# PC47 Natural Hazards

Mangaroa Peatland – MBTaylor 22 April 2024

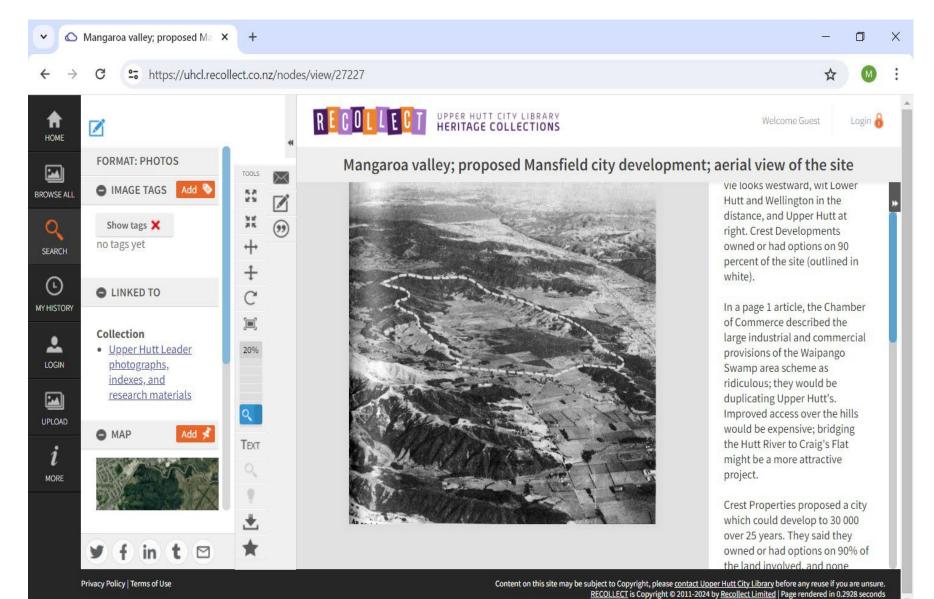
### PC 47 Natural Hazards

- □ NH-P5 Hazard Sensitive and Potentially Hazard Sensitive Activities within the Mangaroa Peat Overlay.
- Allow for subdivisions that results in the creation of vacant allotments in the Mangaroa Peat Overlay, provided:
- It can be demonstrated through a **geotechnical investigation** that the subdivision will not increase the risk of damage to property due to the building platform being located on good ground; or
- A geotechnical assessment shows that there is the ability for appropriate mitigation options to be incorporated into the design of a future building to (reduce) minimise the likelihood of damage as a result of poor ground conditions on the identified building platform.
- □ Resource consent including geotechnical assessments is needed.

### PC 47 Natural Hazards

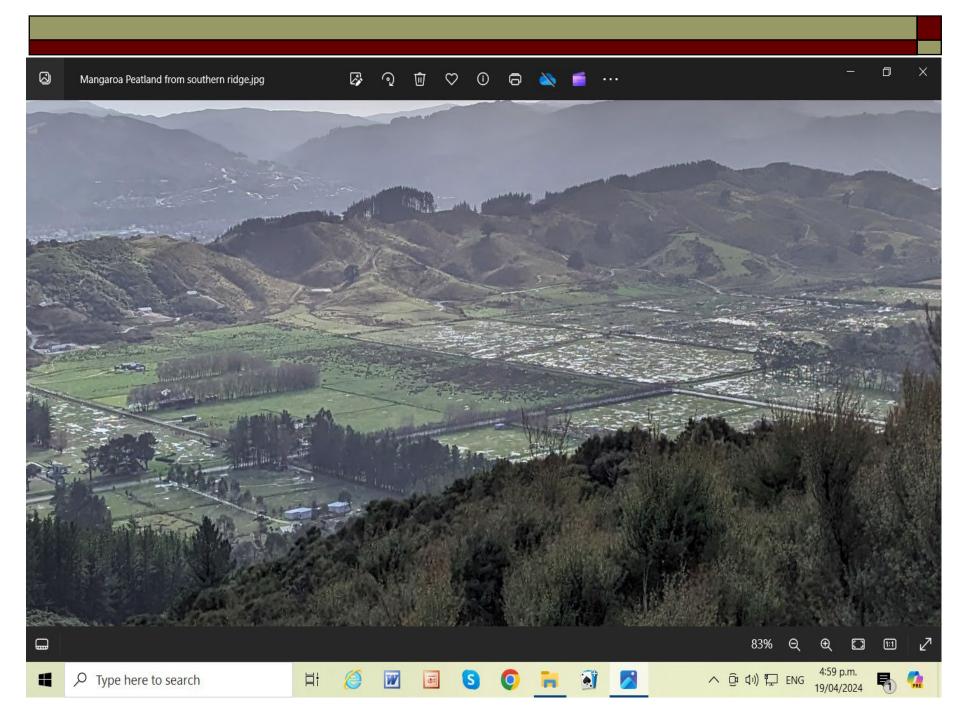
- □ We must protect ourselves from our actions.
- □ When commonsense fails rules are needed.

