IN THE ENVIRONMENT COURT AT WELLINGTON

I TE KÕTI-Ā-ROHE KI TE WHANGANUI-A-TARA

Decision No. [2022] NZEnvC 25

IN THE MATTER of an application for enforcement

orders under s 314 of the Resource

Management Act 1991

BETWEEN GREATER WELLINGTON

REGIONAL COUNCIL

(ENV-2021-WLG-000019)

Applicant

AND STUART LEE ADAMS

First Respondent

AND QUALITY NZ HOMES LIMITED

Second Respondent

AND HENRY ADAMS LIMITED

Third Respondent

AND LIORAH CELESTE ATKINSON and

MICHAEL KIM MARSDEN

Fourth Respondent

AND MATHEW BLAIR GERRARD and

SANDRA LYNETTE GERRARD

Fifth Respondent

AND SANDY WYATT MORRIS

TUREREAO KAUIKA-STEVENS,

JUDITH MARIE KAUIKA-

STEVENS, ELIJAH ADAM SAMUEL HUNT AND COURTNEY MARIE

KAUIKA-STEVENS

Sixth Respondent

AND PAUL CHRISTIAN DANSTED and

SARAH KERKIN

Seventh Respondent

AND MEREDITH LOUISE COLLINSON

and BRAEDEN JOHN THOMAS

Eighth Respondent

AND SHANE TERENCE STRATFORD,

JAIME ELIZABETH WALSH, DAVID JOHN WALSH and SONIA

ELIZABETH WALSH

Ninth Respondent

AND IAN JOHN SPENDLOVE and

CARLA ANN SPENDLOVE

Tenth Respondent

AND UPPER HUTT CITY COUNCIL

Eleventh Respondent

AND SCOTT ROBERT WHITMAN and

NICOLA CHRISTINA WHITMAN

First Interested Party

AND ANTONY JAMES RAYMOND

RAGG and JEMMA KATE RAGG

Second Interested Party

AND PHILIP BRUCE CLEGG and MAREE

DONNELLE CLEGG

Third Interested Party

AND CRAIG PAUL GOUSSARD and

NANETTE ELIZABETH

GOUSSARD

Fourth Interested Party

AND LANCE ROBERT ANDERSON and

RACHEL ANN GRACE

Fifth Interested Party



Court:

Environment Judge B P Dwyer

Environment Commissioner D J Bunting Environment Commissioner R M Bartlett

Hearing:

26 – 29 October and 1 – 4 November 2021

Appearances:

A W Britton and M A Heslip for the Applicant

S J Iorns and C J Iorns for First Respondent

J W Maassen and D Brabant for Fourth and Sixth - Ninth

Respondents

D Randal and E Bennett for Eleventh Respondent

P Clegg and S L Gerrard appear in person

Last case event:

Closing submissions received on 12 November 2021

Date of Decision:

4 March 2022

Date of Issue:

4 March 2022

DECISION OF THE ENVIRONMENT COURT

Outcome

A: The Court is satisfied that the "pasture exclusion" provision contained in the pNRP definition of natural wetland applied to the Site at 28 February 2020 (paragraphs [102] and [118]);

- B: The Court is satisfied that the "improved pasture exclusion" provision contained in the NPS-FM definition of natural wetland applied to the Site at 21 May 2021 (paragraph [143]);
- C: Irrespective of the above findings, the Court is not satisfied that the Site constituted a natural wetland under pNRP or NPS-FM on either relevant date (paragraph [178]);
- D: The application for enforcement orders is dismissed (paragraph [179]);
- E: Costs are reserved (paragraphs [180] – [181]).



REASONS

Introduction

- [1] Greater Wellington Regional Council (the Regional Council) has applied for enforcement orders pursuant to s 314 Resource Management Act 1991 (RMA) against 11 Respondents. In addition to the named Respondents the Regional Council's application identified five further Interested Parties against whom it did not seek orders but whom it considered might have an interest in the proceedings.
- [2] The proceedings relate to a 12 lot rural-residential subdivision (the subdivision) undertaken at 281C Katherine Mansfield Drive (the Site), Whitemans Valley, Upper Hutt. The subdivision was approved by the territorial authority on 28 February 2020 and the subdivision plan was deposited under DP 546532 (Wellington Land District). A copy of DP 546532 is appended to this decision as Appendix 1. The subdivision has been completed, titles for subdivided lots issued and all lots in the subdivision have been sold with some of them having been built on.
- [3] The following matters will be discerned from DP 546532:
 - The Site contains a total of approximately 37.3 ha;
 - The Site lies on a south-east/north-west axis;
 - Lots 1-6 of the subdivision all contain 4 ha in area or thereabouts;
 - Lots 7-12 of the subdivision contain areas between 2.0008 ha and 2.7335 ha:
 - Areas Y and Z shown on DP 546532 (contained on lots 6 and 7 respectively) are identified natural wetlands where buildings or earthworks are not allowed. Effluent disposal systems and facilities on lots 6 and 7 must be located clear of the areas Y and Z;
 - In addition to the above controls on lots 6 and 7 all of the lots are subject to Consent Notice 11728473.4 (the Consent Notice) incorporating a

range of requirements/restrictions as to building development and wetland protection, wastewater systems, water supply and telecommunications.

- [4] Although not apparent from DP 546532 the following matters are also relevant to the factual issues arising in these proceedings:
 - Lots 1-7 are situated on comparatively flat (albeit gently sloping) areas of the Site;
 - Lots 8-12 are situated on foothills rising to the north and west of the Site:
 - The Site is dissected at its approximate mid-point by Black Creek a straight lined drain which runs across the floor of the Valley. Black Creek runs in a direction approximately south-west to north-east.
- [5] The nub of the enforcement proceedings is the Regional Council's contention that the natural wetlands on the Site extend considerably beyond areas Y and Z on DP 546532. The Regional Council contends that subdivision consent for DP 546532 was granted by the territorial authority on the basis of information made available by the subdivider which contained inaccuracies as to the extent of those natural wetlands such as to enable the Court to exercise the power contained in s 314(1)(e) RMA to change the subdivision consent.
- The Regional Council seeks orders protecting the contended more extensive natural wetland area by restricting the ambit of activities which might be undertaken on lots 1-7 and imposing controls of the sort imposed on areas Y and Z on those lots or parts of them. Additionally, it sought to impose requirements for restoration of what the Regional Council contended were natural wetlands on the Site as part of the enforcement order process.
- [7] Other than the Regional Council, the interests of the remaining parties to these proceedings might be summarised as follows:
 - Stuart Lee Adams (First Respondent), Quality NZ Homes Ltd (Second

Respondent) and Henry Adams Ltd (Third Respondent) are persons/parties involved in subdivision and development of the Site (jointly - the Subdividing Parties);

- Liorah Celeste Atkinson and Michael Kim Marsden (Fourth Respondent), Mathew Blair Gerrard and Sandra Lynette Gerrard (Fifth Respondent), Sandy Wyatt Morris Turereao Kauika-Stevens, Judith Marie Kauika-Stevens, Elijah Adam Samuel Hunt and Courtney Marie Kauika-Stevens (Sixth Respondent), Paul Christian Dansted and Sarah Kirken (Seventh Respondent), Meredith Louise Collinson and Braeden John Thomas (Eighth Respondent), Shane Terence Stratford, Jaime Elizabeth Walsh, David John Walsh and Sonia Elizabeth Walsh (Ninth Respondent) and Ian John Spendlove and Carla Ann Spendlove (Tenth Respondent) are the landowners of lots 1-7 DP 546532 (jointly the Land Owning Parties);
- Upper Hutt City Council (Eleventh Respondent) is the territorial authority which granted subdivision consent to what is now DP 546532 (the City Council);
- Scott Robert Whitman and Nicola Christina Whitman (First Interested Party), Antony James Raymond Ragg and Jemma Kate Ragg (Second Interested Party), Philip Bruce Clegg and Maree Donnelle Clegg (Third Interested Party), Craig Paul Goussard and Nanette Elizabeth Goussard (Fourth Interested Party) and Lance Robert Anderson and Rachel Ann Grace (Fifth Interested Party) are the owners of lots 8-12 DP 546532 (jointly the Interested Parties).
- [8] All of the parties who/which entered appearances opposed the Regional Council's application.

The Regional Council application

- [9] The application for enforcement orders was made in the following terms:
 - 1. The applicant, the Greater Wellington Regional Council (the **GWRC**), applies for enforcement orders pursuant to ss 314(1) and 316 of the Resource Management Act 1991 **(RMA)** to:
 - (a) Prohibit the fourth to tenth respondents from commencing any activities that are not permitted by the Appeals Version of the Proposed Natural Resources Plan for the Wellington Region (the PNRP) and the National Environmental Standards for Freshwater (the NES-Freshwater) within the wetlands delineated in the affidavit of Phillipa Noel Crisp dated 13 May 2021 at paragraphs [49]-[50] (the GWRC's wetland delineation) on the land legally described as:
 - (i) Lot 1 Deposited Plan 546532;
 - (ii) Lot 2 Deposited Plan 546532;
 - (iii) Lot 3 Deposited Plan 546532;
 - (iv) Lot 4 Deposited Plan 546532;
 - (v) Lot 5 Deposited Plan 546532;
 - (vi) Lot 6 Deposited Plan 546532; and
 - (vii) Lot 7 Deposited Plan 546532 -

(together the **Properties**).

- (b) Require the first, second and third respondents, and/or the eleventh respondent to, jointly and severally, engage a suitably qualified expert, approved by the Court and by a date deemed appropriate by the Court, to develop a wetland restoration management plan under R106 of the PNRP to remedy and/or mitigate any interference with, or damage to the wetlands on the Properties, caused by the first, second and third respondents, to the satisfaction of the Manager of Environmental Regulation at the GWRC (the Wetland Restoration Plan).
- (c) Require the first, second and third respondents, and/or the eleventh respondent to, jointly and severally, obtain all approvals required to implement that Wetland Restoration Plan by a date deemed appropriate

- by the Court, and to the satisfaction of the Manager of Environmental Regulation at the GWRC.
- (d) Require the first, second and third respondents, and/or the eleventh respondent to, jointly and severally, pay all actual and reasonable costs and expenses incurred in the implementation of the Wetland Restoration Plan on the Properties.
- (e) Change Resource Consent 1910070 (the **Resource Consent**) issued by the eleventh respondent to correct, where relevant, an inaccuracy which materially influenced the decision to grant the Resource Consent, namely the eleventh respondent's incorrect reliance on the November 2019 Wetland Assessment and Delineation Contract Report No. 5048 prepared by Wildland Consultants Limited and made available by the first respondent. The Resource Consent shall be changed to reflect the GWRC's wetland delineation.
- (f) Require the eleventh respondent to vary the Consent Notice 11728473.4 created in accordance with the Resource Consent, pursuant to s 221 of the RMA, to reflect the GWRC's wetland delineation, and to register the same against the Properties under the Land Transfer Act 2017. The text in point 1 of the Second Schedule of the Consent Notice 11728473.4 shall be varied to read (or similar, as determined by the Court):

The areas identified by the affidavit of Philippa Noel Crisp dated 13 May 2021 at paragraphs [49]-[50] on DP546532 are defined as natural wetlands in Appeals Version of the Proposed Natural Resources Plan for the Wellington Region and the National Environmental Standards for Freshwater. The rules in this Plan and these Standards will affect how these areas can be developed. No buildings or earthworks shall be undertaken within the natural wetlands. Effluent dispersal systems and associated fields/mounds shall be located clear of the natural wetlands.

[10] It will be seen that paragraph 1(a) of the application refers to "...wetlands delineated in the affidavit of [Philippa] Noel Crisp dated 13 May 2021...". Dr Crisp is 'Team Leader of Environmental Science at the Regional Council. Part of her affidavit was an attachment PC4 which is Appendix 2 to this decision. It will be seen from Appendix 2 that the Regional Council's delineation of wetland extends over a

wide swathe of the Site which we glean from paragraphs [49] and [50] of Dr Crisp's affidavit contains somewhere in the order of 15 ha (the delineated natural wetlands). This compares with the two quite limited areas of identified natural wetlands marked Y and Z (areas not given) on DP 546532.

- [11] As we mentioned previously the subdivision of the land now contained in DP 546532 has been completed, titles to individual lots issued and those lots have been purchased. On its face this application seeks (inter alia) to retrospectively impose significant controls and restrictions on the subdivided lots although the precise extent of those controls and restrictions was not immediately apparent on reading the application documents. On 13 August 2021 the Court issued a minute including (inter alia) the following direction:
 - [5] I refer to the contentions contained in the memoranda filed by counsel for various parties to date as to the lack of detail, ambiguous and ill defined nature of the application as it stands. It is my understanding that one consequence of the application succeeding is that the building/ earthworks/ disposal field prohibition (in a general sense) presently applying over areas Y and Z DP546532 pursuant to Consent Notice 11728473.4 would apply over all of the land coloured pink on Figure 5 or PC 4 of PC Crisp's affidavit of 13 May 2021. I also understand that the undertaking of various earthworks, grazing of livestock and the like will be caught by either requested amendments to the consent notice or restrictions contained in the proposed NRP if the application is successful. If I am wrong in my understanding GWRC will no doubt advise.
 - [6] GWRC is directed to file a memorandum by midday 20 August 2021 identifying the precise nature of the restrictions which will apply in respect of each allotment on DP546532 arising out of amendment to the consent notice and/or application of proposed NRP rules and the extent to which consideration was given by it to the effects on landowners of making the orders sought when filing these proceedings.
- [12] The Regional Council responded to the minute by way of memorandum of 20 August 2021 in the following terms:
 - 2. In regards to [5] of the Minute, the Court is correct in its understanding of what is sought by the GWRC, namely:

- (a) the building/earthworks/disposal field prohibition presently applying over areas Y and Z DP546532 pursuant to Consent Notice 11728473.4 would apply over all of the land coloured pink on Figure 5 or PC 4 of PC Crisp's affidavit of 13 May 2021 (i.e. the delineated natural wetlands); and
- (b) any activities in and within proximity to the delineated natural wetlands must comply with the consent notices and the restrictions contained within the regulatory/planning framework and restrictions. These include:
 - (i) the Decision Version of the proposed Natural Resources Plan for the Wellington Region (the pNRP Decision Version);
 - (ii) the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (the **NES-F**); and
 - (iii) the Resource Management (Stock Exclusion) Regulations 2020 (the Stock Exclusion Regulations).

Compliance is required with the Resource Management Act 1991 (the RMA).

3. In regards to [6] of the Minute, the matters raised by the Court are addressed below.

Specific restrictions which will apply in respect of each allotment:

- 4. The GWRC seeks protection of all of the delineated natural wetlands on each allotment through the above-stated mechanisms. Of the 7 allotments with natural wetland as delineated by the GWRC on them (allotments 1-7 inclusive), the GWRC considers that five have enough area outside of the natural wetland extent to construct a home and wastewater treatment system. Only allotments 1 and 6 are made up of almost 100% wetland. This would make the construction of any house on any part of allotments 1 and 6 an activity in breach of the RMA.
- 5. The consent notices sought reflect the protection of the natural wetlands that should have followed had the subdivision consent in focus been appropriately issued by the eleventh respondent, the Upper Hutt City Council (the UHCC).
- 6. The consent notices sought are also congruent with the regulatory/planning framework and restrictions that owners of allotments will need to consult to

determine the rule status of an activity that they wish to carry out within, or adjacent to, any natural wetland. In particular:

- (a) Allotments that meet the pNRP definition for 'natural wetland' (that is, they meet the RMA definition of wetland and do not meet the pNRP 'pasture exclusion' clause) have been subject to the pNRP wetland provisions since notification in August 2015 (the pNRP Notified Version). There were no amendments that changed the nature or applicability of these rules, including in relation to the Mangaroa peatland, on notification of the pNRP Decision Version in July 2019.
- (b) Allotments that meet the pNRP definition for 'natural wetland' are also 'significant natural wetland' as they meet at least two of the Regional Policy Statement for the Wellington Region (RPS), Policy 23 significance criteria (being 'representativeness' and 'rarity'). This does not alter the use restrictions that apply as the pNRP Decision Version rules apply to natural wetlands/significant natural wetlands without differentiation. The Mangaroa peatland is not listed in pNRP Schedule F3, therefore is not subject to the rules that specifically refer to significant wetlands listed in Schedule F3.
- (c) Allotments that meet the National Policy Statement for Freshwater Management 2020 (NPS-FM) definition for 'natural wetland' are subject to the NES-F. The NES-F contains a suite of regulations that manage activities both within and adjacent to natural wetlands. The regulations set strong provisions that manage vegetation clearance, earthworks and land disturbance within, or within a 10 m setback from, a natural wetland, and the taking, use, damming, diversion, or discharge of water within, or within a 100 m setback from, a natural wetland. The NES-F regulations are, on the whole, stronger than the pNRP Decision Version rules, unless an activity has a special status as set out in regulations 38 to 51. However, the pNRP Decision Version over-rides most of these 'special status exceptions' as the regional rules do not differentiate rule status according to purpose. The application of the NES-F regulations within wetland setbacks introduces new controls to areas adjoining a natural wetland, with only pNRP Decision Version rules R108 and R110 applying within 50m of the natural wetland.

- (d) The Stock Exclusion Regulations mandate that certain stock must be excluded from natural wetlands (of any size) that supports a population of threatened species from 1 July 2025 for an existing pastoral system on low slope land that is greater than 0.05 ha and from 3 September 2020 for a new pastoral system. The Mangaroa peatland does meet the definition in the Stock Exclusion Regulations for low slope land, therefore the farming of cattle, deer and pigs will be restricted, with the date depending on the farming enterprise.
- The GWRC also seeks restoration of the delineated natural wetlands negatively impacted by the alleged unlawful development activities.
 - (a) An order is sought for a wetland restoration plan to be developed, which will elucidate the steps required to restore the delineated natural wetlands. This wetland restoration plan is likely to impact allotment 6 most acutely due to the nature of the development activities performed thereon (construction of the skid site, access track and drainage).

