148 whether actually it is appropriate to improve.

1149  
1150 I don't know if you want to address that now, but otherwise it is something that  
1151 we have been thinking about.

1152  
1153 Watson: It is something that I've been grappling with for months, month and months as  
1154 well, so I sympathise.

[02.35.10]

I guess it's important that my recommended rules in PC1 aren't the only kind of mechanisms that are in play here. I think it's fair to say that this process has been a bit of a wakeup call for Council in terms of their monitoring compliance and their implementation of the NES. I expect that's likely to significantly improve over the coming years, regardless of what happens with PC1.

I have recommended some non-regulatory methods which they focus on good management practice, minimising sediment losses during sediment disturbing activities, but also looking to provide incentives whether that be rates relief, rebates or financial support in some way to encourage support of strategies and I guess methods of forestry or methods of land management that reduce sediment loads. Similar to the mechanisms and things that are in play at the moment for pasture and rural land use, those don't currently exist for forestry.

I guess my personal opinion on this is coming in with such strong regulation and direction and restriction of land use without those mechanisms in place is going to be a really tough pill to swallow for those members of the community.

So I guess I've been trying to strike that balance. I guess also based on what I'm hearing from Mr Reardon, as Council starts implementing and undertaking permitted activity monitoring more regularly and has the right kind of expertise and skills in place to support that, the number of consents required is going to increase by probably quite a bit in these whaitua. I guess Mr Reardon can talk to that a bit more later.

I guess the other thing to bear in mind, which I think is probably maybe somewhat overlooked, is that requiring consent where TAS aren't met across the three topics in this hearing stream almost acts as an incentive for people to pick up their game. So, with the recommended provisions in the rural land use chapter, Ms Vivian's recommendations and recommendations in the forestry space, I think it would be unlikely to TAS degrade. Obviously proof will be in the pudding in terms of how the provisions and things are implemented. But, that has been my thought process: you can't just assume non-compliance, particularly if there's going to be an increased focus on management of the sediment generating activities across the board. It's not just forestry.

Chair:

Thank you. That was very useful. When you said that you expect more consents being applied for, was that under the NES-CF? Yes.

Some of the things that we've heard and actually does align with a bit of the experience I've had with the NES-CF is that it's very permissive, and I think this comes out in some of the technical evidence as well. Sediment control measures, it's adequate if there are some. It's enough if there are some but they don't actually necessarily need to be adequate to deal with the sediment that's been generated.

I think we're talking about the NES-CF some more with Mr Reardon later, so we'll probably leave that there.

Unless anyone has anything we might take the morning break. Thank you Mr Watson. We'll come back at 11.00am. That gives us twenty minutes.

[Morning Break – 02.39.55]

[Hearing resumes – 03.01.45]

Chair: Kia ora. We are back. Mr Watson is still taking us through the issues. Thank you. We were just discussing over the adjournment that we really appreciate the clear way you've been answering the questions that we have. It's really helping us to get our head around these very complicated provisions, so thank you.

If you're happy to keep it being an interactive approach as we go through to the end of your report we would find that useful. Thank you. Over to you.

Watson: I think that kind of interactive as we go approach is probably going to be working best because there's a lot of overlap between the provisions and recommendations in the provisions and evidence base supporting some of the provisions; and the expertise involved in answering questions on some of the provisions. It might kind of bounce around a bit compared to what's in the schedule I'm expecting. It was kind of a best guess on how this was going to go.

I'll start on Issue 8. These are the policies. As notified these policies directed (I think I spoke about this earlier) Erosion Sediment Management Plan for all forestry activities and prevention of new forest and continuation of plantation forestry beyond the current harvest cycle on highest erosion risk land.

As I mentioned, submitters were really heavily opposed to that direction. There's a lot of ETS implications as I alluded to earlier – \$50,000 a hectare is the type of money we are talking about from my understanding. Again Mr Reardon can probably talk more to that. That's within his area of expertise more than mine.

I guess my recommended amendments to the policies I just summarised in the table in front of you. In response to submitter evidence, so the submitter evidence of Forest & Bird and EDS, in light of the rebuttal evidence of Mr Nation and My Blyth around (I guess for lack of a better term) the adequacy of the erosion risk mapping and it being considered best available information, I've reframed the management approach to the policies. Previously it was minimising adverse effects and now it's a management of adverse effects. This provides more focused policy direction through which council can decline consents if needed.

[03.05.00]

In my view this is important because this supports the direction of Policy CC6 while it's under appeal. It just gives Council that additional level of control and better meets the direction of travel in the RPS in terms of 'right tree right place'.

Alongside this I recommend removal of the prohibition of new and prevention of continuation of forestry on highest erosion risk land. This is because of the methodology to the erosion risk mapping, the uncertainty around I guess the absolute verse relative erosion risk and the quite significant implications for land owners if they are located within that mapped area. Again from an ETS and a financial perspective and the supporting mechanisms to support landowners not being in place, so they're no longer going to be able to generate a return from that land and that's a pretty significant shift in goal posts in terms of what they may have envisaged when they purchased or planted forestry on that land.

This is on the basis that the technical evidence from Mr Blyth and Mr Peryer indicates that natives are quite challenging in some areas in these whaitua which would affect land owners ability to avoid financial implications under the ETS if they can't reach certain criteria of growth at different periods - in future, if the notified approach was retained.

I guess on the path of mapping, I recommend shifting to moving away from using the erosion risk mapping as more a blunt tool to more of a trigger for further assessment to better align with the approach taken to the erosion risk mapping in the rural land use topic, as Mr Willis discussed yesterday. Again, this is on the basis that the rebuttal evidence of Mr Blyth and Mr Nation confirmed that it was best available information and shouldn't be sidelined completely. It was the case for my s.42A recommendations.

This also supports Policy CC6 of RPS Change 1 in terms of that 'right tree right place' that is focused on avoiding sediment risks in certain high risk areas particularly.

Other amendments – better direction for plan users regarding matters of consideration for any consenting process. I think Ms McLeod for NZCF was pretty strong on the lack of direction in the policies as recommended in my s42A process in not providing any value for a future consenting process. I have taken that on-board and provided some further direction as to how that might better support a consenting process; and provided some more policy support for some of those non-regulatory methods, or alternatives that might be promoted in lieu of plantation forestry.

In my opinion plantation forestry, the forestry sector, hasn't been given a chance to demonstrate that they can manage effects on high erosion risk land in a way that manages effects on water quality. It's kind of jumped to a "You can do this activity at all." There needs to be some sort of opportunity for alternative strategies, forestry types and scale harvest types that can show that forestry can be managed in a way that doesn't increase sediment impacts – and that includes things like permanent transition and reversion to natives. Alternative forestry strategies – carbon forestry and things where they're currently not registered under the ETS.

[03.10.25]

I guess that's kind of the thought process in a nutshell, is to better align with the approach taken for the rural land use topic, in terms of the use of the mapping as a guide for site specific assessment as part of the forestry management plan development process; and to better support the direction of travel in RPS through a management rather than a minimisation of effects approach.

McGarry:

I'm just looking at P.P26 and the wording that's in lieu there obviously is in response to submissions. I'm just wondering about (d) and the guidance there. I guess in the back of my mind I'm thinking of section 105 and 107 of the RMA when I ask this. I'm just thinking in my experience with resource consents in environments which are very sensitive, some of the methods you might do is to reduce the crop size during harvest, or to limit the amount in a catchment that you can harvest in any one time, or the time of year.

1310 So, I'm just wondering whether methods could be in here. As I say, 105  
 1311 particularly talks about alternative methods in terms of controlling discharges.  
 1312 I'm looking at (d)(2) and just wondering whether that could be worded along the  
 1313 lines of having regard to methods to reduce the risks of, which then brings that  
 1314 forward in a decision makers ambit under the policy, that you're looking at those  
 1315 type of methods that I've just outlined – less conditions of consents.  
 1316

1317 Watson: I would support a recommendation along those lines, or changes along those  
 1318 lines. I am happy to deal with that in right of reply if you like. Certainly that's  
 1319 what the intent of that clause was trying to promote.  
 1320

1321 McGarry: Yes, I would like to see that reflected. I'm asking these questions without  
 1322 making connections to the submissions and exactly what was requested.  
 1323

1324 The other thing that appears to me that's missing from the policy guidance is the  
 1325 protection of established or existing riparian vegetation. It gets back to my kind  
 1326 of question before about the five metres as well. It seems to me that one part of  
 1327 the plan is trying very hard to where physically possible establish riparian  
 1328 vegetation and then we've got this part of the plan.  
 1329

1330 I just wonder whether you could consider whether a clause giving some  
 1331 guidance about protecting established riparian vegetation would be appropriate  
 1332 or not in this policy guidance?  
 1333

1334 Watson: Were you wanting a response to that, or it's just a statement?  
 1335

1336 McGarry: Is that something you think would be in the ambit of the scope of submissions,  
 1337 and if it is then I'm happy for you to come back to us.  
 1338

1339 Watson: I think it's probably within the scope of submissions of the basis of the EDS and  
 1340 Forest & Bird legal submissions. My view is that management of riparian  
 1341 margins and managing vegetation clearance and things are already captured by  
 1342 good management practice and sustainable forestry practices which are  
 1343 referenced in that policy already, without needing to be as prescription about the  
 1344 types of environments that particularly need to be managed.  
 1345 [03.15.10]

1346 McGarry: I ask this question in isolation and I'm not that familiar with the NRP, but it  
 1347 seems to me that around the country most regional plans have quite strict rules  
 1348 around riparian margins, whether they're vegetated or not. And, I'm not seeing  
 1349 that in these provisions, so I'm just not sure what the NRP. So maybe in your  
 1350 right of reply you could address that. Because that's what I'm really getting at –  
 1351 it's not just water quality, it's also giving effect obviously to maintaining the  
 1352 natural character of the margins of waterbodies.  
 1353

1354 I just raise at the moment as a bit of a gap that I see. I raised it yesterday in the  
 1355 language of riparian plantings that there's some reference to margin and others  
 1356 not.  
 1357

1358 If you could build my understanding of what currently is in the plan in terms of  
 1359 riparian margins, or not, and how this might fit in with that in terms of guidance  
 1360 for a decision maker on a forestry application. Thank you.  
 1361

- 1362 Chair: Mr Watson, Policy P.P26 which we are just looking at I have a couple of  
 1363 questions. This policy refers to in (b) confirming the risk of erosion from the  
 1364 potential erosion risk land through forestry management plans; so the potential  
 1365 erosion of risk land is the land that's identified on Maps 90 and 93. Forestry  
 1366 Management Plan definition – currently the wording you support it cross-refers  
 1367 to particular clauses (you've referred to them as sections) of the schedules in the  
 1368 NES.  
 1369  
 1370 I appreciate this is about managing discharges of sediment, but if someone's  
 1371 activity is now captured and they're subject to these provisions in PC1, what  
 1372 about all of the things that are not listed or taken from these schedules – do they  
 1373 just fall away? For example, let's just take harvesting which is Schedule 6 of the  
 1374 NES, the harvest plan. When you're preparing the Forestry Management Plan  
 1375 you need to identify person, property, details, maps, and you're saying here that  
 1376 the contour lines rather than less than or equal to 20 metres in the schedule these  
 1377 have to be less than or equal to five metres – so more precise.  
 1378  
 1379 But, what about the other things? What happens to those? For example, fish  
 1380 species. That's just one provision that's not listed in your Schedule 6 provisions  
 1381 that you carried over. What happens there if my activities captured by the PC1  
 1382 provisions, what happens to those other requirements in Schedule 6 of the NES?  
 1383  
 1384 Watson: If consent is required the operative NRP provisions related to indigenous  
 1385 biodiversity and things would still kick in. They don't fall away.  
 1386 [03.20.00]  
 1387 That's where those sorts of activities would be covered. PC1 only deals with  
 1388 water quality. The indigenous biodiversity elements and activities in the beds of  
 1389 lakes and rivers and things, which might affect fish species are covered by  
 1390 existing provisions in the NRP.  
 1391  
 1392 Chair: Perhaps a better one to look at is...  
 1393  
 1394 Watson: There will probably be a link somewhere, or the explanatory notes could  
 1395 probably be expanded to highlight that other provisions in the NRP also apply  
 1396 where a consent is required.  
 1397  
 1398 Chair: I just hope that doesn't raise any issues in terms of the relationship between the  
 1399 two instruments, the Regional Plan and the NES.  
 1400  
 1401 The significant natural areas is perhaps a better example. You've said that clause  
 1402 4(2) of the schedule which is about water quality and sediment applies to these  
 1403 provisions; but then the harvest plan under the NES requires that significant  
 1404 natural areas that are identified particular restrictions apply there. So you're  
 1405 saying that the existing NRP provisions would deal with those issues. I am just  
 1406 not sure how they would make their way into the forestry management plan.  
 1407  
 1408 Watson: In the context of the NES, significant natural areas are Territorial Authority  
 1409 jurisdiction only.  
 1410  
 1411 Chair: Of course, yes. It looks like you've gone through this pretty carefully and picked  
 1412 up... that's fine, thank you.  
 1413

- 1414 Watson: I tried to tailor it to only those matters specific to water quality, recognising that  
 1415 that's the scope of PC1 ultimately. But, being careful in drafting the provisions  
 1416 that both the matters for discretion I guess and that there's no policy gap for  
 1417 some of those biodiversity type effects that may also be present within the  
 1418 forestry context.  
 1419
- 1420 McGarry: I'm back on the same policy, clause (d) again. Just looking at the wording of  
 1421 clause (i) I just wonder if that could be simplified in this context to the sensitivity  
 1422 of the receiving environment to suspended sediment discharges; and then it  
 1423 could be comma, particularly where not meeting the target.  
 1424  
 1425 It just seems quite clunky as it is. Just turning it around so it would just be, as I  
 1426 say, the sensitivity. You would have regard to the sensitivity of the receiving  
 1427 environment to suspended sediment discharges and then particularly where.  
 1428  
 1429 Any comment on that? I'm just looking for nice simple policies that's all.  
 1430
- 1431 Watson: I can have a look at that and come back to you in right of reply.  
 1432
- 1433 Kake: On the same line of questioning, going back to those policies, again as well (and  
 1434 I'm not familiar enough with NRP at this stage) but thinking about clearly  
 1435 drafted policy, taking for example in P.P26 sub-clause (d), those conditions, did  
 1436 you give any thought to perhaps maybe this policy being drafted as a different  
 1437 provision in terms of a restricted discretionary and these conditions perhaps  
 1438 being matters of discretion instead. I'm just going back to the point in terms of  
 1439 having some clear direction in a policy and how that might be worded to allow  
 1440 plan users to better understand what the intent of that policy really is trying to  
 1441 achieve.  
 1442 [03.25.00]
- 1443 Watson: I guess my thought process is that I was trying to keep it as simple as I could  
 1444 ultimately by the rules being quite clear in terms of what the trigger for the rule  
 1445 is, recognising that they could probably be refined as well. But, I think there's  
 1446 possibly more work to do in the confirming erosion risk space in that policy to  
 1447 better align with the intent, confirming the actual risk of potential erosion risk  
 1448 land or whatever I had in there.  
 1449  
 1450 I could probably be a bit more specific in terms of intent.  
 1451  
 1452 I don't see any set numeric limits or quantification type elements that I would  
 1453 be able to bring in to make it relevant to a rule – I guess would be my short  
 1454 answer; not really a short answer but would be my answer to that.  
 1455  
 1456 Also I guess a lack of direction around what those limits or numeric numbers or  
 1457 figures might be in this context.
- 1458 Chair: Mr Watson I'm interested in the wording in P26(c) avoiding significant adverse  
 1459 effects, and otherwise minimising adverse effects from discharges of sediment  
 1460 on water quality. I don't particularly have any concerns with that wording, but I  
 1461 just note that it is quite different from the approach to effects management in the  
 1462 NES for sediment.  
 1463  
 1464 Has that wording come from provisions in the NRP regarding effects from  
 1465 sediment, or has it come from submitter relief?

1466  
 1467 Watson: It's to provide some support for the RPS in Policy C.C6 which had a avoidance  
 1468 direction.  
 1469  
 1470 Chair: Was that avoiding significant adverse effects that policy?  
 1471  
 1472 Watson: No, it was avoiding plantation forestry on highly erodible land, particularly  
 1473 where visual clarity targets... something to do with water quality targets not  
 1474 being met. Sorry, I don't have it in front of me.  
 1475  
 1476 Chair: Thank you.  
 1477  
 1478 Watson: I will hand over to Mr Nation now to talk about the erosion risk mapping and  
 1479 how that relates to forestry.  
 1480  
 1481 Nation: Thank you Mr Watson. Commissioners, we talked about this yesterday, about  
 1482 how the erosion risk mapping was carried out. Just a bit of a refresher: we used  
 1483 that revised universal soil loss equation and we intercepted that with 26 degrees  
 1484 as the land sliding part and then for pasture originally we took the top ten percent  
 1485 which we called the highest erosion land, and we took the top 30 as well and we  
 1486 called that high.  
 1487  
 1488 We were also asked to have a look at forestry and woody vegetation that's not  
 1489 in forestry as well – so two other distinctions and that's why the mapping you  
 1490 will see has kind of been separated out on the Greater Wellington maps.  
 1491  
 1492 With regards to the forestry layer, again that was the same methodology  
 1493 employed there. We took the top ten percent of land that was currently in  
 1494 forestry, as per the land cover database. That equated to about 990 hectares I  
 1495 believe of land deemed at highest risk. Again that was based on the same  
 1496 methodology we employed for the pasture.  
 1497 [03.30.05]  
 1498 Of course some of the limitations, as in the pasture mapping, it doesn't account  
 1499 for anything specific in terms of harvest status or tree age, or forest harvest  
 1500 activities. The reality is per whaitua, so that percentile is based on each of the  
 1501 two whaitua respectively.  
 1502  
 1503 We generated that layer at the request of the Council to kind of have a bit of an  
 1504 estimate of if vegetation was to be removed off that land where the highest risk  
 1505 would be.  
 1506  
 1507 Chair: Thanks Mr Nation. Some submitters, as you said, the maps are too fine a scale  
 1508 and I think you've responded to that. As I understand it, if someone puts in their  
 1509 address these different layers come up on the mapping in the Council's GAS  
 1510 mapping layer. It's clear to someone if their land has been identified as being in  
 1511 highest erosion risk land for instance.  
 1512  
 1513 Nation: Yes, that's clear.  
 1514  
 1515 Chair: Do those maps also tell someone the part FMU that their activities might  
 1516 discharge into?  
 1517

1518 Nation: Yes. On that same kind of mapping platform there are the part FMU layered  
 1519 boundaries.  
 1520

1521 Watson: To follow up, a context perspective to clarify things for people, the mapping  
 1522 implications for vegetation clearance and forestry were a little bit different to  
 1523 the mapping implications for rural land use yesterday; whereas mapping for  
 1524 forestry and vegetation clearance was used as a trigger to require a consent or  
 1525 restrict a certain kind of land use activity. Mapping in the rural land use topic  
 1526 was always sitting in policy so it wasn't used to trigger rules. The application  
 1527 importance is a little bit different. I'm just pointing that out.  
 1528

1529 Mr Blyth now thank you.  
 1530

1531 Blyth: Thank you Mr Watson. Today I'll just summarise some evidence that considers  
 1532 I guess the different in sediment loads from pastoral farming, forestry and native.  
 1533 Primarily this is on sheep and beef. In my evidence it's a reasonable  
 1534 comprehensive literature review I suppose of a number of studies around the  
 1535 country. Many of these are peered catchment studies where they might have a  
 1536 pastoral farming catchment next to a native forestry catchment with similar  
 1537 geology and climate. Some of them are quite well-known and have been studied  
 1538 for twelve to fifteen years through harvest cycles of forestry. This is used to try  
 1539 and understand what the potential sediment loads were from forestry versus  
 1540 pasture.  
 1541

1542 Generally in all the studies pastoral farming over the long term generated more  
 1543 sediment than forestry. Native forest was generating the lowest because it's a  
 1544 permanent canopy. With forestry cover it's primarily driven by harvest, so  
 1545 there's a risk window; but during that period where forestry is immature the  
 1546 sediment production, land sliding risks and surficial erosion is similar to native  
 1547 forest from a lot of the studies.  
 1548 [03.35.05]

1549 This chart is useful and it's been reproduced in a number of documents including  
 1550 even in the Eastern Ward Council there in some of their guidelines. That's I  
 1551 guess and indication of the risk window post-harvest. It can be up to eight years.  
 1552 There's been studies I guess for some significant events, like Cyclone Boaler  
 1553 where in my evidence there's a chart showing assessment of different age stands  
 1554 of trees in mature forestry through to young and up to eight years old. That just  
 1555 shows that based on some of those studies there's this risk window that if you  
 1556 do have a large climatic event over that period you may have significant land  
 1557 sliding.  
 1558

1559 Many of the studies have shown that the sediment loads can be up to five times  
 1560 greater than neighbouring pasture catchments during this sort of harvest  
 1561 window.  
 1562

1563 I guess a thing to mention that a lot of those are clear-fell catchment studies,  
 1564 where they might have cleared an entire catchment with plantation forestry and  
 1565 rotation in some of these large blocks that we see within the whituas and plan  
 1566 changes here. You might have a hundred hectares being harvested amongst the  
 1567 catchment and that's 8,000 hectares. It's reasonable to assume that the same  
 1568 trends that are seen in these national studies would be happening locally, but

may not be picked up in the monitoring that's done at the SOE site, which is representative of a much broader catchment.

However, there is a lack of monitoring data within this plan change, within both whaitua, to be able to confirm that effects of suspended sediment increases during harvest, to confirm that.

One thing I kind of realised through this process was that there's these various windows of risk but no-one had quantified or had a go at quantifying potential long term contributions of sediment, so I just did a reasonably simple work scenario, which is Table 2 in my evidence, and that's considering the pasture at a nominal amount of a thousand tonnes. The loads don't really mean anything. Then using all these study proportions that was well published around say during that harvest window there might be five times the amount of sediment as the neighbouring pasture catchment.

So used those proportions to try work out what over a thirty year period including a harvest cycle the sediment load might be. That's roughly come out around the 30 to 62 percent.

I guess the 30 percent there is worth pointing out because that's a lower bound and that's primarily based off the Pakuratahi land we study in Hawkes Bay. They had I guess what you would call best management practice; they had quite significant maintenance on all their infrastructure. They had rapid replanting within twelve months and they had a period of no major storms during that post-harvest window as well. So if you took their proportions around canopy cover and return back to what the pasture loads were next door, it was in the sort of two to three year period, but there's plenty of other studies saying that pasture load, or there's an increased load for up to five years or even long – depending on the individual practices of those forestry operations.

I have nominally assigned values for say the first three years post-harvest. I said it was around four times higher than pasture post-harvest in my calculations, but if you wanted to you could even expand that and say, "Well, if you did assume a worst case that it was five times for example for four or five years," that 62 percent could actually increase to around the 80 percent.