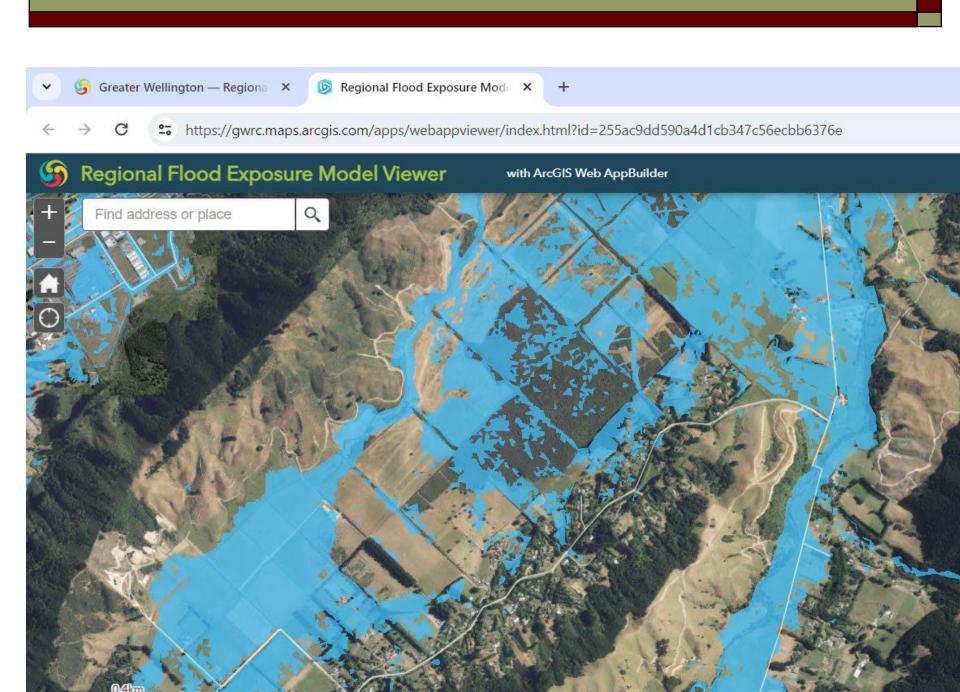
# Proposed Mansfield development ridiculous



# Mangaroa Peatland timeline

- 1. 1976 Crest Properties proposed 'Mansfield', a subdivision for 25 30,000 people termed 'ridiculous' by Chamber of Commerce
- 2. 1976 proposal document refers to 'more detailed soils engineering' on several pages
- 3. 1979 Mansfield Plan reduced to 800 dwellings
- 4. 1987 Mansfield Plan had approximately 75 dwellings (school bus survey)
- 5. Titles withheld due to issues with percolating for septic fields BRANZ plans
- 6. 1987 "No subdivision until city services were brought to the valley"
- 7. Urban Legends/Truths: diggers sinking homes water test Cr Griffiths house delivery
- 8. 2016 Private Katherine Mansfield Drive Extension was bought by UHCC to make a public road to facilitate subdivision local resistance and tension
- 9. 2018 Forest & Bird and others called a meeting with UHCC CE and Planners to urge no subdivision on the Mangaroa Peatland
- 10. 2018 subdivision consents were granted
- 2020 UHCC Sustainability Strategy adopted: Goal 2 "We will prioritise protecting and enhancing our natural environment" Mangaroa Peatland
- 2018 to present ongoing advocacy work by environmental groups to protect and restore the Mangaroa Peatland which includes supporting PC 47.

