

Ministry for the Environment Consultation on Clean Water 2017 – 90% rivers & streams swimmable by 2040

Submission by Climate Justice Taranaki Inc., 28 April 2017

1. Climate Justice Taranaki Inc. (CJT)¹ is a community group dedicated to environmental sustainability and social justice. This includes issues of inter-generational equity, notably in relation to climate change, which will impact future generations' inalienable rights to safe water, air and soil, crucial to sustaining livelihoods and quality of life.
2. CJT welcomes the opportunity to submit on the consultation document 'Clean Water 2017 – 90% rivers & streams swimmable by 2040'.
3. CJT strongly recommends that the Ministry for the Environment (MfE) reconsider our submission² on the 'Next Step for Fresh Water 2016' last year, as many of the points we raised are not reflected in the current document 'Clean Water 2017'.

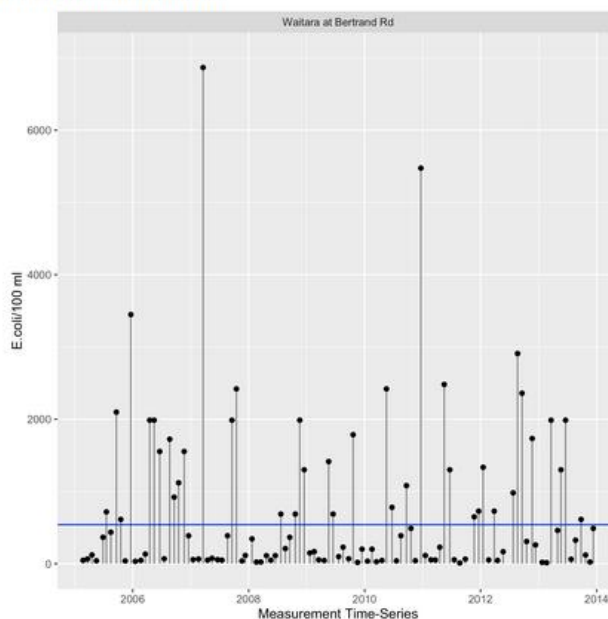
Proposed Swimming Target

4. Members of CJT, as many other submitters, are gravely concerned by the definition of 'swimmable' i.e. "where the water is suitable for swimming more than 80% of the time". These kinds of interpretations are not clear or transparent. It appears to imply that one could get sick twice in ten swims, or two out of 10 people could get sick after a swim in a river or lake classified as 'Fair' (Yellow). With this level of health risk, we cannot accept the 'Fair' category to be labelled 'swimmable'. Indeed, for those who are susceptible to illnesses, the chance of getting sick and with potentially fatal consequence is higher again, as sadly demonstrated in the recent Havelock North water contamination³. The proposed definition is misleading and gives a false sense of security to the general public and the vulnerable.

5. In the current document, the proposed *E. coli* guideline value for rivers is 540 *E. coli* per 100 mls (Figure 1 on right)⁴. This is a very concerning shift in the upper limit of *E. coli* from the 2014 National Policy Statement for Freshwater Management. As a comparison, the Guidelines for Canadian Recreational Water Quality (2012)⁵ set a value of less than 200 *E. coli* / 100 mL in geometric mean concentration (GM - minimum of five samples) and a value of less than 400 *E. coli* / 100 mL in single-sample maximum concentration, for fresh recreational waters used for primary contact activities. The US EPA⁶ recommends 126 colony-forming unit (cfu) / 100 mL in GM concentration of 410 cfu / 100 mL in statistical threshold value (STV).

E. coli levels in the Waitara River catchment

WAITARA AT BERTRAND RD



The graph shows *E. coli* levels over a time series. The swimming guideline value of 540 *E. coli* per ml is shown in blue. It is not safe to swim when *E. coli* levels exceed this threshold.

This section of the river is red and has poor water quality for swimming. It exceeds the *E. coli* threshold (of 540 *E. coli* per 100 mL): 38.3 percent of the time

- The document gives no explanation as to how the targets of 90% rivers and lakes swimmable by 2040 or 80% swimmable by 2030 were derived. Is it simply wishful thinking?
- The graph on p.9 of the document suggests that six regions already have over 80% 'swimmable' rivers and lakes while several regions like Taranaki (44%), Auckland (39%) and Northland (29%), are far below the 80% benchmark. The graph on p.11 suggests that currently 72% of rivers and lakes across the country are 'swimmable' and that the targets would apply nationally. Would this imply that in practice, those regions that are well below targets may improve a little while those that are above targets could be degraded – a kind of offset – and still produce an overall improvement nationally?