Depending on the storms, the management practices which will vary by forestry activities, I guess that range window could be 30 to 80 percent.

The key thing, that last point, is the management practices play a significant role in the production. That's not just on plantation forestry, it's on pasture as well – so individual landowners and how they manage their land their activities obviously has a massive effect which is hard to predict in some simple calculation like this.

[03.40.00]

Lastly I will just cover this last slide and then pause for questions.

One of the tables I presented, Table 3 in my evidence, that's presenting some of the local water quality monitoring data and I guess the relative proportions of plantation forestry is pastoral and that's just as an indicator. It does highlight that there are some challenges – for example some of the catchments that have quite significant amounts of plantation forestry, like Whakatikei and Akatarawa

24 percent and 22 percent of their catchment is plantation forestry. They're currently in a suspended sediment class for their visual clarity and there's harvest happening within those catchments, but they do contribute downstream to the Boulcott TAS site which is requiring improvement in fine suspended sediment from B to A state.

That I guess is I've tried to allude to in my evidence in HS2 and in HS3, is around the challenges of monitoring some of that comprehensively and event based monitoring, and using the state of environment monitoring as the best we have, because don't have consistent continuous sediment monitoring across all of the plan change, and that's extremely expensive and time consuming as well to maintain those sites. So it's trying to work with I guess the environmental monitoring data that's available to make practical decisions, but also recognising that extra could be done to try and identify potential threats during events.

That last statement there, this was in discussion with Mr Watson. It was around some of the negative effects that could happen if we prohibited forestry land from being replanted. For example, if land was harvested and they couldn't replant it, if there was no incentive to plant that in natives immediately the you may end up particularly relevant for this 2040 target we have in the short term. If that was replanted in pines you'd probably have a better sediment reduction in that short term, than if somebody just said, "Right, I'm just going to walk away and let it revert." If it ended up in weeds as an example or it took another twenty years for native trees to colonise then that may have impacts on meeting the TAS in the short term.

In a long term period eventually you would know in the second rotation. If it was in natives it would probably produce a lower sediment load if you're thinking 50-plus years, because obviously that area is no longer being harvested and it would stay in permanent canopy cover.

It's just something to be aware of with these timelines and water quality targets that we are trying to meet.

That's everything. I will just pause there.

Wratt: Mr Blyth, for the pastoral conversations yesterday you gave us information around your modelling results. Am I interpreting correctly that you're really saying that with forestry there's really not enough data to be able model the likely reductions that we get in sediment from what's being proposed in PC1?

Blyth: With this approach I've done in this evidence then there is a possibility you could try to reproduce that in the CLM modelling, but this is bespoke in the sense it's not backed. It's my assessment in this 30 year term. We could try and say that's a good enough assessment and apply in the CLM but it hasn't been done, just because that's not common practice in the forestry harvest modelling. Most of it, in terms of all the detail type water quality modelling, there's a lack of parameters there around what you would apply during post-harvest. Perhaps you could do it on an annual basis like I have, but that comes with a bunch of extra uncertainty I suppose. You saw those ranges – that 30 to 80 percent, so it would be what number I choose might result in a number of problems I suppose or challenges.

1673  
 1674 Wratt: The information, that table you gave us yesterday, and talked through the  
 1675 modelling that you had done through the Farm Environment Plans, that didn't  
 1676 include any anticipated or reduction from the forestry provisions did it?  
 1677 [03.45.20]  
 1678 Blyth: No, the forestry was treated as a permanent cover under those, so it's primarily  
 1679 a test of the rural provisions only, the CLM modelling; and that was primarily  
 1680 driven by what was required for the previous s.42A report testing those  
 1681 provisional scenarios.  
 1682  
 1683 Wratt: The assumption presumably is that with the forestry provisions the outcome  
 1684 would in fact be better than what you've modelled with just the pasture?  
 1685  
 1686 Blyth: Correct, yes.  
 1687  
 1688 McGarry: Just to understand the studies that you looked at in terms of the farming impacts,  
 1689 those would be prior to the stock exclusion regulations?  
 1690  
 1691 Blyth: Yes, that's correct. Most of the studies were anywhere from early 2000s. I did  
 1692 reference studies right up to 2024 but they weren't peer-reviewed catchment studies. A  
 1693 lot of the peer-reviewed catchment studies were done through the '80s, '90s and 2000's.  
 1694 The recent references are primarily just detailed studies of forestry only, not  
 1695 looking at pasture.  
 1696  
 1697 McGarry: So would it be fair to assume that with the implementation of fencing waterways  
 1698 and stock exclusion that farming input should reduce over time just through  
 1699 those actions?  
 1700  
 1701 Blyth: Yes it should reduce, however when comparing against forestry versus pastoral  
 1702 it will depend on the slope of that land that's being utilised and how effective  
 1703 those stock exclusion regs are. Primarily forest is occurring on steeper land, so  
 1704 if that wasn't pasture and if it was all fenced would depend on the low slope  
 1705 rules.  
 1706  
 1707 McGarry: Yesterday when you talked about the calibration of the sediment loads, that was  
 1708 obviously related to the land use and that also related to the forestry as well, that  
 1709 calibration of the loads?  
 1710  
 1711 Blyth: Yes. Inherently it's linked back to the three or four years of the continuous  
 1712 sediment monitoring data – the Te Awarua-o-Porirua three sites. That would  
 1713 have accounted any harvest that had occurred within those monitored  
 1714 catchments that for simplicity was not tried to tease out what proportion that  
 1715 harvest was contributing to that load. That is a limitation of the modelling, is  
 1716 that there may have been harvest effects captured within those three to four years  
 1717 of data, but just wasn't able to be teased out.  
 1718  
 1719 Forestry in that respect is probably not being modelled adequately in the both  
 1720 the [03.48.19] modelling and going forward because it doesn't capture the  
 1721 harvest cycles.  
 1722  
 1723 McGarry: Is that one of the advantage of bringing in a consent framework, that there's that  
 1724 ability to impose monitoring. I can think of monitoring in other parts of the

1725 country on harvesting forests. You could actually apply a condition on the  
 1726 consent that they do some kind of on the ground monitoring, so you're not just  
 1727 relying on the consent authority to go out and do permitted activity monitoring,  
 1728 but that would be a key advantage of the consent framework?  
 1729

1730 Blyth: Yes, the extra monitoring would be useful but I suppose it's reasonably clear  
 1731 across all these studies that there is an extra sediment load with harvest; so it  
 1732 would be, if you were monitoring it and expecting an extra sediment load what  
 1733 would that be utilised for I suppose.  
 1734

1735 It's whether we are comfortable with accepting that forestry has an effect on  
 1736 producing sediment through a risk window and would extra monitoring be  
 1737 useful? I think it's useful to identify that effect within the localised catchment to  
 1738 I guess validate some of these other studies, but how you would land that back  
 1739 to a TAS I'm not sure because the loads potentially could be quite high and it  
 1740 might be sending you down a wrong pathway, and some sort of compliance if  
 1741 their sediment loads are very high; unless it links back to those earthwork  
 1742 standards with their discharge criteria perhaps.  
 1743 [03.50.05]

1744 McGarry: I guess I'm thinking that the monitoring would identify the effectiveness of the  
 1745 erosion control measures. If you've got a sediment trap you might have complied  
 1746 with the NES and you've put a sediment trap in, but whether it's working or not  
 1747 that's another question isn't it.  
 1748

1749 Blyth: Yes. Good point, yes. It would be good to validate some of those.  
 1750

1751 McGarry: Just one other and that's just on whether there's any studies available on the  
 1752 reduction of sediment loads with different methodologies. I'm particularly  
 1753 thinking about cable haulage versus the more traditional methods of harvest. Are  
 1754 there any studies available on that?  
 1755

1756 Blyth: Some of the studies do mention different techniques but I haven't tried to tease  
 1757 out the change and I guess landslide or surficial erosion via those different  
 1758 practices, no. Perhaps Mr Reardon may be able to comment on observations. He  
 1759 has probably better knowledge of those practices and what you might see on the  
 1760 ground.  
 1761

1762 Chair: Sorry, I know we are overdue in speaking with Mr Reardon. We have the erosion  
 1763 specialist team here. Can I just ask some questions?  
 1764

1765 I understand the Farm Environment Plan obviously – there'll be a site visit and  
 1766 a farm environment plan that's developed. Looking at the provisions in this  
 1767 Schedule 36 there's the Erosion Risk Treatment Plan and the requirements there  
 1768 I think seem very clear. If your land has been identified as having potential  
 1769 erosion risk land then requirements for having priority Erosion Risk Treatment  
 1770 Plans and that sort of thing flow from that.  
 1771

1772 I know you're coming back to us Mr Willis on that schedule on part-E of the  
 1773 Farm Environment Plans, and I think we're going to have some more questions  
 1774 for you which we will put in our minute; but coming back to the Forestry  
 1775 Management Plans my question there is that the equivalent management

1776 approach seems quite different for Forestry Management Plans, and I'm just  
1777 wondering if there's a reason for that Mr Watson.

1778  
1779 For example, I'm looking at the definition of Forestry Management Plan in  
1780 number five – "any specific management strategies or practices for potential risk  
1781 land that will be implemented to manage risk of sediment discharge so that it's  
1782 no greater than that expected from forestry activities on land that's not potential  
1783 erosion risk land."

1784  
1785 Why not just require management strategies, practices to manage the risk of  
1786 sediment discharge?

1787  
1788 Watson: Good question. I will be able to think about that one more carefully. I think it  
1789 was the erosion risk - tying it to potential erosion risk land again I was trying to  
1790 support C.C6, giving foresters the ability to show that they could manage  
1791 activities on that higher risk land without having to be prevented or prohibited  
1792 from undertaking activities on those land types. I guess that was the intent behind  
1793 that.

1794  
1795 I also note that whereas discharges from pastoral activities are an ongoing thing  
1796 the discharges and effects from forestry only occur for a period of time. I think  
1797 it's reasonable and valid that the approach differs. It's focused on good  
1798 management practice as the activity is occurring. It's not a continual discharge  
1799 like it would be in the case of rural land use.

1800 [03.55.10]

1801 Chair: It's the earthworks for forestry tracks and that sort of thing, if they're not  
1802 stabilised.

1803 Also just checking why that refers to potential erosion risk land and why not  
1804 erosion prone land. I think I'm just still trying to make sure I understand why in  
1805 a lot of instances it comes back to potential erosion risk land, and just what the  
1806 difference is really between erosion prone land in that context and potential  
1807 erosion risk land.

1808  
1809 Watson: I guess the vegetation clearance rules and provisions refer to erosion prone land  
1810 because that's the terminology in the NRP. I guess there's a separation between  
1811 vegetation clearance and forestry in terms of how they're managed. Erosion  
1812 prone land links to vegetation clearance, whereas through PC1 the mapping  
1813 approach I guess has changed to the PC1 mapping, which is reflected through  
1814 the potential erosion risk land definition – which aligns in a way with the RPS  
1815 definition of highly erodible land as Mr Nation's evidence shows.

1816  
1817 Chair: Thank you also to the experts for going through and responding to Dr Basher's  
1818 evidence. We'll hear more no doubt when Federated Farmers present.

1819  
1820 Is it your view that the modelling and the approach that you have adopted in  
1821 terms of the best information provision of the NPS-FM... or have you thought  
1822 about whether it satisfies the requirements of that best information clause? Or  
1823 you've presented your evidence and then that's really for Mr Watson to make a  
1824 view on? Have you given any thought to clause 1.6?

1825  
1826 Nation: In my opinion it's up to Mr Watson, however as in my rebuttal evidence looking  
1827 at some of the mapping that is available and the resolution in terms of being

1828 practical or being able to make decisions at a farm or forestry scale on the  
 1829 ground, certainly some of the mapping that we've demonstrated in the potential  
 1830 erosion risk mapping, is at a finer resolution; and so it's really up to Mr Watson  
 1831 to make a decision whether that's more appropriate or not.  
 1832

1833 Watson: In terms of the best available information, yes I agree, which is why I have kind  
 1834 of pulled it back into PC1, whereas my s42A recommendations had kind of  
 1835 sidelined it completely.  
 1836

1837 I still don't think the mapping is certain enough or the methodology is sound  
 1838 enough alongside other issues I have in terms of implications for landowners, in  
 1839 terms of using it as a blunt tool in rules.  
 1840

1841 Chair: Thank you. That is I guess why you're supporting this idea with the Forestry  
 1842 Management Plans. You need to get out on site and see what's happening on the  
 1843 land.  
 1844

1845 My last question on this is on the good management practices. This could be a  
 1846 good segue into Mr Reardon, but are they available, are they coming, are they  
 1847 being developed?  
 1848

1849 Watson: Yes, there is a lot of best practice. We don't use the words "best practice" in the  
 1850 plan. Yes, there is best practice guidance and Mr Reardon can talk to this a bit  
 1851 more. In the forestry context there is forest practice guides, code of practice and  
 1852 things which are treated as the equivalent I guess of the Erosion Management  
 1853 Plan guidelines for...  
 1854

1855 [End of recording – 04.00.00]  
 [NRP PC1 – HS3 Day 2 – Part 2]

1856

1857 Watson: ... earthworks in the forestry space. There is also I guess work happening  
 1858 elsewhere around the country, around emerging best practice and alternative  
 1859 harvesting strategies, and copper and zinc strategies – all those types of things  
 1860 as well. Again, Mr Reardon can talk to that in a bit more detail, but yes that  
 1861 information is available. I think I referenced in my s42A that I have spoken to  
 1862 Council about making sure that's available on their forestry landing page going  
 1863 forward because it's not currently.  
 1864

1865 Chair: How does that flow through Mr Watson? I understand in the policy that there's  
 1866 policy requirement to have sediment discharges managed through good  
 1867 management practices. In terms of the rule, which Te Whanganui-a-Tara is Rule  
 1868 20, how does that then impact? It's only if you need restricted discretionary  
 1869 consent, and then you'll have a Forest Management Plan applied to the property  
 1870 and if a forest manager just doesn't comply what are the implications at that  
 1871 point?  
 1872

1873 Watson: If you're not meeting TAS and you require a consent the Forestry Management  
 1874 Plan allows for case-by-case consideration of the appropriateness of the eroded  
 1875 sediment management control. I've kind of deliberately avoided referencing  
 1876 specific best practice guidance, or specific guidelines and things to recognise  
 1877 that this is a constantly moving space.  
 1878

1879 I guess it comes down to the comfort of Council's reviewers or consultant  
 1880 technical experts in terms of whether or not a Forestry Management Plan is  
 1881 consistent with good management practice. That's the intent behind it. It all  
 1882 plays out through that restricted discretionary activity rule without having to  
 1883 prescribe specific standard or guidelines or things that must be met.  
 1884  
 1885 Then I guess alongside that where TAS are being met there's the non-regulatory  
 1886 methods which focus on promoting awareness and implementation of what that  
 1887 good management practice looks like. That will be a case of Council being a bit  
 1888 more engaged in reviewing notifications and management plans for permitted  
 1889 activities and inputting back on whether or not some of the measures or methods  
 1890 in those management plans are good management practice or not.  
 1891  
 1892 Wratt: In the Farm Environment Plans there's a requirement for formal signoff by the  
 1893 Council. There's nothing similar to that for forestry though.  
 1894 Watson: I considered that to be unnecessary duplication. Council would consider the  
 1895 adequacy of the Management Plan as part of the consent process where you need  
 1896 a consent. There's no need for an independent certification step. In my view  
 1897 you're just tied up in the consent process until you get your Management Plan  
 1898 to a level of detail that Council is comfortable with in terms of managing effects.  
 1899  
 1900 Wratt: With Farm Environment Plans it doesn't only apply through a consenting  
 1901 process does it – there's a requirement for signoff with Farm Environment Plans,  
 1902 aside from consenting?  
 1903  
 1904 Watson: I'm not a hundred percent sure on that sorry. Mr Willis might be able to clarify.  
 1905  
 1906 Willis: If I understand your question Commissioner Wratt, I think you're alluding to the  
 1907 fact that you need a Farm Environment Plan certified if you're a permitted  
 1908 activity. Yes. So, it would be where forestry does not require a consent, whether  
 1909 its plan would have been certified. I think that's the question or the point being  
 1910 put here.  
 1911  
 1912 Wratt: Thank you Mr Willis. Well put.  
 1913  
 1914 Watson: The NES is in play in that situation, so it comes down to again the  
 1915 appropriateness of the measures proposed in the Management Plan and whether  
 1916 or not they're adequate to meet the permitted activity standards of the NES, so  
 1917 there's not a gap as such.  
 1918 [00.05.00]  
 1919 It's a question as to how far Council can take the appropriateness of management  
 1920 measures included in Management Plans as part of that process. At what point  
 1921 does something, even if it's contained in a Management Plan, or is it considered  
 1922 appropriate and therefore complies with permitted activity standards. There's  
 1923 kind of a grey area around adequacy in that space.  
 1924  
 1925 Wratt: So, if it didn't comply with the permitted activities then it would require a  
 1926 consent – that's really the control?  
 1927  
 1928 Watson: Correct.  
 1929

1930 Chair: Looking at the matters of discretion you're recommending, can I just ask you  
 1931 maybe in your reply to look again at whether the matter of discretion, the first  
 1932 one about "discharge of sediment will be managed to avoid where practicable  
 1933 and otherwise minimise sediment impacts on water quality," whether you think  
 1934 that is an appropriate matter of discretion in light of the policy direction, which  
 1935 is to avoid significant adverse effects and otherwise minimise adverse effects.  
 1936  
 1937 To me I'm not a hundred percent sure that entirely flows through into the matter  
 1938 of discretion that's indicated by the policy. We will also note that in the minute  
 1939 that comes.  
 1940  
 1941 McGarry: That's sort of crystallised the question I was thinking about before with that  
 1942 threshold of significance. I just wonder in a catchment which is highly sensitive,  
 1943 i.e. it's not meetings it's TAS, is the threshold of significance actually too high –  
 1944 because we're talking about cumulative effects. The only way to avoid  
 1945 significant accumulative effects is for everybody to have mind or thereabout that  
 1946 affects.  
 1947  
 1948 I just raise the question. I know the word "avoidance" is there but it goes to the  
 1949 heart of the same question of the Chair at the moment, just to reflect on those  
 1950 thresholds of significant as well in the policy.  
 1951  
 1952 Chair: I think we might be up to Mr Reardon finally. Sorry to keep you waiting.  
 1953  
 1954 Watson: Sorry, I have a couple of other slides. I think we've covered most of the  
 1955 questions that you've had related to, because they were specific to the rules and  
 1956 non-regulatory methods. I'm happy to wait a couple of minutes while you review  
 1957 and see if there's anything jumping out at you that you want to question on that.  
 1958  
 1959 Chair: You're right, I think our questions have already covered those points.  
 1960  
 1961 Watson: I will hand over to Mr Reardon.  
 1962  
 1963 Reardon: Good afternoon, Commissioners. My name is Kevin Reardon. I am the owner  
 1964 and Director of Form Consulting Group. We're a small forest consultancy  
 1965 business based in Tawa, smack bang in the middle of the Porirua Whaitua. A  
 1966 good location.  
 1967  
 1968 Form Consultant do forest valuation work. For my sins I'm involved in the  
 1969 Emissions Trading Scheme in forestry, and in the last few years heavily involved  
 1970 in the environmental space with forestry, as you can imagine.  
 1971  
 1972 We were engaged by Greater Wellington just over two years ago in an advocacy  
 1973 and advice role, specifically looking at the Porirua Whaitua. The project  
 1974 involved us going out to or contacting all forest owners, or as many forest  
 1975 owners as we could. Those who had harvested, those who were planning to  
 1976 harvest and visiting actual harvesting sites through the whaitua, and assessing  
 1977 the activities against any NCF, but also Forest Owner Association Practice  
 1978 Guides.  
 1979 [00.10.00]  
 1980 Most of my evidence, if not all of my evidence is related to the observations of  
 1981 those site visits over the last two years. We are still doing that work in the Porirua

Whaitua. The Council has extended the project out to another sensitive catchment in the Wairarapa, the Whareama Catchment, so we're over there as well visiting crews. A bit of a different profile over there.

I will explain a bit about the Porirua Whaitua as I go along.

In general, through those site visits I have seen a disconnect between harvesting and earthwork activities and what is permitted activity under the NES-CF and I will outline some of those observations in the next few slides.

Many of the issues we are seeing relate to smaller woodlot harvesting, and this is not a slight on small forest owners or my colleagues from Farm Forestry Association, but it does relate to basically the economics of harvesting - when you don't have the economics of scale with a smaller woodlot, you're trying to save money somewhere and generally what we have seen is that is coming at the expense of good practice or environmental good practice. Not to say that there is not issues with the larger forest owners and the harvesting there. We've been through the Greater Wellington Forest Estate doing these assessments as well.

Our role is non-regulatory. We are not there as a compliance arm of the Council. I see a lot of councils around the country and what Greater Wellington are doing using us is proactive. They're trying to get ahead of the harvesting and trying to improve environmental practices across the board, so that guys like Mr Pepperell are not trying to clean up afterwards what's left behind.

It's quite a unique initiative and it's just started really. I think there will probably be a lot more work to go through, and I can explain a bit more about what we are doing as we go along.

As with anything forestry related it starts with a map. I have missed a bullet point off the top there. Not many people would associate that just within the two whaitua we are looking at. There's just under 10,000 hectares of exotic forest resource within those two catchments. Most people don't associate Wellington as a high forestry area, but just in those two catchments alone you're looking at 10,000 hectares of exotic forestry, all of that commercial.

Just on that number, just over twenty percent of that has been harvested within the last five years. I will explain a little bit about the methodology we've been through for this mapping as well, but to say that of the total commercial forest area within those catchments twenty percent has been harvested in the last five years and that also reflects age, class profile, typical of most regions in New Zealand. A lot of these woodlots or forests were planted in the 1990s and they've all come to what's known as a harvestable age or economically harvestable age. So, we've seen the start of that harvesting occur in the last five years.

Also of interest, of that forest area, the 2100 hectares which has been harvested the last five years, well over half of that, 62 percent, would be categorised as small forest ownership, woodlot harvesting. People ask what's the woodlot size and it could be anything from 10, 20, 30 hectares. The categories I've looked at here we've defined small forest owners as anything less than 100 hectares, and large forest owners as anything more than 100 hectares.

The methodology for the data assessment there, we have excluded anything older than 40 years old. Generally, when we do this work with a forest resource that's over 40 years old there's a good reason why it hasn't been harvested already – that it's uneconomic to harvest is the main reason; so we've excluded that from our data, and generally anything less than one hectare – we are not including shelterbelts or hedges in our data. This stuff has been planted primarily for a commercial reason. One hectare may sound small but on a small farm basis it's actually quite a large amount of economic trees that could be harvested.