(footnotes omitted)

- [13] It is apparent from the Regional Council's response that if the enforcement order application is successful lots 1-7 will become retrospectively subject to a series of controls/restrictions which were not in the contemplation of the City Council when it granted the subdivision approval nor the Land Owning Parties when they purchased the lots. In brief summary those controls/restrictions will include:
 - No house can be constructed on any part of lots 1 and 6;
 - The areas within the remaining lots 2-5 and 7 on which the owners may construct houses and wastewater systems etc, will be substantially restricted;
 - Lots 1-7 will be subject to additional controls managing vegetation clearance, earthworks, land disturbance, taking, use, damming, diversion or discharge of water;
 - Lots 1-7 will be subject to restrictions as to the farming of cattle, deer and pigs;

- Lots 1-7 will become subject to a Wetland Restoration Plan requiring the Subdividing Parties and City Council to implement a presently unidentified programme of wetland restoration works seeking to restore what the Regional Council contends were natural wetlands on the Site to a presently unidentified condition on lands now held in fee simple by the Land Owning Parties.
- [14] As these proceedings moved through pre-hearing processes it became apparent that there were essentially two issues for determination:
 - Firstly, whether or not the delineated natural wetlands identified by the Regional Council on Appendix 2 actually constituted natural wetlands as defined in the proposed Natural Resources Plan for the Wellington Region (pNRP) or the National Policy Statement for Freshwater Management 2020 (NPS-FM);
 - Secondly, if the delineated natural wetlands did in fact constitute natural wetlands, should the Court exercise its discretion to make the enforcement orders sought by the Regional Council?
- [15] This decision determines the first issue identified above. If the Court is not satisfied that the delineated natural wetlands constitute natural wetlands as defined in the relevant instruments then there is no need for the Court to consider the second issue. We consider that answering that first issue requires us to consider the following questions each of which in turn raises a number of sub-issues:
 - Is the Court satisfied on the balance of probabilities that what we will refer to as a "pasture exclusion provision" contained in the pNRP definition of natural wetland applied to the Site at 28 February 2020 as contended by the Respondents;
 - Is the Court satisfied on the balance of probabilities that what we will refer to as an "improved pasture exclusion provision" contained in the NPS-FM definition of wetland applied to the Site at 21 May 2021 as contended by the Respondents;

- Irrespective of the above findings, is the Court satisfied on the balance of probabilities that the Site constituted a natural wetland under either pNRP or NPS-FM on either relevant date.
- [16] The Court has identified two separate dates to answer those questions because:
 - 28 February 2020 was the date on which the City Council granted subdivision approval to DP 546532. It is the contended inaccuracy of information relating to natural wetlands provided by the subdivider to the City Council on that date which is the matter at issue. The provisions of the "decisions" version of pNRP were applicable on that date;
 - 21 May 2021 is the date upon which the Regional Council filed its application for enforcement orders. The provisions of the "decisions" version of pNRP were also applicable on that date as well as the provisions of NPS-FM which had come into force on 3 September 2020.

Background

- [17] Whitemans Valley lies in the Mangaroa River catchment east of Upper Hutt City. It is divided from the City by a range of hills. The north-western end of the Site encroaches onto the lower foothills. We understood it to be common ground that the valley floor areas of the Site once formed part of an extensive natural wetland known as the Mangaroa peatlands which was milled and converted to pastoral farming during the mid/late 19th century and that the Site and surrounding areas have been pastorally farmed since then.
- [18] Activities on the Site relevant to these proceedings came to the attention of the Regional Council in March/April 2019. The Regional Council had received a Harvest Management Plan relating to the proposed harvest of trees on the lower foothills. The Harvest Management Plan involved the construction of a new haul/access road, establishment of a skid site, the clearance of trees and the installation of culverts. This process was part of plans for development of the Site by the Subdividing Parties (or some of them) including ultimate subdivision into the 12 lots which we have previously described.

- [19] Three Regional Council officers went to the Site on 4 April 2019 to investigate the works that were to take place. They were Messrs M C Curnow (Resource Advisor), R J McAlister (Resource Advisor) and O E Spearpoint (Wetland Technician). Mr Curnow's functions at the Council involve monitoring compliance with and enforcement of RMA, Mr McAlister attended as a forestry expert and Mr Spearpoint attended as a wetland expert.
- [20] On their visit the Regional Council officers formed concerns about the legality of various aspects of the work which was already underway, particularly whether or not some of the work was being carried out in natural wetlands on the Site. The natural wetlands which were of particular concern at that time were those within or closely adjacent to the forested area at the foothills end of the Site. We understand these natural wetlands to be the areas now marked Y and Z on DP 546532. The officers also observed that soil ripping and vegetation cutting had been carried out in the vicinity of and to the north/west of Black Creek and what they considered constituted deepening of drains and/or establishment of new drains between Black Creek and the base of the foothills.
- [21] During the course of his visit Mr Spearpoint investigated three vegetation plots on the Site. He ascertained the prevalence of vegetation within them in order to assess whether or not the plotted areas constituted natural wetlands as defined in the pNRP. He formed the view that the haul road and other work already carried out would have passed through or been undertaken in natural wetlands and that it was likely that other proposed works for the subdivision would also take place within natural wetlands.
- [22] Following the Regional Council officers' visit Wildland Consultants Ltd (Wildlands) was engaged by the First Respondent to assist with the delineation of wetlands and habitat types on the Site to address concerns raised by the officers. This work was undertaken by Dr A C van Meeuwen-Dijkgraaf (a senior terrestrial ecologist employed by Wildlands at that time) assisted by other Wildlands' staff. Dr van Meeuwen-Dijkgraaf holds a Doctor of Philosophy degree in ecology and has 22 years' professional ecological experience. She produced two reports regarding wetlands on the Site dated July 2019 (the July report) and November 2019 (the November report) and was called to give evidence regarding those reports as a witness for the Regional

Council.

[23] We think it is correct to say that the reports were primarily focused on an assessment of vegetation on the Site although some consideration was given to soil samples. No investigation of the hydrology¹ of the Site was undertaken by Dr van Meeuwen-Dijkgraaf. Twelve vegetation plots were assessed across the Site in the preparation of the July report. The July report broke the Site down into three areas being Front, Middle and Back. As we interpret that document the Front area started at Katherine Mansfield Drive, the Middle straddled Black Creek to the foothills and the Back area was the foothills to the north-western boundary of the Site.

[24] Dr van Meeuwen-Dijkgraaf assessed the Middle area as being wetland as well as the two areas identified as areas Y and Z on DP 546532. In undertaking that assessment Dr van Meeuwen-Dijkgraaf did not apply what we will refer to as a pasture exclusion provision contained in pNRP which (in summary) provided that if an area constituted wetted pasture or pasture with patches of rushes it was not included in the pNRP definition of natural wetland. (We will return to the detail of this provision further in due course.) The reason for that was not because Dr van Meeuwen-Dijkgraaf was not aware of the pasture exclusion provision but because there was some controversy at the Regional Council as to precisely how it should be applied. Dr van Meeuwen-Dijkgraaf considered the Middle portion of the Site to be wetlands² primarily based on a vegetation assessment but without applying the pasture exclusion provision.

[25] After issue of the July report Dr van Meeuwen-Dijkgraaf received clarification from the Regional Council as to a proposed methodology for identifying what constituted pasture for the purposes of application of the pasture exclusion provision together with a list of plant species which the Regional Council considered were included in the term pasture. This methodology and list were used by her in the assessment of vegetation on the Site for the purposes of completing the November

The science dealing with (inter alia) water on or under the earth's surface.

In the July report Dr van Meeuwen-Dijkgraaf's vegetation assessments are of "wetlands" though she refers to "natural wetlands" in her Introduction when describing the Council's issues with same. Nothing turns on that.

report.

[26] The November report involved an additional 24 vegetation assessment plots (giving a total of 36 plots assessed) being considered within the Middle portion of the Site being the area which the July report had assessed as wetland but where the pasture exclusion provision had not been applied. This led to a somewhat more complex assessment than had been the case in the July report.

[27] Attached to this decision as Appendix 3 is a copy of Figure 4 to the November report. It will be seen from the legend to Appendix 3 that the November report was considerably more detailed in outcome than the July report. The November report broke the Site up into ten separate areas of vegetation and habitats. For the purposes of this decision the significant vegetation areas are those marked 1, 2 and 3 on Appendix 3 (areas 1, 2 and 3). The legend to Appendix 3 identified the areas as follows:

- 1. Cocksfoot dominant grassland.
- 2. Yorkshire fog-dominant grassland.
- 3. Scattered rushes/Yorkshire fog grassland.
- [28] The November report described areas 1, 2 and 3 in these terms:
 - 5. VEGETATION AND HABITATS
 - 5.1 Type descriptions

Vegetation and habitat types within the property are mapped in Figure 4 and are described below. Some of these vegetation types are wetland types.

1. Cocksfoot dominant grassland

The paddocks closest to Katherine Mansfield Drive comprise cocksfoot (Dactylis glomerata) dominated grassland. A large drain runs along the eastern boundary and the density of indigenous rushes - mostly Juncus edgariae and some Juncus sarophorus - increases towards the drain. Patches of exotic creeping buttercup (Ranunculus repens) occur throughout the paddock and other exotic species present include Yorkshire fog (Holcus lanatus), creeping

bent (Agrostis stolonifera), ryegrass Lolium perenne), browntop (Agrostis capillaris), sheep's sorrel, broad-leaved dock (Rumex obtusifolius), catsear (Hypochoeris radicata), hawkbeard (Crepis capillaris), mouse-eared chickweed, dandelion (Taraxacum officinale), sweet vernal (Anthoxanthum odoratum), Scotch thistle (Cirsium vulgare), and yarrow (Achillea millefolium). A few shelterbelts are present, mostly comprising various willow species. The paddock margins often have drains, which keep the paddocks drier. Hydric soils were present closer towards Vegetation Type 3 Scattered rushes/Yorkshire fog grassland (Figure 5).

2. Yorkshire fog grassland

The middle paddocks closest to the existing access track comprise Yorkshire fog grassland, with occasional cocksfoot. A few shelterbelts are present, mostly comprising various willow species. Scattered rushes (mostly indigenous species; *Juncus edgariae* and occasional *Juncus sarophorus*) and creeping buttercup are present. A similar range of weedy species are present as for Vegetation Type 1, but the grassland is less well developed pasture compared to Vegetation Type 1. Paddock margins often have drains, which keep the paddocks drier. Soil assessments were not undertaken.

3. Scattered rushes/Yorkshire fog grassland (wetland)

The middle paddocks close to the main drains and the paddocks at the foot of the hill are Yorkshire fog-dominant, but with a higher cover of creeping buttercup and rushes. This area is wetter in character and has a higher proportion of wetland species present, and also has hydric soils (Figure 5). A few shelterbelts are present, mostly with various willow species. Paddock margins often have drains, which keep the paddocks drier. Hydric soils were present.

If Appendix 3 is compared with Appendix 2, it will be noted that approximately half of area 1, a sliver of area 2 and all of area 3 fall within the Regional Council's contended delineated natural wetland area shown in Appendix 2.

[29] The November report summarised the results of Dr van Meeuwen-Dijkgraaf's assessments as follows:

7.2 Results

. . .

Of the 36 wetland delineation plots, eight have been classified as wetland vegetation types (all along the foot of the hill),3 four sites are not wetland vegetation, and the remaining 24 sites are wetland but were dominated by pasture grasses and are therefore classified as wetted pasture with rushes.

. .

The soils and species composition indicate that much, if not all of the flat area comprises wetland, but cultivation practices favour exotic pasture grass species. The site may also have been subjected to other agricultural practices in the past such as ploughing or disking, application of fertiliser, over-sowing with exotic pasture grass species, and spraying of pest plants. These modifications have pushed the vegetation cover more towards the "wetted pasture with rushes" end of the spectrum.

The site has also had a long history of modification with successive phases of vegetation clearance and deep drains lowering the water table. Draining peat wetlands usually results in the shrinking and breaking down of peat soils due to lowered water tables. This causes depressions in the soil and can sometimes result in peat areas becoming lower than surrounding land, with resulting ponding of water.

Currently, only the areas along the foot of the hill comprise wetland (not wetted pasture) but these areas have been compromised by the 'clearing' of existing drains and the construction of new drains (Figure 6).

[30] It will be seen from the above that Dr van Meeuwen-Dijkgraaf assessed all of areas 1-3 as wetlands but concluded that they were subject to the pasture exclusion provision being either wetted pasture or pasture with patches of rushes. The November report did not contain any assessment of the hydrology of areas 1, 2 and

We understand that these are within areas Y and Z on DP 546532.

3. Hydric soils⁴ were found in areas 1 and 3 but soil assessments were not undertaken in area 2. We will return to these matters further in due course.

[31] If the November report is accepted as accurate, areas 1, 2 and 3 on Appendix 3 all meet the pasture exclusion provision so that although these areas are wetlands they are not considered to be natural wetlands as defined in pNRP. The position of the Respondents in these proceedings is that areas 1, 2 and 3 meet the pasture exclusion provision so that they do not constitute natural wetlands for the purposes of pNRP. (That is also the Respondents' position in respect of what we will refer to as an improved pasture exclusion provision contained in NPS-FM - we will also return to the detail of that in due course.)

[32] Approval of the subdivision now contained in DP 546532 was issued by the City Council on 28 February 2020.⁵ The information contained in the November report appears to have been of some moment in determining whether or not to grant consent to the subdivision. It is apparent from consideration of the City Council's decision that identification of natural wetlands as being confined to areas Y and Z within lots 6 and 7 was a relevant and significant factor in the City Council approving the subdivision and the conditions which it imposed on it. This is referred to on a number of occasions in the decision perhaps summarised by the following finding in paragraph [5.2] of that decision being an assessment of the statutory planning documents:

The subject site contains identified areas of wetland which will be protected as part of this subdivision. It is acknowledged that earthworks have been undertaken within proximity to the wetland areas on the site, which is being addressed by GWRC and any remedial works will be directed by GWRC. For the purposes of a subdivision consent, it is considered that the proposal is in line with the above policies by firstly aligning boundaries of sites and location of building platforms outside of the identified wetland areas and secondly proposing to protect the identified areas via a covenant. Activities within the wetland area will be restricted by the relevant rules of

Soils which are permanently or seasonally saturated by water resulting in anaerobic conditions as found in wetlands.

This consent apparently superseded a previous consent for a differently configured subdivision.

GWRC.

Although we are not determining the issue as to whether or not we should issue an enforcement order in this decision, it seems to us that if the information contained in the November report contained inaccuracies as to the extent of natural wetlands on the Site and the Regional Council's delineation of those natural wetland areas is correct, then those inaccuracies must have influenced the City Council's decision to grant subdivision consent or at least the conditions of that consent.

[33] We will shortly address the reasons why the Regional Council contends that the November report contained inaccuracies in more detail. Briefly however, it was the Regional Council's contention that works carried out on the Site by the Subdividing Parties during the course of development of the Site, created atypical⁶ conditions influencing vegetation growth so that the assessment of pasture contained in the November report was not accurate. In determining whether or not that was the case we will discuss the following matters further in this decision:

- Relevant provisions of RMA;
- The pasture/improved pasture exclusion provisions and other relevant provisions of pNRP and NPS-FM;
- Onus;
- Order of Consideration;
- Application of the pasture/improved pasture exclusion provisions;
- Wetland delineation issues.

RMA

[34] The following provisions of RMA are relevant to our considerations in this

Not typical, uncommon.

matter:

Section 2 RMA relevantly provides:

Wetland includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.

Section 6(a) RMA relevantly provides:

6 Matters of national importance

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

(a) the preservation of the natural character of ..., wetlands, ... and the protection of them from inappropriate subdivision, use, and development:

It will be noted that the RMA definition of wetland is an inclusive definition which does not preclude refinements of or extensions to the definition being included in planning instruments. The definitions of wetland or natural wetland contained in pNRP and NPS-FM adopt but also extend the RMA definition and, significantly in these proceedings, create various exceptions to those definitions. Section 6(a) is more relevant to our consideration of the second question which we have identified under paragraph [14] (above) but is included for the sake of completeness. It is appropriate for the Court to remind itself when interpreting the instruments we have identified that the preservation of the natural character of wetlands and their protection from inappropriate subdivision, use and development are matters of national importance and the instruments should be interpreted accordingly to achieve that end.

The Pasture/Improved Pasture Exclusion Provisions and Other Relevant Provisions of pNRP and NPS-FM.

The notified version of pNRP

[35] The pNRP was publicly notified on 31 July 2015. The following definitions are relevant:

f	
Natural wetland	Is a permanently or intermittently wet area, shallow water and land water margin that supports a natural ecosystem of plants and animals that are adapted to wet conditions, including in the beds of lakes and rivers, the coastal marine area (e.g. saltmarsh), and groundwater-fed wetlands (e.g. springs). Natural wetlands do not include: (a) damp gully heads, or wetted pasture, or pasture with patches of rushes, or (b) [not relevant] See also significant natural wetland and outstanding
	natural wetland
	'Wetland' has the same meaning as in the RMA.
Outstanding	Outstanding natural wetlands are identified in Schedule
natural wetland	A3 (outstanding wetlands).
Significant	A natural wetland that meets one or more of criteria (a)
	A natural wetland that meets one or more of criteria (a)
natural wetland	to (d) listed in Policy 23 of the Regional Policy Statement
	2013 being: representativeness; rarity; diversity; ecological
	context. Identified significant natural wetland s greater
	than 0.1ha from which livestock should be excluded under
	Rule R98 are listed in Schedule F3 (significant wetlands).
Vegetation	The clearance or destruction of woody vegetation (exotic
clearance	or native) by mechanical or chemical means, including
	felling vegetation, spraying of vegetation by hand or aerial
	means, hand clearance, and the burning of vegetation.
Wetland	[not separately defined – see definition of natural wetland above]

Of primary significance to our considerations is exclusion (a) contained in the natural wetland definition which excludes "... wetted pasture, or pasture with patches of rushes ..." from that definition. The effect of the exclusion is that even if an area otherwise meets the definition of a natural wetland, if that area constitutes wetted pasture or pasture with patches of rushes it is nevertheless excluded from the natural wetland classification. Dr Crisp agreed with the Court's analysis in that regard.⁷ This is what we refer to as the pasture exclusion provision.

[36] The notified pNRP contains the following relevant rules:

Rule R107: Activities in natural wetlands and significant natural wetlands – discretionary activity

The following activities in a natural wetland or significant natural wetland except for those stipulated in and carried out in accordance with a restoration management plan under Rule R106:

- (a) the placement of new structures with a footprint of 10m² or greater for the purpose of hunting and recreation (including maimai and jetties), and all other structures,
- (b) the discharge of water or contaminants not permitted by Rule R42,
- (c) the clearance of indigenous wetland vegetation, (excluding the removal of pest plants under Rule R105),
- (d) activities not meeting the conditions of Rules R104 or R105,

including any associated:

- (e) disturbance of a river or lake bed, or foreshore or seabed that forms part of a natural wetland, and
- (f) deposition in, on, or under a river or lake bed, or foreshore or seabed that forms part of a natural wetland, and
- (g) damage to a part of the foreshore or seabed that forms part of a natural wetland, and

⁷ NOE page 366.

- (h) diversion of water, and
- (i) discharge of sediment to water

are discretionary activities.

Rule R108: Activities in natural wetlands and significant natural wetlands – non-complying activity

The following activities, in a natural wetland or significant natural wetland except for those stipulated in and carried out in accordance with a restoration management plan under Rule R106:

- (a) take, use, damming or diverting water into, within, or from the **natural** wetland,
- (b) land disturbance including excavation and deposition,
- (c) reclamation (including drainage or diverting of water to an extent that the area affected ceases to have the characteristics of a **natural wetland**),

including any associated:

- (d) disturbance of a river or lake bed, or foreshore or seabed that forms part of a natural wetland, and
- (e) deposition in, on, or under a river or lake bed, or foreshore or seabed that forms part of a natural wetland, and
- (f) damage to a part of the foreshore or seabed that forms part of a **natural** wetland, and
- (g) diversion of water, and
- (h) discharge of sediment to water

are non-complying activities.