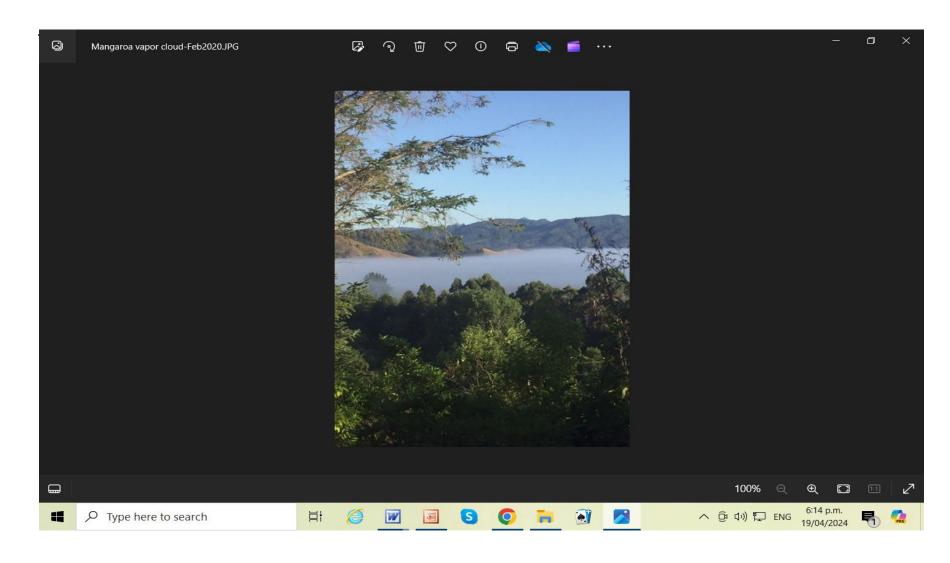




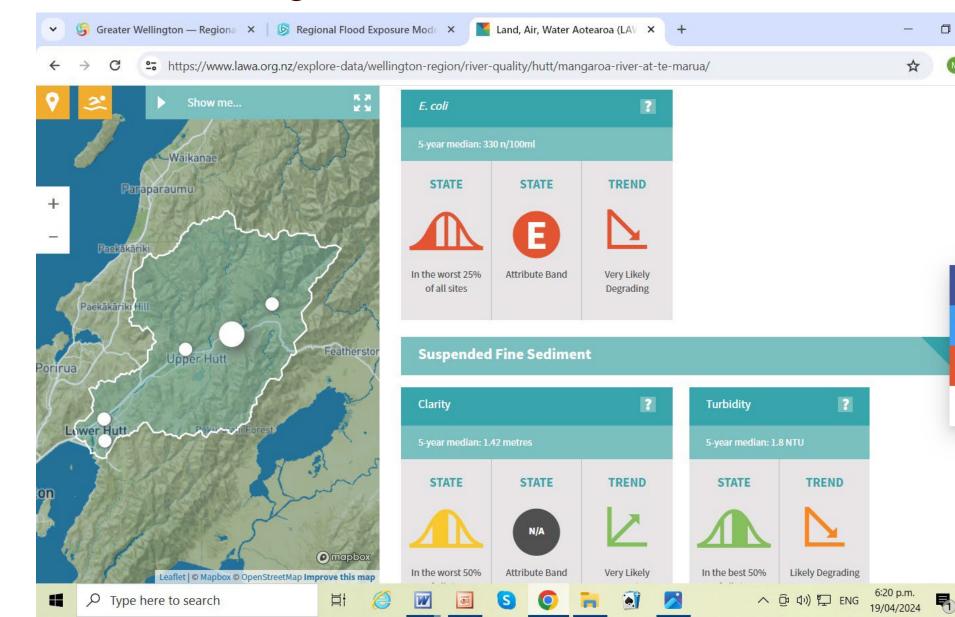
### NH-P5 wording

- "subdivision will not increase risk of damage to property..."
- "...minimise the likelihood of damage ... a future building"
- □ What about risk to humans and other species?
  - Poor air quality Carbon emissions from degrading peat
  - Poor water quality Human fecal matter in the peatland waterways that drain into the Mangaroa River and Te Awakairangi/Hutt River
  - Will the NPS Indigenous Biodiversity, NPS Freshwater Management and GWRC Proposed National Resources Plan address these peatland issues?
  - Please reconsider these pieces of legislation in relation to PC 47 and the Mangaroa Peatland.