Proposed amendments to the National Policy Statement (NPS) for Freshwater Management

Only large rivers and lakes a serious problem

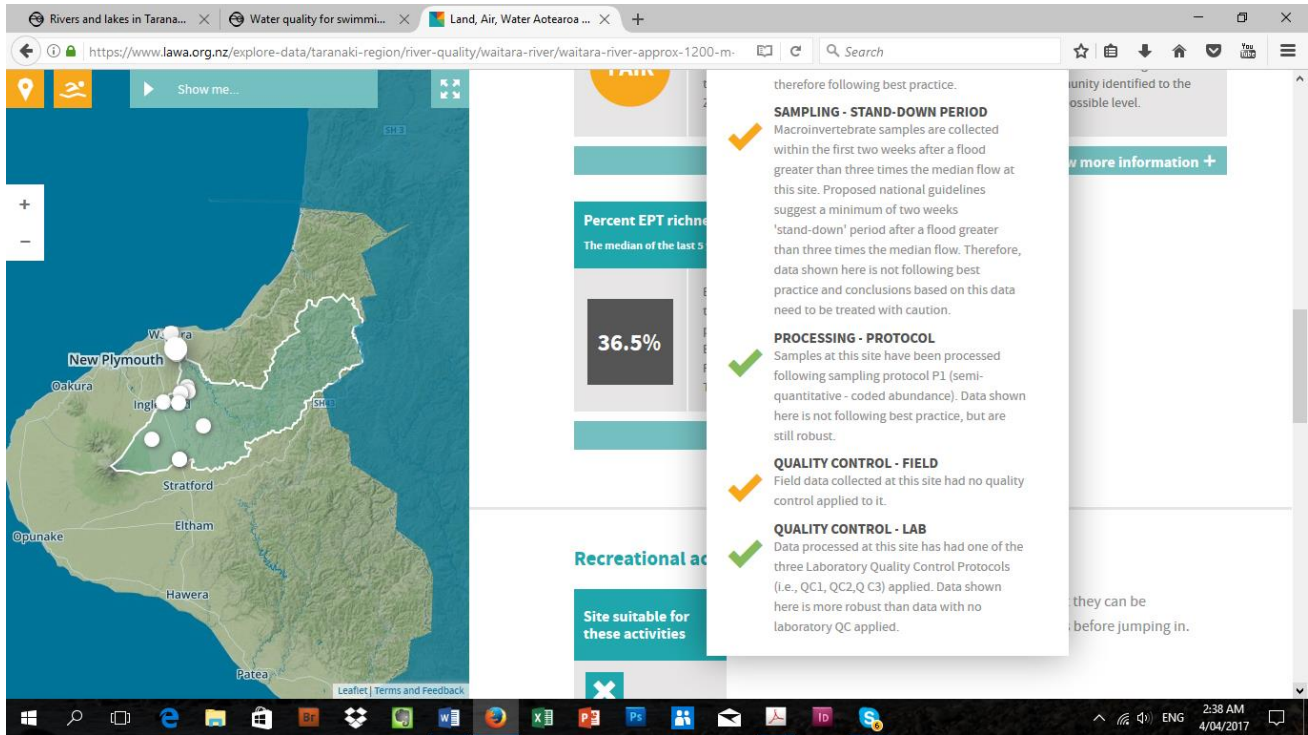
- Critically, Objective A3 concerning the improvement of freshwater quality to reduce human health risk applies only to "large rivers and lakes" defined as "rivers that are fourth order or above, and lakes larger than 1.5 kilometres in perimeter on average".
- Under such a definition, up to 90% of NZ's rivers and streams would not be required to meet any swimmability or human health standards⁷ and only a few rivers in Taranaki would be required to meet such standards (Figure 2 on right)⁸.
- We argue strongly that all rivers and lakes where communities use or seek to use for recreation should be included in Objective A3 for improvement of freshwater quality and reduction of human health risk, not only 'large' rivers and lakes.