[00.15.00]

The data has excluded minor species. So, 99.5 percent is P.Radiata. There is some Eucalyptus and Douglas Fir species within the two whitua but we have excluded that from our data. Douglas Firs are a minor species economic. Eucalyptus is not widely regarded as an economic species. So, we've excluded those minor species and we've just focused on Radiata Pine which would be 99 point something percent of the forest species.

Also, there's supplementary evidence I was asked to do for Mr Watson last week, which is just getting a bit more accuracy in some of those numbers, as some of the owner forest owner intentions have become available to us in the last weeks and months. We've updated that data.

What I haven't done is indicated some of these sites or woodlots we're seeing harvesting we know that some of them aren't getting replanted. The developers are in there. They're logging these sites with no intention of putting them back into Radiata Pine. I will hopefully remember to cover off the implications of that land use change, which was due to come about.

My observations over the last two years primarily through the Porirua Whaitua just the lack of harvest planning detail. These trends that I've outlined here, I see being talked about in most councils around the country if they're looking at what's gone on with environmental in forestry. They're looking at whether it's the NES-CF or was it Council. I'm seeing some general trends coming through in most regions. The lack of detail required in Harvest Managements Plans. I think that was intentionally designed in the NES-CF when it was developed, but the implications of that are the gaps which is allowing some operators to maybe not be as proactive in meeting these best practices as possible.

I can imagine the likes of Council officers when they see some of these plans come through and they're looking at a map with a 20-metre contour. I couldn't tell the environmental risk looking at a map with a 20-metre contour. I have got examples, which I haven't been able to put in my evidence because of privacy reasons, that when you're actually onsite and you're looking at that woodlot at a 20 metre contour scale it looks flat, but when you're standing in front of it and seeing that it's been harvested using ground-based methods on quite steep slopes and the amount of tracking that's been required to harvest those trees, all under permitted activity, I can imagine how difficult that would be for a Council officer.

The level of information or planning required currently in NES-CF Management Plans is an issue we are seeing.

There's an increasing risk within not just the two whaitua but the region of higher impact ground-based logging operations. They are generally the cheapest and lowest cost-harvest system but they are also the highest impact from a tracking and earthworks point of view.

I noticed in one of the submitter's evidence and what we have seen as well, is that some of these second rotation blocks, so some trees that were replanted - harvested 20 years ago and replanted, and they've come up for harvesting again we call them second rotation - that even though they may have been harvested using cable hauler methods with less impact on the environment, second time around they're being logged using ground-based methods because it's cheaper and there's increase tracking. Just because the harvest system and the infrastructure is already in place from the first rotation, it doesn't mean to say that there is increased risk from those sites getting harvested again in the second rotation with the amount of earthworks that I'm seeing with the tracking that's required.

The general lack of material amendments is another common trend, and this is not just the smaller harvest managers - even the more commercial forestry operators working in corporate estates.

[00.20.00]

Whether that reflects a gap in the NES-CF or general misunderstanding of when they are triggering a restricted discretionary activity, but they are not submitting material amendments to their plans which they may have submitted to the Council.

One of the questions that came up before around the amount of restricted activity may increase, I think it's probably there to a degree anyway; it's probably just not being picked up. Some of this ground-based logging that I'm seeing would be triggering the restricted discretionary activity anyway if the planning had been better at the initial stages.

The question around is there going to be an increase in restricted discretionary activity consents required, probably I think is the answer, but it probably should have been there a little bit more to start with.

That's across the board and not just small-time operators. We've seen that in some of the larger corporate clients as well. So may be a general lack of understanding.

Our role in terms of advocacy is to get out to visit crews. What has been the highlight? We're dealing with the structures around forestry being the logging contractor or earthworks contractor. You've got a harvest manager and then sometimes you might have a cutting rights owner in the case of Greater Wellington and then you've got the landowner - so you've got four layers of management there.

At the contractor level and sometimes at the harvest manager level we see in their planning documentation, their prescriptions, these great references to standards, regulations and guides and not many of them actually have them on-board on their site. I would relate that to health and safety. If you were to question some of the crews around health and safety, they would quickly whip

out their Health & Safety Guide WorkSafe Act from their crew huts. It's a requirement but none of them have the environmental standards in place. So as part of our role in that advocacy we've been giving out these guides left, right and centre. Again, it's just a start, I think. There's other resource material there which I was looking through the other day, which we could be giving out around earthworks. They're great resources from the Forest Owners Association which have been around for quite a number of years, but it's quite surprising the lack of what we are seeing out there and who's actually got them on-board.

The general lack of post-harvest remedial work has been an eye-opener. This is generally occurring at the larger forest scale. As I mentioned, the economies of scale these costs are getting built into the budgets. I'm talking water control features, hydro seeding and even the road construction and having compacting machines onsite when they're building the roads. We are generally not seeing that at a woodlot harvesting scale. The cost would be the major barrier there. That would be across the board for smaller woodlot harvesting.

Once the harvest manager and logging contractor are gone there would be very, very little ongoing maintenance of that site.

What I have seen with some of these developers doing the logging in the last year and currently not replanting and the sites sitting there waiting, I'm not too sure of the timeframes of development and what's required there; but under the NES-CF there is no requirement to replant or oversew. A change in the land use is fine, but there's going to be implications there from a sedimentation point of view with some of these blocks.

They're quite high profile: you only have to drive up State Highway One, Transmission Gully and you can see the harvesting that's occurred. These blocks were miles out of town when they were planted back in the '90s and now they're on the back doorstep. Also, the land use back then it was sufficient for economics for forestry, but now there's much higher value in the land from a development point of view.

You're probably going to see more of these woodlots harvested and not put back into a forest species but used for development purposes, and there's implications for that. I haven't identified that in the data.

What we can see coming up in the next five years, and there is devil in the detail with this data (as I talk to my farm forestry colleague), there's going to be an increase in harvesting based on the age-class profile.

[00.25.10]

Anything that's greater than 25 years old and less than 40 years old we say that's more than likely going to be harvested. This is not a plan it's just a projection. Based on that we can see there's just over 3000 hectares which fits that category which could possibly be harvested over the next five-year period. It's old enough to harvest. And we're seeing that already. As I said, you only have to drive up through Tawa and Porirua and you can see that starting around the hills. Behind me in Tawa you might be familiar with the Prison Block. That's scheduled for harvest. Quite high-profile sites.

2189 So that's going to be a 47 percent increase in harvesting. Even if my numbers  
2190 are a couple of hundred hectares out it's still going to be an increase in harvesting  
2191 from what we have seen in the last five years, just within these two whaitua.  
2192

2193 Another trend which we will see is that this harvesting is going to occur over  
2194 multiple smaller woodlot sites. We can see that in the data. I looked at the data  
2195 yesterday and the average woodlot site might be eight hectares within the Porirua  
2196 catchment and slightly higher at 12.5 hectares in the Te Whanganui-a-Tara  
2197 catchment, but predominantly this harvesting is going to occur in smaller  
2198 woodlots.  
2199

2200 I don't think there's a silver bullet. I think there's a combination of things which  
2201 probably need to be worked on, whether it's closing the gap that we can see with  
2202 the NES-CF, whether it's increased monitoring or compliance. But the proposal  
2203 to put in stricter controls if TAS is being met, I can't see that's necessarily a bad  
2204 thing. If the TAS is being met NES-CF is there. If it's not being met then some  
2205 of those tighter controls around more information I don't think is a bad thing.  
2206

2207 I do have a map there if you're seeing that. That's 10,000 hectares. The red is  
2208 what has been recently harvested and you will see there is predominantly more  
2209 orange there which is fitting the age-class, which is what we think is more than  
2210 likely going to be harvested in the next five-year period. In my supplementary  
2211 evidence I have broken that down by FMU.  
2212

2213 Thank you. Any questions?  
2214

2215 Chair: Thank you very much Mr Reardon. You made a comment, something about how  
2216 you would expect there to be more restricted discretionary consents being  
2217 applied for, and I think you were talking about under the NES-CF, is that solely  
2218 because of this misidentification of orange and red zones?  
2219

2220 Reardon: I don't think it's related to that. I think that the lack of detail required at that  
2221 planning phase and also the nature of harvesting which needs to be quite flexible.  
2222 I think sometimes they're starting these operations and requiring a deviation  
2223 from what they intended. More tracking, more earthworks potentially triggering  
2224 that restricted discretionary – which maybe if the planning had been more  
2225 thorough at the start that might have triggered it prior.  
2226

2227 Chair: Mr Watson, the Erosion Sediment Management Plan, Schedule 34 still applies?  
2228 No. You're recommending that be replaced with the Forestry Management  
2229 Plans?  
2230

2231 Watson: Correct.  
2232

2232 [00.30.00]

2233 Chair: Things like management of slash and things that you would get in a harvest plan  
2234 under the NES-CF, is the only place where those measures would be picked up  
2235 is in the Forestry Management Plan?  
2236

2237 Watson: If you needed a consent under PC1 then yes, the mechanism would be through  
2238 the Forestry Management Plan and likewise if you needed a consent under the  
2239 NES, Schedule 6 of the NES in the case of harvest would pick up that same  
2240 detail; but you wouldn't have the additional information included in the Forestry

- 2241 Management Plan definition in terms of the highest scale of contour lines and  
 2242 the requirement for ground-truthing of potential erosion risk land. That would  
 2243 be the difference. You would be relying on, in the case of the NES, Council  
 2244 pushing back on the level of detail included in the Management Plan submitted  
 2245 at the notification stage under the NES.  
 2246
- 2247 Chair: I'm just wondering if there's a potential gap because when I look at the  
 2248 requirements for the Forestry Management Plan it's really the key thing as I see  
 2249 is 5, in terms of managing activities; but that seems to be limited to managing  
 2250 the risk of sediment discharge which is to be expected because we are dealing  
 2251 with freshwater impacts here. But the other things that I'm sure Mr Reardon  
 2252 would see when he's out on site, where do those come in, like managing,  
 2253 containing, removing slash? Where would those be factored in if you needed RV  
 2254 consent under PC1?  
 2255
- 2256 Watson: That's included in the Forestry Management Plan requirements – the sections  
 2257 pulled from the NES related to slash included in the definition of Forestry  
 2258 Management Plans.  
 2259
- 2260 Chair: Through Schedule 6?  
 2261
- 2262 Watson: Yes. That's in recognition that again there's an overlap in impacts between slash  
 2263 and sediment generation obviously. You couldn't just separate slash completely.  
 2264 I think that's a relevant consideration – to minimise the sediment impacts or has  
 2265 the potential to both minimise and exacerbate sediment impacts if not managed  
 2266 properly.  
 2267
- 2268 Chair: I see it's at Schedule 6(4). Thank you. Sorry, it sort of was related to what you  
 2269 were talking about Mr Reardon, but I just wanted to check I understood that.  
 2270
- 2271 Your evidence was very clear and very helpful Mr Reardon. Thank you. We  
 2272 appreciated it.  
 2273
- 2274 Wratt: Thank you Mr Reardon. In your evidence you list a number of things where you  
 2275 think the NES-CF doesn't provide sufficiently, which I guess the implication is  
 2276 that they need to be covered in the NRP. Some that I noted down, you've  
 2277 commented about detailed harvest planning and mapping, resources and  
 2278 technical guides not referenced in the NES-CF, promoting revegetation for site  
 2279 by oversewing with grass forest species as soon as possible.  
 2280
- 2281 Commissioner McGarry will be pleased to see this one: NES-CF does not  
 2282 require sufficient setbacks.  
 2283
- 2284 My question is, do you think that what we are now looking at in terms of the  
 2285 provisions that are in the latest versions that have come from Mr Watson are  
 2286 addressing the issues that you've identified as not being sufficiently covered in  
 2287 the NES.  
 2288
- 2289 Reardon: Yes, and I see that around other councils around the country building into their  
 2290 plan changes the same trends as what we are seeing here – more detail required  
 2291 at the harvest planning phase. I've got the GDC, General Consent Conditions,  
 2292 just came out last week and they're quite comprehensive – the additional

2293 information that's being asked outside and above the NES-CF at the extreme  
 2294 end of the scale.  
 2295  
 2296 As I said, it's hard to pin any general failings or specific failings on the NES-CF  
 2297 because it's so broad, but some of the overarching comments I see around the  
 2298 country are same issues, not enough detail in the plans that are coming through.  
 2299 Guys like Mr Pepperell can't make informed decisions around environmental  
 2300 risk based on those plans' permitted activity.  
 2301 [00.35.10]  
 2302 Then you go out and see the activity and they might have to make a change to  
 2303 their plan. That's not being notified. That comes down to a compliance issue.  
 2304 Maybe it could have been identified better at that planning phase.  
 2305  
 2306 The argument is it's going to disadvantage smaller forest growers and increase  
 2307 cost potentially. That's the balance, I guess.  
 2308  
 2309 Wratt: Thank you Mr Reardon. So, is there anything that you would like to see or you  
 2310 would want to see in the NRP that's not there in what we are seeing in front of  
 2311 us now?  
 2312  
 2313 Reardon: No. I think it's part of the NES-CF already outlining the methodology, the  
 2314 harvest systems that I'm seeing being used. There's no grounds for the Council  
 2315 to decline the notification based on the methodology I don't think; but as I said,  
 2316 I'm seeing some sites being harvested at the lowest cost option ground-based  
 2317 methods when really there's other systems available. Mechanisation, cable  
 2318 methods, lower impact on the site but a higher cost. They're being overlooked  
 2319 at the expense of achieve this cost option and causing adverse environmental  
 2320 effects.  
 2321  
 2322 The ability for the Council to be able to say, "Actually, based on the slope  
 2323 analysis or terrain analysis, no we don't think you should be logging this with  
 2324 ground-based methods and putting tracks in everywhere," if you come back to  
 2325 us with a different methodology.  
 2326  
 2327 McGarry: I guess this is the key for me is, how do we counteract those cost drivers, and  
 2328 the only situations I can see where that's been counteracted is in the consent  
 2329 process. Would you agree? Somebody might choose to take a methodology but  
 2330 it seems to me the cost is always the driver unless somebody is saying it's not  
 2331 appropriate in this area for effects reasons.  
 2332  
 2333 Reardon: That is a hard one. When you're looking at the forestry sector you've got all  
 2334 different categories. You've got large forest owners with the economies of scale  
 2335 and the small forest owners you've got a national standard there with rules  
 2336 encompassing all, and it doesn't fit all is what I have seen.  
 2337  
 2338 The additional cost to a small forest owner, farm forestry have got views on that  
 2339 and what that might entail. It doesn't necessarily have to be huge additional cost  
 2340 I would have thought. Even if it had to be through a consent process, generally  
 2341 that's not going to be the make or breaking of the harvesting operation from an  
 2342 economic point of view. The slightly additional cost, it might be worth trying to  
 2343 quantify what that is. Are we talking \$5,000 or are we talking \$20,000. It's all  
 2344 about scale.

2345  
2346 I don't know if I've answered your question there, sorry.  
2347

2348 McGarry: You have. I guess, it's the key to earthworks really in all of this, because if you  
2349 were using those other more costly methods on said land you wouldn't  
2350 necessarily trigger the level of earthworks that those other more conventional  
2351 methods might. Are we perhaps looking at this the wrong way? We haven't got  
2352 to earthworks yet obviously, but should that be the trigger in erosion prone  
2353 areas?  
2354

2355 Reardon: Yes, earthworks is a big one. The harvesting methodology I wouldn't  
2356 underestimate. You're going to get earthworks with the cable hauler harvest  
2357 system. You've got to build the road to the top of the hill anyway. What we are  
2358 seeing is with that ground-based logging which is encroaching onto sites which  
2359 may have traditionally been harvested using less intensive hauler based or cable  
2360 methods, we're seeing more and more of that.  
2361

2362 McGarry: Just one other thing about the resource consent process. I'm thinking about what  
2363 you said about the not replanting. If somebody went through a consent process  
2364 and indicated that they have no intention to replant after the harvest, that may  
2365 well change the conditions of consent that you would impose and how long the  
2366 consent might go for. So, you could require some of those after-harvest actions  
2367 that you've talked about. Is that one way to look at it?  
2368 [00.40.05]

2369 Reardon: Absolutely. I think some of the sites I've seen harvesting and then doing nothing  
2370 – no maintenance, no track maintenance, no checking the water control features,  
2371 no replanting, no oversewing which is spreading grass seed across the site.  
2372 Waiting for development opportunity. Land banking. You can see those sites  
2373 around Wellington now.  
2374

2375 Whether or not it's a requirement, it's the landowner's prerogative to what they  
2376 do with their land in terms of replanting or not. But, not doing anything, or in  
2377 terms of even putting it back into a grass cover, is a worst-case scenario I would  
2378 have thought.  
2379

2380 McGarry: That changes that window of vulnerability, doesn't it?  
2381

2382 Reardon: Absolutely yes,  
2383

2384 McGarry: My understanding is it's five to eight years, and the eight years being when you  
2385 sort of do the nothing and just leave the slash there that could be as long as eight  
2386 years. Is that your understanding?  
2387

2388 Reardon: The five to eight years is assuming that you're replanting the site. There is  
2389 increased risk if you're not replanting the site that window probably stretches  
2390 out further.  
2391

2392 I'm aware of some sites around the catchments now would be pushing four years  
2393 with no remedial work post harvesting and just reverting back to weeds. Weeds  
2394 are better than nothing as well. But there's no requirement to. If you're not going  
2395 to replant it then maybe you should be grassing it over as the minimum for trying  
2396 to mitigate any future sediment loss. That's not happening.

2397  
 2398 McGarry: Just one final one. It's from your evidence at paragraph 30. You've said,  
 2399 "Sediment loss is most extreme in the four years before and after harvest." I'm  
 2400 just wondering if you can explain the before bit. That sort of struck me as odd.  
 2401  
 2402 Reardon: Sorry, I did pick up on that typo. It shouldn't be four years – maybe one or two  
 2403 years you're seeing roading going into some sites prior to harvest is general  
 2404 practice. Definitely before harvesting there is some risk with earthworks, but  
 2405 maybe not four years, sorry.  
 2406  
 2407 Kake: Thank you. Your evidence was really helpful. I'm just double-checking. It's just  
 2408 a quick one that you will be here for the earthwork's discussion later this  
 2409 afternoon. It's around that risk of the harvesting practice and the appropriate time  
 2410 to undertake that harvesting. Obviously, it's better to do it when it drier?  
 2411  
 2412 Reardon: I've picked up a comment from a harvest manager. Generally, those smaller  
 2413 woodlots maybe they might be trickier harvesting but they were always done  
 2414 during the summer months – drier and less impact. Great. But we're not getting  
 2415 those drier summer months regularly anymore. With climate change you've got  
 2416 just as much chance of heavy rainfall events during the summer months as you  
 2417 do with winter events.  
 2418  
 2419 Traditionally, trying to mitigate that sedimentation loss by harvesting during the  
 2420 summer, I think that's an historic viewpoint now in most regions.  
 2421  
 2422 Chair: Mr Reardon, you say in your evidence that the approach that was notified in the  
 2423 PC1 provisions to highest risk mapping would not have been appropriate to  
 2424 manage forestry activities onsite. Have you reviewed the new approach to  
 2425 mapping that Mr Nation and Mr Blyth are now recommending as a more  
 2426 appropriate mapping approach, and do you think that that approach is going to  
 2427 identify the areas of land where Forestry Management Plans are going to be  
 2428 needed to manage forestry activities?  
 2429  
 2430 Reardon: No, I haven't, but at the end of the day it's a tool. It's a tool to guide where the  
 2431 erosion risk might be highly susceptible. I think you'll find most harvest  
 2432 managers or planners are using higher and above land than what the mapping  
 2433 tool that's proposed. They're looking at LIDAR data. They're looking at terrain  
 2434 analysis. They're looking at slope. Not just the basic ESE tools.  
 2435 [00.45.00]  
 2436 Chair: As I understand it, these requirements for the Forestry Management Plan only  
 2437 come in if you are on potential erosion risk land and then that can be ground-  
 2438 truthed by an officer onsite. It's only then if the TAS is not being met. It's a  
 2439 consenting requirement otherwise it's all non-regulatory measures.  
 2440  
 2441 Based on what you're saying – and I think we need to come to Mr Watson  
 2442 perhaps in his reply to comment on that - but I am wondering if there will be  
 2443 some activities that should be managed through a Forestry Management Plan  
 2444 but under these current provisions they won't be captured.  
 2445  
 2446 Watson: I guess the essence of your question is, should the Forestry Management Plans  
 2447 apply to more than just where TAS isn't being met.  
 2448

- 2449 Chair: Yes, and also to areas broader than the potential erosion risk land.  
2450
- 2451 Watson: I guess Mr Reardon's evidence was in response to a pretty specific question, in  
2452 terms of what I was trying to tease out of him, which was I guess concerns from  
2453 submitters about the pixilation and the isolated pixels on highest erosion risk  
2454 land having broader consequences requiring retirement or loss of productive  
2455 estate on land areas outside of just those mapped areas because of how that had  
2456 been mapped. And so, at a property scale that is the question that I had kind of  
2457 asked Mr Reardon – like, is that the case, if this is identified as highest risk land  
2458 will that prevent the harvest of this land over here that might not be highest  
2459 erosion risk land for example. The ECS implications are associated with that as  
2460 well, which hadn't been properly evaluated or quantified.  
2461
- 2462 I think that's probably important context around that question, or that statement  
2463 in Mr Reardon's evidence. Not to speak for him, but that was the essence of his  
2464 response to that question.  
2465
- 2466 I guess in terms of potential erosion risk mapping, that would also apply based  
2467 on how the policy is written is a consent is required under the NES as well. If  
2468 it's a restricted discretionary activity under the NES, or a controlled activity  
2469 under the NES, those policies would still apply, so the Forestry Management  
2470 Plan requirements I would expect would kick in. So, Council could have the  
2471 ability to request Forestry Management Plans as they exist in PC1, rather than  
2472 just the NES. That might need to be clearer but that was the intent.  
2473
- 2474 I guess that was the thinking – if you need a consent Council has the ability to  
2475 require those Forestry Management Plans as they're written in PC1. So, you  
2476 could get that additional information as part of the process. The matters of  
2477 discretion were drafted in a way that they reflected in a broad way all of the  
2478 matters for discretion that would be covered under the NES, so that there was  
2479 no gaps, if that makes sense.  
2480
- 2481 Sorry, that's a long-winded answer to your question, but it's I guess a  
2482 complicated way of looking at things.  
2483
- 2484 Chair: I think we're ready to move to Mr Pepperell. Sorry, we are running late. Is there  
2485 any other?  
2486
- 2487 Kake: Just out of interest, just in your experience – and it's to do with native vegetation  
2488 – how that might work when you've got pine growing (and it's really not related  
2489 too much) but is there the opportunity of native forestry to grow at the same time  
2490 as some of these mature Pine Radiata?  
2491
- 2491 Reardon: That's a good question. It was one of the noise in my data.  
2492 [00.50.00]  
2493
- 2494 I haven't identified what's possibly permanent forest out there – exotic forest.  
2495 The buzz word in forestry at the moment is transitional forestry, so not  
2496 harvesting your pines and managing that as a permanent indigenous forest  
2497 coming through the understory. You see it working quite well on the Tinakori  
2498 Hill. It's a new concept around New Zealand. There's plenty of examples. That  
2499 may become more prominent.