# Mangaroa Peatland carbon cloud



# Mangaroa River contamination



### Risk: Who pays when things go 'to custard'?

- □ Insurance?
- □ Council? (rate payers)
- □ Developer?
- □ Builder?
- □ Land owner?
- □ 96 KMD a case in point
- □ What happens in the future if legislation/lack of fuel shuts down the diggers? What will happen to the drains?
- Best to avoid risks with a solid plan
  - I support the provisions and rules put forward in the PC 47 Natural Hazards draft
  - I would prefer stronger environmental protections

# PC 50 Rural zoning and land use opportunities for the Mangaroa Peatland





### □ Energy Precinct

- Max efficiency and biodiversity in solar project
- Renewable energy + sustainable agriculture
- Energy generation and self sufficiency
- Environmental benefits + Climate Change mitigation
- Community development and job creation

#### Conservation Precinct

- Carbon sink
- Wildlife habitat
- Reserve, recreation, tourism

### PC 47 Natural Hazards: Mangaroa Peatland MBTaylor 22 April 2024

#### Personal background

I am Mary Beth Taylor. I left the northern hemisphere in spring of 1980 and I arrived in NZ in spring of 1981. I moved to Wellington in 1982 and have lived in Upper Hutt since 1985. I settled in Whitemans Valley 1987.

I am and environmental advocate and member of several environmental groups including Forest & Bird NZ's largest conservation organisation, World Wildlife Fund and Greenpeace. I have sat on UHCC reference and focus groups between 2019 and 2023 including

- UHCC Climate change focus group Sustainability Strategy 2020
- UHCC PC 50 Rural zoning review focus group
- UHCC PC48 Significant Amenity Landscapes reference group

I advocate for the environmental at all levels of government and strive to provide a voice for Nature on many issues. The protection and restoration of the Mangaroa Peatland is one of the most important issues I support.

I have lived on Katherine Mansfield Drive for 37 years on a ridge overlooking the Mangaroa Peatland. My property is approximately 20% peatland, 50% slope, 30% usable land. I accept this and in fact love the variety of terrain on my property.

In 1987 when I became aware of this valley and subdivision I did my research. I decided immediately that I was not interested in any sections on the swamp side of the road for the very reason we are here today. Too much unstable land and risk.

I understood the constraints of the land and respected these. It was logical that we did not buy on the peatland or build on extreme slopes.

From my experiences living above the peatland for nearly 40 years I believe the Coffee report is accurate.

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- 11.2020 UHCC Sustainability Strategy adopted: Goal 2 "We will prioritise protecting and enhancing our natural environment" Mangaroa Peatland
- 12.2018 to present ongoing advocacy work by environmental groups to protect and restore the Mangaroa Peatland which includes supporting PC 47.

#### **How deep is the Mangaroa Peatland?**

- An 'average' depth of approximately 8 meters is suggested but not tested
- Like the oceans there are mounts and trenches in a peatland
- 1992 Stratigraphic drillhole: GNS Document Search
  - 1. Mangaroa Peatland / "Waipango Swamp"
  - 2. Relevant GNS Document Search Results-11 April 2013
  - 3. Begg, J.G. 1992 Completion report, stratigraphic drillhole MVS-1, Mangaroa Valley, Upper Hutt, New Zealand. Lower Hutt: DSIR Geology and Geophysics. *New Zealand Geological Survey report G 165.* 71 p.