Rule R121: Maintenance of drains – permitted activity

The removal of vegetation or bed material and associated sediment from any farm drain, or any highly modified river or stream, including any associated:

- (a) disturbance of the drain bed, and
- (b) deposition on the drain bed, and
- (c) diversion of water in the drain, and

(d) discharge of sediment to water

is a permitted activity, provided the following conditions are met:

- (e) the activity shall comply with the beds of lakes and rivers general conditions specified above in Section 5.5.4, except condition (g) (sediment condition), with all reference to a river or lake being read to also include artificial farm drainage canal, and
- (f) any works to alter the depth or width of a **drain** shall not excavate any deeper or wider than the original grade or cross section of the **drain** channel, unless the widening or deepening is for the purpose of constructing a sediment retention trap, and
- (g) if mechanically clearing aquatic vegetation, the machinery must use a weed bucket with a curved flat base, and a slatted back that permits the easy drainage of water and fish back into the **drain**, and
- (h) any fish (except identified pest species) and koura removed from the drain during maintenance works shall be returned to the drain as soon as practicable, and no later than one hour after removal from the drain, and
- (i) any sediment or bed material removed from the drain be placed and spread on adjoining land in such a way that it cannot slump and be washed back into the drains, or other water bodies, including wetlands, and
- (j) two years after the date of public notification of the Proposed Natural Resources Plan (31.07.2015), where the activity involves the mechanical clearance of a **drain**, either:
 - (i) only one side of the drain shall be cleared at any one time, and the other side of the drain may only be cleared three months following completion of the initial works, or
 - (ii) only the middle of the **drain** shall be cleared, and an uncleared margin of at least 30% of the width of the **drain**, but no less than 0.3m, shall be left uncleared on each side of the **drain**, and
- (k) where the activity involves the mechanical clearance of a **drain**, the activity shall commence at the most upstream point of the length of **drain** to be cleared and move downstream, and

(l) any maintenance works in the bed of a **drain** shall not remove any woody debris with a diameter greater than 0.2m from the **drain** unless it is causing, or has the potential to cause a flood or erosion threat, or a threat to infrastructure.

Note

The application of agrichemicals over surface water bodies or over lake or river beds is covered in Section 51.13.

Rule R129: All other activities in river and lake beds – discretionary activity

All other activities, except for damming and diverting of water, in river and lake beds that is not permitted or restricted discretionary by Rule R112 to Rule R125 is a discretionary activity except for those activities that are non-complying or prohibited under Rule R126, Rule R127 or Rule R128.

(original emphasis)

Decisions version of pNRP

[37] Decisions on the pNRP were notified on 31 July 2019. Numerous changes were made to the notified version, however we do not believe that any of the changes made affect our considerations in these proceedings in any way. In particular we record that the relevant provisions of the pasture exclusion provision contained in the notified version were retained.

NPS-FM

[38] Clause 3.21 of the NPS-FM relevantly provides:

3.21 Definitions relating to wetlands and rivers

(1) In clauses 3.21 to 3.24:

improved pasture means an area of land where exotic pasture species have been deliberately sown or maintained for the purpose of pasture production, and species composition and growth has been modified and is being managed for livestock grazing

natural wetland means a wetland (as defined in the Act) that is not:

(a) a wetland constructed by artificial means (unless it was constructed to offset impacts on, or restore, an existing or former natural wetland); or

- (b) a geothermal wetland; or
- (c) any area of improved pasture that, at the commencement date, is dominated by (that is more than 50% of) exotic pasture species and is subject to temporary rain-derived water pooling

Of particular significance to our considerations is paragraph (c) of the definition of natural wetland which excludes from that definition "... any area of improved pasture that, at the commencement date, is dominated by (that is more than 50 % of) exotic pasture species and is subject to temporary rain-derived water pooling". As with exclusion (a) of the pNRP definition, the effect of the exclusion in NPS-FM is that even if a given area otherwise meets the definition of a natural wetland, if that area comprises improved pasture dominated (more than 50%) by exotic pasture species and is subject to temporary rain- derived water pooling it is excluded from the natural wetland classification. This is what we refer to as the improved pasture exclusion provision. We jointly refer to the exclusion provisions in pNRP and NPS-FM as the pasture/improved pasture exclusion provisions. Unlike pNRP which does not contain a definition of wetted pasture or pasture with patches of rushes, NPS-FM contains a definition of improved pasture and a "bright line test" for when exotic pasture is the dominant species (more than 50%).

[39] The Regional Council referred us to the Ministry for the Environment's September 2021 Guidance document titled "Defining 'natural wetlands' and 'natural inland wetlands'". The Regional Council particularly referred to the following quotes:

Areas with some wetland characteristics (except for current wetland hydrology), that are within areas of improved pasture that were being actively managed as improved pasture at the commencement date of the NPS-FM are excluded from the definition of a 'natural wetland'. These areas have been so heavily modified for pasture grazing, for example, through extensive historical drainage, that they should not be captured by strict rules of the Freshwater NES and Stock Exclusion regulations or the NPS-FM natural wetland policies.

Defining 'natural wetlands' and 'natural inland wetlands': Guidance to support the interpretation of the National Policy Statement for Freshwater Management 2020 and the Resource Management (National Environmental Standards for Freshwater) Regulations 2020.

To be excluded from the definition of a 'natural wetland', the area must also have ground cover of more than 50 per cent exotic pasture species, and the presence of temporary rain-derived pooling (defined below as the absence of wetland hydrology).

In practice, this means the NPS-FM and Freshwater NES will not apply to many areas with some wetland characteristics (except for current wetland hydrology) in landscapes modified for pasture grazing...

(emphasis added by the Regional Council in its submissions)9

Temporary rain derived pooling is any visible water pooling that does not meet the standard for wetland hydrology as defined by the hydrology tool.¹⁰

If a wetland has permanent wetland hydrology (as defined by the hydrology tool) it is considered a 'natural wetland', and temporary rain derived pooling is irrelevant.¹¹

[The temporary rain-derived pooling requirement for the improved pasture exclusion was] originally included in the definition to ensure that areas of pasture that [were] temporarily wet due to rainfall were excluded from consideration as a 'natural wetland' and could be distinguished from areas with true wetland hydrology. This was in the absence of a New Zealand tool to assess wetland hydrology. ¹²

The definition of 'natural wetland' does not exclude areas with wetland characteristics where some exotic pasture species have self-established and there has been no management for livestock grazing. The definition can only apply to improved pasture areas that were being actively managed for livestock grazing and exotic pasture production at the commencement date of the NPS-FM.¹³

Although this is a guidance document only, does not have binding statutory effect and post-dates the City Council's subdivision approval, it is clear that the Ministry for the

Regional Council closing submissions at [206], quoting from Definition Guidance document at Section 8.1.

Regional Council closing submissions at [207], quoting from Definition Guidance document at Section 8.2.

Regional Council closing submissions at [207], quoting from Definition Guidance document at Section 8.2.

Regional Council closing submissions at [208], quoting from Definition Guidance document at Section 8.2.

Regional Council closing submissions at [209], quoting from Definition Guidance document at Section 8.4.

Environment's view is that the definition of natural wetlands in NPS-FM was intended to exclude areas which had been heavily modified for pasture grazing by extensive historical drainage (for example) as the Site indisputably had been. The contents of the penultimate paragraph about areas of "true wetland hydrology" were the subject of some debate in these proceedings and we will consider that matter further in due course. The Guidance also contains a purported definition of the meaning of temporary rain-derived water pooling, namely that that expression means the absence of wetland hydrology. We will return to that definition later in this decision.

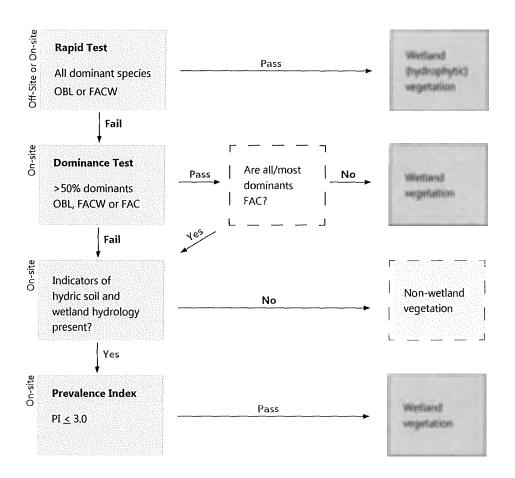
[40] The Regional Council also referred us to the Ministry for the Environment's 2020 "Wetland delineation protocols" and quoted the Wetland Delineation Procedure contained in the protocols:

Wetland Delineation Procedure

- 1. Determine the project area (the putative wetland).
- 2. Decide if 'normal circumstances' are present, ie, typical climatic/hydrologic conditions, and no recent disturbances or modifications to the project area. If yes, proceed to step 3. If no, proceed to step 7.
- 3. Identify and map the major vegetation types using aerial photographs, maps, contours, inventory reports, other data, and, if necessary, on-site field verification.
- 4. *Off-site methods* to identify wetland presence and sketch approximate boundaries. Wetlands may be confirmed without an on-site inspection depending on:
 - i the amount and quality of data (vegetation, soils, hydrology, topography)
 - ii wetland ecological expertise to interpret the data.
- 5. *On-site methods* to delineate wetland presence and accurate boundaries:
 - i for small areas (≤2 ha), establish a representative plot in each major vegetation type and record the plot vegetation in three strata: tree, sapling/shrub, herb

- ii for larger areas, establish representative plots along transects (as per Clarkson 2014) and sample the vegetation in three strata: tree, sapling/shrub, herb.
- 6. Hydrophytic vegetation determination. Based on the data you have gathered, conduct a hydrophytic vegetation determination using the following flow chart (figure 1). Wetland indicator status ratings for species are in Clarkson et al. 2013 and subsequent updates.

Figure 1: Flow chart of steps for hydrophytic (wetland) vegetation determination. Wetland indicator status abbreviations: FAC= facultative; FACW = facultative wetland; OBL = obligate wetland.



7. The above procedure will be used in the vast majority of wetland delineations. However, recent disturbance or abnormal environmental conditions may result in atypical or problematic wetland situations in which one or more of the three criteria (vegetation, hydrology, soils) is/are absent. In these cases, more information and quantitative data will be required and the US procedures for

these situations are recommended (sections E-G in Environment Laboratory 1987, and subsequent updates).

[41] We understand that this document has been incorporated by reference into NPS-FM.¹⁴ Similar to the Guidance document previously referred to, the procedure also post-dates the City Council's subdivision approval but we include it here as it refers to the "normal circumstances" situation which lies at the heart of the Regional Council's contention about atypical conditions¹⁵ and contains a methodology for wetland assessment which the Regional Council contends should have been undertaken once it was apparent that there were atypical circumstances. We will return to those matters in due course but observe at this point that the protocol contains a procedure to delineate wetlands not to determine whether or not the improved pasture exclusion applies. The protocol also contains reference to US procedures for undertaking wetland assessments which were the subject of evidence and which we will again return to in due course.

The Upper Hutt City District Plan

[42] The relevant zones for the purposes of the 28 February 2020 resource consent are the Rural Lifestyle and Rural Valley floor zones. "Farming activities" are permitted, 16 and "farming activity" is defined as:17

an activity with the primary purpose of commercially producing livestock or vegetative matter. It includes horticulture but does not include forestry, veterinary hospitals, boarding kennels, catteries, aviaries or farm products processing industries. It also includes the sale of goods produced on the site, except where sale takes place via access to a State Highway.

NPS-FM, cl 1.8 (www.mfe.govt.nz/fresh-water/npsfm/documents-incorporated-by-reference).

¹⁵ See para [33] (above).

Upper Hutt Operative District Plan – 2004, Rule 19.2.

City Council closing submissions at [76], Upper Hutt Operative District Plan – 2004, Section 3.1.

Onus

[43] The onus of establishing the factual basis for making enforcement orders in these proceedings lies with the Regional Council to the balance of probabilities standard. For the purpose of this first stage inquiry that requires the Regional Council to establish on the balance of probabilities that it has correctly identified the extent of delineated natural wetlands in Appendix 2. That straightforward proposition is complicated by the existence of the pasture/improved pasture exclusion provisions of pNRP and NPS-FM which create exceptions to the defined meaning of natural wetlands. As we have noted, the effect of the pasture/improved pasture exclusion provisions is that even if an identified wetland area otherwise meets the natural wetland definitions in those documents it nevertheless does not constitute natural wetland if it is wetted pasture or pasture with rushes (pNRP) or alternatively improved pasture containing at least 50% exotic pasture species and being subject to temporary rain-derived water pooling (NPS-FM).

[44] In determining whether the pasture/improved pasture exclusion provisions apply in this case we have adopted the approach to exception/exclusion type provisions applied by Whata J in Saddle Views Estate Ltd v Dunedin City Council¹⁸ (which related to proof of existing use rights - we acknowledge that Whata J said that the decision was context specific but nevertheless consider that a similar approach should apply). We consider that in the first instance there is an evidential burden on the Respondents to place sufficient probative evidence before the Court to raise the reasonable possibility that the pasture/improved pasture exclusion provisions apply. If there is probative evidence of this kind then it is incumbent on the Regional Council to negate that proposition on the balance of probabilities. The November report certainly raises the reasonable possibility that the respective exclusion provisions apply thereby placing an onus on the Regional Council to establish that they do not, to the required standard. We will return to this matter in our assessment of that particular issue and will make specific findings as to the standard of proof which has been met by the respective parties.

Saddle Views Estate Ltd v Dunedin City Council [2014] NZHC 2897.

Order of Consideration

[45] The next matter is the order in which we ought to determine the questions set out in paragraph [15] (above). In its closing submissions the Regional Council contended that the question of whether or not the Site constituted a natural wetland under either pNRP or NPS-FM should be determined first with the question of whether or not the pasture/improved pasture exclusion provisions applied, determined second. We struggled to understand why there should be any debate on this topic but we address it in light of the apparent significance attached to it by the Regional Council.

[46] We return to the observations which we made previously regarding the pasture/improved pasture exclusion provisions, namely that the effect of these provisions is that even if it is established that a particular area would otherwise be a natural wetland, nevertheless, if that area constitutes pasture or improved pasture in the terms defined it is excluded from the natural wetland classifications in pNRP or NPS-FM. In applying the pasture/improved pasture exclusion provisions it may accordingly be assumed that an area under consideration might otherwise be a natural wetland but the question must be asked, even if that is the case, do the pasture/improved pasture exclusion provisions apply? If they do apply then there is no need to take the step of determining whether or not the area in question is actually a natural wetland. If the exclusion provisions do not apply, then it is necessary to make that determination.

[47] Nothing in the various documents which we saw obliges a local authority or the Court to approach these issues in any particular order. In our view it is a matter for determination in each instance. In this instance the known long history of use of the Site for pastoral farming and the contents of the November report put the issue as to whether or not the areas delineated by the Regional Council as natural wetlands constitute pasture or improved pasture front and centre from the outset. For that reason we intend to proceed on the basis of determining whether or not the pasture/improved pasture exclusion provisions apply in the first instance, implicitly

At [170] – [179].

accepting the possibility that the delineated natural wetland areas might in fact otherwise constitute natural wetlands.

[48] We note that approach is consistent with the approach adopted by the Regional Council itself as set out in a natural wetland test flowchart which was provided to the Court as Exhibit 1. The flowchart advises interested parties how to identify a natural wetland managed by the rules in the pNRP and was available on the Regional Council's website as at the date of our hearing. The starting point of the flowchart is determination as to whether the area in contention is larger than 3 m in diameter or a cluster of wetland patches. That is certainly the case here where the delineated natural wetland area identified by the Regional Council contains some 15 ha. The next point for consideration according to the flowchart is the following:

Does the site have less than or equal to 50% pasture species cover?

You may have a wetland, but it may meet a PNRP* pasture exception

To receive help, contact a specialist or GW trained employee who will complete a **Pasture Assessment** to determine if the site meets one of the exceptions by assessing the percentage cover of pasture species.

- [49] Exhibit 1 was put to Mr Spearpoint in cross-examination by Mr Iorns. Mr Spearpoint acknowledged that he was familiar with Exhibit 1. He was asked the following questions:²⁰
 - Q. And the first step in could it be a natural wetland is to first look at pasture exclusion, isn't it?
 - A. Yes.
 - Q. And if it has more than 50% pasture species cover this is not a natural wetland, is it?
 - A. Yes.
 - Q. You accept that proposition?
 - A. Yep.

The approach which the Court intends to take in assessing these matters is to firstly

NOE page 180.

determine whether or not the areas of the Site in contention (areas 1, 2 and 3) fit within the pasture/improved pasture exclusion provisions. If they do that effectively determines the matter. That approach is consistent with the contents of Exhibit 1 and the direct evidence of Mr Spearpoint on this issue.

[50] The issue as to the order of consideration evidently arose in the minds of Regional Council or its counsel on the basis of a view expressed by Dr B R Clarkson (an expert witness on plant ecology called by the Regional Council) in her response affidavit that ... "in my opinion, using the pasture exclusion component to override the requirement to test for the presence of natural wetlands is incorrect. This also aligns with my interpretation of the MfE Guidance document on defining natural wetlands". Counsel for the Regional Council contended that considering the pasture issue first on the basis of vegetation put ... "a primacy on pasture exclusion ...". 22 We disagree with those contentions. There is no primacy at all given to the pasture exclusion test nor does it override or undermine the suite of protocols for identifying natural wetlands contained in the Ministry for the Environment (MfE) Guidance document as also contended by counsel for the Regional Council. We observe again that the Guidance document post-dated the City Council's consideration of the subdivision approval in any event.)

- [51] Counsel put the "overriding and undermining" proposition to Dr V F Keesing (an ecologist who gave evidence on behalf of the City Council). Dr Keesing was asked by counsel for the Regional Council if he agreed to the overriding and undermining proposition. He answered in these terms:
 - A. No, no I don't, I think that's exactly what they were for, to make sure that we didn't go down the rabbit hole of trying to figure out whether something was or was not a natural wetland when it was excluded because it is something else, being used for something else. It might still be (inaudible 12:11:11) wetland but we've accepted that, it can also be pasture and used for pasture.

Clarkson's reply affidavit at [9] and NOE page 521.

²² NOE page 521.

²³ NOE page 521.

[52] We concur with Dr Keesing's response. We consider that the Regional Council has confused two separate matters, firstly identification of pasture for the purposes of application of the pasture/improved pasture exclusion provisions and secondly the tests for determining whether or not natural wetlands are present. It is not a question of the pasture/improved pasture exclusion provisions having "primacy". Rather, as we have noted on any number of occasions, even if an area under consideration constitutes natural wetlands, if that area comprises wetted pasture, pasture with rushes or 50% exotic pasture, it is excluded from the natural wetland identification under pNRP and NPS-FM. That is not a matter of primacy but rather a matter of applying the exclusions contained in the two documents.

[53] For the sake of completeness, having determined whether or not the pasture/improved pasture exclusion provisions apply we will then go on to consider whether or not the Regional Council has established on the balance of probabilities that the delineated natural wetland areas do in fact constitute natural wetlands in any event. Ultimately we do not think that anything turns on the order in which we approach these issues.

The Pasture/Improved Pasture Exclusion Provisions and their application

[54] We will consider this issue firstly looking at the provisions of pNRP and then the relevant provisions of NPS-FM, referring to the definitions set out in pNRP²⁴ and NPS-FM²⁵.