2500 Chair: I think that takes us to Mr Pepperell. Thanks very much Mr Reardon. We are  
 2501 behind schedule. I am hoping that we can catch-up a bit of time after the  
 2502 lunchbreak with the rest of Mr Watson's evidence. If there's a chance that we  
 2503 could cover Mr Pepperell before the lunch adjournment, but I don't want to rush  
 2504 you. We won't finish straight at one. We'll see how we go with your presentation  
 2505 Mr Pepperell. Thank you.  
 2506

2507 Pepperell: Good afternoon, commissioners. My name is Josh Pepperell. I have been part of  
 2508 the Environment Regulation at Greater Wellington for the past five years. I  
 2509 acknowledge that my evidence is quite contextual, essentially setting the scene  
 2510 and stating the facts of our compliance programme to date since the NES was  
 2511 introduced, calling on various people within the department who have been there  
 2512 throughout, as well as my own experience.  
 2513

2514 I will essentially go through. I have kind of pulled out I suppose some of the key  
 2515 contextual matters that I feel important to raise at this point in time. I will briefly  
 2516 go through those and then a couple of the challenges that I've highlighted in my  
 2517 evidence. I will try to keep it pretty brief.  
 2518

2519 Obviously under the current NES framework one of our key roles and  
 2520 responsibilities is receiving those permitted notifications. We have a system in  
 2521 which we do that. We have the ability to request management plans and  
 2522 obviously undertake monitoring and compliance of those permitted activities  
 2523 that fall under the requirements of the NES-CF.  
 2524

2525 In addition to the permitted side of things obviously we are responsible for  
 2526 processing the resource consents where activities fall outside those permitted  
 2527 standards, and we also under a compliance monitoring programme for those  
 2528 activities as well.  
 2529

2530 I've tried to highlight it in my evidence, but it's important to note the difference  
 2531 – obviously I've been able to deal with forestry compliance across the whole  
 2532 region, but specific to these two whaitua it's important to note that under the  
 2533 NES erosion susceptibility classification it is predominantly green and yellow  
 2534 zoned, so that's classified as low risk to moderate. I tried to illustrate that in my  
 2535 Appendix 1 of my evidence – noting that there are some patches orange zone  
 2536 high risk and a very, very small part in Te Whanganui-a-Tara of red zone, up in  
 2537 the Tararua Ranges there.  
 2538

2539 Generally, based on the ESC [53.40] zoning, because of essentially the trigger  
 2540 for resource consent, predominantly forestry activities are seen as permitted  
 2541 within these two whaitua, provided those conditions are met.  
 2542

2543 Currently there are four active resource consents for harvesting and earthworks  
 2544 within the two whaitua. These were granted from 2023 onwards.  
 2545 I do note in my evidence I outline that there are nine in total. The remaining to  
 2546 other activities such as slash traps and river crossings.  
 2547

2548 Two of the four resource consents were consented under NES-CF but I do note  
 2549 in paragraph 39 the other two resource consents were granted under the NRP  
 2550 because of the nuance with the wording around plantation forestry and urban  
 2551 zone areas.

Just for context too, currently there are 46 other active resource consents across the whole region, so that kind of puts it into perspective.

In terms of site inspections of those four forestry sites within the whaitua, three of those have had site inspections to date. One has not had one because harvesting works have not yet commenced – but it is likely to be monitored later this year.

[00.55.10]

In terms of reporting data that I was able to find, within the 2023 to 2024 financial year we did approximately about ten to twelve site visits to permitted forestry activities. At least three to four of these were on Council owned land. I acknowledge that one of the biggest landowners within these two whaitua is obviously the Regional Council; and since around 2022 we have implemented a bit more of a structured regime around how we monitor forestry sites on our own land. We visit them at least three times a year.

In terms of enforcement, just touching on that, it's been about a total of four infringement notices. Two of these were issued a couple of years ago and were more related to logging trucks and the use of a river crossing and the sediment discharges associated with that. Just noting that those infringements weren't directly related to harvesting and earthworks specifically.

The other two infringements were more recently in 2024 and these related to the unauthorised use of land and discharge of sediment associated with the harvesting activities themselves and various parts of the earthworks such as skid site construction.

In terms of the challenges, as I sort of outlined in my evidence, the NES-CF regulations have been and still are quite hard to enforce due to a lot of the provisions which can be left open to interpretation, some of which have already been outlined today.

We acknowledge that forestry operations can be quite a dynamic environment and difficult – so totally acknowledging that side of it, but in scenarios when the standards allow for a degree of discretion or interpretation of the circumstances it can be quite challenging on the ground to determine whether something is compliant or not.

I provide an example where in some cases we might get some pushback around the removal or moving slash away from an area that potentially might cause an adverse effect, but it would be unsafe to do so – and that's obviously linked back through into the NES. This essentially means that when a forestry company deems it unsafe it is really difficult for us to require them to actually undertake that.

Several other provisions in the NES-CF also contain terms that are not clearly defined or can leave room for interpretation. Terms such as reasonably practicable steps or, as you have outline earlier, appropriate controls and bits like that.

Often this language does lead to disagreements between Council staff and the forestry operators over what compliance looks like and is really tricky in special circumstances when we need to enforce the rules.

Another challenge, going back to when we receive the permitted notifications, is the templated nature of some of the management plans. It can be reasonably straight forward to meet the requirements of Schedule 6 of the NES currently with essentially a templated management plan where they don't have to define exactly what sediment controls or mitigations they might use – they might list them all, and that's essentially meeting the requirements of that. So, less room to pushback in some cases.

I suppose just in response to some of those challenges too, I just want to highlight that through the consenting pathway (and again it's already been raised) the importance of that site specific assessment and how each proposal could actually be evaluated in the context of whether it's the erosion risk, proximity to waterways or other significant areas.

[01.00.00]

Again, it just provides that opportunity to tailor more site-specific conditions and measures that are better or more easily enforced.

I suppose just touching on the consent process as well – input from mana whenua in terms of our existing consent process and how we manage that, there's obviously more opportunities there for that further engagement and consideration.

I will leave it there for questions. Thank you.

Stevenson:

Thanks Mr Pepperell. I would like to connect back to a comment Mr Reardon made about the lack of awareness of regulations on the ground and some comments in your evidence about lack of compliance monitoring, enforcement and expertise around forestry. It was good to hear at the end of your kōrero the support for the PC1 provisions, particularly the mana whenua involvement that that would facilitate.

Do you think that with PC1 and the changes it introducing, those fundamental issues on the ground and in Council's compliance, monitoring and enforcement side of things, will ensure decent implementation of PC1?

Pepperell:

Yes, I do. I think when I turn my mind to that consenting process, and I acknowledge in my evidence I did go in quite heavily around our lack of expertise, but I suppose that's not saying that we don't have any at all, there is definitely a level of capability within our department that has grown as we've been able to do more compliance. I think taking it to that next level in the consent process just allows us to engage further expert input in those areas where we aren't well-versed.

One I can think of is around the harvest methodologies, like Mr Reardon has alluded to, and actually the location potentially of one skid site compared to another and the actual ground-based versus tethered machine is where we don't have the expertise to actually advise what's the environmental benefit of one

2654 versus the other. That's where through that we would be able to have better input  
 2655 into that process decision-making.  
 2656

2657 Stevenson: Thank you. A follow-up: to the proportionality of impacts for those small  
 2658 woodlot owners and the implications of the consent process and the additional  
 2659 expertise it would bring in, how is that cost implication or regulatory burden  
 2660 going to be appropriate for those smaller woodlot owners?  
 2661

2662 Pepperell: I think that would be factored in, in terms of understanding the scale of effects  
 2663 that might occur from an application that we receive. In terms of expert input, it  
 2664 would be reflected by the time that we would engage them to do the work.  
 2665

2666 There would also be a degree of internal training to understand actually is there  
 2667 a level where our expertise internally is enough to actually assess the effects of  
 2668 the activity?  
 2669

2670 Chair: Mr Pepperell, you talked about these provisions having an opportunity for mana  
 2671 whenua involvement. Wouldn't that only be if they were limited and notified.  
 2672 Perhaps you or Mr Watson could explain how mana whenua engagement would  
 2673 happen.  
 2674

2675 Pepperell: In terms of my compliance experience also on the flip side of that and being in  
 2676 the consenting space as well over the past five years, speaking from that  
 2677 experience, currently with any resource consent that we receive there's an  
 2678 agreement with our mana whenua partners that that application is sent to them  
 2679 for review. We have agreement in place around how that process works  
 2680 obviously.  
 2681

2682 That was the first thing that came to my mind in terms of that – if a resource  
 2683 consent came in that it would automatically go through that system, but also  
 2684 through the rule framework there's an opportunity for us to actually take more  
 2685 consideration of cultural matters.  
 2686 [01.05.10]

2687 We often are in scenarios where we have schedule cultural sites of significance  
 2688 in our Regional Plan, but actually it's the mana whenua partners on the ground  
 2689 who understand what cultural values there are, and so through a consent process  
 2690 it can go down to that next level of detail and get that information we require.  
 2691

2692 Chair: Thanks very much. Mr Watson, you don't think that any amendments are needed  
 2693 to the matters of discretion in light of what Mr Pepperell has said?  
 2694

2695 Watson: The matters of discretion include potential adverse effects on mana whenua  
 2696 values, if that's what you're alluding to.  
 2697

2698 Chair: Schedule C which was a point that we've discussed in other hearing streams,  
 2699 yes. Thanks.  
 2700

2701 Kake: Just acknowledging that schedule is there under those matters of discretion,  
 2702 WH.R18. I suppose just linking back up to the NES-CF, there is reference to  
 2703 Treaty Settlement statutory acknowledgement areas that go over some of these  
 2704 waterbodies and that's triggered under RDA restricted discretionary activity.  
 2705

2706 I suppose I note that Schedule C essentially just trying to think in my head if it's  
 2707 different to statutory acknowledgements. Schedule C is sites of significance.  
 2708 That notification test I suppose just happens by way of the consenting process  
 2709 anyway. Just checking my brain is working.  
 2710

2711 Watson: I think the Treaty Settlement requirements that are through the NES are again  
 2712 limited to TA jurisdiction. They don't apply to the Regional Council. It's in the  
 2713 context of significant natural areas I believe.  
 2714

2715 Kake: I might think about that one.  
 2716

2717 So, thinking this through then, in terms of a practical application, the Council I  
 2718 suppose by way of practice is essentially notifying anyway in terms of current  
 2719 practice.  
 2720

2721 Pepperell: Correct. Every application gets uploaded or is sent to our mana whenua partners  
 2722 as it is lodged, and then we have our own internal process with how we follow  
 2723 up with that and deal with that, but it gives them the opportunity to provide  
 2724 comment if they haven't already been engaged by the applicant.  
 2725

2726 Kake: I suppose just leading onto that then, and then obviously understanding the  
 2727 permissive nature of the NES-EF, where it's permitted activity that notification  
 2728 might occur.  
 2729

2730 Pepperell: Correct.  
 2731

2732 Kake: Mr Watson, do you think that might be a gap?  
 2733

2734 Watson: If it's a gap it's an existing gap, and it's an existing gap that applies nationally.  
 2735 There is no requirement to consult with the iwi as part of the NES-CF. That  
 2736 would be left to I guess councils and their internal processes as to whether they  
 2737 provide a copy of the notification or management plan to iwi. I am not sure how  
 2738 that works in other regions, but I can imagine that might play out in some areas,  
 2739 in Tairāwhiti for example, potentially, given the level of scrutiny over some of  
 2740 the forest activities happening.  
 2741

2742 Kake: Just another question around monitoring, because we have heard quite clearly  
 2743 from mana whenua that they want to be involved in monitoring, WH.R20  
 2744 references s.35 with respect to monitoring.  
 2745 Is there an opportunity there just with respect to monitoring with mana whenua  
 2746 in a partnership? Are we limiting the monitoring and enforcement capability of  
 2747 Council by just referencing s.35(2)(a)?  
 2748 [01.10.05]

2749 Watson: So that's s.35(2)(a) is basically the collated monitoring record of the previous  
 2750 however long duration Council comes up with in terms of their state of  
 2751 environment monitoring recording. It's just a factual report over the quality of  
 2752 water quality and whether it is or is not meeting TAS ultimately.  
 2753

2754 Greer: Section 35(2)(a) is also the general monitoring of plan effectiveness and policy  
 2755 statement effectiveness as a whole, so in terms of cultural values, those that are  
 2756 monitored I presume will be reported on in there was well.  
 2757

- 2758 Kake: I think I just had a mind-blank in terms of [01.10.51] monitoring and monitoring  
2759 of consent conditions.  
2760
- 2761 Just one last quick one, sorry, just with respect to the infringement process that  
2762 the Council undertakes. I'm assuming there's a bit of a graduated response  
2763 model that the Council follows and education might be the first port of call.  
2764
- 2765 Pepperell: Yes, correct, there's a process that we follow and take into lots of different  
2766 factors such as obviously the environmental effect, but also contractor  
2767 behaviour. It takes a long list of different things into account to reach that  
2768 decision.  
2769
- 2770 McGarry: I'm just looking at your paragraph 19. You have alluded to the proactive  
2771 permitted sites that you've visited. From what you've said, the focus has been  
2772 on Council owned land. Has it included private small woodlots, like Mr Reardon  
2773 talked about?  
2774
- 2775 Pepperell: Yes, it has included some. I suppose when we introduced in 2022 our... as we  
2776 had more compliance staff come on-board an easy place to start was on our own  
2777 land, given we were one of the biggest landowners and actually start to regulate  
2778 that. Obviously as a Council we want to hold ourselves to a high standard, so  
2779 that was part of that.  
2780
- 2781 But, yes, there has been other permitted site visits outside of Council owned  
2782 land. I just couldn't quantify that because unfortunately our reporting systems  
2783 aren't well-aligned with consented and permitted. I couldn't get a definitive  
2784 number prior to 2023.  
2785
- 2786 Chair: Just to check, and I think you might have responded to this when you replied to  
2787 Commissioner Stevenson's question, but you have worked with Mr Watson –  
2788 you've looked at these provisions and you are confident that that is going to  
2789 result in an improvement in what you've identified in your evidence as the  
2790 challenges with enforcement and monitoring?  
2791
- 2792 Pepperell: Yes. I acknowledge that there are parts where, as Mr Reardon referred to, other  
2793 Acts, Health & Safety Workforce. Through additional requirements through  
2794 consent conditions – as an example, require as-builts over erosion sediment  
2795 control so we're getting that certification prior to activities actually being  
2796 undertaken, rather than us being at the back end of reactive response.  
2797
- 2798 Chair: I think you have also talked about how your background has also been in  
2799 consenting, so you've got that perspective as well which is really useful.  
2800
- 2801 Thank you very much. I think that was all we have. We'll take the lunch break  
2802 there. When we come back, I think we are hearing from Dr Greer, Mr Watson  
2803 on Issue 14 and then we'll hopefully be able to catch-up the time in the afternoon  
2804 session before Ms Vivian's session.  
2805
- 2806 [Inaudible background discussion – 01.14.32]  
2807
- 2808 If we come back at two o'clock. That gives us 45 minutes. Thanks very much.  
2809

[Lunch Break – 01.15.05]

[Hearing resumes – 02.01.50]

Chair: Kia koutou. Welcome back everyone to the afternoon session. Mr Watson is continuing with his s42A Report. I think we are up to Issue 10. Thank you, Mr Watson.

Watson: I guess there's not a lot more that needs to be covered that hasn't sort of been covered through discussions already. Both Issue 10 and Issue 11 are just deletion of the more restrictive provisions as notified – so discretionary activity and approved activity status, and it's on the basis of the evidence base and the justification for rules. I don't think there's a need for rules more stringent than restricted discretionary activity personally.

That's the approach that I've taken but happy to answer questions on that if there are any, otherwise the rest of it should be relatively quickly I expect.

Likewise with Schedule 34. We covered most of the key things related to this in discussion previously, in terms of answering questions from yourselves. But, I guess the key change here is the deletion of Schedule 34 and replacement with the Forestry Management Plan definition and aligning the requirements or information requirements with the more familiar kind of format of the NES with the additional detail that I have discussed previously in terms of additional contour, scalp mapping and the additional assessment of higher sensitivity areas – so that's the erosion risk land and scheduled sites under the NRP.

That's kind of wrap-up in terms of the ability of provisions, sediment losses and things to meet TAS, so I will hand over to Dr Greer.

Greer: Good afternoon. In this presentation I was basically just going to respond to some of the submission points in my statement of primary evidence.

Chair: Sorry to interrupt Dr Greer. Sorry Mr Watson, there was just one point I wanted to ask you about before you move onto Dr Greer.

In response to the submitter Yvonne Weeber who had raised an issue about whether amendments were required to address slash and debris causing flooding and storm events, and I think your response in the report is that "No relief is sought and therefore I make no recommendation."

[02.05.05]

Can I just check, based on what we were talking about earlier, the Forestry Management Plans there is the ability through that process to address how slash and debris post harvesting is managed?

Watson: Yes, that's correct. The restricted discretionary activity will also require consideration of slash essentially through the Forestry Management Plan's process. If not, restricted discretionary under PC1 and those same requirements apply through the NES.

Chair: Assuming it's in an area where the TAS is not being met, is that because there's always an element of managing sediment with those effects of slash and debris; so, because of that there's the appropriate link through to managing...

2862  
 2863 Watson: Correct. That's the overlap between those two activities and the ability of slash  
 2864 to either manage the effects of erosion but also to exacerbate effects of erosion  
 2865 depending on how it's kind of handled at the post-harvest stage.  
 2866  
 2867 Chair: Thank you. Sorry Dr Greer.  
 2868  
 2869 Greer: No problem. I was just going to go over the responses to submissions which is  
 2870 pretty much the scope of my evidence on forestry; the first point being that I do  
 2871 not agree with those submissions that there is a lack of scientific evidence  
 2872 linking sediment losses from commercial forestry to the exceedances of the  
 2873 suspended fine sediment Target Attribute States.  
 2874  
 2875 In his evidence Mr Blyth has drawn on the available literature to describe the  
 2876 relative losses from pasture, native forestry and commercial forestry over a  
 2877 thirty-year period, and that analysis suggests commercial forests lose six times  
 2878 more sediment than native forest over a thirty-year timeframe.  
 2879  
 2880 From a scientific perspective this supports the position that forestry does  
 2881 contribute to the visual clarity target attribute states not being met in those  
 2882 catchments where it contributes a significant proportion of modified land cover;  
 2883 and there are catchments particularly in the Hutt where forestry is the  
 2884 predominant form of modified land cover.  
 2885  
 2886 However, I do acknowledge that the extent to which the notified provisions of  
 2887 PC1 or the NES-CF, the extent to which they will reduce losses from forestry  
 2888 hasn't been assessed.  
 2889  
 2890 So, there is a general lack of scientific evidence that PC1 forest provisions are  
 2891 necessary to achieve this as being a fine sediment TAS, or that the NES-CF is  
 2892 insufficient.  
 2893  
 2894 In their evidence, both Mr Cairns and Mr Hanson of the Wellington Branch of  
 2895 the NZFFA and Guilford Timber make a number of comments regarding the  
 2896 potential contribution of urban development, river engineering and severe  
 2897 weather to sediment loads in the Hutt catchment. In my opinion, none of these  
 2898 comments justify relaxing the commercial forestry provisions of PC1. The best  
 2899 available data suggests that commercial forestry is an antigenic source of  
 2900 sediment and that reductions in sediment losses from those tributaries of the Hutt  
 2901 where commercial forestry is the predominant land cover are necessary to  
 2902 achieve the TAS in the Te Awa Kairangi lower main stem.  
 2903  
 2904 I don't consider that any of the information introduced by Mr Cairns or Mr  
 2905 Hanson constitutes scientific evidence that contradicts this.  
 2906  
 2907 I also do not consider there to be a scientific basis for Mr Cairns' suggestion that  
 2908 the Council should treat the Makarā Stream, Mangaroa River and Horokiri  
 2909 Stream and the Hutt as well as if they fall within Sediment Class 2 under the  
 2910 NPS-FM in order to allow for less stringent national bottom lines to apply.  
 2911  
 2912 I read the presentation notes provided by Mr Cairns, to talk to his submissions,  
 2913 and he does cover this again. It is important to understand that regardless of

whether temperature has changed in these catchments, the way that the national bottom lines are applied to different sediment classes, they simply group rivers that are similar. If the temperature has increased in these rivers, it has also increased in the rivers that they are grouped with. It doesn't justify changing them.

[02.10.05]

Also, Council has no discretion to apply different suspended fine sediment class to a river. It's a redundant point to start with putting aside the scientific issues with the argument.

As we have touched on multiple times throughout this hearing stream, I am in agreement with Mr Cairns that the Council needs to develop and implement a consistent approach for determining when and where the target attribute states are met. There is simply too much variability in water quality data to expect regulated parties to determine their own activity status through assessment against a TAS using a simple pass/fail approach on an annual or even monthly basis.

In my opinion there is little benefit in benchmarking against the TAS more frequently than the five yearly Regional Policy Statement and plan effectiveness reporting required by s35(2)(a) of the RMA.

To be honest with you, I don't think there's any benefit in assessing it for at least the next ten years.

Suggestions that there will be many commercial forestry activities undertaken away from any waterway are simply incorrect. Ninety percent of Te Whanganui-a-Tara and Te Awarua-o-Porirua are within half a kilometre of a river. Regardless of proximity, if a forestry block generates run-off sediment in that run-off will be discharged to a freshwater environment. There will be some deposition along the pathway, but if water is running off the land and into a river the contaminants contained within that water will also be discharged to a river.

In his evidence, Mr Hanson (and I'm a bit confused about exactly what he is requesting) requests that you replace the broad part FMUs within more defined drainage catchments as a geographical area. I do not agree with this and consider the part FMUs as notified to be the best available approach for spatially applying the target attribute states.

As I mentioned yesterday, I consider that a part FMU should also include the downstream receiving environments that it contributes to as well as its own boundaries.

That's me for forestry.

Chair: Thanks very much Dr Greer. Have you got Mr Cairns' document? He describes his further submission to Stream 3 there.

Greer: I don't but I can get it up.

Chair: I just want to ask you to comment on the two sentences he's got at the bottom of page-6 and the top of page-7, which are just what you're talking about. So,

2966 what if Mangaroa fails but Pakuratahi pass – talking about these activities  
 2967 contributing to catchments. My reading of that is I think he’s saying is it actually  
 2968 clear when a TAS will be met or not for an activity, if an activity can contribute  
 2969 to different catchments? I think that might be what he’s saying.