Monitoring, reporting and action

- CJT supports the proposal to require regional councils "to identify with their communities those water bodies that needed to meet a swimmable standard... report how often lakes and rivers are suitable for swimming... make it explicit that regional councils must improve the suitability of waterways for swimming... require regional councils to monitor macroinvertebrates..." and "where monitoring indicates freshwater objectives are not being met, regional councils are required to establish methods, for example action plans, to respond to the results".
- However, the above requirements are only effective when the swimmable standard is safe and precautionary, the monitoring methods are scientifically robust, the reporting is professional and transparent, the community participation is genuine and thorough, and the action plans are implemented on the ground.
- The selection of monitoring locations, for example, needs to be much more comprehensive and targeted, to cover all representative types of ecosystems, landuse, soil types, gradients and location in relation to industrial discharges, etc. The sampling regime needs to be carefully designed to consider rainfall and other weather events.
- MCI Methodology:** In our submission on 'Next Step for Fresh Water 2016', we requested that MfE review the current methodologies used by different regional councils, especially the Taranaki Regional

Council⁹, in measuring MCI. The LAWA website clearly showed that TRC’s sampling method deviated from the national standard and no quality control had been applied to the field data (Figure 3 below)¹⁰. For accountability and meaningful comparison, it is important that the same protocol, tolerance values for taxa and interpretation of results are being used across the country. We also proposed the inclusion of fresh water fish communities in ecological monitoring. These requests have not been addressed in the current document.



Oil and gas and agri-chemicals

8. In our 2016 submission, we also requested that residues of ecotoxic pesticides and hydrocarbons (including contaminants from oil and gas exploration, production and waste disposal) be considered as additional attributes for ecological and human health. In this submission, we list several examples to illustrate this need.
9. In Taranaki, numerous oil, gas, petrochemical and agrichemical companies e.g. Shell Todd Oil Services, Tag Oil, Todd Energy, Greymouth Petroleum, Chevron, Origin Energy, Methanex, Dow AgroSciences and Ballance Agri-Nutrients, hold consents to discharge contaminants into water (streams, tributaries, groundwater) or onto land where they may enter water. There have been multiple cases of water contamination resulting from these industries. An example, at Todd Energy’s McKee Production Station, recent monitoring showed that hydrocarbons from historical contamination remained in stream sediment downstream to a contaminant discharge point, prompting further monitoring and assessment of stream community health¹¹. Another example, the Ballance Agri-Nutrients Plant was commissioned in 1982 to produce ammonia and urea (as fertilizer) from natural gas. Over the years, there have been concentrated plumes of ammonia present in the groundwater on site¹². Dow AgroSciences’ agricultural chemical plant in New Plymouth district is another example. Contaminants (phenoxyes and chlorophenols) were detected in the groundwater back in the 1990s and Phenoxy herbicides were detected still in recent years, though at very low levels¹³. Yet another example concerns the BTW Wellington landfarm near Waitara where oil and gas wastes have been spread on farmland, and benzene has been detected in the groundwater for a number of years^{14,15}. Taranaki Regional Council described the contamination as a “legacy” issue without environmental consequences. But how can groundwater contamination be of no environmental consequence? It is well known that surface water and groundwater systems are inter-connected.

10. CJT therefore strongly recommends that our proposal to include hydrocarbons and other industrial contaminants as additional attributes for ecological and human health, be included when finalizing the NPS.
11. **Freshwater Management Unit:** CJT remains concerned about the definition and application of Freshwater Management Unit (FMU) by regional councils, without clear guidance under the NPS. Please refer to our 2016 submission where we explained in detail our concerns over the way the Taranaki Regional Council proposed to divide our freshwater bodies into FMUs and the lack of distinction in rules over the different FMUs. We strongly recommend that the NPS provide clear guidance as to the definition, identification and application of FMUs at the regional level.

Economic well-being or mismanagement?