The Pasture Exclusion Provisions of pNRP

[55] Neither the notified nor the decisions versions of pNRP contain any definition as to what constituted wetted pasture or pasture with patches of rushes. The word "pasture" itself is not defined in pNRP. We accept Dr Keesing's evidence that "… a pasture is a place – usually, fields deliberately sown or maintained – for growing plants on which to graze animals".²⁶ It was Dr van Meeuwen-Dijkgraaf's evidence that ascertaining what fell within these descriptions was a matter of some debate at

²⁴ Para [35] (above).

²⁵ Para [38] (above).

Affidavit dated 14 September 2021 at [30].

the Regional Council when she was preparing the July report. That debate had been resolved by the time she prepared the November report.

[56] The November report contains the following statement:

On 5 September 2019, GWRC arrived at a decision as to how to distinguish wetted pasture with rushes from wetland.

"Pasture has been defined in many ways in different dictionaries; however the overall emphasis is on plants that are grown for grazing animals i.e. the purpose of the grazing land is that it is managed for the production of livestock through the provision of forage plants grown for that purpose. This is a useful distinction as the New Zealand Grassland Association provides us with a list of the commercially available plants used in cultivation (Stewart *et al* 2014) that can be used to define the presence of pasture." And "So, 50% or more of the aerial cover should be dominated by these defined pasture species for a site to be labelled as pasture."

Thus where a wetland delineation plot meets either the Dominance Test or the Prevalence Index test then the vegetation within the plot should be assessed for dominance by pasture species. Where the pasture species exceed 50% of the relative cover then that area will be considered to be wetted pasture (with or without rushes).

(footnote omitted)

- [57] There is an obvious legal issue in the Regional Council purporting to import a binding "pasture" test into pNRP by fiat without undertaking Schedule 1 processes. Setting that issue to one side, in reaching her conclusions as to whether or not areas 1, 2 and 3 identified in the November report constituted natural wetlands as defined in pNRP Dr van Meeuwen-Dijkgraaf applied the pasture exclusion test which the Regional Council advised her was appropriate, namely exceedance of 50% relative cover. We observe that as a matter of certainty the 50% relative cover test has obvious attractions and some similarities with the bright line improved pasture exclusion provision contained in the NPS-FM.
- [58] Notwithstanding that Dr van Meeuwen-Dijkgraaf used the Regional Council's recommended relative cover test and undertook an assessment of 36 vegetation plots

in reaching the conclusions which she did as to areas 1, 2 and 3, the Regional Council contends that her identification of natural wetlands in the November report using the pasture exclusion provision is materially inaccurate. It says that the true extent of natural wetlands on the Site is shown in the natural wetlands delineation contained in Appendix 2 to this decision.

[59] The Regional Council's contention is not based on any vegetation plot investigation which it had undertaken providing a contrary analysis to Dr van Meeuwen-Dijkgraaf. The only plot analysis undertaken by the Regional Council was Mr Spearpoint's three plots over a very limited area. Mr Spearpoint acknowledged in cross-examination that he did not challenge the accuracy of Dr van Meeuwen-Dijkgraaf's assessment as to the vegetative cover of areas 1, 2 and 3. Rather, it was Mr Spearpoint's (and the Regional Council's) contention that vegetative cover on the Site had been materially affected by works undertaken by the Subdividing Parties so as to create an atypical situation on the Site where the vegetative cover assessed by Dr van Meeuwen-Dijkgraaf was not representative of the typical vegetation situation and accordingly should not be used to determine whether or not the pasture exclusion provisions applied to the Site.

[60] The basis on which the Council contended that the November report was inaccurate was set out in some detail in a Regional Council memorandum of 29 November 2019 from Dr Crisp and Mr Spearpoint to Mr Curnow.²⁷ The memorandum referred to mechanical vegetation clearance, drain clearance and the creation of new drains in wetlands. We understand these to be only some of the works identified during the April 2019 visit of Regional Council officers to the Site.

[61] The works which initially drew the Regional Council officers' attention were vegetation clearance (tree removal) on the hillslopes together with earthworks to set up a skid site, tracking on the hillslopes, installation of culverts and various other works primarily situated on or near the haul road and the interface between the hillslopes and the flatter land on the Site. Some of these works were allegedly undertaken within or in close proximity to areas Y and Z. None of the evidence which

Attachment PC2 to Crisp affidavit dated 13 May 2021.

we saw suggested that these alleged works had any impact at all on the vegetative cover of the area where the Regional Council's delineated natural wetland is supposedly situated.

[62] The area giving rise to the Regional Council's atypical contention was Dr van Meeuwen-Dijkgraaf's area 3 (or part of it) which was allegedly affected by "vegetation clearance" and drainage works described in these terms in Dr Crisp's Attachment PC2:

Wildlands noted the impacts of the mechanical clearance and ground disturbance on the vegetation, as did Owen Spearpoint who also noted and took photos of the damage to the native rush vegetation during a site visit in 4 April 2019.

It appears that the mechanical vegetation clearance which includes mowing and ripping of pasture to an unknown depth probably occurred between 21 March and 4 April 2019. This would have dried out the surface and promoted the grass growth, as well as causing damage to the native plant species present. Evidence of this damage was still present during the Wildlands wetland assessments. All the plots surveyed in the rushy paddocks in May, and 14 of the 18 plots surveyed in October had 10 - 30 % cover of dead plant material or bare ground. These results contrast with the low cover of pasture in the undisturbed wetland delineated plots established during the wildlands surveys. An assessment of the extent of wetland area in the paddocks to the west of Black Creek was completed by Owen Spearpoint on 4 April 2019. At the time of that assessment, Owen also identified wetland areas in the paddocks to the south-east of Black Creek Plots 1 and 2). His plot records also show a much greater plant species richness than the later Wildlands assessments. These wetlands when later surveyed, were listed in the Wildlands report as meeting the pasture exclusion, due to the dominant presence of Yorkshire fog (a pasture grass in theplots).

The Wildlands report only assesses the need for remediation, mitigation or offsetting based on the wetland delineations as assessed in October. The results of those delineations however have been affected by the impacts of the mechanical vegetation clearance and disturbance. The Clarkson method states that if illegal clearance has occurred, soils and hydrology should be used to determine if the site was wetland. Wildlands did assess the soils and all but one of the sites were determined to be wetland. The reason why plots assessed in

October 2019 were recorded as being wetted pasture rather than wetland is mainly because the grass has out-competed the slower-growing vegetation during the spring flush, but also because grazing during winter by sheep and cattle would have impacted regrowth. Wildlands also noted in their report that "it is likely that this vegetation will be increasingly dominated by wetland vegetation if grazing and pasture management were to cease." (see page 35 final bullet point). Aerial photos taken on 21 March 2019 clearly show the presence of rush vegetation in the north-western paddocks, and in the northern-most paddock to the south-east of Black Creek.

The rushes can no longer be seen in Photo 3 following the impacts of the mechanical clearance on the native vegetation.

We consider that 6ha of wetland has been disturbed by the activities undertaken by the developer creating an abnormal situation in the state of the wetland vegetation. This has resulted in these wetlands not being recognised in the report. This is in addition to the impacts of the drain clearance, and the damage to the manuka-Machaerina rubiginosa-Carex geminata vegetation further up the slope as assessed in the Wildlands report. As such the degree of remediation, mitigation or offsetting that would be required as made by Wildlands is underestimated in our opinion.

(photos omitted)

- [63] PC2 and the Regional Council's submissions raise two issues:
 - Firstly, what was the extent of the works allegedly undertaken by the Subdividing Parties?
 - Secondly, did the works allegedly undertaken by the Subdividing Parties actually create an atypical (abnormal) situation in areas 1, 2 and 3 so as to give rise to material inaccuracies in the November report?
- [64] The activities allegedly undertaken by the Subdividing Parties in the 6 ha area identified by Mr Spearpoint which formed the basis of the allegation made by the Regional Council as to activities creating an atypical situation fall into three categories:
 - Mechanical vegetation clearance;
 - Clearance and deepening of drains and installation of new drains;

Ripping of soil.

[65] The first contended activity was commonly referred to in the evidence of Regional Council witnesses and its counsel's submissions as "mechanical vegetation clearance". What this activity transpired to be was the mowing of vegetation in the paddocks on the Site. The mown vegetation was a mixture of pasture and rushes. It is evident that in a number of instances this work was undertaken for the purpose of making hay with a number of the photographs provided by Regional Council officers (post 28 February 2020) showing hay bales present in the paddocks where the activity had been undertaken.

[66] As we have noted previously²⁸ vegetation clearance is relevantly defined in these terms in pNRP ... "the clearance or destruction of woody vegetation (exotic or native) by mechanical or chemical means including felling vegetation, spraying of vegetation by hand or aerial means, hand clearance and the burning of vegetation". Pasture grass is not woody vegetation and rushes are monocotyledons (species which include grasses, sedges and rushes), not woody vegetation. Further to that we understand the term "clearance" to mean complete removal or close to it.²⁹ We consider that describing the mowing or topping of pasture and rushes as mechanical vegetation clearance is substantially incorrect in terms of the pNRP definition. We were surprised to see that term used by Regional Council officers who might reasonably be expected to understand the definitions contained in their own Regional Plan.

[67] The second activity of concern to the Regional Council was work done in drains which it contended involved the deepening of existing drains and the digging of new drains. The evidence before the Court was that the Mangaroa swamp had been drained well over 100 years ago, that Black Creek was the main drain running through the Site (and the Valley itself) and that an extensive system of artificial drains had been established in both the wider Whitemans Valley area and on the Site for a

²⁸ Para [35] (above).

Lesley Brown (ed) The New Shorter Oxford English Dictionary (Clarendon Press, Oxford, 1993) at 415 and Elspeth Summers and Andrew Holmes (eds) The Collins English Dictionary and Thesaurus (HarperCollins, Glasgow, 2006) at 212.

similar period of time. The Regional Council gave no evidence at all as to the extent or condition of drains on the Site prior to the visit of its officers in April 2019 nor what the initial depth of those drains had been.

[68] Mr C G Jordan who had owned the Site from 1985 to 2012 testified that drains identified by the Regional Council as new drains existed on the Site prior to him becoming the owner. He said that he regularly cleared the drains on the Site. Mr Jordan's evidence was not challenged by cross-examination in any respect.

[69] Dr J A McConchie (a hydrologist who gave evidence for the First Respondent) testified as to the extensive network of natural and artificial drains across the Site shown on a Lidar image of 2013. Dr McConchie had prepared a document entitled Whiteman's Valley: Definition of drainage lines for the City Council in February 2020 so was familiar with drainage patterns in the Valley generally. He undertook an inspection of the Site for the purpose of giving evidence at our hearing. Dr McConchie testified that a drain identified by Dr van Meeuwen-Dijkgraaf as a new drain existed in 2013 and that what the Regional Council officers contended were new drains would have had no effect whatever on the hydrology of the Site.

[70] Dr C W Ross (a retired soil, agricultural and environmental scientist) also gave evidence on behalf of the First Respondent. He is a pedologist, specialising in soil physics, land restoration and rehabilitation. He has been involved in scientific research in New Zealand (extensively), Australia, USA and Great Britain for nearly fifty years. He saw no evidence that there were new drains on the Site.³⁰

[71] The maintenance of drains involving the removal of vegetation or bed material and associated sediment is a permitted activity under Rule R121 of the pNRP subject to compliance with a range of conditions (e)-(l). Dr Crisp claimed that conditions had been breached but none of the Regional Council officers who actually attended the Site made that claim in their evidence. Messrs Curnow and McAlister both said that drain clearances which had been undertaken at the time of their second visit to the Site (19 September 2019) appeared to be in compliance with permitted activity rules.

Affidavit dated 22 October 2021 at [11].

[72] None of the evidence produced by the Regional Council established that works undertaken by the Subdividing Owners involved the deepening of drains beyond their initial depth once vegetation and sediment were removed, as allowed by Rule R121. The Regional Council failed to establish on the balance of probabilities that new drains were established. It did not challenge Mr Jordan's evidence that the drains on the Site existed before he became the owner, nor Dr Ross's evidence that there were no new drains on the property, nor Dr McConchie's evidence that what the Regional Council contended were new drains (which we do not accept) had no effect on the hydrology of the Site.

[73] Ripping is a process using tines to break up soil pans, thereby improving soil structure, drainage and aeration. The process does not clear the vegetative cover which grows again (to the extent that it has been damaged) in due course. The ripping that was of concern to the Regional Council in this instance covered an area of approximately 6 ha³¹ situated at the north-western end of the Site in the vicinity of Black Creek. This ripping was observed by Mr Spearpoint in his visit of April 2019. Mr Spearpoint's evidence included photographs showing the combination of mowing and ripping having taken place what he calculated as being 10 days to a fortnight before the April 2019 visit³².

[74] That is the extent of the works which the Regional Council contend brought about atypical conditions leading to inaccuracies in the pasture assessment contained in the November report.

[75] Before we consider the issue of whether or not these works actually brought about atypical conditions on the Site we make some brief observations as to the origin of the atypical issue. This issue was discussed in the evidence on behalf of the Regional Council from Dr Clarkson, who was a member of MfE's Science and Technical Advisory Group which provided policy input into NPS-FM. She testified that consistently applying the RMA definition of wetland has been difficult in practice and that a national system for defining wetlands has been required for a long time. The

See PC2 (last para).

³² NOE page 187.

USA has developed such a system which involves methodical assessment of three environmental criteria namely-vegetation, soils and hydrology of areas under investigation. This US methodology has been adapted to New Zealand conditions and is now formally recognised in NPS-FM. In New Zealand it is called the Clarkson Method. Dr Clarkson made it clear that she was not the developer of the method but was involved in its adoption here.

[76] As we understand it the concept of the atypical situation emerged from a US document being the Corps of Engineers Wetlands Delineation Manual ³³ (the Manual) which is used in the wetland identification process in USA. The Manual (inter alia) addresses a situation where vegetation in a potential wetland has been inadvertently or purposefully removed or altered either as a result of natural events or human intervention and sets out a process to try and identify whether hydrophytic vegetation³⁴ previously occurred.

[77] The NPS-FM relies on that document via its "incorporation by reference"³⁵ of the MfE Wetland Delineation Protocol which refers the user³⁶ back to that part of the Manual.

[78] Neither the Manual nor NPS-FM had any legal standing as at the date of City Council approval of the subdivision. However we agree that there is an obvious need to take particular care in undertaking a vegetation assessment in a situation where underlying vegetative conditions have been altered so as to potentially create an atypical vegetative environment. We observe that the Manual sets out a quite complex process to be undertaken in assessing what the pre-existing vegetation of the area in question was in that situation. The Wetland Delineation Procedure refers to the US process.³⁷ It appeared to us that the Regional Council did not turn its mind to this or any other further investigative process in this case. It appears to have dismissed the November report without making any comprehensive further investigations as to

³³ Exhibit 13.

Vegetation which grows in water or needs a waterlogged environment.

³⁵ NPS-FM, cl 1.8.

Section 7.

³⁷ Para [40] (above).

what the vegetative state of the Site was or might have been prior to the alleged vegetation altering works.

[79] We observe that it may come as a surprise to people having any familiarity with farming practices for it to be suggested that the mowing, drain clearance and ripping activities which were of concern to the Regional Council were in some way out of the ordinary in a farming situation and/or might result in atypical outcomes in terms of vegetation on areas 1, 2 and 3.

[80] Dr Keesing observed that it is usual to cultivate fields, mow paddocks and maintain drains for the purposes of managing pasture on farms.³⁸ Mr Spearpoint stated that ... "most farmers would rip and mow every two years or so"³⁹ and acknowledged in cross-examination that ... "in the farming situation of course farmers are entitled to rip and plough and dig their drains". He also acknowledged in cross examination that mowing "... fits the normal condition" in the Clarkson and US methodologies.⁴⁰ The Site has been used for normal farming practices for many years. Mr Jordan testified that he had farmed the Site over the 27 years of his ownership and had up to 70 cattle grazing there.

[81] We did not understand there to be any serious dispute that the activities giving rise to the Regional Council's concern are activities routinely undertaken in the course of farming practice. How might it be contended that these activities were in some way atypical and/or alternatively resulted in an atypical situation on the Site?

[82] The heart of the Regional Council's case in that regard lies in the proposition that because the activities complained of were undertaken by the Subdividing Parties as part of preparation of the property for sale rather than farmers undertaking farming activities, the effect of the activities was the creation of an atypical state of affairs. Even if it was accepted by the Court that a subdivider was not entitled to undertake typical farming practices which have been undertaken on the Site (likely for 100 years or more) to manage the property in good pastoral condition for sale because the

Keesing affidavit dated 14 September 2021 at [157].

NOE page 243. (He subsequently caveated the ripping proposition.)

⁴⁰ NOE page 237.

subdivider is not a farmer (and we do not accept that proposition), the Regional Council failed to explain how the effects of the works allegedly undertaken by the Subdividing Parties were different to the effects of such works being undertaken by farmers who Mr Spearpoint accepted were "entitled" to undertake such works.

- [83] Although not directly on the point, we refer to the provisions of s 10(1)(a)(ii) and (b)(ii) RMA which make it clear that the matter at issue in existing use assessments (as the Regional Council thought this was) is the effects of land uses, not who might be undertaking those uses. We ask how can it be that the effects of mowing, drain clearing and ripping undertaken by farmers are accepted by the Regional Council as typical whereas similar effects of the same activities undertaken by a subdivider managing a pastoral property are regarded as atypical?
- [84] In our view the proposition advanced by the Regional Council that effects generated by one party are typical whereas those effects generated by another party are atypical is simply nonsensical. We find that the mowing, drain clearance and ripping activities undertaken by the Subdividing Parties are activities typically undertaken on farms as acknowledged by Mr Spearpoint. Further to that we find that the effects of undertaking these activities would be typical of the effects of undertaking them irrespective of who actually undertook the activities, previous owners, the Subdividing Parties or (possibly in the future) the Land Owning Parties.
- [85] In the event that we might be regarded as wrong in our assessment above, we now turn to consider the issue as to whether or not the mowing, drain clearance and ripping actually created an atypical situation for vegetation in areas 1, 2 and 3 as contended by the Regional Council.
- [86] The delineated natural wetlands area of 15 ha identified by Dr Crisp in Appendix 2 extended from Katherine Mansfield Drive at the south-east of the Site to the toe of the foothills at the north-west. The works which drew the attention of the Regional Council officers who first visited the Site in April were those undertaken largely in and around the toe of the foothills situated at the north-western end of the Site in the vicinity of Black Creek. Mr Spearpoint agreed in questioning from the Court that the area of 6 ha which had been moved and ripped corresponded more or

less to Dr van Meeuwen-Dijkgraaf's area 3.41 On reviewing the evidence and Appendices 2 and 3 we consider that it could be more accurately stated that the 6 ha mowed/ripped area was contained within Dr van Meeuwen-Dijkgraaf's area 3, as it appears to us that area 3 likely extended over a somewhat wider area than just 6 ha.