2970  
 2971 Greer: I think what he might be saying, or I think it goes back to that local water quality  
 2972 argument and “Does it only apply if you’re in a river which is also not meeting  
 2973 the TAS?” and whether you have to reduce to meet the TAS in the downstream.  
 2974 That’s how I read that. Regardless of exactly what he meant, my opinion is if  
 2975 the catchment is at the bottom **it doesn’t mean** [02.14.21] you will reduce  
 2976 regardless of your own local water quality. That’s my understanding of the way  
 2977 it works.

2978  
 2979 The Whakatikei, Akatarawa and Pakuratahi their median visual clarity is very  
 2980 high. I think most of them are over four metres which is thirty percent already  
 2981 better than the A state.

2982  
 2983 Because it’s a median value that doesn’t capture the losses during rainfall events  
 2984 that contribute to the Hutt, which can then be deposited and resuspended. It  
 2985 doesn’t factor in their bed load either. So, a river can have very high visual  
 2986 clarity but still cause impacts downstream if the sediment is deposited in its  
 2987 receiving environment.

2988 [02.15.05]

2989 Kake: In your rebuttal, and it might come up in the next topic this afternoon in  
 2990 earthworks, paragraph 6 and responding to the risks associated with earthworks  
 2991 conducted within that five metres of a surface waterbody, I suppose in  
 2992 considering what you said about sediment going into a waterbody, those three...  
 2993 so, 7.1, 7.2, 7.3 you’ve got those three definitions there.  
 2994 I don’t know if the question has been answered with respect to the five-metre  
 2995 setback to a surface waterbody; rather that the discussion seems to turn to the  
 2996 definition of the watercourse.

2997  
 2998 I just wonder if you have thought about that a little bit further.

2999  
 3000 Greer: There was two parts I think to the submitters’ issues with it, which was (1) that  
 3001 if you’re treating earthworks you’re catching the sediment before it goes into the  
 3002 river so you don’t need a setback; and my response to that was, “Yeah, but you  
 3003 could undermine the bank if you’re earthworking the riverbank,” so there’s an  
 3004 additional risk of working within the setback.

3005  
 3006 The other one, Ms Horrocks spent quite a bit of time on it in her evidence and  
 3007 was that because it’s around a surface waterbody you have to then determine if  
 3008 you’re a surface waterbody and that there is a process by which you need to do  
 3009 that; and specifically, whether ephemeral watercourses are exempt from that  
 3010 definition. My response to that was simply there are lots of rules already in the  
 3011 NRP where you have to categorise the receiving environment or the impacted  
 3012 environment and this is nothing new. Nothing new here in Greater Wellington.  
 3013 It makes it pretty easy for you to determine what your body is. I just didn’t see  
 3014 it as a real impediment to the rule.

3015  
 3016 Chair: I’m just looking at Map 79 of PC1 which shows the target attribute state sites  
 3017 and the part FMUs. I am just thinking again about Mr Cairn’s question.

3018 The first one at the bottom of page-6, that's not correct. What he's saying there  
 3019 is does a part FMU now include the downstream receiving area, say Hutt  
 3020 Boulcott, if Mangaroa Te Marua fails? It won't, right? Because that's not in that  
 3021 part FMU catchment. Am I understanding that correctly?  
 3022

3023 Greer: Yes, I think it's a little bit backwards that sentence. A part FMU actually should  
 3024 include everything upstream of it. Not everything downstream of it. You don't  
 3025 fail at the Hutt because you fail in your upstream catchment. You fail in your  
 3026 upstream catchment if you fail in the Hutt. It's the opposite way of what he may  
 3027 be interpreting it to mean there.  
 3028

3029 Wratt: Can you just say that again?  
 3030

3031 Greer: How I envisage it is, if the Mangaroa fails and that's part of the lower main stem  
 3032 part-FMU, that doesn't mean that everywhere else that contributes to the lower  
 3033 main stem part-FMU fails. However, if the bottom of the catchment does, that  
 3034 means that everything upstream fails. It doesn't impact unrelated waterbodies,  
 3035 just those upstream.  
 3036

3037 Chair: So, taking that particular example on the map, Mangaroa at Te Marua is in the  
 3038 Te Awa Kairangi urban stream's part-FMU.  
 3039 [02.20.05]  
 3040 Greer: Rural main stems and streams.  
 3041

3042 Chair: Rural streams and rural main streams – sorry. Okay.  
 3043  
 3044 Then Hutt River at Boulcott is in Te Awa Kairangi urban streams?  
 3045

3046 Greer: No, Hutt River at Boulcott is in Te Awa Kairangi lower main stem. Te Awa  
 3047 Kairangi lower main stem is very, very narrow. It's only the riverbed. You  
 3048 probably can't see it on there, on an A4 map.  
 3049

3050 Chair: If you don't mind just explaining the link. Is there any connection then between  
 3051 those two-part FMUs in terms of... I think what Mr Cairns is saying, if you're  
 3052 failing downstream, does that mean that your activities upstream need to be  
 3053 managed?  
 3054

3055 Greer: Yes. I would think that if you failed at Boulcott, which is the lower main stem,  
 3056 the part FMUs that contribute to it, the Te Awa Kairangi rural streams, Te Awa  
 3057 Kairangi urban streams, the Ōrongorongo [02.21.14] the forested main stems 1  
 3058 and part of the Korokoro part-FMUs, I would consider they would all fail if the  
 3059 Hutt River one failed.  
 3060

3061 However, the Hutt River wouldn't fail if it was A state there, but the Korokoro  
 3062 didn't meet, or the Hulls Creek didn't meet. That's where the relationship breaks  
 3063 down. It's only the Hutt River which impacts whether the other part FMUs are  
 3064 failing or not.  
 3065

3066 There's only one other example of that in the PC1 area and it's the Wainuiomata  
 3067 River captures Wainuiomata urban streams as well as its own part FMU, which  
 3068 is large, it's not just the main stem.  
 3069

- 3070 Chair: The Wainuiomata downstream of White Bridge?  
3071
- 3072 Greer: Yes. That captures that Black Creek site too.  
3073
- 3074 Wratt: That's just put another thought through my head. So, if you've got a part FMU  
3075 that's high up the catchment, that would fail but isn't one of the state of the  
3076 environment reporting sites, that part FMU catchment itself doesn't get captured  
3077 anywhere really does it?  
3078
- 3079 If it's got crap water quality in that part FMU.  
3080
- 3081 Greer: Are you referring to a situation where there's a river that's in a bad state but the  
3082 site isn't on that river, so it's not getting monitored?  
3083
- 3084 Wratt: The monitored site is further down that FMU or part FMU, whatever it is, but  
3085 you've one section, one catchment feeding into that that has got really poor  
3086 suspended sediment, E.coli or whatever, that's not being captured anywhere in  
3087 this.  
3088
- 3089 Greer: No, that's what I was talking about yesterday in terms of it captures cumulative  
3090 effects at the catchment scale. It doesn't manage... except through the general  
3091 conditions around FEPs that require you to operate good practice. Sometimes  
3092 there's sensitive small streams that can be degraded from good management  
3093 practice farming, especially where there's no requirement for stock exclusion.  
3094 Yes, so those aren't covered. If you're meeting all your TAS at the site, that  
3095 won't drive local improvements that are the direct effect of a specific land use.  
3096 It doesn't work that way.  
3097
- 3098 Wratt: I guess it's not intended to. That's got to be deal at a catchment level by a local  
3099 community or however.  
3100
- 3101 Greer: The old NPS-FM did allow for a more nuanced approach where the target  
3102 attribute states could be rolled out everywhere. For example, the Canterbury  
3103 Land & Water Regional Plan sets objectives at a river class kind of scale, where  
3104 you go we've got this many numbers of different types of rivers and they have  
3105 their own foibles which allow differential targets to be set – but the targets do  
3106 apply in every single river in that TAS.  
3107 [02.25.00]
- 3108 The spring fed plain streams will get a more lenient nitrogen target than the hill-  
3109 fed rivers. If you apply for consent and you're discharging to a plain's river you  
3110 would still have a target that applied to you.  
3111
- 3112 That was changed through the 2020 NPS-FM which specifically required  
3113 regional councils to select the sites at which it applies. Because councils don't  
3114 have unlimited funds, that really does drive a bottom of the catchment approach  
3115 to setting targets and you lose that ability to pull water quality up everywhere if  
3116 the bottom of the catchment is not too bad.  
3117
- 3118 Wratt: I guess that sort of relates back to the conversation about some submitters  
3119 wanting to actually have monitoring at more specific sites. If you did have that  
3120 then you actually drive a more rigorous local approach potentially.  
3121

3122 I don't know why this has only suddenly dawned on me.  
 3123

3124 Greer: In my experience though, what happens with those river class specific objectives  
 3125 is it drives the **monitoring** [02.26.14] cost burden onto the applicant who is then  
 3126 driven to justify that they're meeting their target attribute state in the primary  
 3127 receiving environment. The Council doesn't pick up the slack for that. They will  
 3128 have a representative monitoring network which can tell you in general these  
 3129 rivers are doing this in relation to targets. When it comes time to get consent you  
 3130 won't be able to rely on data from a nearby site to prove it. You do end up having  
 3131 to pay for monitoring when you apply for consent in those areas.  
 3132

3133 Watson: I guess Issue 14 again is the mapping, which we've spoken about at length – the  
 3134 maps and the plan and how they integrate with the rules and the provisions. I  
 3135 don't think there's anything here that we haven't already covered, either today  
 3136 or yesterday, in the context of the terminology used in the definitions, maps and  
 3137 addition of guidance or advice note at the bottom of the maps to direct that these  
 3138 are a guide rather than based on a point in time as well was the other thing.  
 3139

3140 Is there anything else on these that needs to be covered, or we'll move on?  
 3141

3142 Again, this was stuff that was covered through Issues 2 and 3 this morning, in  
 3143 terms of my approach to pull in the operative NRP rules into PC1. I guess the  
 3144 reason I did that, rather than disapplying the not applicable to whaitua provisions  
 3145 or ICOMS is that Ms Vivian is recommending that they be retained as PC1  
 3146 superseding them. So, we would end up in situation where for vegetation  
 3147 clearance you would end up with permitted activity rules being in the operative  
 3148 NRP, but the rules when permitted standards are not met being in PC1. So, my  
 3149 approach for clarity or to make things easier was just to pull the operative NRP  
 3150 rules into PC1 so they all sit in the same place.  
 3151

3152 Issues 16 and 17, this is just a summary of the other matters that weren't  
 3153 specifically related to specific provisions. I touched on this in my slide talking  
 3154 about the forestry context in summary of submissions. There was a decent  
 3155 number of submissions in general opposition to forestry. These were either  
 3156 covering statements or letters or supporting statements and the like that were  
 3157 submitted alongside the submissions on provisions that just kind of weren't  
 3158 captured as part of the provision, I guess.  
 3159

3160 There wasn't anything new coming out in these submissions. It was all stuff that  
 3161 was coming through in the submissions on the provisions, the main ones being  
 3162 stringency and concerns about the erosion risk mapping methodology.  
 3163 [02.30.15]

3164 The one of most relevance probably that wasn't picked up through the provisions  
 3165 themselves would be the lack of alignment with the whaitua recommendations,  
 3166 but I kind of addressed that in the context or scene setting slide that I spoke to.  
 3167

3168 Ultimately, I reviewed all those submissions and all of the submissions as part  
 3169 of the s42A process. There was nothing in those general submissions that  
 3170 required any further changes to provisions that I saw.  
 3171

3172 Then there were a couple of other matters that were raised, which didn't fall into  
 3173 any other bucket, I guess. China Forestry Group sought amendments to Method

- 3174 44 to be kind of more specific to forestry. The submission was allocated to me  
 3175 really late in the piece and I had already drafted non-regulatory methods which  
 3176 were consistent with what they were seeking. So, that's covered.  
 3177
- 3178 Then there was a general submission about wildfire risk in PC1 and the  
 3179 provisions in PC1 not accounting for wildfire risk. I don't think they required  
 3180 any recommendations because that's outside the scope of PC1 in my view.  
 3181
- 3182 McGarry: Just looking at Method M44(a) do you think that should include mana whenua  
 3183 working with forestry sector organisations and landowners?  
 3184
- 3185 Watson: I was thinking about this last night actually. I think the involvement of mana  
 3186 whenua is better reflected through the forest spatial plan requirement in the RPS  
 3187 Change 1 – so Method CC4 which requires a Forest Spatial Plan to be prepared  
 3188 alongside mana whenua and key stakeholders. I think that's a better place for  
 3189 mana whenua involvement. These non-regulatory methods are more focused on  
 3190 I guess how land is managed at a property scale, or more of a property scale, and  
 3191 it's more relevant to landowners in the sector and Council as regulators, rather  
 3192 than the broader community – in my view.  
 3193
- 3194 Kake: The discussion yesterday that we had around Method 44, I think, so not the  
 3195 argument that you've made with respect to the sector. I'm just thinking about  
 3196 consistency in the Plan Change here now and the proposal from yesterday under  
 3197 Method 44 was to include that mana whenua work alongside Councils,  
 3198 communities, etc.  
 3199
- 3200 I suppose looking at Method CC4, can you just outline what that Method CC4  
 3201 includes?  
 3202
- 3203 Watson: I don't have that open either unfortunately, but the basis of that method is the  
 3204 "right tree right place" ethos. The key requirement coming out of that method is  
 3205 for Council to work with mana whenua and stakeholders which includes the  
 3206 forestry sector and TAs if they want to be involved on development of a spatial  
 3207 plan that identifies where and what sort of forestry is appropriate in specific  
 3208 locations. That hasn't been progressed by Council as far as I am aware. So that's  
 3209 a pending action on Council as part of that process.  
 3210 [02.35.00]
- 3211 Kake: I'm just pulling that up now, just so I'm real clear. That Method CC4 is about a  
 3212 spatial plan identifying areas where forestry should and shouldn't take place?  
 3213
- 3214 Watson: Correct.  
 3215
- 3216 McGarry: I guess the bit that I was focusing on was (d) that if it's a non-notified and  
 3217 thinking about what Mr Pepperell said about still getting feedback from mana  
 3218 whenua. And, if going forward there was development of standard conditions  
 3219 for operations that mana whenua were comfortable with, they might not need to  
 3220 have involvement in applications going forward, is where I was sort of thinking  
 3221 that this could be an appropriate place. I guess if (d) wasn't there I would sort of  
 3222 accept what you're saying, but because that standard consent conditions are  
 3223 there I do wonder if a bit more thought about that is warranted.  
 3224
- 3225 Watson: That's probably something that I would need to come back to you on.

3226  
 3227 Kake: I'm trying to find the method and my computer is about to crash. I wonder if we  
 3228 can get a response to that once you've had a little bit more thought. Thank you.  
 3229  
 3230 Chair: Does that cover Issues 16 and 17? Yes. Great.  
 3231  
 3232 We're at definitions.  
 3233  
 3234 Watson: It's definitions now. I guess there's nothing material that again we haven't  
 3235 already discussed in here. A lot of it is amendment to align with the NES and  
 3236 removal of terms that are no longer used in the plan. Amalgamation of the  
 3237 highest erosion risk land the potential erosion risk land. I guess minor  
 3238 amendments to support implementations, so just providing clarity for plan users.  
 3239  
 3240 Then there's some new definitions again that have been brought in to assist plan  
 3241 implementations; so, pulling through commercial forestry and commercial  
 3242 forestry activity definitions from the NES. Likewise, new definitions for exotic  
 3243 continuous covered forestry and indigenous forest. A new definition for forestry  
 3244 management plans. That was included in my S42A recommendations but has  
 3245 changed substantively as part of rebuttal in response to submitter evidence.  
 3246  
 3247 A new definition for freshwater management unit which was a throwaway  
 3248 comment from one of the submitters on the vegetation clearance rules – sorry, it  
 3249 might have been on Schedule 33 actually, but it was a good point that PFMUS  
 3250 and part freshwater management units seems to be defined, but freshwater  
 3251 management units aren't in PC1.  
 3252  
 3253 Then the new definition for potential erosion risk land, again it was discussed  
 3254 over the last couple of days.  
 3255  
 3256 I guess moving on, just to recognise there's a difference in approach between  
 3257 vegetation clearance and forestry. Just wanting to draw on that a little bit.  
 3258  
 3259 There's no available technical evidence or other evidence from Council about  
 3260 the scale of vegetation clearance. It's not a best available information test in that  
 3261 situation. There is no information available to work out the scale of the problem  
 3262 and what the response might need to be. Whereas for forestry, as you've heard  
 3263 today, there is an evidence base. There's some work that has gone into  
 3264 evaluating the scale of the problem and its impacts on water quality and  
 3265 alignment with objectives in PC1 and the NPS-FM.  
 3266 [02.40.00]  
 3267 Chair: [Inaudible – issue with mic]  
 3268  
 3269 Watson: I wasn't envisaging that the requirement would involve additional I guess plan  
 3270 to be prepared. It was kind of assessing the actual risk of erosion at a property  
 3271 scale as part of a field assessment. I guess the forestry operates in a different  
 3272 way to the kind of ongoing or enduring discharges of pastoral land. There is only  
 3273 so much you can do to minimise sediment from forestry activities as they're  
 3274 occurring. It's all about the managing of those activities at the time and that risk  
 3275 of vulnerability after, which comes back to the appropriateness of controls,  
 3276 methods and measures to manage sediment risk. I guess the intent of that  
 3277 Forestry Management Plan requirement to confirm actual risk of erosion and

respond to that risk of erosion in a way that allows that activity to be undertaken in a way that would create no more effects than it would if it wasn't on that potential erosion risk land kind of manages that kind of heightened risk.

It's bringing the risk back to all things being equal, I guess. That was the intent rather than an additional requirement for more refined mapping or identification of areas. It was just kind of recognising these areas exist on the ground, or are you seeing - are there obvious signs that this an area that is going to require a specific response, and what does that response look like? That comes through as part of that Forestry Management Plan process.

I didn't envisage it being that kind of prescriptive. I guess as part of that process, if you're doing your ground-truthing properly you would be identifying any kind of erosion risk land or areas that you'd want to avoid or manage in a specific way to I guess best manage your risk of discharges and potential enforcement and compliance issues ultimately.

I guess it's more a case of having particular regard to that potential erosion risk mapping, because that's already been identified, so that work has already been done for you.

[02.45.10]

That's already an area that's going to be at higher risk and that's not meaning you can put aside every other potential area on your site that might not be on the mapping. But, if you look at very obviously, you should probably be steering clear of it, or you're going to have some pretty innovative ways of controlling risk in that area.

It just kind of comes back to information provided in support of the Forestry Management Plan in terms of is there enough information to understand those risk at the scale that's required?

You'll be pleased to know this is my last slide – I'm sick of hearing the sound of my own voice.

I guess as a summation the remaining matters of contention that are seemingly unresolved, I would expect based on submitter evidence and discussion today, is the implementation approach for the application of the TAS, which recognises that Council needs to do more work to iron out the machinations of that approach and how it's going to be reported and implemented.

I guess the evidence base for the stringency test, alongside the alignment with the NPS is again polarising views. The forestry sector will tell you that the NES is perfect – not perfect but is good enough to do the job you're trying to do here. Adding additional costs for no additional benefit the outcomes are going to be the same. Then Forest & Bird and EDS are going to be coming at it from an approach where it's too lenient and we're not doing enough and NPS-FM is not going to be met.

I recognise that. Ideally, I would like more nuanced or focused rules. The scale of activities and regulators is important. At the moment it kind of captures everything where TAS isn't met. I don't necessarily agree with that, but the evidence base I've had, as I've pointed out through my rebuttal evidence and in discussion today, I haven't been given a magic number or anything as to what

that might look like, or what that needs to look like - particularly given the NES requires a management plan for any earthworks over 500 square metres in a three month period; whereas PC1 allows earthworks up to 3000 square metres as a permitted activity with no management plan requirements sitting underneath them.

There is I guess an equity or fairness issue in that space that kind of needs to be resolved, particularly for earthworks and vegetation clearance. I don't think it's necessarily appropriate to require consents for all of those activities regardless of scale. There needs to be some sort of threshold applied. I haven't been able to get to a point where I could kind of say what that should be, I guess.

Then, I guess a final remaining matter of contention is around the erosion risk mapping and is that certain enough to be used for rules or does it just kind of sit in a policy space guiding – uses guidance or identification of areas that require further assessment rather than more of a blunt tool.

If the erosion risk mapping was considered certain enough you would be able to develop or recommend more specific rules. You would be able to narrow it down to potential erosion risk land and where TAS are not met for example, so you're kind of narrowing the number or reducing the number of forestry activities that might be caught by rules in PC1, whether that's appropriate or not.

[02.50.00]

Chair:

Is there any trigger for non-regulatory action? I can't see it in Methods 44(a) or (b), where there is potential erosion risk land but the TAS is met? Is there any trigger that might support non-regulatory... so, Mr Pepperell and team getting out there and looking at the forestry operator and seeing what more could be done on their land to manage sediment risk, even though the TAS is met?

Watson:

The non-regulatory methods apply everywhere, so that's not just where TAS are met. Particularly in Method M44(a) from memory I've left it deliberately broad. I haven't tied it to potential erosion risk land. The method requires Council to work with the forestry sector to identify areas with forestry that are at greatest risk of effects, whether that's erosion prone land or some other kind of factor which elevates the risk of effects. For example, TAS is not being met and the proportion of sediment load coming from forestry in that catchment is high. Then Council can work to prioritise responding to those higher risk areas, because obviously money only goes so far.

A lot of these mechanisms are in place for rural land use already, but there's nothing in place for forestry. There's going to be a bit of work to do to get this off the ground and set up. Probably a bit of, it's fair to say, relationship mending with the forestry sector after PC1.

There is I guess a timing issue associated with all of this. In short, the non-regulatory methods apply everywhere and it allows the forestry sector and Council to work together to identify the higher risk areas, and the best way of managing the approach to ensure that sediment impacts are reduced in those higher risk areas. That's the intent.