#### Abstract:

A stratigraphic drillhole sited at the south end of Black Stream, a southern tributary to Mangaroa River in the Upper Hutt area, penetrated 48.2 m of Quaternary non-marine sediments. The drillhole failed to reach basement greywacke. The late Quaternary sequence of sediments consists of peat (0-5.8 m) overlying clayey silt (5.8 - 9.2 m), rhyolitic tephra (9.2 - 9.3 m), further clayey silt (9.3 -19.4 m), gravel (19.4 - c. 26.3 m), and a sequence of alternating gravel, grit, sand, silt and clay (c. 26.3 - 38.15 m). The latter sequence is underlain by a weathered, sharp-based, upward-fining rhyolitic tephra containing abundant euhedral magnetite crystals (38.15 - 38.5 m). Sediments immediately beneath this older tephra consist largely of stratified silty clays (38.5 - 40.0 m). Between 40.0 and 48.2 m, the sequence consists of alternating gravel, grit, sand and minor silt and clay beds. (auths)

### An email related to the North Valley Estate legal battle The money/risk subdivision chain

"I think what annoys me the most about situations like this is how much risk is involved with these developments and who ends up wearing the majority of the risk. There is a lengthy chain of players in any development including land owners, council, surveyors, engineers, land agents, consultants, architects, builders, truck and machinery drivers and a huge cast of supporting contractors. They are all lining up for their share of the profit. With all subdivisions, each step of the way there is money to be made and a certain amount of risk to take. It reminds me of a house of cards or a Jenga game where the stability of the whole depends entirely on the integrity of each piece. If any of the players involved in a subdivision lack integrity or if the conditions and timing are not right, then the whole thing falls apart."

#### **Publications and references**

- https://www.rnz.co.nz/news/national/400044/warning-peatlandthreatened-by-planned-upper-hutt-housing-development
- GWRC Flood Extent Maps
- The Mansfield Proposal 1976 Developers Crest Properties + Brickell Moss Rankine & Hill, Consulting Engineers and Surveyors

- Wallaceville Peat n161/525-535; 538-545 W.F. Harris
- 281C KATHERINE MANSFIELD DRIVE, WHITEMANS VALLEY: WETLAND DELINEATION

#### Contract Report No.5048 July 2019

**Project Team:** 

Alex Reid – Report author, field assessment Chris Bycroft – field assessment Astrid van-Meeuwen-Dijkgraaf – Report author

• Hydrological assessments of ten wetlands in the Wellington region and recommendations for sustainable management: a holistic approach.

#### **KEITH THOMPSON**

Bogman Ecological PO Box 13062, Hamilton *keith@bogman.co.nz* May 2012

• WINTER WATER TABLE DEPTHS, WAIPANGO SWAMP, UPPER HUTT, AND SOME IMPLICATIONS FOR SEPTIC TANK EFFLUENT DISPOSAL 1983

J.C. Heine, J.D.G. Milne
Soil Bureau District Office Report WN9
NZ SOIL BUREAU DISTRICT OFFICE
Department of Scientific & Industrial research,
Private Bag, Lower Hutt, New Zealand

#### Pg 11: SOME IMPLICATIONS FOR SEPTIC EFFLUENT DISPOSAL

As was given in evidence at the 1981 Town and Country Planning Tribunal hearing, the shallow water tables over the alluvial apron and swamp proper will present problems for the disposal of septic tank effluent. Septic tanks rely on a primary anaerobic digestion phase followed by a necessary secondary aerobic digestion phase. The aerobic digestion phase will be difficult to achieve where water tables are shallow in the alluvial apron area and will be virtually impossible to achieve in the peat of the swamp proper. Given the direction of groundwater flows, the effluent will almost certainly concentrate locally, and additionally, much of the effluent could end up in the swamp proper in an anaerobic state.

Finally, we wish to point out that the 30 cm depth alluded to in the letter from Upper Hutt City Council to us, refers to a very shallow water table depth when considering the suitability of an area for a septic tank effluent field. If, for example, the United States Department of Agriculture criteria for soil limitation ratings for septic tank absorption fields (Guide Sheet 3, USDA Soil Conservation Service, and shown in Appendix, p.12) were to be adopted, then areas with depths to water tables shallower than 122 cm (48 inches) would be deemed to have severe limitations. For the area examined in this report, only Class 4 hill land and the northeastern alluvial terrace at the catchment mouth would meet this criterion. However, slopes that are steeper than 15% (i.e. more than 9) would be deemed to have severe limitations for septic tank absorption fields, and almost all the Class 4 land is steeper than 12°.