[87] The Regional Council did not produce any evidence remotely suggesting that the removal of vegetation and sediment from drains lying between Black Creek and the foothills may have in some way created atypical vegetative conditions in areas 1, 2 and 3. To the extent necessary, we refer to Dr McConchie's uncontradicted evidence that none of the drainage works which he saw would have had any effect on hydrology of the Site. The work which it appeared the Regional Council contended generated atypical effects was mowing and ripping identified by Mr Spearpoint in his visit to the Site on 4 April 2019.

[88] As we have noted the 6 ha area of mowing and ripping that was identified by Mr Spearpoint was from the proximity of Black Creek, extending to the base of the hillslopes and contained within Dr van Meeuwen-Dijkgraaf's area 3. Mr Spearpoint produced photographs⁴² showing disturbance of the land in this area from ripping. It was difficult for the Court to understand how the mowing and ripping of an area of 6 ha at one end of the Site could possibly be contended to have affected vegetative cover on the balance of the delineated natural wetlands containing approximately 9 ha (based on Dr Crisp's estimate that the delineated wetland area contained about 15 ha) extending from the vicinity of Black Creek to Katherine Mansfield Drive.

[89] That proposition was the subject of discussion between the Court and Dr van Meeuwen-Dijkgraaf.⁴³ She expressed the view that the works complained of by the Regional Council would have had limited and possibly no effect of any kind on the Site between Black Creek and Katherine Mansfield Drive with the possible exception of a hydrological effect which she "guessed"⁴⁴ might potentially have been caused by deepening of drains. Dr McConchie's expert evidence that the drain works would

⁴¹ NOE page 246.

⁴² OS3, IMG4680 and 4705.

⁴³ NOE pages 165-168.

⁴⁴ NOE page 167.

have had no hydrological effect on the Site contradicted her guess in that regard.

[90] Dr van Meeuwen-Dijkgraaf accepted the proposition that none of the works observed by the Regional Council officers would have any effect whatever on the vegetation cover between Black Creek and Katherine Mansfield Drive. She considered that if there had been ongoing mowing of the land on the Katherine Mansfield side of Black Creek that could have subsequently affected the vegetative cover of the land in that area but that the works observed by Mr Spearpoint on 4 April 2019 would probably have had "very little impact" on the Site between Black Creek and Katherine Mansfield Drive.

[91] Dr van Meeuwen-Dijkgraaf's evidence in this regard was consistent with evidence subsequently given by Mr Spearpoint on this topic. He acknowledged that areas 1 and 2 identified in the November report (both being nearer the Katherine Mansfield Drive end of the Site) constituted pasture as assessed by Dr van Meeuwen-Dijkgraaf. That acknowledgement is directly contrary to the inclusion of parts of areas 1 (about half) and 2 (a sliver) in the Regional Council's delineated natural wetland area advanced by Dr Crisp. In other words the Regional Council's own wetland technician did not think that any parts of areas 1 and 2 should be included in the natural wetland delineation.

[92] Mr Spearpoint did not dispute the accuracy of Dr van Meeuwen-Dijkgraaf's assessment of the vegetation plots in areas 1, 2 or 3. Where he parted company with Dr van Meeuwen-Dijkgraaf was in respect of that 6 ha part of area 3 which had been ripped. Mr Spearpoint contended that ripping may have ... "made a difference in terms of the ripping had broken the plan⁴⁷ or allowed more drainage, and that would favour pasture species and faster growing species, especially Yorkshire fog which is a tall dense grass". There was a period of about four to six weeks between Mr Spearpoint's view of the ripping on 4 April 2019 and Dr van Meeuwen-Dijkgraaf's vegetative assessment in area 3 where her plot 2 was established. This exchange took

⁴⁵ NOE page 167.

⁴⁶ NOE page 246.

This is a transcription error. The word should be "pan". We have noticed other misspellings of technical terms in the transcript and have interpreted them accordingly.

place between Mr Spearpoint and the Court:⁴⁸

- Q. You have told us the ripping did not make any difference to the vegetated cover.
- A. No.
- Q. So, what she would have seen was what she could properly assess, wasn't it, because the ripping had not made any difference?
- A. It had not made it made a difference in terms of the ripping had broken the plan⁴⁹ or allowed more drainage, and that would favour pasture species and faster growing species, especially Yorkshire Fog which is a tall dense grass.
- Q. So, are you telling me that in the space of a month that would have made a significant difference in the vegetated cover?
- A. Around April, if there is an autumn flush it could have.
- Q. So, are you saying that, for example, in plot 2 where there is 85% Cocksfoot and then 5% rush that is wrong? She has got that wrong because of the effect of the ripping?
- A. She has observed the vegetation when she was there.
- Q. A month after you.
- A. Yes.
- Q. And in a situation where you tell us that the ripping had not made any difference to the cover, and you are now telling me that her plot 2 is not right?
- A. No, I'm saying that the vegetation she observed was the result of the regrowth of the grasses, and the lack of regrowth of other species, and that is in part due to the yeah, it's just the regrowth, the natural regrowth of the plants present.
- Q. So, did it or did it not make a difference to the cover?
- A. The ripping at the time I visited had not made a difference to the cover, but it would have influenced the cover from that point on.
- Q. A month later?

⁴⁸ NOE page 245.

This is a transcription error. The word should be "pan".

- A. Possibly.
- Q. And would it have influenced it to a stage where it could not still be described as Cocksfoot dominated? Are you saying it would no longer be it was Cocksfoot dominated because of the effect of the ripping?
- A. The very front paddocks I did not observe ripping. So, where the Cocksfoot was, so it was more the rushy paddocks with the Yorkshire Fog.
- Q. So, which paddocks did you observe the ripping in?
- A. The it's basically the area as outlined as vegetation three in her diagram.
- Q. All right so you agree with Dr van Meeuwen-Dijkgraaf's identification of areas 1 and 2 which is the front paddocks?
- A. Yes, I think there was general consensus and even with Dr Crisp. Sorry half of area 1 and area 2 sorry but I do agree with her vegetation assessments as shown.
- [93] In summary, it was the Regional Council's evidence that the ripping undertaken within area 3 "could have" or would "possibly" have influenced the vegetation in the 6 ha ripped area by promoting the growth of pasture species which would have regrown following the ripping at a more rapid rate than rush species. We understood that it was the ripping rather than the mowing which was the activity in question.
- [94] When all of the evidence is considered, the Regional Council's case in respect of the allegedly atypical situation created by ripping is that the ripping "could have" or "possibly" enabled pasture species to outgrow other vegetative cover in the ripped portion of area 3 during a period of one month to six weeks or so between April and May 2019, thereby creating a higher coverage of pasture species in that area as compared to rushes than would typically be the case. This assessment did not extend to areas 1 and 2 of the November report which Mr Spearpoint agreed met the pasture exclusion provisions of pNRP. Mr Spearpoint's agreement in that regard directly contradicts the identification of the extent of the delineated natural wetland area in

⁵⁰ NOE page 245 line 12.

⁵¹ NOE page 245 line 30.

Appendix 2 which includes parts of the Site extending all the way from the toe of foothills to Katherine Mansfield Drive. That identification cannot credibly be sustained in light of the common views of Dr van Meeuwen-Dijkgraaf and Mr Spearpoint.

[95] Those observations bring us to the question as to whether or not Mr Spearpoint was correct in his assessment of the allegedly atypical effect of approximately 6 ha of ripping contained within area 3. As we noted above, his assessment was that the ripping could have or might possibly have had the effect of enabling pasture species to outgrow wetland species (rushes) in the few weeks between his visit and Dr van Meeuwen-Dijkgraaf's initial assessment, thereby creating the atypical situation contended by the Regional Council. We do not think it is unfair to Mr Spearpoint to describe his views in that regard as tentative and far from satisfying any balance of probabilities test.

[96] When the Court sought to understand why Dr Crisp disputed Mr Spearpoint's views on areas 1 and 2, she said that the reason for that was ... "because the vegetation has been changed". That is simply incorrect insofar as areas 1 and 2 are concerned. The vegetation in areas 1 and 2 had not been changed by ripping. It was 6 ha of area 3 where the ripping had taken place. Mr Spearpoint acknowledged that the delineated natural wetland area is incorrect as it applies to areas 1 and 2.

[97] The other relevant evidence in this regard was given by Dr Keesing. He visited the Site on 27 July 2021 and 16 August 2021, surveying 50 vegetation plots across the flatlands including areas 1, 2 and 3. Because his visits post-dated the City Council approval date of 28 February 2020 it might be considered that they are more directly relevant to the later date under consideration, however Dr Keesing was also questioned about the ripping proposition.

[98] The Court put to Dr Keesing the proposition advanced by Mr Spearpoint that the ripping in area 3 may have had the effect of changing the relative dominance of pasture and other species in the period between Mr Spearpoint's visit and when Dr van Meeuwen-Dijkgraaf undertook her vegetation surveys. Dr Keesing replied in

NOE page 374.

these terms:53

- A. The mowing in and of itself I don't think will have changed the vegetation community substantially. The plants were still there and they got topped. The Juncus will have responded much more slowly than the docks, the buttercups, the Yorkshire fogs and the pasture and pasture community things. They will respond within six weeks back to quite lush fullness. The Juncus will have [been] much slower. There may have been slightly reduced percentages of Juncus in the plots following that, but the community will still be more or less the same. The ripping on the other hand will promote more pasture grasses to be present, because it turns the soil over and it opens up available space for things to colonise and the seed bank and other things are going to be mostly those pastures and those pasture weeds less so the Juncus. So, under ripping you might expect within six weeks to get a better representation of pasture.
- Q. How significant would that be in terms of your assessment?
- A. It depends on where that ripping occurred in terms of whether it was quite densely Juncus or not. So, in some of those areas which were 10% Juncus, 90% Yorkshire Fog it doesn't really make any difference at all, and if you had areas that were 60% Juncus then you might find that they're 30% Juncus now. That kind of magnitude. Sorry, part of the reason for ripping is to enhance the pasture.
- Q. And I think you have said in your observation that is a fairly common farming practice?
- A. Yes.

[99] Dr Keesing's evidence was broadly consistent with Mr Spearpoint's opinion that the ripping could possibly have altered the proportions of pasture and rushes. To determine if that was likely to have happened in fact, we used Dr Keesing's comments to assess how the accuracy of Dr van Meeuwen-Dijkgraaf's plot assessments might have been affected by the ripping operation. We note that the November report involved assessment of 24 vegetation plots surveyed in area 3 in October 2019, along with 12 vegetation plots surveyed in May 2019. Dr van Meeuwen-Dijkgraaf's Table

NOE pages 541-542.

3 shows which vegetation plots she considered wetland and which wetted pasture. Reference to her plot data⁵⁴ shows that in relation to the proportion of rushes present:

- The highest percent cover of *Juncus* in any plot was 30% (including all three species recorded if they were present: *J edgariae*, *J effusus and J sarophorus*);
- Five plots had 10% or more cover of *Juncus* species (15%, 21%, 13%, 30%, 10%);
- Two plots had 6-9% cover of *Juncus* species (6%, 7%);
- 17 plots had 5% or less cover of *Juncus* species.

In relation to pasture cover, 22 wetted pasture plots had more than 70% and two plots had less (57% and 59%). The data support the proposition that overall, the predominant species in the vegetation plots were pasture species, irrespective of the effects of ripping. Following from Dr Keesing's comments, even if the highest percentage cover of *Juncus* had been twice as much prior to ripping (60%) the pasture species would have dominated in almost all of the plots.

[100] We conclude from our analysis that even if the effects of ripping were considered to create an atypical situation in the ripped portion of area 3 (and we do not consider that), the extent of alteration to the relative abundance of pasture to *Juncus* species would not be such as to render inaccurate the finding of the November report that area 3 constituted wetted pasture with rushes.

[101] Taking all of those matters into account we determine that the November report did not contain inaccuracies of the kind contended by the Regional Council. We find that the November report gave an accurate description of the vegetative status of areas 1, 2 and 3 and accurately assessed that they constituted pasture of the various types identified in the report. Insofar as areas 1 and 2 of the November report are concerned that was the agreed position of Dr van Meeuwen-Dijkgraaf and Mr

⁵⁴ Appendix 4, November report.

Spearpoint, witnesses called by the Regional Council. Insofar as area 3 is concerned we have concluded that the activities allegedly undertaken in 6 ha of area 3 by the Subdividing Parties were typical farming activities and that the effects of those activities were typical. In our view the November report is accurate and conclusive in determining the pasture status of the delineated natural wetland areas as at 28 February 2020.

[102] We refer to the issue of onus which we discussed in paragraphs [43]-[44] (above). We advised that we had adopted the reasonable possibility approach applied in *Saddle Views* as being the standard required for the Respondents to establish that the pasture/improved pasture exclusion provisions applied so as to require proof to the contrary on the balance of probabilities from the Regional Council. We observe that the level of proof met by the Respondents in this instance considerably exceeded the reasonable possibility standard and that the Regional Council failed to upset the evidence provided by the Respondents in any material respect. We are satisfied beyond reasonable doubt that areas 1, 2 and 3 met the improved pasture exclusion provision of pNRP at 28 February 2020 and find accordingly.

[103] There is a further matter to which it is appropriate for us to refer as part of these discussions and in the event that we might be considered to be wrong in our findings above. It appeared to the Court that once Regional Council officers made the determination that the November report was inaccurate in its assessment of pasture in the delineated natural wetland area it treated that issue as being at an end. It did not ask the question... If the November report is so inaccurate as to be disregarded, what was the actual pasture situation on the Site prior to 28 February 2020 having regard to all of the other evidence on that subject? Even if the November report was excluded from consideration there was a wide body of other evidence on the pasture situation prior to the ripping which the Regional Council could and should have taken into account before it could conclude that the Site probably did not contain wetted pasture or pasture with patches of rushes.

[104] Our views in that regard are confirmed by the evidence of Dr Clarkson. In paragraphs [14]-[33] of her first affidavit she explained the application of the Clarkson

Methodology to define wetlands.⁵⁵ She identified three tools (methodologies) to be used in that regard:

- Vegetation tool;
- Soils tool;
- Hydrology tool.

We will return to these documents further when looking at the question of whether or not the Regional Council has established on the balance of probabilities that areas 1, 2 and 3 constitute natural wetlands.

[105] Dr Clarkson explained that the vegetation tool employed a systematic approach of identifying and mapping the main vegetation types in a project area and establishing representative plots.⁵⁶ We understand the usual means of doing this is referred to as the Routine Method. Dr Clarkson then commented:⁵⁷

The Routine Method should be used when 'normal' circumstances are present. If atypical situations occur — e.g., abnormal environmental conditions, recent disturbances, or the wetland has been filled, drained or cleared — the Comprehensive Method (Environmental Laboratory 1987) which involves more comprehensive information and data, including information on conditions that existed immediately prior to the disturbance, is more appropriate.

[106] We appreciate that the vegetation tool being talked about by Dr Clarkson is to be applied in delineating wetland but the representative plot process is obviously also appropriate to identify pasture and similar principles should apply (that is what both Drs van Meeuwen-Dijkgraaf and Keesing did). Having rejected the accuracy of the November report on grounds of atypicality, instead of undertaking a comprehensive evaluation as recommended by Dr Clarkson (and both the Manual and paragraph 7 of the Wetland delineation protocols) the Regional Council officers did not make any

Affidavit dated 23 September 2021.

Affidavit dated 20 September 2021 at [21].

Affidavit dated 20 September 2021 at [22].

effort that was advised to us to obtain more comprehensive information and data as to pre-existing vegetative conditions on the site. They appear to have proceeded on the assumption that if the November report was inaccurate then the vegetative cover did not constitute wetted pasture or pasture with rushes, without making further comprehensive enquiry in that regard.

[107] The Court asked Ms J M Frances (Team Leader in Environmental Regulation at the Regional Council in 2019) if the Site was not pasture in February 2020 what was it? She was unable to give any satisfactory answer. In our view this was significant. The Regional Council was seeking the implementation of a Wetland Restoration Plan in the delineated natural wetland areas on freehold land now owned by third parties. What was it seeking should be restored? Presumably it had to be land in the vegetative condition it was in immediately prior to the alleged atypical works in March/April 2019. The impacts of the orders sought by the Regional Council on the property rights of the Land Owning Parties are so draconian as to require that every reasonable investigative step should be taken to establish what the pre-existing vegetative state of the Site was at that time. This is what Dr Clarkson's Comprehensive Method appears to contemplate.

[108] During the course of the hearing the Court identified and discussed with a number of the witnesses a range of factors which it considered might be relevant to determine the pasture status of the Site in February 2020 if the November report was disregarded. The witnesses (including Dr Clarkson)⁵⁹ agreed that the factors which we identified were all relevant considerations in deciding the factual issue as to the vegetative state of the Site without the benefit of the November report. We consider these various factors in the paragraphs following.

[109] The starting point for consideration of that issue is the common position that the Mangaroa swamp was cleared and drained in the mid/late 19th century. One of

⁵⁸ NOE pages 455-458.

⁵⁹ NOE pages 430-441.

the consequences of this development was the clearance of all natural/original wetland vegetation.⁶⁰

[110] The second factor is our understanding that since clearance of the swamp the Site has been grazed. Dr Ross testified that the flat areas of the Site had been grazed for over 100 years. A previous owner Mr Jordan grazed up to 70 cattle on the Site during the period from 1985 to 2012. The November report noted that the Site had a long history of modification with various phases of vegetation clearance.

[111] Then there was a series of aerial photographs of the Site provided to the Court. Although we had reservations about using the photographs for any fine grained analysis of vegetation, what the photographs show at a distant scale is a changing mosaic of pasture and rushes on the Site at differing degrees of relative density over a period of years and at different parts of the Site. That is consistent with agricultural practices such as grazing, mowing etc having an impact on the relative presence of pasture and rushes over time.

[112] In its closing submissions the Regional Council drew our attention to videos showing aerial views of the Site and surrounds produced by one of its officers, Mr J C Luty. We record our comments with particular reference to the JL4 video.

[113] The video recording was made before forestry clearance or earthworks had commenced. At 19 seconds into the JL4 video the camera is looking north up the valley and the whole of the Site can be seen along with properties to the north and south of it. The Site appears to be in pasture through from Katherine Mansfield Drive to the toe slopes of the foothills and forestry areas. There are some patches of what appear to be manuka scrub along the inner toe slopes where the small natural wetland areas (Y and Z) are agreed to be present. The green of pasture can be seen across the area marked in the November report as area 3 with rushes extending above the grass on the western side of Black Creek and in the paddock on the north-eastern side of the same drain. The rushes are sparser in the latter and denser in the former. The other paddocks do not appear to support rushes although they may be dotted in the

Eg Exhibit 9, at [4.7] Conclusions and Recommendations – first and fifth bullet points.

north-western corner of the paddock north-west of Katherine Mansfield Drive, (a slightly brownish tinge to the pasture there). Looking at the paddocks to the north of the Site, scattered rushes appear to be present across at least six paddocks, again with the green of the underlying pasture evident. Similarly, to the south of the Site there are scattered rushes in some parts of the pasture, less than are visible to the north. During our site visit of 26 October 2021 we observed that the paddocks to the north of the Site were relatively clear of rushes as were the paddocks in area 3. What we saw in the video was consistent with the view which we expressed to the witnesses that the various images showed a changing mosaic of pasture and rushes over recent years brought about by farming practices such as grazing, mowing etc.