- 3381 Chair: Thank you, that's really helpful. No doubt Mr Pepperell and his team are up to  
 3382 those challenges. Thank you. Does that bring us to the end of the forestry  
 3383 provisions? It does and we are only slightly over Mr Ruddock – you will be  
 3384 perhaps relieved.  
 3385  
 3386 Ms Vivian are you ready? Thank you. We've taken a long time to get to your  
 3387 report. We are ready.  
 3388  
 3389 Vivian: Thank you. We all know why we are here and I am not going to go over that  
 3390 today, but I just thought I would highlight the key difference between earthworks  
 3391 and the approach in comparison to forestry and rural land use.  
 3392  
 3393 I guess the first thing I want to mention is we know that open earthwork sites  
 3394 can contribute high loads of sediment to freshwater bodies – it's just really hard  
 3395 to determine that contribution, considering the open extent across catchments  
 3396 changes so variably and we have very limited control over when that is going to  
 3397 occur once we have granted consents.  
 3398  
 3399 The other thing that I would like to highlight really is that these PC1 earthwork  
 3400 provisions aren't necessarily new or significantly more restrictive than the  
 3401 existing requirements under the NRP. While they appear new, in my opinion  
 3402 what it actually does put into the rule and policy framework is what we already  
 3403 impose by consent conditions, and all of those consent conditions are really  
 3404 standard, including the winter works close-down period and the discharge  
 3405 standard largely –and when I say standard conditions, almost every single  
 3406 earthworks consent that I have seen being granted has had those conditions on  
 3407 there.  
 3408  
 3409 For a little bit of context, up until April I worked with a regulatory department  
 3410 in the land development team largely processing land development consents  
 3411 with earthworks and stormwater permits. I have a thorough understanding of  
 3412 how those NRP provisions worked and the complications we've seen having to  
 3413 implement the PC1 as it's notified over the past 18<sup>th</sup> months.  
 3414 [02.55.15]  
 3415 The PC1 earthworks provisions what they really will do is provide certainty  
 3416 around what's acceptable to Council in those earthworks applications and  
 3417 provides plan users with direction for what's expected and how those  
 3418 expectations can be met.  
 3419  
 3420 Chair: Sorry to interrupt Ms Vivian. I was looking in the operative plan before to just  
 3421 try to see what these winter works or close-down periods and I couldn't find  
 3422 them. I don't think they use the word winter. Could you just talk through what  
 3423 the provisions and what they currently require.  
 3424  
 3425 Vivian: I do have a whole issue on it a bit further down if you want me to hold off,  
 3426 otherwise I am happy to answer questions as we go.  
 3427  
 3428 So just a little bit more of a general overview – 449 submissions received and  
 3429 762 further submissions. While they varied largely they all were tied down to  
 3430 four key themes, the first one being the updated earthworks definition that came  
 3431 in from the National Planning Standards; the second one being the policies and  
 3432 the consequential rule frameworks to provide direction on the management of

earthwork sites; a discharge standard; and that winter close-down period which I am sure we will discuss at length.

I thought I would just quickly touch on Issue 1 categorisation. I agree with what was notified in terms of the categorisation of these provisions; however, I just wanted to point out that through my recommended amendments I have inserted the wording “and associated discharge” into the permitted activity earthworks rules. That would move these provisions into the Schedule 1 process.

I know we have talked about how far we take this discharge to coastal waters idea. I think something I would want to pinpoint here is that when we are looking at earthworks particularly within Wellington City for example, a large majority of those streams are all piped. That treated stormwater or treated sediment laden water, once it's discharged to the network for example, is going straight to coastal waters. It is not entering freshwater again before it exits.

I just think that's something important to keep in mind, even when we are way up in the hills in some of these locations.

Moving onto Issue 2, the earthworks definition, this is probably the one that caused lot of controversy in submissions. The previous earthworks definition under the Natural Resources Plan had a long list of exclusions of activities that weren't considered earthworks. As a result of that those activities weren't even subject to the rule framework, whether or not they resulted in a disturbance of soil.

By taking on the National Planning Standards definition of earthworks, it has an unintended impact on those activities. So, when that new definition was drafted, I don't think there was enough consideration given to where those activities sit within the rule framework. As a result, a significant number of those activities automatically couldn't meet the permitted activity standards and were pushed into seeking resource consent for them to be undertaken.

A significant number of submissions were received particularly from the Territorial Authorities and large infrastructure companies talking about the effects that was going to have on them in terms of cost and just the amount of resource consents they would have to seek to be able to undertake their activities. For example, that's talking about roading, maintenance of roading, the airport fixing up parts of the runway.

Again, I don't think that was the intent when drafting PC1. I think it was a bit of an oversight.

[03.00.00]

A large majority of submitters asked for a consenting pathway to be provided for those activities and there were a few who just sought for the original definition to be either put back in or for these activities to be re-entered into the existing new definition.

What I decided was through my s42A recommendations was for a new permitted activity rule to be inserted and provide a consenting pathway for these activities. I have just listed some of them there. Again, those are the kind of activities that now we're going to push into that consenting space.

In my opinion these activities are all linked. A large majority of the time they are minor in scale and so they can be undertaken in a manner in which disturbance of soil is minimised, especially when they're undertaken appropriately. A lot of them are linear. I just do want to also note that not all of the exclusions previously included in that Natural Resources Plan definition have been included in this rule and that's because in my opinion some of those works should be able to be undertaken in accordance with the new permitted activity rule anyway. For example, that's things like disturbance related to the construction of a geo technical bore. There is no reason that can't be done in accordance with the permitted activity rule. The same as domestic gardening for example. If you're exceeding 3000 square metres of gardening, that's not domestic at that point.

So not all of them were included. I just thought I would also point out here that through my rebuttal evidence and submitter evidence that came through I have also added in the repair sealing or resealing of a road or footpath or driveway. That came from submitter evidence from the Porirua City Council and the Upper Hutt City Council who again raised concerns that this was going to have significant impacts on their everyday activities and maintenance of their assets, and I think that by not including the bottom there was an oversight from me when I drafted that rule. I think it's important that that one is included in that set.

That's the end of that issue if you have any questions.

Chair: Just looking at your Rule R22.

Vivian: Is that A or the original one?

Chair: The original. We've obviously been talking about forestry. So, where earthworks are permitted if they're to implement an action in Erosion Risk Treatment Plan for a farm, or to implement an action in a Farm Environment Plan, is there any option or usefulness in including in here earthworks that might be needed as a result of a Forestry Management Plan, where they are at the minor sort of end to create... I think we have seen in Ms Strugnell's evidence for example, or submission, some images she's included of sediment measures. So, if earthworks were required to create those, is there any potential that they could be captured in the permitted activity rule?

Vivian: The way that the earthworks provisions are currently drafted, any earthworks relating to those forestry rules aren't captured by this earthwork's definition, and so those rules wouldn't capture forestry related earthworks. They're all captured by the NES for commercial forestry.

Chair: Either the NES or if it's in a catchment where the TAS is breached it could require RD consent under these provisions.

Vivian: Yes, under the forestry provisions, yes.

[03.05.00]

Chairs: Issues 1 and 2 we have covered. I think we are good.

Vivian: Moving on to Issue 3, this is regarding the management of earthworks sites. PC1 as notified included a new policy relating to the management of earthwork sites

and that required the use of best practice erosion sediment control measures. It also included the new rule framework for earthworks.

The most important thing here that I want to highlight is at notification earthworks undertaken as a permitted activity no longer included a provision for any associated discharge of sediment laden water.

I note that while this rule didn't originally intend for any associated discharge, from my experience working with those within the earthworks industry and processing resource consents, it is near impossible in some circumstances to have no discharge whatsoever from those earthwork sites, even when operating in accordance with those best practice guidelines. Even most erosion sediment control devices are designed to manage discharges, especially during those high rainfall events and allow for a discharge.

A number of submitters, mainly contractors and earthworks industry experts raised serious concerns about the practicality of them even being able to attempt to meet these policies and they were concerned that really they would be able to provide no reassurance to themselves that they would be able to meet that permitted activity rule, and that they were going to then be required to obtain resource consents just in the absence of certainty regarding compliance and that they wanted to be compliant.

Through my s42A recommendations I recommended that the policy and the rule framework is updated to provide for an associated discharge and acknowledge that there is likely to be a discharge even when operating under best practice guidelines.

Consequently, I also had to make an amendment to that policy just to recognise that at the time of s42A recommendations I put the words "uncontrolled soil" in there. However, upon reading submitter evidence in particular and some suggestions from those submitters I've made further amendments to refer to maximising the retention of disturbed soil. I think that will provide clarity for plan users, that it is soil that has been disturbed as part of those earthworks, as opposed to all uncontrolled soil onsite.

That's the end of that one as well if you have any questions.

Chair: I see in the amendments that you've tabled today there is an addition here as you give effect to relief sought by Winstone Aggregates I think under P29 and P27.

Vivian: Yes, that will be covered in a further issue.

Chair: Can I just ask something about the categorisation? As I understand it, you're recommending that Rules 23 and 22 to whatua are categorised at P1S1 if your changes are accepted.

Vivian: Correct.

Chair: Rule 24, earthworks restricted discretionary, that's a freshwater provision?

Vivian: No, I think off the top of my head that's a...

3589  
 3590 Chair: [03.09.23]  
 3591  
 3592 Vivian: Yes.  
 3593  
 3594 Chair: There were a few submitters that supported the wording of “uncontrolled” in  
 3595 P29 and P27 – uncontrolled soil. I think your rebuttal wording of “disturbed  
 3596 soil” seems logical. The natural meaning of both those words seems quite  
 3597 different. Are you able to talk a little bit more about that and the change you’re  
 3598 recommending?  
 3599 [03.10.12]  
 3600 Vivian: Yes of course. Uncontrolled I originally put in there with the intent that it  
 3601 covered sediment that wasn’t put through erosion sediment control measures.  
 3602 That was the reasoning behind that. I did have even at the time slight concerns  
 3603 that it wasn’t specific enough and through rebuttal I just thought that those  
 3604 amendments refined that and made it clearer.  
 3605  
 3606 I think as well, must on top of that, those who supported the word “uncontrolled”  
 3607 I think that was based on before disturbed was put in there and they were just  
 3608 supportive of an amendment to ensure that it wasn’t covering all discharges.  
 3609  
 3610 McGarry: Listening to what you’re saying, it sounds like you’re trying to avoid direct  
 3611 discharges to surface waterbodies.  
 3612  
 3613 Vivian: Yes, correct.  
 3614  
 3615 McGarry: Without going through a treatment device.  
 3616  
 3617 Vivian: Sorry, could you repeat that?  
 3618  
 3619 McGarry: Without going through a treatment device. So, you’re wanting some kind of  
 3620 treatment system. You’re trying to avoid direct discharge to the surface  
 3621 waterbodies, isn’t it?  
 3622  
 3623 Vivian: Yes, correct.  
 3624  
 3625 McGarry: Could we just say that? Because I find (a) even more confusing now, maximising  
 3626 the retention; and then I tried to think of ways that we could turn that around to  
 3627 minimising the discharge. But actually, what we are trying to say is you’re trying  
 3628 to enable associated discharges as long as they have a minor effect as a permitted  
 3629 activity, and so really, you’re avoiding direct discharges to surface water without  
 3630 implementing some of these erosion sediment control mechanisms.  
 3631  
 3632 Vivian: That could be potentially reworded to make it clear as you said.  
 3633  
 3634 McGarry: Then the way to achieve that, I’m just wondering if that’s just a bit muddled. If  
 3635 the sediment discharge from earthworks were minimised by avoiding direct  
 3636 discharges to surface waterbodies, some of the ways that you would do it would  
 3637 be limiting the amount of disturbed land and designing and implementing.  
 3638  
 3639 I just wonder if we’ve got a little bit complex in the (a).

3640 Vivian: Yeah, I agree. I have looked at that clause multiple times and kind of bounced  
 3641 around how to make it clear that we are acknowledging that it's not possible to  
 3642 retain all of that soil onsite, while not providing too much lenience to accepting  
 3643 that. There may be some direct discharges, I think. Direct discharges are easy to  
 3644 avoid.

3645  
 3646 McGarry: Because even when I got to the rules, I got a little bit confused about enabling  
 3647 to water and onto land and circumstances where I enter water and I'm thinking  
 3648 actually you really want them all to land don't you, and then they will eventually  
 3649 end in water. You're wanting some kind of control in treatment.

3650  
 3651 Vivian: Prior to, yes.

3652  
 3653 McGarry: So, there's no actual direct discharge to water as such is there. The point you  
 3654 lose control will probably be on land after your treatment device.

3655  
 3656 Vivian: Correct.

3657  
 3658 McGarry: I just wonder if we could just take a step back and simplify.

3659  
 3660 Vivian: I can definitely try and make some changes and come back to you.

3661  
 3662 Wratt: Your clause (b) limiting, and you've added "to the extent practicable" the  
 3663 amount of land disturbed at any time. That's policies WH.P29 and P.P27 clause  
 3664 (b) limiting to the extent practicable the amount of land disturbed at any time. I  
 3665 think that was in response to a Wellington Airport submission.

3666  
 3667 I'm not convinced that "to the extent practicable" is necessary. It doesn't say no  
 3668 disturbance of land, or amount of land can be disturbed. It says "limiting". Do  
 3669 you really think it needs to the degree "to the extent practicable"? There are  
 3670 times when I agree that "extent practicable" is needed but it's nice not to use it  
 3671 unless it's needed.

3672  
 3673 Vivian: I would agree with that. When I was writing my rebuttal evidence, I reading it  
 3674 thought that limiting was enough, but I didn't see a reason why to the extent  
 3675 practicable in providing the relief that Wellington International Airport thought.  
 3676 I didn't have a reason I guess to not accept that. I can't remember the exact  
 3677 wording of their submitter evidence off the top of my head. I could bring it up.

3678 [03.15.15]  
 3679 I don't necessarily think it's crucial to include that wording in there. I don't know  
 3680 whether it provides any further benefit. You're right in that limiting doesn't  
 3681 imply that it must be limited to the nearest extent possible.

3682  
 3683 Wratt: The notes I made were that her concerns were that in dealing with infrastructure,  
 3684 limiting the extent of land disturbance is not always practicable. That's true, but  
 3685 all it says is limited.

3686  
 3687 Vivian: I think by limiting the extent you're taking into consideration the circumstances  
 3688 of what you're building or what not anyway, so that would be taken into  
 3689 consideration and you were limited to that degree.

3690 Wratt: I guess my concern is that as soon as you add in "to the extent practicable" you  
 3691 do open the door for whatever.

3692  
3693 Vivian: Yes, I agree. I could envision it being something that me reading it would say  
3694 they would need to justify that they have limited it to the extent practicable, but  
3695 I think in reality when processing consents maybe that wouldn't be pushed for,  
3696 or it would be kind of overlooked quite often.  
3697  
3698 Wratt: Would you reconsider whether you put that in?  
3699  
3700 Vivian: Yes.  
3701  
3702 Wratt: Thank you.  
3703  
3704 McGarry: Just going to make the same point. I guess what you're trying to achieve there is  
3705 to leave the discretion for the decision-maker as to whether there's a limit is  
3706 appropriate to replace or not in the circumstances, isn't it? So, it's just a roadmap  
3707 really to limit where necessary.  
3708  
3709 Vivian: Yes.  
3710  
3711 McGarry: I'll come back on that and have a bit more of a think about it.  
3712  
3713 In terms of (d) and it gets back to if we had a different chapeau, but the  
3714 importance in (d) you've captured everything there, but I just wonder about  
3715 making sure they're effective. Because at the moment you just maintain and it  
3716 could be a dog that you're maintaining. It might never work. I just wonder  
3717 whether it could be ensuring those controls are effective and maintained... they  
3718 really need to be inspected as well. To me that's one of the fall-downs in the  
3719 whole system, is that people put things in and then they don't go back and inspect  
3720 them. I know this isn't a rule and it's getting quite specific, but I think the point  
3721 is at the policy level that the device is there and it's effective, and it's effective  
3722 for the whole period.  
3723  
3724 Vivian: Yes, I agree. I think to some degree if it weren't operating effectively that would  
3725 indicate that it's not being maintained, but I agree that the word "effective" could  
3726 be placed in there for clarity and for us to be able to go back to the operator and  
3727 state that they're not aligned with that policy.  
3728  
3729 McGarry: I totally agree, but I have seen devices that have never worked from the day they  
3730 were put in.  
3731  
3732 Vivian: Me too.  
3733  
3734 Chair: Ms Vivian, we are not at the point of looking at R24 and asking questions about  
3735 that are we?  
3736  
3737 Vivian: No.  
3738  
3739 Chair: I shall wait.  
3740 Vivian: The next issue is related to the discharge standard. We're all aware that the NPS-  
3741 FM has brought in this mandatory contaminant attribute subject to a limit, and  
3742 so at the drafting of PC1 the target attribute state for TSS was used as the  
3743 discharge standard.

I think the most important thing that I want people to take away from this is that TSS just really isn't practicable to be used as a measurement on earthwork sites in particular. That's largely because to determine TSS that sample has to be taken. It gets taken to a lab and then depending on the lab and depending on how busy they are, it might even take a couple of days for that result to get passed back to Council or the contractor that's send the sample away.

[03.30.30]

That was raised by a number of submitters.

In my s42A recommendations one of the most significant changes was the change from using TSS as a unit of measurement for that discharge standard and referring to NTU as a measure instead. NTU was recommended to be used as an alternative measurement for suspended sediment. I just want to highlight that TSS measurement can still be imposed as a condition of consent.

As a matter of discretion Council has the ability to impose any of the monitoring and reporting requirements from those sites as a condition of consent.

So, while NTU is an appropriate measure to be used onsite, I still think it's important that those granting resource consents for earthworks impose TSS measurements to be taken.

That's particularly in those part FMUs where either winter works is occurring or where the target attribute state for suspended sediment isn't being met.

I'm assuming there will be a couple of questions on that. I might stop there.

McGarry: I just wonder advice you had from the science team on this. My understanding is NTU and TSS is a correlation relationship and that you need quite a bit of data for, and it's site specific to the receiving waters. So, I'm a little confused by this and I'm a little confused where it's come from – where that 170 is from.

I guess if it was a discharge standard on point of discharge, I wouldn't be so concerned, but when you start talking about receiving waters then you need to know what the receiving waters... what the correlation of that NTU means.

I'm just a little unsure and I don't know how this fits with the NRP at the moment and whether this is a method used. I understand exactly what you're saying that the best way to measure it is NTU and I've got no problem with having a standard, as I say, on the discharge quality but I'm just not sure how this works in the real world.

Vivian: Do you want to comment on that Michael?

Greer: The point of the TC standard with the initial discussions were not to limit a load to the river but actually make sure that the ponds are high performing. We tried to get a lot of information from various people about what a pond can do, and what standard we should put on a pond so that we can certain it's operating well. We are not actually trying to achieve a specific outcome in the river. It's about making sure that the pond is working well and they'll have to floc it. We really couldn't get that number for TSS out of anybody.

I've done a bit of working looking at them through Auckland and you can get some numbers. The hardest thing with a TSS standard, and it also applies to NTU as well, is the point at which you should stop applying it. Because ponds will start flowing through. You can't meet a TSS standard at all times. That's just not how sediment retention ponds work.

We couldn't get a number. Ultimately the PA standards for minor discharge was adopted. We know that's not appropriate for a pond. They'll meet it most of the time. They can get down to three or four milligrams a litre when they're flocc'd but they'll start increasing as they flow through more and 100mg is quite low.

Basically 170 NTU is the pond performance standard that is applied to a lot of discharges in the Wellington region already. I don't know where that number has come from. No-one has ever really been able to tell me the number.

Earthworks experts who the Council use for consents say it's a pretty good indicator when the pond is working well. In terms of in the receiving environment, the only reason that NTU was applied in the receiving environment is to make it line up with the discharge standard. There's no point in having a lower NTU than the receiving environment you're discharging into because you know you won't have a conspicuous change of visual clarity at that point. So, it's just about lining them up rather than having a specific instream outcome at the end of the pipe, which that's managed through the conspicuous change in visual clarity requirements of the rule.

McGarry: I accept that. You often see 100 grams per cubic metre as a standard for a dewatering operation. Then when you get to clause (a)(1) it goes back to what you were just talking and as you say the zone [03.26.45] mixing and it's 100 grams per square metres. Should that be NTU there as well?

Greer: Yes. They should be lined up. I believe that Ms Vivian had done that through most of the rules. I think this one that just got off the radar.

McGarry: I'm just trying to imagine how you would do this. I understand exactly what you're saying at the end of the pipe. That is a pretty normal sort of standard. I'm just not sure how you would then apply it to the receiving waters. Maybe it's just the wording that's just not quite there. I'm just not sure.

Greer: As I say, if it was an end of pipe standard, except the first bit. I would imagine that when you're doing your monitoring or the Council comes knocking on your door and does the monitoring, the drop it to a metre in the receiving environment. If it's above/below 170 they go to the discharge and take a measurement. If that's above 170 then they're obviously not meeting the rule. That would be the test. If the receiving environment is above 170, they would be looking at a conspicuous change in visual clarity upstream and downstream to look at effects. It's going to be pretty difficult obviously when you're discharging into the pipe stormwater network and your receiving environment may be many kms away. I don't know how to tackle that issue. But when they're going straight to a stream that's how I envisage that working.