[114] Next, there is the evidence of Regional Council officers themselves. Mr Curnow advised a representative of the Subdividing Parties that the pasture exemption provision appeared to apply to the paddocks between Black Creek and Katherine Mansfield Drive on 16 September 2019.61 That was based on Mr Spearpoint's opinion, following his initial visit, that the front paddocks (closest to Katherine Mansfield Drive) were pasture.

[115] Further, we note our own observations from our Site visit. The Site appeared to comprise pastured farm land with rushes present to varying extents in parts (in some places quite limited extents and in other places more prominent) consistent with the aerial photographs which we saw. The Site appeared to be in a similar condition to adjoining and nearby properties containing pasture and cattle grazing. We appreciate that our visit was well after 28 February 2020 but it appears to us that if Regional Council officers making decisions as to the pasture status of the Site had simply looked over the fence at the neighbouring land (as Dr Keesing did⁶²) they may have recognised that there was further enquiry to be undertaken beyond just rejecting the November report before an accurate assessment could be made as to the pasture situation. We also had the benefit of Mr Jordan's evidence as to previous farming practices. We heard no evidence suggesting that Regional Council officers sought to make inquiry from previous owners or neighbours as to farming practices and pasture

⁶¹ Affidavit dated 13 May 2021 at [43] and [44].

Affidavit dated 14 September 2021 at [86].

cover on the Site.

[116] Another factor to be considered is the recognition that there must have been a proportion of the ripped area which constituted pasture prior to the Regional Council officers' visit in April 2019. The basis of the Regional Council's atypical situation theory was that ripping had allowed pasture grasses to outgrow the wetland rushes in the ripped area, thereby upsetting their relative abundance at the time of Dr van Meeuwen-Dijkgraaf's vegetative assessment. That proposition in itself recognises that there had to have been sufficient pasture species actually present at the time of ripping to outgrow the rushes. Additional to that is the position acknowledged by Mr Spearpoint that the November report was accurate insofar as areas 1 and 2 were concerned.

[117] Finally, we have had the belated benefit of the evidence of Drs Ross and McConchie as to the effects on soils and vegetation of drainage of the valley 100 plus years ago as well as the evidence of Dr Keesing as to the current vegetative status of the Site. We will refer to their evidence shortly but observe that all of that evidence supports the proposition that areas 1, 2 and 3 would have constituted wetted pasture or pasture with rushes at 28 February 2020. We note Dr Clarkson's evidence in both of her affidavits that wetland practitioners (including a pedologist) should have undertaken a site visit to resolve the status of controversial areas, something that the Regional Council (with the exception of Mr Spearpoint's three plots in April 2019) failed to do.

[118] Even if the November report is disregarded for inaccuracy as the Regional Council urged, we consider that the remaining evidence before the Court supports (on the balance of probabilities) the proposition that the Site constituted wetted pasture or pasture with rushes and met the pasture exclusion provision of pNRP on 28 February 2020. We find accordingly.

The Improved Pasture Exclusion Provision of NPS-FM

[119] Having made those findings we now consider whether the improved pasture exclusion provision contained in the NPS-FM definition of wetland applied to the Site at 21 May 2021.

[120] All of the preceding evidence which we have discussed relating to the past history of the Site and its pasture status as at 28 February 2020 is clearly relevant to our findings in respect of the improved pasture exclusion provision under NPS-FM. However, there are two changes of circumstance which mean that the 28 February 2020 findings cannot simply be extrapolated to 21 May 2021:

- The first is obviously that there is a 15 month gap between the two;
- Secondly, the improved pasture exclusion provision contained in NPS-FM definition differs from the pasture exclusion provision contained in pNRP in that NPS-FM contains both a definition of improved pasture and the application of what we have described as a bright line test requiring there to be more than 50% of exotic pasture species to be present to meet the exclusion as well as the requirement that the area be subject to temporary rain-derived water pooling.

[121] These changes in circumstances were addressed by the evidence of Dr Keesing. He has been a practicing ecologist for 26 years, has a PhD in ecology and specialist skills in the areas of limnology (the study of inland waters, including wetlands, as ecological systems), entomology, zoology and botany. He has worked extensively throughout various parts of New Zealand including the Wellington Region.

[122] The approach which Mr Keesing took to his assessment of the Site is set out in the Executive Summary in his affidavit of 14 September 2021 where he says:

EXECUTIVE SUMMARY

- 15. I, Wildlands and GWRC have surveyed most parts of the Site in question by way of vegetation plots.
- 16. To undertake my analysis I have surveyed 50 plots across all of the flat lands. Wildlands' analysis was based on 36 plots, mostly in the northern flatlands and including the lower hill country, and GWRC's analysis was based on three plots

- on the western edge of the flat lands.63
- 17. The analysis to test for the presence of natural wetlands under the relevant planning instruments involves determining if the plot data shows if pasture is the dominant cover, and if not then using the 'Clarkson method' to test for wetland species dominance and or prevalence indices scores, as well as consideration of the presence of hydric soils.
- 18. The Clarkson method does not test for value or significance or representativeness; it tests for the presence of wetland. Under its process wet pasture can also be wetland.
- 19. The PNRP and NPSFM both define "natural wetland" with exclusions the exclusions include dominance (>50% cover) of "wetted pasture, or pasture with patches of rushes" (PNRP) or "improved pasture" (NPSFM).
- 20. The witnesses for GWRC do not appear to have taken these exclusions in the definitions into consideration. They have also extrapolated their three-plot data to support a conclusion that the entire flat land on the Site is "natural wetland".
- 21. I disagree with their conclusion; both the Wildlands data and my data are more representative of the entire flatland on the Site, in my view, and conclusively categorise those lands as meeting the pasture exclusions in the PNRP and NPSFM it is Yorkshire fog pasture.

Our understanding is that what Dr Keesing did was to survey vegetation plots on the Site to ascertain whether the pasture exclusions of pNRP and NPS-FM applied. For the reasons given previously we consider that was an entirely proper approach.

[123] Dr Keesing's first visit to the Site was on 27 July 2021 for familiarisation and to ascertain the species cover relevant to data in the Wildlands reports and Mr Spearpoint's evidence. He formed the initial view that Yorkshire fog (a recognised pasture species) was the dominant vegetative cover found all over the Site, comprising around 80% of vegetation coverage. He identified various other species.

Mr Spearpoint said that characterisation was incorrect and that his plots were taken in the middle of the Site. Nothing turns on that. The data contained in Dr Keesing's survey (particularly when allied with data in the November report) overwhelm the limited value of any Regional Council plot data.

[124] On 16 August 2021 Dr Keesing revisited the Site with a local botanist and established four transect lines along which they surveyed a 2 m by 2 m vegetation plot every 20 m, some 50 plots in all. He testified as to the conclusions reached from the vegetation plots:⁶⁴

82. Only one of the 50 plots (plot 11) had less than 50% pasture species dominance (it had 49%). The average cover of pasture species within the plots, using only the species on GWRC's list of pasture species, was 83.6 %. Taking into account the wider list of species that I consider to be pasture, including creeping buttercup and creeping bent, the average cover of pasture species within the plots is 95.3%.

[125] Dr Keesing went on to discuss the status of the vegetative species found in his plots by reference to the hydrophytic categories or wetland indicator status ratings of the vegetation. These fall into five categories:

- OBL: obligate wetland. These plants are hydrophytes capable of growing in soils that are often or constantly saturated with water during the growing season and are rarely found in non-wetlands eg raupo (*Typha orientalis*);
- FACW: facultative wetland. These plants are usually hydrophytes but are occasionally found in uplands eg harakeke New Zealand flax;
- FAC: facultative. These plants may occur as either hydrophytes or non-hydrophytes, eg manuka;
- FACU: facultative upland. These plants may occasionally be hydrophytes but usually occur in uplands, eg gorse;
- UPL: obligate upland. These plants are rarely hydrophytes and are almost always found in uplands eg pohutukawa.

Affidavit dated 14 September 2021 at [82].

[126] Dr Keesing made the following observations about the above indicator status ratings found in his vegetation plots:⁶⁵

- 83. Wetlands are indicated best by what are known as 'obligate' wetland species I observed no such species within the plots (or elsewhere on the survey Site during my visits). The next most indicative wetland species are FACW there was an average of 6.6% cover of these types per plot, and the highest cover in any one plot (plot 11) was 41%, consisting of Juncus.
- 84. FAC is the most dominant category at 92.5% of the cover. FAC is the weakest indicator of wetland of the potential wetland indicating taxa.
- 85. FACU was on average 0.5% but notably present.

[127] It will be seen that no obligate wetland species were found in any of the plots surveyed by Dr Keesing. Facultative wetland species averaged 6.6% cover with up to 41% (*Juncus*) in one plot. The most dominant category comprising 92.5% of cover were facultative species. Dr Keesing testified that one of these species (Yorkshire fog) dominated all of the plots and this is illustrated in his figure⁶⁶ which shows the dominance of Yorkshire fog (brown line) well above all of the lines representing the other species. Not only does Yorkshire fog fall into the facultative category but it is also a pasture grass identified in the Regional Council's pasture species list.

[128] In short, the substantially dominant plant in the vegetation plots was Yorkshire fog which although being in the FAC category is also a recognised introduced pasture species. We assume that this is why Dr Clarkson described it as "the difficult one" in the course of her evidence in that although indicating wetland (possibly) this plant also falls into the excluded pasture category thereby taking the areas where it is dominant out of the natural wetland classification.

[129] Dr Keesing concluded the following from the above data:68

86. It is clear to me from this assessment that the Site meets a specific exclusion

⁶⁵ Affidavit dated 14 September 2021 at [83]-[85].

Affidavit dated 14 September 2021 at [81].

⁶⁷ NOE page 422.

Affidavit dated 14 September 2021.

in the definitions of "natural wetland" in each of the PNRP ("wetted pasture, or pasture with patches of rushes") and the NPSFM ("improved pasture dominated by exotic pasture species" (noting the surface water pooling I observed, and based on my observations of land adjacent to the Site, as discussed below in response to Dr Clarkson's evidence).

- [130] There was no challenge to the accuracy of Dr Keesing's plot assessments. His evidence was challenged by Dr Clarkson and Mr Spearpoint, not as to the factual conclusions which he had reached regarding species identified in the vegetation plots, but rather on the issue of methodology. Dr Clarkson and Mr Spearpoint both contended that Dr Keesing should have first undertaken a full wetland assessment using the Clarkson method, a proposition with which we disagree for the reasons set out in paragraphs [45] [53] (above). Dr Keesing did not set out to prove whether or not areas 1, 2 and 3 constituted natural wetlands but rather whether or not they met the pasture/improved pasture exclusion provisions. The Regional Council witnesses evidently failed to understand that the onus of establishing the natural wetland status of the Site lay with the Regional Council which itself had failed to undertake any detailed analysis of vegetation (other than Mr Spearpoint's three plots).
- [131] We accept Dr Keesing's findings on vegetative cover in all respects. It is conclusive as to the vegetative status of the Site on 21 May 2021. We observe that it is also consistent with and supportive of the findings of the November report.
- [132] That finding as to vegetation then brings us to address the second aspect of the definition of natural wetland in NPS-FM, namely that the area under consideration is subject to "temporary rain—derived water pooling".
- [133] In paragraphs [86] and [150] of his affidavit of 14 September 2021, Dr Keesing noted that he had observed water pooling on the surface of the Site and that this assisted him with his determination that the area met the pasture/improved pasture exclusion definitions and should not be classified a natural wetland. However, the meaning of the expression "temporary rain-derived water pooling" was the subject of some debate in these proceedings. That is the topic to which we previously referred in paragraph [39] (above) and the Regional Council's apparent contention that what the expression "temporary rain-derived water pooling" means is the absence of

wetland hydrology.

[134] The source of the wetland hydrology test is found in the Ministry for the Environment Guidance document to which we referred in paragraph [39] together with the hydrology tool for wetlands to which we have also previously referred and which was issued in July 2021. The hydrology tool requires that in order to be classed as having wetland hydrology an area must be:

- Inundated for at least seven consecutive days during the growing season in most years (50% probability of recurrence); or
- Saturated at or near the surface for at least 14 consecutive days during the growing season in most years (50% probability of recurrence. For example, five years in ten). Soils may be considered saturated if the water table is within 15 cm of the surface for sands and 30 cm of the surface for all other soils.

As we understood the evidence of Dr Clarkson and the submissions of the Regional Council⁶⁹ this hydrology tool test should be applied in determining application of the wetland definition contained in NPS-FM rather than a simple consideration of whether or not the area was subject to temporary rain-derived water pooling as the definition provides.

[135] On its face the temporary rain-derived water pooling requirement in the definition seems quite simple in its application. It appears to us to require that any area under consideration is subject to only temporary pooling from water derived from rain as compared to a situation where the area is permanently under water derived from rain or any other source such as underlying ground water. The Guidance document and hydrology tool set out in the preceding paragraph contain a test (the presence/absence of wetland hydrology) which is not apparent on a plain reading of the definition itself. There are difficulties regarding this proposition on at least two levels.

⁶⁹ Closing submissions at [43] and footnote 23.

[136] Firstly, we note that NPS-FM is a statutory instrument established under Part 5 (ss 45-55) RMA, changes to which must be effected in accordance with s 53. The proposition that a definition contained in such a statutory instrument might be altered in some way or its application affected by operation of non-statutory instruments such as the Guidance document and hydrology tool is one with which we have extreme difficulty as a legal proposition. The Guidance document appears to be just that, "guidance", the application of which is tempered by caveats in the document itself which we will refer to shortly but one of which makes it clear that the Guidance document does not purport to alter laws, official guidelines or requirements, a category which the definition contained in NPS-FM must surely fall into.

[137] Further to our concern regarding the legal aspect of use of the "absence of wetland hydrology" test, the evidence which we heard gave us real concern as to applicability of the test. Before we summarise the views of Drs McConchie and Ross regarding the tool, we note that it appears to us that data justifying its application in any given instance may need to be gathered over a period of years. The alternatives provided in the test require firstly that there be inundation of an area for at least seven consecutive days during the growing season in most years or alternatively that the area be saturated at or near the surface for at least 14 consecutive days during the growing season in most years (eg five years in ten) (our emphasis in each case).

[138] Our view in that regard is consistent with the view expressed by Dr McConchie that if he was to undertake a determination of the hydrological status of the Site, a substantial amount of data (in the order of several years' worth) would be required.⁷⁰ Such detail would be needed if there was any dispute such as in the current case.⁷¹ He was asked by the Court if there is a simpler method:⁷²

- Q. It sounds very complicated in terms of this whole process around you know the focus that's been given on wetland determination throughout the country. I mean is there –
- A. Is there a simple way?

NOE page 584 lines 4-11.

NOE page 583 line 20 to page 585 line 2.

NOE page 583 line 24 to page 585 line 20.

- Q. Is there a simple way?
- A. I think you can do a first approximation with expert judgement. I mean if you had an expert panel and involving a range of experts and each of those aspects which affect wetlands, that is hydrology, soils, vegetation, you could end up with a first approximation and in fact for many areas that is probably sufficient.
- Q. What about the hydrology component?
- A. Well as I said you had a hydrologist in that as well.
- Q. What would the simple approach be for the hydrology?
- A. You'd have to have bore logs, decent cores, measure where the water level actually is spatially and for many wetlands that's probably sufficient to determine whether it's worth going further. The level of detail that I was just describing which was intimidating is for those areas where there's greater uncertainty. I mean there are some areas where the uncertainty is very small. I mean there's probably universal agreement as to whether it's a wetland. For example if you go to the shores of Lake Wairarapa I mean my guess it that very few people would contest whether that was a wetland or not and there'll many other wetlands where there is no dispute. The difficulty becomes where there is a dispute and I guess what I was trying to explain is how you would resolve that dispute. I guess part of me also says that if you've got to go to that level of detail to determine whether it's a wetland or not I question whether it's worth bothering going to that level of detail.
- Q. So why on this site would you have to go to that level of detail from a hydrological perspective?
- A. I think because there've been so many things happening on this site over time that it's not a simple situation.

[139] Dr McConchie considered that the wetland hydrology tool had so many caveats in relation to the methods proposed in their interpretation that he questioned its validity in decision-making about hydrological status.⁷³ He said that the disclaimer of the authors as to its reliability created further issues of credibility:⁷⁴

⁷³ NOE page 559.

⁷⁴ NOE page 560.

Disclaimer⁷⁵

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[140] Dr McConchie was surprised that the Landcare Research team which had drawn up the methodology did not appear to have a single hydrologist on the panel. When asked whether the hydrology tool flowchart provided a straightforward process, with field visits, making observations and the presence of one primary or two secondary indicators, he said that he seriously questioned that applying the hydrology tool is a simple and straightforward process. He said that a flowchart may look simple but that hydrology is not simple. ⁷⁶

[141] Dr Ross' evidence was consistent with that given by Dr McConchie regarding hydrology. He observed that the Site would require monitoring over a much longer

Wetland delineation hydrology tool for Aotearoa New Zealand (Ministry for the Environment, July 2021) page 2.

⁷⁶ NOE page 559.

period covering both wet and dry periods, winter and summer to conclusively determine if it met the hydrology test.⁷⁷ He took issue with the seven and 14 days inundation/saturation tests and criticised the growing season dates for this particular area indicated in the hydrology tool. His personal knowledge of Whitemans Valley was that the area is a frost hollow with a shorter growing season than might apply to other topographies in the area.

[142] We will return to the issue of evidence supporting the contention that the delineated natural wetland in fact constitutes a natural wetland later in this decision when we will more directly consider the data supposedly supporting that proposition. We find at this time that we are satisfied on the balance of probabilities that the Site meets the second leg of the improved pasture exclusion provision, namely that it is subject to temporary rain-derived water pooling. Even if we considered that the inundation/saturation test contained in the hydrology tool was the appropriate legal test (and we do not), none of the hydrological evidence or data advanced by the Regional Council remotely established that the hydrology of the Site met either of the two tests contained in the tool.

[143] Having regard to all of the above matters we conclude that the Site met the improved pasture exclusion provision of NPS-FM as at 21 May 2021 (which preceded the Guidance document in any event) and indeed as at the date of our hearing.

Wetland Delineation Issues

[144] Notwithstanding our previous findings as to the Site meeting the pasture/improved pasture exclusion provisions we now consider whether or not the Regional Council has established that areas 1, 2 and 3 would have actually constituted a natural wetland for the purposes of pNRP or NPS-FM if they were not subject to the pasture/improved pasture exclusion provisions.

[145] Before we address this question in any detail, we return to our discussion on onus in paragraphs [43]-[44] (above). We remind ourselves that the onus of establishing that the delineated natural wetland area identified by Dr Crisp constituted

Second affidavit dated 22 October 2021 at [12].

natural wetlands lay with the Regional Council which advocated that position and sought an enforcement order on the strength of that contention. As we have noted the standard of proof is on the balance of probabilities. We refer to the comment contained in paragraph [173] of the Regional Council's closing submissions that the assessment of wetlands "...determined by their particular vegetation, soils and hydrology is a matter of technical expertise and scientific methodology...". We agree and observe that in light of that submission we found the failure of the Regional Council to call any direct expert evidence on the issues of soil and hydrology surprising to say the least.