- 3847 McGarry: Clause 2 I get even more concerned because coastal waters, that NPU  
3848 relationship takes quite a bit of data to make that correlation.  
3849
- 3850 I wonder if the way around is that if you do exceed the 170 NTU in the discharge  
3851 standard, that that then requires that you do some kind of visual clarity black  
3852 disk monitoring in the receiving waters and just have the percentage decrease as  
3853 the receiving water standard.  
3854
- 3855 Greer: Again, that deals with direct effects but it doesn't drive the good pond  
3856 performance. They should just be not allowed to operate under this rule above  
3857 170, except where the background concentration already exceeds that. So that's  
3858 basically saying, during high flows where your natural concentration is 170.  
3859
- 3860 Once the correction is made to remove... that coastal one is going to be tricky.  
3861 Are you going to change that to NTU, the coastal one?  
3862
- 3863 Vivian: That was supposed to be pulled through. That coastal one was inserted following  
3864 submitter evidence who raised the issue that it's not appropriate to use NTUs in  
3865 measure in coastal waters.  
3866 [03.30.00]
- 3867 Greer: It's almost I don't think that's going to work doing an NTU discharge standard.  
3868 I agree with you on that one. But I also don't think necessarily a TSS standard  
3869 is going to work in a lot of coastal environments as well given how much sand  
3870 is resuspended by wave action close to the coast. You only have to go to Petone  
3871 on a windy day to know that it's way above 100mg a litre in the surf zone. The  
3872 coastal zone and reasonable mixing zone is only 15 metres, so it's not like you're  
3873 way out there where you've got to do that assessment.
- 3874 McGarry: It's just not going to work.  
3875
- 3876 Greer: No.  
3877
- 3878 McGarry: In coastal waters I'm just wondering are there circumstances where it would be  
3879 after reasonable mixing that you would be in coastal waters, or are we trying to  
3880 cover everything? It would probably be quite an exception, wouldn't it?  
3881
- 3882 Greer: Just from a scientific perspective the mixing zone in the NRP is sufficiently tight  
3883 at 15 metres that you could potentially rely on a conspicuous of visual clarity as  
3884 being the sole measure of performance for the discharge in retrospect.  
3885
- 3886 McGarry: That's where I was sort of heading towards. I think you just need in the receiving  
3887 orders there so that it would be "in coastal waters will not result in conspicuous  
3888 change, in colour or visual clarity in the receiving waters," after reasonable  
3889 mixing. It's missing that.  
3890
- 3891 I've probably said enough. NTU and the coastal environment...  
3892
- 3893 Greer: Just quickly though, in terms of the definition of a conspicuous change in visual  
3894 clarity, I'm not entirely sure if Greater Wellington has one for the coast. They  
3895 have a black disc measure for the river – you will see the 33 and 20. As far as I  
3896 know, maybe there isn't a standard one for the coast. That might require a bit of  
3897 implementation guidance to let people know what that means.  
3898

- 3899 McGarry: It could just be a conspicuous colour change, which are made much more easily  
3900 observable for a monitoring officer.  
3901
- 3902 Vivian: I see no issues with that. I think it's clear that Michael and I might need to sit  
3903 down and work out a few redrafting issues here. I acknowledge your concerns.  
3904
- 3905 Chair: Ms Vivian, do you think that's an appropriate place to stop for the break? Have  
3906 we finished Issue 4 from your perspective?  
3907
- 3908 Vivian: Yes, I think that's an appropriate place to stop.  
3909
- 3910 Chair: It might even place us ahead of time Mr Ruddock. If we come back in twenty  
3911 minutes at 3.50pm. Thanks.  
3912
- 3913 [Afternoon Break – 03.33.35]  
3914 [Hearing Resumes – 03.54.36]  
3915
- 3916 Chair: Kia ora everyone, we'll start again. Thank you very much. We are in the last  
3917 session with the Council team. Ms Vivian, we have got a couple more issues or  
3918 maybe just one more issue with you to talk through. Please, over to you.  
3919 [03.55.00]
- 3920 Vivian: Thank you, Commissioner. The next issue is regarding the winter shut down of  
3921 earthworks. Just in reference to your question earlier though Commissioner  
3922 Nightingale, would you like me to give you a quick rundown about this process  
3923 in general under the NRP beforehand?  
3924 You're right, there is no reference in the NRP to the winter shutdown, in fact  
3925 there's very limited policies throughout the entire NRP in relation to the  
3926 management of earthworks.  
3927
- 3928 That shutdown period is just an extended condition of consent that's placed on  
3929 all of our earthwork's consents. In the three and a half years that I've been at  
3930 Greater Wellington I think I can think of two consents that have been granted  
3931 from the get-go without that condition and that's usually related to smaller  
3932 earthwork sites who have pre-programmed what they are required to do over the  
3933 next year and they know that there's going to be a certain aspect that they must  
3934 do during that period and they've provided reasoning as to why that's  
3935 appropriate, and how they've considered the risk during that period.  
3936
- 3937 Outside of the consenting process, the conditions that get placed on resource  
3938 consents are usually a flat, "Your site must be stabilised during the period of  
3939 xyz." If it would assist the panel, I could get some examples of those conditions  
3940 provided to you guys, if that would be helpful. But, outside of that condition  
3941 that's placed on resource consents, there is a messy process that happens every  
3942 year that we call the 'Winter Works Approval Process'. Without going into  
3943 incredible detail, what happens is we get to a point in the year and consent  
3944 holders who wish to undertake works over the winter period essentially have to  
3945 get a winter work certification for their ESCP to continue to operate during that  
3946 period. What we expect through that additional certification process is reasons  
3947 why they need to operate over winter, which usually would require evidence that  
3948 they either have limited the works that they need to do over winter and have had  
3949 consideration to the period at an earlier and this isn't a last minute, "We must

3950 continue doing bulk earthworks over winter because we want to put in our  
3951 infrastructure in September.”

3952  
3953 Those works usually look like things like people continuing to do the installation  
3954 of civil works over that period or it's people who are almost finished their works  
3955 but they don't have quite enough time at the end of that buffer to reach full  
3956 stabilisation by the 1<sup>st</sup> of June date.

3957  
3958 There's other examples where people have been provided with approval to  
3959 continue doing workstream in that period.

3960  
3961 Just for a little bit further information, last year there was 28 applications  
3962 received for winter works to continue operating over that period and only two  
3963 were declined. A lot of them though they're not just, “Yes, you've received  
3964 approval to continue to operate?” There's a lot of negotiations that go on during  
3965 that process to limit and reduce the amount of works that they want to do during  
3966 that period.

3967  
3968 Quite often that winter works approval is granted on a month-by-month basis.  
3969 So that consent holder may need to come back the following month during that  
3970 period and say, “We want to continue to do xyz.” It will be up to the compliance  
3971 officer and the winter work approval team to determine whether they can  
3972 continue operating during that period.

3973  
3974 That's kind of a little bit of the gist of the process as it stands. Again, it's not  
3975 written into the NRP at all or in policy but it is a standard condition of consent  
3976 that in my opinion is reasonably accepted across the industry. I don't think the  
3977 idea of the winter work close-down period is generally known, and I don't think  
3978 it's a shock to the industry, but I think what resulted in the significant number of  
3979 submissions received was the directness of that winter work shut-down policy  
3980 that was originally in the PC1 notification. That really didn't reflect the fact that  
3981 there are actually works that can be undertaken during that period that can be  
3982 managed effectively, in my opinion.

3983  
3984 [End of recording - 04.00.00]  
[NRP PC1 – HS3 Day 2 – Part 3]

3985  
3986 Vivian: I am happy to continue with my slides, if that works, if you want to have any  
3987 questions at the moment.

3988  
3989 Chair: I did have a question about this close-down period reference in Policy P29 and  
3990 P27. Is this the right place to talk about that?

3991  
3992 Vivian: Yes.

3993  
3994 Chair: I think it's Horokiwi in their tabled statement say that terminology of close-down  
3995 period does infer this automatic shutdown and that's not appropriate they say in  
3996 the context of the s42A recommendations. They have provided some alternative  
3997 wording, which I think is something like “managing earthworks during 1 June  
3998 to 30 September in accordance with the Erosion Sediment Control Guidelines.”

3999  
4000 But you're still supporting the reference to close-down period in that policy?

4001  
 4002 Vivian: In P29 and P27 is where my updated rebuttal that has been provided today  
 4003 addressed those concerns. At the end of (e) the wording “except where  
 4004 earthworks are required for quarrying activities” has been recommended to be  
 4005 placed in there.  
 4006  
 4007 It's my understanding that it wasn't the intent of those policies to cover the likes  
 4008 of quarries, nor do I think it's practical to expect quarries to shut down entirely  
 4009 over that period. The intent of those policies is to manage large open earthwork  
 4010 sites. Quarries have specific erosion sediment control measures in place to  
 4011 manage soil on top of what is expected of a normal bulk earth work site.  
 4012  
 4013 Chair: An exemption you say is appropriate for quarrying and they would be the only  
 4014 activity, so elsewhere bulk scale earthworks could occur? It is appropriate for  
 4015 clause (e) to apply?  
 4016  
 4017 Vivian: I think so, yes. I think it's important to note here, and is probably a good follow-  
 4018 on from that is, the amendments to R24 in my rebuttal evidence which states  
 4019 that except for those associated with quarrying and the use development  
 4020 operation maintenance of renewable energy production, earthworks shall not  
 4021 occur between the 1<sup>st</sup> of June and the 30<sup>th</sup> of September.  
 4022  
 4023 You've just identified there's an oversight – the use development operation and  
 4024 maintenance of renewable energy operations should also be reflected in that  
 4025 policy as well.  
 4026  
 4027 Chair: Thanks for that. I think you were here when I asked Mr Watson that question  
 4028 about definition, because the operative plan has a definition of renewable energy  
 4029 generation activities which also would incorporate grid connections but there's  
 4030 no defined term of renewable energy generation. Then here you've got new  
 4031 wording again I think – renewable energy production, so I think there's  
 4032 opportunity there for some.  
 4033  
 4034 Vivian: Noted. I did take note of your comments this morning and that we need to ensure  
 4035 there is consistency in reference to that.  
 4036 Chair: We're hearing from Ms Anderson about scope and also if there's scope needing  
 4037 to give effect to the RPS that we can get those definitions aligned.  
 4038  
 4039 Vivian: Yes. I think just following on from that is it's important to note here that the  
 4040 recommended insertion of this wording in my rebuttal is following submitter  
 4041 evidence from Transpower, Meridian, Horokiwi and Winstone Aggregates  
 4042 which I added to my rebuttal version that was given to you guys this morning. I  
 4043 think it's important to note here that NZTA actually requested for that to be  
 4044 inclusive of RSI for the reasons being that there is these higher order policy  
 4045 documents that provide direction.  
 4046  
 4047 I looked at the new RPS definition of RSI and in my opinion there is enough.  
 4048 [00.05.05]  
 4049 The provisions in the rules as I've recommended to provide for RSI in the  
 4050 continued operation and maintenance and upgrade of existing, particularly  
 4051 through the addition of that 23 and 22A rule.  
 4052

4053 I think that this is earthworks and it's a temporary activity. I don't necessarily  
 4054 think that the construction of RSI needs its own suite of conditions or rules, or  
 4055 they should be subject to different conditions or rules. I think that they can be  
 4056 undertaken in accordance with the same conditions that others undertake  
 4057 earthworks of the same scale and should be subject to the same requirements.  
 4058

4059 I understand the reasoning of having separate suites of rules for RSI, particularly  
 4060 within TA plans, but however I think in this case subject to earthworks there is  
 4061 no reason they can't be undertaken in accordance with the conditions. I see no  
 4062 extra benefit of them having their own additional suite of rules, which is what  
 4063 they've requested and is also what is existing within the NRP.  
 4064

4065 McGarry: (e) could at RSI for the quarry?  
 4066

4067 Vivian: In the policy?  
 4068

4069 McGarry: I'm just wondering whether it could be recognised there in (e) for quarrying  
 4070 activities or RSI, those associated with RSI. I'm accepting your reasoning you  
 4071 just said. I don't disagree with anything you just said.  
 4072 Vivian: In my opinion I think that RSI as much as any other major construction project  
 4073 should be able to programme their works around that period that poses a higher  
 4074 risk to freshwater. I don't necessarily think if they are a large infrastructure  
 4075 project they have the ability to plan those works around those periods. They can  
 4076 still undertake certain works during that winter period – for example, civil works  
 4077 or minor works. I don't necessarily think that they need to be excluded from that  
 4078 period.  
 4079

4080 McGarry: Just while we are on (e) as well, I was just thinking, if you were to reword the  
 4081 chapeaux along the lines of avoiding direct discharges to water by – and then it  
 4082 would be these other factors having a treatment device, designing and limiting.  
 4083 I wonder if (e) would be better to be "limiting land disturbance" during the  
 4084 closedown, just to be a bit more specific. Because that sounds like what you've  
 4085 been doing through this process anyway, through this negotiation.  
 4086 Vivian: Yes, I agree. I think, without confirming anything, I would need to look through  
 4087 it again, but "limiting" I think could almost be potentially combined with the "to  
 4088 simplify the policy".  
 4089

4090 Kake: Looking at (d) and (e) / the whole chapeaux and that winter shutdown, that  
 4091 period of June to September and also just taking into account what we have just  
 4092 heard today, we're obviously experiencing large rainfall events and storms  
 4093 outside of these winter periods. I'm looking at the erosion and sediment  
 4094 guidelines and there's references in there in terms of the rainfall variability in  
 4095 the Wellington region.  
 4096

4097 Have you had any thought about including or looking at storm events again? So  
 4098 those controls when they come in, at what point – is it through the recertification  
 4099 that they can be reassessed as a result of large storm events or large rainfall?  
 4100 Does that happen? I just feel like we're ignoring climate change.  
 4101 [00.10.00]  
 4102 Vivian: Do you mean in the event that there has been a significant rainfall event outside  
 4103 of that period?  
 4104

4105 Through conditions of consent there's various points in which I guess triggers  
 4106 occur – so triggers for the monitoring, triggers for site audits, triggers for  
 4107 repairing, maintaining and ensuring that those devices are operating effectively  
 4108 as soon as possible following those rainfall events.  
 4109  
 4110 Yes, those checks to happen. There's standard conditions on consent that require  
 4111 monitoring and there's reporting requirements after those significant rainfall  
 4112 events – especially after once one of the devices has discharged or failed.  
 4113 Depending on the complexity of the site and what conditions have been placed  
 4114 on those consents, there's a number of additional steps that must be taken –  
 4115 whether that's providing site photos to ensure that you've cleaned your devices  
 4116 appropriate and they're now ready to take on the next rainfall event should it  
 4117 occur, or "Hey, your device didn't handle the size event that it should have an  
 4118 you now need to have your **ESCP** [11.18] recertified to ensure that it's signed  
 4119 appropriately.  
 4120  
 4121 **Kake:** So those standard conditions, I suppose is what I am alluding to in terms of  
 4122 interest. I think I'm just trying to understand how and when they get reviewed.  
 4123 Can we get a copy of those Standard Conditions?  
 4124  
 4125 **Vivian:** Yes definitely. I think it's also probably important to note that depending on the  
 4126 complexity of site that Erosion Sediment Control Plan that's provided during  
 4127 that consenting process or post-consenting is reviewed by an erosion sediment  
 4128 control expert. Usually quite often external, occasionally internal if it's a low-  
 4129 risk site.  
 4130  
 4131 **McGarry:** I think Commissioner Kake part of it is trying to put together what Mr Reardon  
 4132 said to us today, which is that with the weather trends that it's almost become a  
 4133 historical thing – avoiding that period.  
 4134  
 4135 Would it be fair to say that it's not just about opening up land, it's actually the  
 4136 ability to revegetate during that period you just can't hydro-seed and get things  
 4137 to grow in that winter period as well. So even though the weather patterns  
 4138 mightn't be as predictable as they used to be, would that be a fair comment. We  
 4139 are just trying to reconcile what Mr Reardon said today.  
 4140  
 4141 **Vivian:** Forgive me, I can't remember exactly what he said. Are you referring to the  
 4142 ability to stabilise before that period, whether that be through hydro seeding,  
 4143 mulching or grass strike.  
 4144  
 4145 **McGarry:** I think that's my part of the question. I think what Mr Reardon said was the idea  
 4146 of avoiding the winter period has become for harvest, has sort of become a  
 4147 historical idea because it's wet in summer as well. Any time can be wet now. I  
 4148 think that's where Commissioner Kake's comment is coming from.  
 4149  
 4150 I guess I'm suggesting that that winter period has got more reasons to be there  
 4151 than just opening up land and removing vegetation and disturbance. It's actually  
 4152 there is no ability to stabilize or revegetate during that winter period. Would that  
 4153 be fair?  
 4154  
 4155 **Vivian:** Do you have something to say Michael?  
 4156

- 4157 Greer: There's another reason why the winter period is a shut down – is that the water  
4158 table is higher and your risk of catastrophic failure is higher. Because of that you  
4159 don't get as much drainage. Whereas in summer, if you get a big rainfall event  
4160 and the water-table is low, that water will go somewhere and you won't  
4161 necessarily have as high a risk of catastrophic failure.  
4162
- 4163 Wratt: I have a question about Rules WH.R23 and P.R22. Your clauses (a) and (b) both  
4164 relate to farms – Farm Erosion Risk Treatment Plan and Farm Environment Plan.  
4165 The way it's constructed it almost sounds like those rules are specific to farms.  
4166 They're not, are they? I mean, (c) goes on to talk about "earthworks does not  
4167 exceed 3000 square metres per property" and then it talks in a new (b) from your  
4168 rebuttal about network utility operators as well.  
4169
- 4170 [00.15.00]  
4171 Vivian: (a) and (b) are specific to farms - (a) and (b) if you are operating in accordance  
4172 with one of those plans the following do not relate to you. That's largely because  
4173 for example one the existing issues is around the construction of farm tracks and  
4174 so often works that are occurring in accordance with the Farm Environment Plan  
4175 may exceed 3000 square meters, but that rule provides those operators with the  
4176 ability to operate in accordance with those Farm Environment Plans without  
4177 obtaining resource consent.  
4178
- 4179 Wratt: Just a wording suggestion: I think it would read better if it just said, "Erosion  
4180 Risk Treatment Plan for a farm," and then (b) doesn't actually need "for the  
4181 farm" because it says, "implement an action in a Farm Environment Plan."  
4182
- 4183 Vivian: Noted. I can make some amendments.  
4184
- 4185 Wratt: Thank you.  
4186
- 4187 Chair: On the issue of the 3000 square metre cap and the point that was raised by the  
4188 Airport and I think some other infrastructure providers about the work you're  
4189 not just applying to anywhere on the property but for a particular project.  
4190
- 4191 Dr Greer in your rebuttal you say theoretically the amount of sediment entering  
4192 a single waterway from 3000 square metres of earthworks conducted over a year  
4193 should not be impacted by the number of projects it's conducted for, but the same  
4194 doesn't apply when the property is sufficiently large that earthwork spans  
4195 multiple surface water catchments.  
4196
- 4197 I'm just not sure I quite follow that sentence. Could you explain that further?  
4198
- 4199 Greer: Imagine you've got an activity where you need to do lots of earthwork projects  
4200 and you're going to the same receiving environment. That's just the same as  
4201 calling it one project and doing the whole lot under one project. The fact that  
4202 you've split it up into different projects really doesn't actually matter. It's  
4203 earthworks on a site. It's the same receiving environment.  
4204
- 4205 The large site one, and it's specifically in relation probably to road parcels that  
4206 can go through a very long way and span multiple catchments, they have very  
4207 large boundaries. They may actually just discharge to multiple waterways and

4208 therefore have no more of an effect than if there was a sub-division across the  
 4209 boundaries. They're just in peaking different receiving waterbodies.  
 4210  
 4211 In one situation someone is getting punished just by having a large parcel and  
 4212 just by the nature of the activity; and the other one's people are just splitting up  
 4213 their earthworks under project headings so they can, you could say potentially,  
 4214 get around a rule. That's what I would do if it was down to multiple projects and  
 4215 I was going to exceed the 3000 I would just do it under different projects.  
 4216  
 4217 Chair: Ms Vivian, in light of that, does your rebuttal wording in (d) need revisiting – if  
 4218 you are willing to?  
 4219  
 4220 Vivian: I am not entirely sure Michael has seen my addition to (d). I will touch on that  
 4221 either way, just from my consenting experience.  
 4222  
 4223 I agree with Dr Greer in that example used in the submitter evidence regarding  
 4224 Seaview Wastewater Treatment Plant for example, I agree with Dr Greer -  
 4225 whether you split it into multiple projects, you're opening up the same amount  
 4226 of soil to be disturbed and potentially discharged. However, during my  
 4227 consenting experience there has been multiple occasions – for example with  
 4228 NZTA where they may have a consent within a road parcel and 30 or 50  
 4229 kilometres down the road it's the same road parcel, and technically they would  
 4230 trigger a resource consent because they've exceeded that 3000 square metres.  
 4231 [00.20.00]  
 4232 That was the reason why I inserted that (d) clause in there to address that issue.  
 4233 I did toss and turn a lot over the wording particularly "being undertaken at any  
 4234 particular location or worksite" largely because they are not defined, which I  
 4235 had concerns about and talked through with my colleagues in policy.  
 4236  
 4237 But that is what we came to.  
 4238  
 4239 Chair: I think the example that the Airport gives is where they say the works they had  
 4240 to do as part of the wastewater treatment facility and upgrade there was different  
 4241 from work that they had to do at the other end of the Airport and yet consent was  
 4242 triggered.  
 4243  
 4244 Dr Greer, you're saying in an example like that it doesn't matter they're  
 4245 technically two separate projects. If your earthworks are going to be discharging  
 4246 into the same waterbody then it's appropriate that they should be managed in  
 4247 accordance with this rule rather than be classes as permitted activity under  
 4248 separate projects.  
 4249  
 4250 Greer: Absolutely. They can call them separate projects all they want, but at the end of  
 4251 the day the activity is running and operating an airport and its earthworks  
 4252 facilitate that activity. Any person could carve up their activity under different  
 4253 project headings that sound like it's something different, but if you're making  
 4254 money in one way off the site then the earthworks is for that activity. I don't  
 4255 really see project name has got to do with it.  
 4256  
 4257 Vivian: I think one way that this has been addressed is through the insertion of that  
 4258 permitted activity rule 22A and 23A. For the example of the Airport anyway, a  
 4259 lot of what is referenced in their submission is because PC1 as notified has

4260 resulted in them getting multiple, multiple consents for small maintenance  
 4261 requirements of like the Airport apron. Those consents are coming and they're  
 4262 simple. Sometimes I think there's a few really small ones, which pose very  
 4263 limited risk to the environment. If operating in accordance with that permitted  
 4264 activity rule, if these recommendations were accepted, they still have to have  
 4265 erosion sediment control measures in place.  
 4266  
 4267 So, I think for large infrastructure projects the insertion of that permitted activity  
 4268 rule should eliminate some of these issues.  
 4269  
 4270 Chair: We will no doubt hear their views on that tomorrow or the next day.  
 4271  
 4272 Kake: Can I just quickly jump in and ask a hopefully simple question? Wouldn't a lot  
 4273 of those utility operators have their NORs and designations over some of these  
 4274 areas anyway, so then they would be monitored to an extent from the TAs?  
 4275  
 4276 Vivian: Yes, correct.  
 4277  
 4278 Kake: Can I just ask hopefully again a quick question just in terms of the definition of  
 4279 good management practices and just where these are. They're in the plan  
 4280 because it's folded and it's defined. I'm just struggling to find it I suppose.  
 4281  
 4282 Is that in the NRP? Is it in the guidelines? If you could steer us.  
 4283  
 4284 Vivian: That is a good point. I also am not aware off the top of my head that I have seen  
 4285 that defined in the NRP or PC1 and so I would need to go and check that. It is  
 4286 folded there.  
 4287  
 4288 Sorry, I've just had confirmation it is defined in the Natural Resources Plan.  
 4289 [00.25.00]  
 4290 Chair: Ms Vivian, the exemption for quarrying which you have, which you're now  
 4291 supporting is a matter of discretion in number 8, as part of Rule 24, I think where  
 4292 we are at is that renewable energy... the exact wording is to be clarified, but  
 4293 should also be exempted as well?  
 4294  
 4295 Vivian: Yes, that should have been included in there as well as the policy, as mentioned  
 4296 earlier.  
 4297  
 4298 Chair: I think it was Wellington Water that sought some additional relief in Rule 23A  
 4299 regarding geo tech investigation bores. I think that you think that's already  
 4300 covered in the rule, presumably by what's in clause (a).  
 4301  
 4302 Vivian: I think any works required for the construction of a geo technical bore or bore  
 4303 of the likes should be covered by the capsule permitted activity rule for  
 4304 earthworks and that's R23 and R22.  
 4305  
 4306 Chair: These are for infrastructure, so...  
 4307  
 4308 Vivian: The infrastructure that's listed yes, but I didn't see a need to list every form of  
 4309 infrastructure under that rule, because a significant amount of infrastructure  
 4310 could be undertaken as a permitted activity anyway as minor earthworks. It's my

4311 understanding that there's not a significant amount of earthworks that's required  
 4312 for construction of bores.

4313

4314 Chair: I had read R23 and R22 as basically not applying to infrastructure, but you're  
 4315 saying that activity fits under there, or they could fit under 23A?

4316

4317 Vivian: That's my intent of those rules, yes. May need some requirement if it's not clear  
 4318 within the titles.