[146] Four witnesses called by the Regional Council gave relevant evidence on these issues. They were:

- Dr van Meeuwen-Dijkgraaf;
- Mr Spearpoint;
- Dr Crisp;
- Dr Clarkson.

We make a number of observations as to their evidence.

[147] Turning firstly to Dr van Meeuwen-Dijkgraaf, she was originally instructed to provide advice to the Subdividing Parties who did not propose calling her as a witness in these proceedings. She was called as a witness by the Regional Council for the primary purpose of presenting the November report whose conclusions the Regional Council sought to dismiss on the atypicality ground. As we have noted previously, the November report was primarily a vegetation assessment of the Site from the foothills out to Katherine Mansfield Drive. The report contained limited observations about Hydric soil conditions and no evidence regarding hydrology. We think it is clear from the November report that Dr van Meeuwen-Dijkgraaf proceeded on the assumption that the areas she was considering otherwise constituted wetlands but also fell within the pasture exclusion provision of pNRP and were therefore not natural wetlands as defined in pNRP.

[148] Mr Spearpoint assessed only three vegetation plots on his site visit in April 2019. No criticism is to be levelled at him in that regard as his investigation was confined to the issue of the effects associated with the earthworks and drainage works allegedly carried out on the Site. He never intended doing a full vegetation survey on 4 April 2019. His brief contained no probative evidence on soil or hydrology and as we have observed previously⁷⁸ such vegetation data as he did gather were "overwhelmed" by the evidence of Drs van Meeuwen-Dijkgraaf and Keesing.

[149] Dr Crisp had never been to the Site. We do not imply any criticism in that regard. Expert witnesses are capable of analysing reports of other witnesses and experts and reaching conclusions on them. Dr Crisp's first affidavit in these proceedings was sworn on 13 May 2021 and was essentially a critique of the Wildlands Reports of July and November 2019 together with an assessment of those reports by use of the Clarkson Methodology based on her hypothesis regarding atypical situations which we have rejected.

[150] In addition to her May affidavit Dr Crisp filed a response affidavit addressing issues raised in the evidence of Drs Keesing and Ross focusing upon perceived methodological issues and further description of the Site's environment and history. As with her first affidavit, an underlying hypothesis of Dr Crisp's evidence in the response affidavit was the proposition that vegetation on the Site had been altered and could not be used as a determinant of the presence of a natural wetland. We have disagreed with that proposition on the basis that not only was the atypical effects theory wrong but also that the evidence did not establish that vegetation on the Site had been so altered as to render the November report inaccurate in any event.

[151] Paragraph [7] of Dr Crisp's response affidavit contains the contention that the alleged unauthorised activities undertaken by the Subdividing Owners resulted in "... disturbance of the soil profile at the Site ...", a contention that is directly contrary to the evidence of Drs Ross and McConchie and which was not supported by any evidence provided by the Regional Council that we saw. We accept the evidence of

Above note 62.

⁷⁹ Crisp response affidavit dated 8 October 2021 at [7].

Drs Ross and McConchie.

[152] The Regional Council's approach to the issues of soil, hydrology and vegetation were summed up in these terms in paragraphs [41]-[44] of Dr Crisp's first affidavit:80

- 41. The 'draft' Wildlands Report of November 2019 therefore again did not take into account that the routine method (as described in *Clarkson* 2013 and 2018) could no longer be applied as the wetlands had been affected by activities that had occurred at the site; mowing, drain installation and drain clearance.
- 42. Given this situation, all available information should have been used to determine the presence of a wetland on the property, e.g. the presence of hydric soil and information associated with the hydrology of the site. The soil plots used in the 'draft' Wildlands Report of November 2019 show the presence of hydric soils at a number of sites on the property, with other areas being determined as disturbed soils.
- 43. The hydrology of the site is well known the area is regarded as a peat bog, which while drained, has continued to retain wetland characteristics (Heine and Milne 1983, Harris and Mildenhall 1984, Thompson 2012). The water table is considered to be less than 30cm below the surface during winter.
- 44. In terms of the vegetation, the determination made by the 'draft' Wildlands Report of November 2019 that the plots now met the pasture exclusion rule had occurred because the mown native species had been out-competed by the exotic grass species in particular Yorkshire fog during the spring growth flush which had become dominant. The vegetation alone therefore should not have been used to make a wetland determination in this case, because of the mowing that had occurred.

[153] We will deal with the various contentions regarding soil, hydrology and vegetation in more detail in due course. However we agree with the statement contained in paragraph [42] that if the November report was inaccurate then "all available information should have been used" including soil, hydrology and vegetation to determine the presence of a wetland on the property. The onus of doing that lay

Affidavit dated 13 May 2021.

with the Regional Council which contended that the delineated natural wetland areas constituted natural wetlands for the purposes of the enforcement proceedings which it had brought. As we have noted, the Regional Council did not give any direct expert evidence as to soil or hydrology to support the claims contained in paragraphs [42] and [43]. The implications of there being Hydric soils on the Site were discussed in detail by Dr Ross (the only pedologist called to give evidence) and the hydrology of the Site was discussed in the evidence of Drs McConchie and Ross (the only hydrologists to give evidence). We have accepted the evidence of Drs van Meeuwen-Dijkgraaf and Keesing on matters pertaining to vegetation. The evidence which we heard did not support the contentions contained in paragraphs [42]-[44]. Dr McConchie described the contention that the hydrology of the Site was well known as being "...actually untrue" and that "...in fact, there is not much known about the hydrology".81 We accept his evidence in that regard.

[154] The Regional Council's fourth witness on the issue of natural wetland status was Dr Clarkson. As we have done with Dr Crisp, we accept that although Dr Clarkson has never been to the Site she is qualified to consider and assess expert reports from those people who have been. In her first affidavit Dr Clarkson advised that she had considered the July and November reports and the statements of Mr Spearpoint and Dr Crisp. Her initial brief of evidence was primarily a description of the Clarkson Method, the tools involved in it and their application. Her response evidence of October 2021⁸² addressed (inter alia) various issues arising from the evidence of Drs Keesing and Ross.

[155] Nowhere in Dr Clarkson's two affidavits did she contend that the delineated natural wetlands area in fact constituted a natural wetland. The reason for that is found in paragraphs [72]-[74] of her initial affidavit which provide as follows:⁸³

If areas have been heavily disturbed by earthworks, e.g. digging, fill, drainage, then this is also not the normal circumstances, and additional information and data are required as per the Comprehensive Method.

NOE page 586.

Unsworn affidavit due to Covid when provided but confirmed at hearing.

Affidavit dated 20 September 2021.

- 73. The Comprehensive Method gathers information from recent aerial imagery, photographs, reports and other relevant data that predates the disturbance. The hydrology and hydric soils tools are particularly important for wetland determination where the vegetation has been heavily disturbed or removed.
- 74. As I am unfamiliar with the site, my recommendation is to visit the site with the ecologists and relevant parties and to seek consensus on particularly controversial areas using the three tools: vegetation, hydric soils and wetland hydrology. Presence of a pedologist is recommended to provide expertise on the hydric soil tool. The hydrology tool should be able to be applied competently on site by a pedologist, together with the other ecologists.

As we understood this section of Dr Clarkson's evidence she was recommending that ecologists and a pedologist visit the Site in order to determine whether or not it met the natural wetland tests. Dr Ross commented that he was such a pedologist.⁸⁴ A similar statement to paragraph [74] (above) appears in paragraph [59] of Dr Clarkson's response evidence. She was obviously not satisfied that the evidence she had viewed was sufficient to establish the natural wetland status of the Site and that further consideration by ecologists and a pedologist was required.

[156] Dr Clarkson was cross-examined at some length by counsel for the various Respondents. By the Court's count she stated on at least ten occasions during the course of that cross-examination that there were insufficient hydrological data or other information available to enable assessment of whether or not the Site constituted a natural wetland. Dr Clarkson was asked by Mr Randal whether or not the presence of wetland hydrology was the essence of a wetland and replied "... that's the most important component but unfortunately it's the most difficult to measure ...".85 During the further course of that cross-examination this exchange took place between Mr Randal and Dr Clarkson:86

Q. And yes I do see that there is an issue as to whether or not the site is drained, but would you agree that either it has been drained to the point that wetland hydrology is no longer present in which case it is no longer a wetland?

Ross affidavit dated 24 September 2021 at [43].

NOE page 390.

NOE page 396-397.

A. Well, we have got no data. That is my biggest issue. We don't have any hydrology data on any of the plots of any post-2020 when the NPS came into being. There is absolutely nothing. You know there is anecdote about, you know, temporary ponding or puddles or pugging, but we don't have any data with the actual plots in and it's really hard – I mean it is hard to determine unless the data is there, and it is very simple to do, and that's my main issue I guess.

[157] Dr Clarkson's observations are entirely consistent with Dr McConchie's evidence that not much is known about the hydrology of the Site. Mr Randal's cross-examination of Dr Clarkson concluded with this exchange:⁸⁷

- Q. Yes but you'd agree that while the hydrology is important here, no one has got that data have they? We do not have that data?
- A. No we don't have the data no, I do not see, I do not see hydrology data in any of the plots.

The Court asks the question that if the Regional Council's own independent expert witness was unable to conclude from the evidence presented by the Regional Council that the information on hydrology was sufficient for her to determine whether or not the Site met the natural wetland definition, how could the Court possibly conclude that was the case?

[158] That preceding finding, on its face, appears to be an end to the matter as the Regional Council failed to have persons with the necessary expertise apply the Clarkson Method (particularly regarding soils and hydrology) in assessing whether or not the Site constituted natural wetlands in terms of NPS-FM. Nevertheless, again for the sake of completeness, we consider the vegetation, hydrology and soil evidence which was given to the Court by the various witnesses for the Respondents.

[159] We comment only briefly on the vegetation issue which is addressed at length in our previous findings. We are satisfied, primarily from the evidence of Dr Keesing, that as at the date of issue of these proceedings the Site constituted improved pasture

⁸⁷

as defined in the NPS-FM. In our view the absence of OBL species and the limited extent of FACW species (6.6% average) in Dr Keesing's plots together with the dominance of Yorkshire fog points strongly against the natural wetland contention advanced by the Regional Council. We have not undertaken the qualitative and quantitative assessments of vegetation required under the Clarkson Method as that seems unnecessary in light of the above findings, but we note the observations in Dr Keesing's evidence as to the dominance of Yorkshire fog in the pasture profile.⁸⁸

[160] Insofar as hydrology is concerned, as far as we could see there were only three pieces of data in the Regional Council's evidence which might possibly be considered as providing information to assist in assessment of hydrology of the Site. These were:

- Firstly a document known as the Heine and McQueen report "2020". Soils of Mangaroa Whitemans Valley, Upper Hutt. This document includes as Section 9 information on depths to water table measured at the Site between 1978 and 1982. It provides a map showing water table depths estimated or measured in the southern half of the Site. The map is extremely difficult to read even at A3 scale with the aid of a magnifying glass, however a single piezometric site adjacent to Katherine Mansfield Drive appears to provide a 10 cm depth reading. Other estimated winter depths are based on the appearance of soil and water readings at times other than winter, including <30 cm 55 cm depth (near the centre of the site), 12 cm-67 cm depth on the southwestern boundary and 20 cm 70 cm depth adjacent to Katherine Mansfield Drive. Other winter depths are based on soil appearance only (30 cm deep, less, or much less).
- A waste water investigation report of 20 December 2017 relating to the viability of disposal by septic tanks filed in support of a subdivision

Keesing affidavit dated 14 September 2021 at (e.g.) [75], [81].

Winter water table depths, Waipango Swamp, Upper Hutt and some implications for septic tank effluent disposal. J.C. Heine, J.D.G Milne Soil Bureau District Office Report WN9, 1983.

application at the Site.⁹⁰ This report found groundwater tables at approximately 1.2 metres below ground level on four out of six test sites which it investigated as part of the report. It indicated a likely high winter water table, commensurate with the map we referred to above.

• An observation in the November report that the water table was 40 cm below the surface in Plot 13.91 Dr Clarkson responded to a question as to what a saturation zone 40 cm from the surface might mean by saying that as such that might indicate wetland hydrology but could not confirm that.92

None of these data were interpreted by any expert witness on hydrology for the Regional Council. We observe again that this information was apparently insufficient to satisfy Dr Clarkson as to the hydrology of the Site.

[161] Hydrology issues were dealt with extensively in the evidence of Drs McConchie and Ross. The credentials of both witnesses were challenged by the Regional Council.

[162] Dr McConchie's qualifications were subject to question in the Regional Council's closing submissions on the basis of a statement which he made in the course of his examination/cross-examination that he was not a wetland hydrologist.⁹³ That acknowledgement was commented on by counsel for the Regional Council in their closing submissions in these terms:⁹⁴

Dr McConchie's position as to what is required to establish likely wetland technology is similarly at odds with this tool,⁹⁵ and appears excessively technical, which is relevant to the practical issues of environmental compliance and enforcement work, and likely reflective of his acknowledgement that he is not a wetland hydrologist.

New Zealand Environmental Technologies Ltd "Site Investigation Report – Wastewater Proposed Subdivision – 281 Katherine Mansfield Drive, Upper Hutt" (the Trainor report).

⁹¹ November Report page 131.

⁹² NOE page 421.

⁹³ NOE page 581.

⁹⁴ Regional Council closing submissions at [43].

⁹⁵ Referring to the MfE Hydrology tool.

[163] Dr McConchie's evidence on hydrology of the Site was not contradicted by evidence from any other hydrologist and his evidence was consistent with and sat neatly with views expressed by Dr Ross. Dr McConchie has over 40 years' research and professional experience. His PhD was in physical geography. He has been an Associate Professor with the School of Earth Sciences at Victoria University and taught undergraduate courses in hydrology and geomorphology and a post-graduate course in hydrology, hydrogeology and water resources. He has led numerous field trips to Whitemans Valley. He has an in-depth understanding of climate, hydrology, flooding and sediment transport processes and issues across the Wellington Region (including Whitemans Valley specifically). We find that Dr McConchie was eminently qualified to give evidence on all aspects of hydrology as they apply to the Site and far from being "excessively technical" he seemed to us to have a real world appreciation of the difficulties in applying some aspects of the hydrology tool. There was no merit to any challenge to Dr McConchie's expertise.

[164] Dr McConchie disputed the proposition that the Heine and McQueen report might have constituted a long-term study. He said:96

A. ... I mean eight years would not count as long term in any form of hydrological record. It is relative to this because there's no other data, but generally speaking eight years is a very short period.

[165] Questions were put to Dr McConchie about the data contained in the Heine and McQueen report, particularly the finding of water within 30 cm of the surface. (The Heine and the McQueen report also addressed findings on three other test sites on other properties so his following comments are not limited to one testing position):⁹⁷

A. If you're asking me to acknowledge that in the middle of winter, in the middle of a valley, the water table is quite close to the surface I'm quite happy to do that if it'll save people – their eye strain trying to find these numbers, because that's basically what it's saying. Yes.

⁹⁶ NOE page 554.

⁹⁷ NOE pages 557-558.

- Q. So you would agree that there is a high winter water table throughout the valley?
- Α. No. That's not what I said. I said if you look at where these sites are, the majority of these sites are in the middle of the valley and they're about as far away from Black Creek as you can get, so at that occasion the maximum water levels in winter were there, but that is not the end of the hydrology I think. I mean this is a much more complicated story than what was the maximum value. For a start, it becomes an issue as to how those piezometers were installed, that is, whether they were slotted over the whole length, or whether they were actually installed in a fixed depth, because in fact what will happen is the water table will rise to the maximum level, but if only the top surface if it was only water at the ground surface, then that could still give you an illusion that the water table was at that height. It doesn't mean the ground was completely saturated to that height. The second thing is that these are spotreadings during winter, they are not a continuous time series. If you were doing a hydrological analysis you would collect a time series, that is, you would learn how the water table responded and how it responded to rainfall and to [evapotranspiration], so you actually develop a water balance. So simply looking at water levels at one point in the middle of the valley actually tells you very little about the hydrology of a wetland.

As we understood Dr McConchie's evidence in this exchange there was an unanswered question as to calibration of the piezometers and a question as to their probative value as they were spot-readings which told "very little" about the hydrology of the Site.

[166] Dr McConchie's cross-examination spanned two days that is, from the afternoon of one day to the morning of the next. He had obviously thought about matters raised in cross-examination overnight between the two. When Court resumed on the second day (4 November) he asked if he could make some comments to clarify matters for the Court. This is what he had to say:98

⁹⁸

A. It appears from the questioning yesterday that considerable weight has been placed by counsel on the matter of winter ground water levels provided by Heine in 1983 however I think it's quite important that these data get placed in context. The first point I'd make is that the data are now over 40 years old and they cover only a four year period. It's therefore quite difficult.

Q. [Four] year period?

- A. A four year period, basically from 1978 to 1982 and in fact even within that period they are random measurements as opposed to continuous measurements which we'd undertake today. It's therefore difficult to know what environmental conditions those groundwater levels actually represent but I would point out to the Court who I'm sure are aware is that the 20th of December 1976 was the wettest rain storm ever to have effect the Hutt Valley. We had 350 millimetres of rain in one day which caused a large number of landslides and one fatality, 1977 was a period of extensive landslides throughout the Wairarapa which again were triggered by abnormally heavy rainfall. I actually studied both of those and have published papers on both of those events. All I – the only reason I raise that is that it's quite important. Imean if you're looking at the rain storm event and the Hutt Valley was over a 100 year event, it was a very extreme event. As I say the highest daily rainfalls ever recorded for the Hutt Valley. There are no more recent data which of course make some weight on those data that do exist and the point I make is in particular Greater Wellington Regional Council, despite their extensive environmental monitoring network have not and do not collect any environmental data from Whitemans Valley and I actually have a plot from their web page if you're interested which shows where their monitoring sites are and also where the wetland monitoring sites are and you'll see that in fact Whitemans Valley is basically an empty hole within the monitoring network. I'm not sure if the Court's interested in that.
- Q. Well we'd sort of assumed Dr McConchie that something like that was the case because otherwise we would've seen it so we assumed that there was no data and you've confirmed there is some.⁹⁹

We think that the word "some" is a transcript error and should be "none".

- A. Yeah hopefully these comments are going to avoid questions and clarify rather than –
- Q. Well we've had a discussion we were going to, if it doesn't come out in crossexamination go through with you what you would need to have to make an informed decision on the hydrological status of this so we better not take over the cross-examination at this stage.
- A. No that's fine.
- Q. And was there another point you wanted to make?
- Yeah, there are. The data that are on that map and I mean I think we all had A. difficulty reading it, they're either on off readings that is from a soil pit or they're occasional water level readings from the piezometers. These days, as I say, you would collect a continuous time series, not random levels. Consequently the data provide no indication of the groundwater or the wetland dynamics. That would require as I've said high resolution temporal data. The other thing too that's quite important is data only represent conditions during winter and although we don't know exactly when the data were measured, they were likely given it was winter, from outside of the growing season and you'll recognise from the evidence you've heard so far, particularly in the hydrology tool kit, is its conditions during the growing season which define a wetland, not the conditions outside of that. Hence these data that were presented are not relevant alone and I think that's the key point I'm trying to make from a hydrological perspective is that hydrology does not define whether you have a wetland just like the soils don't define whether you have a wetland or the vegetation so they don't, the data themselves don't help in assessing whether it's actually a wetland. It's likely that saturated zoned near the ground surface as recorded by Heine would be characteristic of almost [every] topographic depression in valley floor in the Wellington region in winter. For example you know a saturated zone within 30 centimetres of the ground surface during winter is characteristic of almost every playing field in Wellington in the Hutt Valley and yet we wouldn't argue that they were wetlands and that's the point [I'm] trying to make about hydrology it is despite what we're being told it is not simple and I think that context that I've just tried to provide is really important when looking at that map and looking at the data and particularly when trying to interpret those data from the perspective of whether this is a wetland or not.