4319

4320 Bearing in mind that in the submitter evidence there was a request from I think  
 4321 two submitters (I would have to go back) who requested that the word "minor"  
 4322 is taken out of the heading for that infrastructure rule. It's my opinion that those  
 4323 works should be minor. Any major infrastructure works they should be required  
 4324 to obtain a resource consent anyway.

4325

4326 McGarry: Is minor earthworks defined?

4327

4328 Vivian: It's not defined no.

4329

4330 There is potential that I could provide a definition for minor earthworks.  
 4331 However, I think that list in the way that I have narrowed it down is pretty  
 4332 prescriptive and that those works couldn't be done at a large scale. A lot of them  
 4333 are linear and require very small areas of disturbance.

4334 McGarry: I think a definition will get very complicated very quickly.

4335

4336 Vivian: Yes. Another potential solution that I did think about was stating that it was  
 4337 earthworks associated with specific infrastructure or the following infrastructure  
 4338 or making it clear that it was just relevant to that infrastructure listed, but again  
 4339 it got worded for just a heading of a rule.

4340

4341 McGarry: It could just be minor earthworks or specified infrastructure or specify them.

4342

4343 Vivian: Yes, I would just need to check that aligns with the definition for specified  
 4344 infrastructure in the NRP.

4345 [00.30.00]

4346 Chair: Ms Vivian, in terms of what you wanted to cover with us, we've got some  
 4347 questions but they sound like they're probably... I don't want to say "random".

4348

4349 Vivian: There was a few other points. I think we might have covered them all, so I might  
 4350 just have to flick through my points.

4351

4352 One of the things that I did want to ask and I thought might be raised was that  
 4353 these rules also refer to those part FMUs and it has a trigger for winter works  
 4354 within part FMUs where that's not met.

4355

4356 Something I do just want to highlight with the case of these earthworks  
 4357 provisions is that it doesn't change from a permitted activity to you now require  
 4358 a consent. It changes the activity status if that consent holder wished to undertake  
 4359 works within the winter period.

4360

4361 Something that I do just want to highlight and that I hope is clear through the  
 4362 provisions is that if someone were to apply for a resource consent as a restricted

discretionary activity and they were within a target attribute state where the suspended sediment is met, yes they could apply for winter works, but there is still going to be conditions on those consents that limit the winter works. It doesn't just mean that those consent holders are able to attain resource consent to just go gung-ho and continue over that winter period.

I think that's particularly important following comments from this morning. For example, there was a comparison between Tekapo and Taupō, where Taupō is met, however it is a highly sensitive catchment and we would still want to see specific thought and consideration going into the timing and staging of those works, particularly over the winter period.

Kake: What you just said there was I thought really quite helpful, just in terms of understanding the intent of that. I'm just wondering if you could possibly think about whether that should be included as an advisory note that just sits underneath the chapeaux or something.

Vivian: I am happy to do that. I don't know what the thoughts are with anymore notes into plans. I am more than happy to draft something up for you guys to review.

I also thought about potentially making it clearer in the matter of discretion – there's a couple of them; the first one being the duration staging and timing of works, so maybe just clarifying in that matter of discretion that that might include restrictions or limitations on the amount of works undertaken during that period. That's another option.

Chair: Just on that TAS provision, you can only apply for RD consent for earthworks in winter if you are a quarrying activity or renewable energy, is that right – where the TAS is not met; but if you're none of those then you can't apply for consent in the winter period.

Vivian: That would move onto that discretionary activity rule.

Chair: We are hearing from Transpower later this week but as I understand it you think it's appropriate even with the national instruments that they have, that they're still subject to that close-down and they should be getting discretionary consent?

[00.35.10]

Vivian: If they're unable to meet that permitted activity rule and they wish to operate during the winter period, then yes if they can programme their works around that period.

I also note that a lot of those activities that are undertaken by Transpower would be able to undertaken as permitted with the insertion of that minor works associated with the infrastructure rule.

Chair: And is that because Ms Kennedy's evidence talks about or gives some examples of the volumes of earthworks that they need for their maintenance activities and that sort of thing. So, you've factored that in and you've also factored in the national direction that applies to them?

Vivian: Correct.

4415 McGarry: I guess it gets back to my comments about rewording the policy in terms of the  
 4416 intent is to avoid direct discharges with sediment to water where they haven't  
 4417 gone through a treatment device. With that in mind, I have a problem with the  
 4418 rules that add in the associated discharge of sediment or floccment into a surface  
 4419 waterbody or coastal marine area.  
 4420  
 4421 It kind of assumes that permitted activity is allowing a direct discharge. Then  
 4422 you get through to (v) and "erosion sediment and control measures should be  
 4423 used to prevent a discharge of sediment where there's..."  
 4424  
 4425 It's quite clear that it's trying to achieve what we talked about with the policy,  
 4426 but I feel like adding in the red words now, you could read that, that it is trying  
 4427 to permit those direct discharges to water. I don't know what the answer is sitting  
 4428 her looking at it, or whether it is just a matter that it's onto land or into land,  
 4429 where it may enter surface water. Because I'm not convinced it would be a direct  
 4430 discharge. I guess there could be a pipe from a sediment pond straight to a river.  
 4431  
 4432 Vivian: That's a very high possibility.  
 4433 McGarry: I guess the problem is the order maybe of the rule, that sediment control  
 4434 measures comes after. As I say I'm not being very helpful. It's like I'm pointing  
 4435 out the problem but I'm not coming up with a solution for you. I just wonder,  
 4436 when you think about the policy and where you get to that in terms of avoiding  
 4437 – because I think the rule needs to then reflect that it is only allowing the  
 4438 discharge of sediment and all flocc... that's the surface water, provided that they  
 4439 have gone through a treatment device. It's not direct.  
 4440  
 4441 I'm sorry I'm not more helpful at fixing the problem. I do think there's an issue  
 4442 there.  
 4443  
 4444 Vivian: That's fine. I hear you. I think the problem is quite clear. Your concerns are quite  
 4445 clear. I'm happy to go away and have a rethink of those rules. On the spot as  
 4446 well, I've looked at them so many times and I can't come up with a solution.  
 4447  
 4448 Kake: On the same line of questioning, just getting some clarity on WH.R23A, so this  
 4449 new rule.  
 4450  
 4451 The last clause at the end in blue... this is a bit random as well. So, (h) it goes  
 4452 from "is a permitted activity provided the following conditions are met" (e)(f)(g)  
 4453 and then (h). Then there's a strikeout of a number of words, and then it goes to  
 4454 "erosion in sediment control measures shall be used to minimise."  
 4455 [00.40.05]  
 4456 I'm just wondering, alluding to the effects management hierarchy I suppose and  
 4457 what this rule or the policy that might form it.  
 4458  
 4459 I think the question I am trying to ask is what is the preferential flow path? The  
 4460 wording goes on to say, "where this preferential flow path connects with a  
 4461 surface waterbody or the coastal marine area."  
 4462  
 4463 When you were drafting that, was this something that came from a submission?  
 4464

- 4465 Vivian: No. That wording is from the original drafting of PC1 which I wasn't involved  
4466 in. However, it is reflective of the policy. I believe the same wording was  
4467 potentially used.
- 4468
- 4469 Kake: You go away and have a look at that.
- 4470
- 4471 Vivian: Yes, happy to have a look at that.
- 4472
- 4473 McGarry: Just looking in that same rule (c)(iii) stabilised within six months after  
4474 completion. It seems like an awfully long time. I just wonder where the six  
4475 months came from, after completion that is. Would have thought within the  
4476 three-month period you should be able to stabilise. If you've limited the area  
4477 that you've opened at any one time and you're doing staging and all those things,  
4478 it does seem like an awfully long time. I'm just not sure where that six months  
4479 came from.
- 4480
- 4481 Vivian: That's an interesting point. I also agree that six months does seem like a long  
4482 time. Those conditions have been pulled over from the permitted activity  
4483 conditions when it was drafted as well. I can go away and ask my colleagues as  
4484 to the reasoning why six months was determined appropriate.
- 4485
- 4486 Chair: These provisions were all ones that went through the recent NRP from only a  
4487 couple of years ago, right?
- 4488
- 4489 Vivian: Yes. Those conditions from that permitted activity rule have just been drafted as  
4490 part of this PC1. They haven't come from the permitted activity rule, the NRP.
- 4491
- 4492 Sorry, when I said I pulled it through, it's pulled through from the permitted  
4493 activity rule for earthworks that was drafted. I've just pulled the conditions  
4494 through for this minor infrastructure rule.
- 4495
- 4496 Chair: Thank you.
- 4497
- 4498 Vivian: I think we have actually touched on the rest. The only other matters were the  
4499 change in activity status from the non-complying to discretionary. There is  
4500 reasons justified in my s42A. I think discretionary is more reflective of  
4501 earthworks and the risk earthworks activities posed to the environment. I think  
4502 the effects are well understand and can be managed in a way in which the effects  
4503 are minor or less than minor. I think discretionary is a more appropriate activity  
4504 status.
- 4505
- 4506 I believe the rest of my points we've actually already covered off.
- 4507
- 4508 Chair: Thank you. Ms Vivian, and this is also I think for Mr Watson and maybe Mr  
4509 Willis, from tomorrow we're obviously hearing from submitters. It would be  
4510 really useful where you have tabled revised versions, just in case anyone hasn't  
4511 caught up with those, if we could have some extra printed copies because it's  
4512 difficult talking with submitters about your latest provisions you're supporting  
4513 when they haven't seen them. So at least if they could have them in front of  
4514 them. If we could have a few extra copies available for submitters tomorrow.

4515 Vivian: I can ensure there is more copies printed out. I am happy to make sure our most  
 4516 recent versions align in terms of formatting, so it's clear where the changes of  
 4517 the most recent versions have been made.  
 4518

4519 Chair: Yes. Thank you. I appreciate it's five o'clock. I don't want you to have to go to  
 4520 too much work this evening. If you are able to capture just the things we talked  
 4521 about, so I think adding in the references to renewable energy, which I think is  
 4522 just in that where you've got the quarrying exemptions. That would be helpful.  
 4523 [00.45.10]  
 4524 Vivian: I'm happy to make those changes that we've talked about, the ones that are clear.  
 4525

4526 Chair: I appreciate the NTU but that might take some time.  
 4527

4528 The other thing we wanted to just raise was it would be very helpful for us if in  
 4529 the next version of the provisions, which might be what come out as part of your  
 4530 reply, to footnote the relevant submitter relief, because then it's very clear where  
 4531 the scope for the amendment has come from; or if it's something that's been  
 4532 carried over because it was in the NRP. Having that tracked would be very  
 4533 helpful.  
 4534

4535 We are actually going to ask Ms O'Callaghan to do that as well in the HS2.  
 4536 We'll be putting out a minute. There's a few other follow-up things from the  
 4537 HS2 reply which we also wanted to ask Ms O'Callaghan and Dr Greer.  
 4538

4539 I appreciate Dr Greer had to go and catch a flight, but we also some other  
 4540 questions about this table. I don't know whether Mr Blyth here might be able to  
 4541 help.  
 4542

4543 Wratt: I think Mr Blyth and Mr Willis probably. I'm not sure if my brain is up to dealing  
 4544 with it at this stage of the day.  
 4545

4546 Referring to Table 1 in the rural s42A Report from Mr Willis, that's on page-52  
 4547 I understand – the s42A Report.  
 4548

4549 Just a couple of clarifications on that table as it is. Column B is entitled  
 4550 'Reduction required to achieve target attribute state as notified' and Column C  
 4551 is then 'Reduction required from 2012 to 2017 baseline to achieve target  
 4552 attribute state.'  
 4553

4554 My understanding is that both those columns are reductions required from 2012  
 4555 to 2017 baseline. Is that correct. Maybe you could just specify that in Column B  
 4556 as well.  
 4557

4558 I do notice that the table that was in the s42A Report, Column A, there are some  
 4559 significant differences between what was in the s42A Report and what was in  
 4560 the table that you tabled yesterday morning. Is it possible to give an explanation  
 4561 of why there's such big differences there.  
 4562

4563 Willis: I'll have a quick go and then Mr Blyth might be able to chip in.  
 4564

4565 The error arose because there was different iterations of the modelling outputs.  
 4566 There was a provisional one and then it was later updated. The table I did used  
 4567 the earlier modelling outputs which was subsequently updated.  
 4568

4569 What was done in terms of the modelling to make the changes I'll have to pass  
 4570 over to Mr Blyth, but that was my explanation. It was simply I'd used out-dated  
 4571 data.  
 4572

4573 Wratt: So, it was just an early reiteration?  
 4574

4575 Willis: One of the major changes you would have seen there is I've swapped out the  
 4576 Wainuiomata site. I'd actually included the wrong site as well. It's the one in  
 4577 there, the Black Creek I believe is an urban site, whereas they're rural streams  
 4578 which in the new version is included and it's White's is it? Sorry, I don't have it  
 4579 in front of me, but from memory it's a different site. Otherwise, the tables are  
 4580 the same.  
 4581

4582 Wratt: That's correct. The one in the s42A Report says Black Creek and the one in the  
 4583 revised version is downstream of White Bridge.  
 4584

4585 Willis: Yes, they are different sites. It was an error. I had pulled out the wrong bit of  
 4586 data.  
 4587 [00.50.00]  
 4588 Chair: So which one is incorrect – the table yesterday?  
 4589

4590 Willis: The table yesterday is correct, yes.  
 4591

4592 Wratt: Mr Blyth, any other comment on that?  
 4593

4594 Blyth: Thank you. No major additions to that except for was a provisional draft results  
 4595 that have been utilised and then probably three to four weeks later we provided  
 4596 a final, which was following a review and updates of some of the stock exclusion  
 4597 and incorporation of revised approach in the land sliding – bearing in mind there  
 4598 was quite a lot of activity over that period to develop that CLM to support these  
 4599 hearings. I guess it was just lost in translation through that period.  
 4600

4601 Wratt: Understood. Between columns B and C, column C is 'Target attribute state as  
 4602 revised'. Some of those percentages in the target attribute state as revised are  
 4603 actually higher than the ones in column B, which again there's not big  
 4604 differences, although the Parangarahu catchment stream, Makarā, has gone from  
 4605 34 percent in column B to 38 percent. I thought most of those targets that were  
 4606 in the revised targets were actually lower than the ones in the original.  
 4607

4608 Blyth: Primarily the reduction that we did was in Mangaroa with the revised targets –  
 4609 so that one was due to the colour adjustment for CDOM (Colour Dissolved  
 4610 Organic Matter). The others integrated a longer monitoring period up to eleven  
 4611 years when I did the revised assessment and that's where you've had the slight  
 4612 variation from Makarā increasing from 34 to 38 percent. But there is that  
 4613 variance range.  
 4614

4615 So, back to my HS2 evidence there's plus or minus one standard deviation that  
 4616 could also have been. I've just taken the median. It could be plus or minus

4617 roughly four percent. There's an argument of where you want to sit but it's easy  
 4618 to just pick the middle isn't it.  
 4619

4620 Wratt: So, you're saying there that's not statistically relevant variation in that one?  
 4621

4622 Blyth: That's right. I think with visual clarity you will always have a variance of what  
 4623 could be plus or minus five or ten percent, and that's why these longer-term  
 4624 monitoring trends with SOE type monitoring is important to capture these  
 4625 changes that PC1 will affect over time. It's just natural variability in climate and  
 4626 monthly monitoring trying to capture that record over a long period.  
 4627

4628 Wratt: So those were the questions that I had specifically around the contents of the  
 4629 table as it is. The other request Mr Blyth is in your Appendix B to your technical  
 4630 evidence; you did those provisional scenarios that you talked about yesterday  
 4631 afternoon. I think it would be really useful in this table if you could add those,  
 4632 not all of them, add them into the table against column A which is the modelled  
 4633 load reduction from PC1 as notified. There were two that I would have thought  
 4634 would be useful to put in there.  
 4635

4636 You had the scenario which you called CFL, which I think is current funding  
 4637 limit.  
 4638

4639 Blyth: That's correct.  
 4640

4641 Wratt: As I understand it, that's what the modelled load reduction is from the Farm  
 4642 Environment Plans with the current funding.  
 4643

4644 Blyth: I think it doesn't include Farm Environment Plans, it's just the assumption that  
 4645 if only the WRECI project was continued the 130 hectares, and that was rolled  
 4646 out to the equivalent of about 1950 hectares of retired land by 2040, plus stream  
 4647 stock exclusion. There was no specific additional gains that might be made from  
 4648 Farm Environment Plans as part of that scenario. It's more like a worst-case  
 4649 backstop.  
 4650

4651 In preparation for that I've already prepared that table so we can release it with  
 4652 right of reply.  
 4653

4654 Wratt: There's just one other thing: if it could go in an adjacent column, is the LRF –  
 4655 the 40 percent Farm Environment Plan LRF. I guess the reason I'm suggesting  
 4656 that is that to me they seem to give the worst case and best-case scenarios that  
 4657 you could achieve in terms of the sediment reductions from the provisions  
 4658 around the rural part of PC1, in terms of where you might get to with the Farm  
 4659 Environment Plans.  
 4660

4661 [00.55.25] Blyth: Yes. As mentioned around the uncertainty of what you could achieve with a  
 4662 Farm Environment Plan, but the 40 percent resulted in equivalent load reduction  
 4663 to the notified PC1. So, possibly it's an overshoot. If you count that there's the  
 4664 earthworks and the forestry provisions as well and it might be reasonable to  
 4665 assume the 30 percent scenario, which falls a bit under, but once you assume the  
 4666 other provisions are in effect it could be a useful one to add to that table.  
 4667

4668 Wratt: That was what I was thinking would be a really useful expansion of that table,  
 4669 just to give a picture of where the provisions might take us to in terms of the  
 4670 sediment loads.  
 4671

4672 Blyth: Yes, I agree. It would be quite handy and we can produce that quite easily.  
 4673

4674 Wratt: Thank you. Mr Willis?  
 4675

4676 Willis: It may or may not be helpful, but Mr Blyth just mentioned that we have prepared  
 4677 something already, which doesn't quite get to your last point Commissioner  
 4678 Wratt, but it does deal with your first point. It's got the WRECI model scenario  
 4679 in it. I'm happy to distribute that. I have enough copies for the panel if they  
 4680 would like to take one and enjoy it over dinner or something.  
 4681

4682 We'll have to come back to you for that final column.  
 4683

4684 Just one other point I would make, because I think Mr Blyth is absolutely right,  
 4685 the WRECI scenario as he calls it isn't exactly provisions, but in my mind  
 4686 because the area models as being treated or put into some sort of vegetation  
 4687 through the WRECI programme, as we talked about yesterday, does correlate  
 4688 with the mapped area in terms of the over fifteen year period the extent of area  
 4689 that's shown on those potential risk or high risk areas. So, there is a reasonably  
 4690 good correlation between those things, which is why I say it's the modelling  
 4691 scenario that most approximates what the farm plan will achieve. But, as we say,  
 4692 there are other things to be added to that to try and estimate the full and final  
 4693 effects of the provisions of the package.  
 4694

4695 In terms of what the FEP will achieve it's probably the best estimation we can  
 4696 get I suspect. Other than that, we have to do the exercise that Mr Blyth has talked  
 4697 about - if we got another ten percent from FEPs what that would look like. But  
 4698 we don't have anything in those FEP provisions that required end 20, 30 or 40  
 4699 percent in addition to the WRECI programme.  
 4700

4701 I will pass to Josh if you like.  
 4702

4703 Wratt: Thank you, that was it. We can now wind up for the day, I think. I can put my  
 4704 brain back to sleep.  
 4705

4706 McGarry: When you're putting that other column onto the table it would be helpful to have  
 4707 some little notes. It could just be by asterisk in there Mr Blyth, with all your little  
 4708 clarifications that you continue to remind us of, that this modelling doesn't  
 4709 include the FEPs and it doesn't include this and it doesn't include that. I think  
 4710 that really helps us to consolidate this all into one visual for us.  
 4711

4712 So those little notes that you've given us along the way, that would be helpful  
 4713 just to remind what is in and out of the modelling for different things. Thank  
 4714 you.  
 4715 Blyth: Sounds good. I've already done that in a provision draft one, recognising it  
 4716 would be useful. Thanks.  
 4717

- 4718 Chair: Can I just confirm that we don't know what Mr Pepperell's Forestry  
4719 Management Plans might achieve as well in terms of potential reductions. We're  
4720 unable to quantify that.
- 4721
- 4722 Blyth: Yes, that's correct. You could assume best management practice might reduce a  
4723 certain proportion of load, but I can't tell you exactly what that will be. All we  
4724 know is that there's a sediment risk period from forestry. It could be five times  
4725 the load for five years and hopefully if they do rapid replanting and resewing  
4726 that Mr Reardon talked about, hydro seeding, then maybe you reduce that risk  
4727 period down to three years or two years. The proof will come out in the long-  
4728 term monitoring I suppose.
- 4729 [01.00.12]
- 4730 Wratt: Not going into the detail, but just note against the table, that it doesn't include  
4731 any potential gains from forestry. Urban is another one – there's nothing in there  
4732 from urban earthworks is there. It is just focused around the rural provisions as  
4733 I understand it.
- 4734
- 4735 Blyth: Yes, the CLM modelling is reasonably blunt in that respect. The urban  
4736 provisions it does apply the bio retention devices to infill in greenfield; so  
4737 assuming that sort of 90 percent load reduction for sediment. But that doesn't  
4738 account for earthworks of those activities when you're developing a greenfield.  
4739 It just implies it's expected at urban land use might have a nominal amount of  
4740 sediment that comes off it from park land or whatever, and then that's reduced  
4741 with bio retention. But it doesn't account for the earthworks that Ms Vivian has  
4742 been talking about.
- 4743
- 4744 Chair: Thank you, Mr Ruddock, that takes us to five o'clock which is the end of the  
4745 day.
- 4746
- 4747 Just before karakia, just to note again our appreciation for the very  
4748 comprehensive information we've received from the reporting officers and  
4749 council experts. We are very grateful for the thorough way in which you have  
4750 answered all of our questions and helped us understand the science and how it  
4751 applies to the PC1 provisions. You've really enhanced our understanding of the  
4752 framework. We appreciate that.
- 4753
- 4754 We are feeling in a better position now to hear from submitters over the next few  
4755 days. No doubt there will be further requirements to come. Thank you very much  
4756 everyone.
- 4757
- 4758 Unless there's anything else we can probably close with a karakia.
- 4759
- 4760 Ruddock: *Unuhia, unuhi*  
4761 *Unihia kit e uru tapu nui*  
4762 *Kia wātea, kia māmā, te*  
4763 *Ngākau, te tinana, te wairua i*  
4764 *Te ara takatā*  
4765 *Koia rā e Tongo, whakairia*  
4766 *Ake ki runga*  
4767 *Kia tina! TINA!*  
4768 *Haumi e!*  
4769 *Hui e!*

4770 *TĀIKE E!*  
4771  
4772  
4773 [End of recording – 01.03.00]