As with his preceding comments, Dr McConchie's evidence in this regard was that the Heine and McQueen data is of little if any value in establishing the wetland characteristics of the Site.

[167] The Court questioned Dr McConchie as to the significance of the wastewater investigation report. He replied as follows:¹⁰⁰

- Q. So, there was that, and so that is one of the factors that the Council relied on.

 The next one was a wastewater report for a proposed subdivision and the report was done in 2017. Have you seen that document?
- A. No, I haven't.
- Q. I might give it to you. I will give you the opportunity to go away and read it perhaps. There is an affidavit there from Jolene Mary Frances. Tab 13 is the Council decision on the resource consent application, and right towards the back of it, a dozen pages or so before the back, is immediately after Dr van Meeuwen-Dijkgraal's Wildlands report is a thing called a Site Investigation Report Wastewater, proposed subdivision 281 Katherine Mansfield Drive. Now I think this was a report that was provided to the Council, the Upper Hutt City committee determining this application to show that you could dispose of wastewater on the site I think is a fair summary of what it was doing. This was referred to by a Council witness as providing further hydrological information that contributed to the statement that the hydrology of the site is well-known. If you want a bit of time to look at it after the break we can allow that. It is a bit difficult trying to understand it. You will see it has got some test results and some site photos. Are you able to say at the moment whether or not that would assist your understanding of the hydrology in any significant respect, or would you prefer to have a bit of time to think about that?
- A. If your question is that the hydrology is well understood, this does not qualify as meaning that the hydrology is well understood. The point I would make with this is it is very focused on a very specific effect, if you like, that is wastewater disposal. The interesting thing you know there are some interesting results here. So, the groundwater was more than 1.2 metres below the ground level. That is kind of interesting to me, because that's almost about

NOE pages 587-588.

the level of Black Creek, which is what we were talking about before. They have high winter water tables. No one disputes that, and in fact that's the data that [Heine] has given us, but the fact that it's high winter and low summer suggests there is a lot of variability, and again one of the biggest difficulties with this is they are essentially measurements of discrete spots and particular points in time, and it is the variability and the dynamics which is critical not what happens just once. I would say the hydrology is not well understood.

- Q. And that particular document does not greatly assist you to understand it?
- A. It provides useful information in some places. As I pointed out the 1.2 metres to the water table, the high winter levels, but obviously low summer levels. It suggests that there is stuff going on but again I would like to see a more comprehensive data set than just on-site soakage tests.
- Q. And I think the other factor that is relied on supporting this well-known proposition is an analysis of Dr van Meeuwen-Dijkgraaf's sample holes. So, would the combination of those three factors and no doubt someone can tell me if there was anything else the Council relied on, but I think that was the note I took, do those three factors combine to give you a good understanding, and I think you have answered but let's get it in black and white, do those three factors I have identified combined to give us a good understanding of the hydrology of the area we are talking about?

A. I would say no Sir ...

Dr McConchie's views appear to be entirely consistent with the views of Dr Clarkson that there are insufficient or no data available to enable a proper assessment of wetland hydrology on the Site.

[168] Dr Ross' qualifications were also subject to question. The observation was made by Dr Crisp that Dr Ross had given evidence on matters pertaining to wetland ecology when he is a soil scientist, not a wetland ecologist. This matter was raised in cross-examination by Mr Britton in these terms: 102

Q. Your expertise is principally as a soil scientist or a pedologist?

¹⁰¹ Crisp rebuttal affidavit dated 8 October 2021 at [31] and [43].

¹⁰² NOE pages 594-595.

Yes, it is interesting the definition of an expert. I - my speciality is soil A. science. I'm actually also – I have speciality in soil hydrology because my PhD was actually in soil physics and that includes water and soil and my understanding is a hydrologist is a scientist who studies water. I study soil water, so that makes me a soil hydrologist. I'm also a pedologist and I have conducted numerous soil surveys throughout New Zealand over a period of about 50 odd years and I also do have experience in botany. I'm not a expert botanist. I'm not an expert wetland ecologist but I do have scientific experience in those areas because I actually trained, as I said in my reply affidavit I have done university courses in botany, plant physiology, agronomy and ecology and [environmental] biophysics all of which are related to that and I've done many, many studies and reports on land rehabilitation and land restoration particularly in mines and quite a number of those have involved wetlands so I do have actually experience in wetlands, whether you call me an expert or not I'll leave that to the bench to decide but I do actually have quite a bit of experience in wetland botany if you like to put it that way.

We find that Dr Ross was eminently qualified to give evidence on all aspects of hydrology, soil and their relationship to vegetation as they pertained to the Site. We also record that he had direct practical knowledge of Whitemans Valley itself and, similar to Dr McConchie, real world experience in applying his expertise. Our finding in this regard is consistent with the comment in paragraph [74] of Dr Clarkson's first affidavit that a pedologist should be able to competently apply the hydrology tool. As Dr Ross observed, he is such a pedologist. There was no merit to any challenge to his expertise.

[169] Dr Ross had this to say about the Heine and McQueen data and the observation in the November report.¹⁰³

Q. And you would've seen the results from Wildlands report in terms of their 29

August examination of or assessment of the site and the soil pits that they dug

and some of them have been referred to during the course of the hearing?

¹⁰³ NOE page 603.

- A. Yes, yes.
- Q. And they found wet soils on various parts of the site and one place they, there's that (inaudible 11:53:40) with the water table 40 centimetres and that's consistent isn't it with the Heine and McQueen data that you're familiar with?
- A. Well that data was pretty hard to read to be honest actually but certainly yes that was midwinter of course, during the winter months that that was recorded in one of them and I think Dr McConchie has explained that material in terms of hydrology it's highly contestable really (inaudible 11:54:08) what that means and also I think that same criticism could be applied to the Wildlands report. There's sort of one off observations, however, you know I would agree that probably during the winter months, the midwinter months there is a very high water table there and I also make the comment as a soil hydrologist that wet soils can mean a whole lot of things. They don't actually necessarily mean that it's saturated. To a layperson a wet soil could be a damp soil. It can be but it's not necessarily saturated. It can be wet but it's not actually saturated. It can be unsaturated but still be considered by a non-soils person as wet.

[170] Dr Ross made the following observations about the wastewater investigation report in his second affidavit:¹⁰⁴

5. I have recently been made aware of a Site Investigation Report – Waste Water. Proposed Subdivision – 281 Katherine Mansfield Drive, Upper Hutt: by Mark Trainor, New Zealand Environmental Technologies Ltd, 20th December 2017. I understand this is part of "attachment JF1" attached to the affirmation of Jolene Francis affirmed 13 May 2021, (from page 63 – 72).

Soil hydrology measurements, made at 4 sites on the flats, on 8th and 23rd November 2017 found ground water tables (i.e., saturated soils) at "approximately 1200 mm below ground level" on the northern lots (1 & 3) and western lots (5 & 6). No ground water tables were found on the southern lots (2 and 4). These data, therefore, demonstrate that the soils were not saturated or waterlogged above 1.2 m in November 2017 (late spring). Also, data in Appendix 1 of the NZ Environmental Technologies Ltd Report show that the soils on the flats have "reasonable percolation rates" (that ranged from

Affidavit dated 22 October 2021.

hydraulic conductivities or Ksats of 300 to 5400 mm/hr). These data demonstrate that the drains surrounding the flats lower the water tables throughout the flats and support my opinion that the soils are not permanently or frequently saturated or waterlogged. The Report also noted that "Soil moisture content was variable." And that "Lower lying lots ... show signs of a high winter water table." However, as far as I am aware there has not been any monitoring over several seasons of the soil hydrology / water tables / soil waterlogging or saturation levels on the 281 Katherine Mansfield Drive site.

[171] Additionally Dr Ross made a number of general observations about the hydrology of the Site in his first affidavit:¹⁰⁵

34. This confirms that generally the soils on the flats and foothill fans are Hydric soils. However, this is due to their historic creation and condition as part of wetlands (or peatlands) in the past. Today, they are not permanently saturated at or near to the surface because of the drainage from the constructed drains. The water tables in the soils for this Site will fluctuate at or above the level of water in the drains, depending on rainfall events. There will be classic hydraulic water-table depth profiles that curve upwards away from the drains: i.e., at equilibrium during dry periods, the water-tables in the surround soils will curve upwards away from the (permanent) water-table in the drain. The shape of the curve depends on the soil hydraulic conductivities (the rate water moves through the soil). It will be steeper for soils with lower hydraulic conductivities. Thus the topsoils, down to plant-rooting depths (approx. 30cm) of non-tree species, are not permanently saturated, nor saturated for long periods other than after sustained heavy rainfalls. They do not feature permanent wetland hydrology.

. . .

38. In terms of the Ministry for the Environment Wetland delineation hydrology tool, the soils on the flats would technically pass Step 3 as being Hydric soils. However, this is because of their origin and historic wetland status, not because of their current condition; today, they would fail the wetland test at the other steps:

- a. The wetted pasture on the flats fails steps 1 and 2, as explained in the Wildlands Report and in Dr Keesing's evidence (discussed below).
- b. It is highly *un*likely that the soils on the flats at this site will be waterlogged in the top 30 cm (typical topsoil or plough depth).

(footnotes omitted)

[172] Accordingly the evidence of Drs McConchie and Ross was that the information relied on by the Regional Council to establish the contended wetland hydrology of the Site was of limited value and failed to establish the hydrology of the Site. That evidence is consistent with the evidence of the Regional Council's witness, Dr Clarkson, that there are no data on which to base any conclusions as to hydrology of the Site. Dr Crisp's contention that hydrology of the Site is well-known, is incorrect. Further to that, Dr Ross's direct evidence was that it was highly unlikely that the top 30 cm of soil would be waterlogged. The evidence on hydrology does not support the proposition that the delineated natural wetland area constitutes natural wetlands as defined in NPS-FM or otherwise.

[173] That brings us to the issue of soil. Dr Ross was the primary witness in that regard. He testified that the organic soil and peat loam which made up the bulk of the soil profile on Site were Hydric soils. He observed that such soils will have been poorly drained in the past and "… basically they can be taken as being kind of relic features of a past drainage system". ¹⁰⁶

[174] Dr Ross also observed that the drainage situation will have been changed by lowering of water tables through drainage, so the fact that they may have been poorly drained in the past does not necessarily mean that is the case today. ¹⁰⁷ He observed that the wastewater drainage report shows that percolation rates on the Site are "moderately good" and that the soils would actually dry out "... quite well". ¹⁰⁸

[175] Dr Ross' evidence confirms that the Site is underlain by Hydric soils as

NOE pages 607-608.

¹⁰⁷ NOE pages 607-608.

NOE pages 599-600.

contended by the Regional Council. That is because the soils on the Site were saturated until extensive drains were established in Whitemans Valley from the mid/late 19th Century onwards, draining the extant soils but leaving them in situ. Dr Ross observed they are not permanently saturated at or near the surface today because of drainage from the historical constructed drains.

[176] The evidence before the Court on soils (including the interrelationship between soil and water) does not support the proposition that the delineated natural wetland area constitutes natural wetlands as defined in NPS-FM or otherwise.

[177] Finally on this topic we appreciate that assessment of an area as to wetland status using the Clarkson Method involves consideration of all three tools on an integrated basis and that looking at any one of the tools in isolation does not provide an answer to the wetland status of the Site. In this instance there is a very substantial hole in the data preventing that exercise from being undertaken, namely the absence or inadequacy of information as to hydrology, which we understood from Dr Clarkson's evidence is the most significant of the factors to be taken into account.

[178] The Regional Council has failed to satisfy us by a massive margin that the delineated natural wetland area in fact constituted natural wetlands at either of the dates we have considered. The evidence which we heard pointed to a contrary conclusion.

Outcome

[179] Having found that:

- The November report was accurate in the information it provided as to the pasture status of the Site on 28 February 2020;
- The Site met the pasture exclusion provision contained in pNRP at 28 February 2020;
- The Site met the improved pasture exclusion provision contained in NPS-FM at 21 May 2021;
- The Regional Council has failed to establish on the balance of

probabilities that the delineated natural wetland area in fact constituted a natural wetland on either 28 February 2020 or 21 May 2021 –

the application for enforcement orders is dismissed.

Costs

[180] Costs are reserved in favour of all those Respondents who became parties to these proceedings. Any costs applications to be pursued and responded to in accordance with Clause 6.6 of the Environment Court Practice Note 2014. Self-represented parties should acquaint themselves with the limited extent to which costs will be awarded to such parties.¹⁰⁹

[181] In addition to responding to costs applications made by any of the other parties, in its response the Regional Council should also address the issue of the Court's costs pursuant to s 285(3) RMA. The following factors lead us to the view that it is appropriate for the Court to consider such an award:

- The Regional Council advancing the atypicality theory insofar as it related to effects of works allegedly undertaken by the Subdividing Parties which have been or could have been undertaken as part of normal farming practices;
- The Regional Council's failure to establish that even if such effects were atypical they made the vegetative assessment undertaken in the November report inaccurate;
- The Regional Council's failure to establish on the balance of probabilities that the pasture exclusion provision in pNRP did not apply to the delineated natural wetland area on 28 February 2020;
- The Regional Council's failure to establish on the balance of probabilities that the improved pasture exclusion provision of NPS-FM did not apply

¹⁰⁹ Horowbenna District Council v Manawatu-Wanganni Regional Council [2017] NZEnvC 118.

to the delineated natural wetland area on 21 May 2021;

- The Regional Council's apparent failure to undertake a comprehensive assessment of the vegetative, hydrological or soil status of the Site having rejected the findings of the November report and to provide adequate and accurate expert evidence on those topics (particularly hydrology and soil) supporting the position which it advanced as to the status of the delineated natural wetlands;
- The Regional Council's failure to substantiate any of the grounds on which it advanced its enforcement order application.

B P Dwyer

Environment Judge

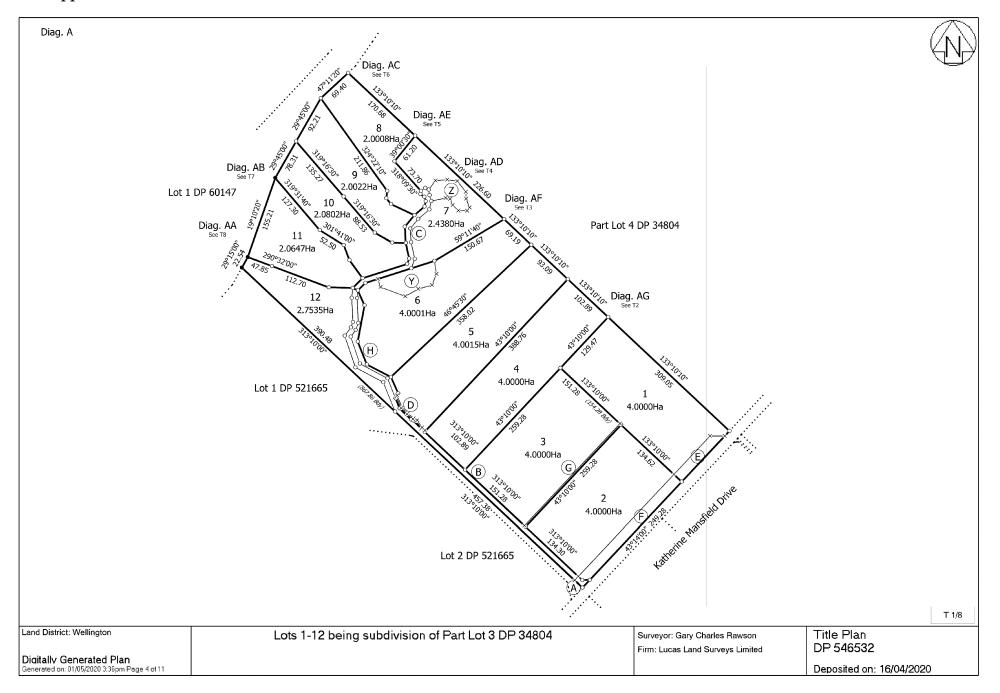
D J Bunting

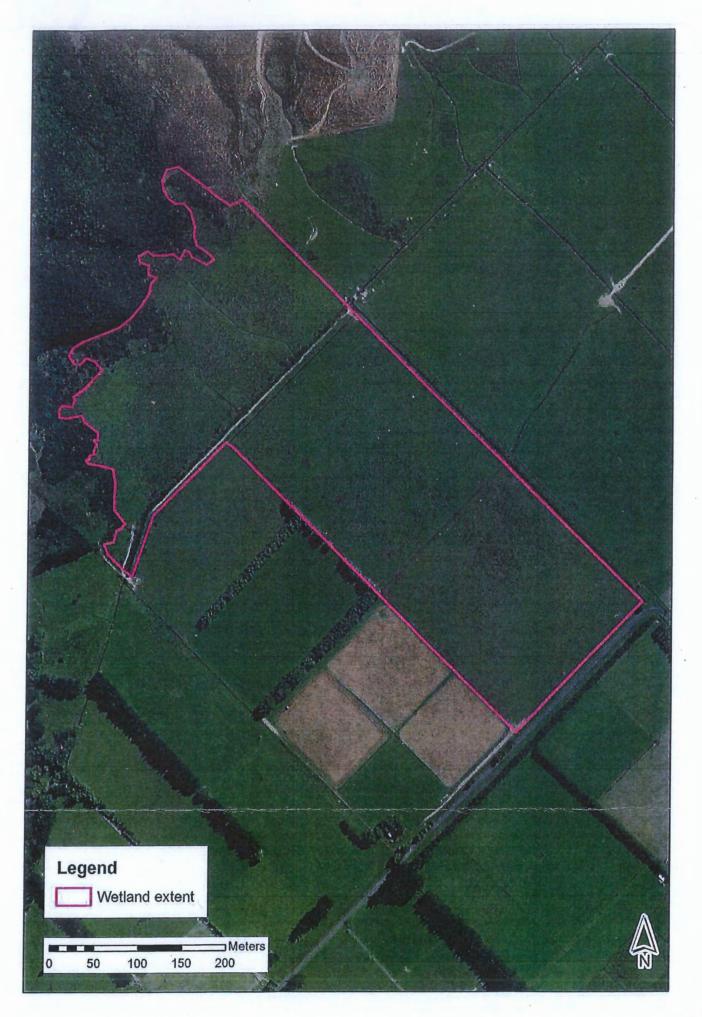
Environment Commissioner

R Bartlett

Environment Commissioner

Appendix 1 - DP 546532







Appendix 3 – Figure 4 to the November report