12. CJT objects strongly to the addition of “**economic well-being**” to the NPS “*to make clear that regional councils must consider the community’s economic well-being when making decisions about water quantity, deciding what level or pace of water quality improvements will be targeted, and when establishing freshwater objectives.*” We object to the addition of “*while providing for economic well-being, including **productive economic opportunities***” to the NPS Objective B1 in regards to water quantity.
13. The life-supporting capacity, ecosystem processes and indigenous species, as well as the rights of communities and future generations to adequate and clean water, must not be compromised by some economic arguments. These economic arguments are all too often biased towards short-term profit gain for corporations, and ignore environmental costs, ecosystem services and losses suffered by local communities and future generations. Of numerous recent examples, the Environment Canterbury (ECan) debacle¹⁶ should signal the errant foolishness of this approach.
14. Indeed, numerous scientists, economists and commentators have questioned the government’s foolhardy commitment to increase dairy export, driven largely by the Irrigation Acceleration Fund¹⁷ and other investments. We say it is economic mismanagement. A \$400 million fund used for irrigation which only intensifies dairying would be better spent on riparian planting and other mitigation measures: “*By using that money to actually lessen the number of cows, and lessen the impact, we will be better off in the end,*” said Dr Mike Joy¹⁸.
15. **Exceptions for Infrastructure:** As we explained in our 2016 submission, we cannot accept the proposal to allow regional councils to set freshwater objectives below national bottom lines because of infrastructure, especially when the list of such infrastructure remains unfilled. In practice, such exceptions being offered to infrastructures would work like ‘get out of jail free cards’, as the Parliamentary Commissioner for the Environment warned¹⁹. The proposed amendments to include “*only in the physical area where the infrastructure contributes to the degraded water quality*” and “*if it is reasonably necessary for the continued operation of the infrastructure*” offer no assurance that there is any will or vision to halt further degradation, to restore ecological health, or to consider alternative infrastructures or solutions that are environmentally friendly. The term “*reasonably necessary*” is the obvious argument that regional councils would use to allow existing infrastructure to continue to pollute.

Te Mana o te Wai and the case of the Waitara River

16. Mana is like respect. Water is not being respected when we knowingly block its path, redirect it, cover it up, change its flow, pollute it and use it to 'dilute' waste without increasing its capacity to clean water by protecting indigenous forestry, wetlands, estuaries and reefs.
17. Tangata whenua have constantly called for council management to improve but they have been grossly ignored. In some cases, they have to take council and the crown to court, at great personal cost, and

having suffered the loss of river transport routes, fishing and harvesting grounds, health issues and flooding. If water was respected and not treated as a drain, these serious issues would not arise.

18. We use the case of the Waitara River to support the recognition of Te Mana o te Wai (NPA Policy AAA), to emphasize the connections between freshwater bodies and coastal water (Policy A1a.iii), the need for integrated management, and to argue against the exception for infrastructure (Policy CA3). In 1983, the Waitangi Tribunal found that tangata whenua was “*prejudicially affected in that the reefs and associated marine life suffer from various degrees of pollution and that those near to the mouth of the Waitara River in particular are badly polluted and stand to be polluted further... That the Treaty of Waitangi obliges the Crown to protect Maori people in the use of their fishing grounds and to protect them from the consequences of the settlement and development of the land...*” (Wai-6)²⁰. The Tribunal recommended an “*interim*” arrangement for the discharge of Synthetic Fuels Plant [now Methanex] effluent through the Council’s outfall, the establishment of a Task Force with focus on the “*replacement of the defective Waitara Borough outfall, and in the long term to the provision of land based treatment plants*”, and “*the recognition of Maori fishing grounds in general regulatory and planning legislation...*”



Warning signs at Waitara river mouth, 20 April 2017 (Photo courtesy of Friends of the Waitara River)

19. Thirty-three years later, sewage and industrial wastes continue to plague the Waitara river and coastal environment. During the 2014-2015 monitoring period, 39 incidents were reported at the New Plymouth Waste Water Treatment Plant which has a discharge consent that is valid until 2041²¹. Although the Waitara outfall ceased to be used for ‘normal operation’ in October 2014, wastewater containing raw sewage was discharged via the outfall six times since then, twice in 2016, due to equipment failure, and there have also been nine overflows to the river (Communications with NPDC, 14/11/2016) when the public was warned to stay out of the water²². Moreover, the Waitara outfall continues to discharge contaminants from the two Methanex sites at Motunui and the Waitara Valley. Clearly there are grave consequences of such discharge to public health, environmental integrity, Te Mana o te Wai and rights to traditional Maori fishing grounds and customary practice as recognised in Wai-6.

Freshwater Improvement Fund

20. We appreciate government support for freshwater improvement initiatives. We propose that smaller projects in the order of \$20,000 also be considered for funding, so that small community initiatives could also be supported. The current criteria for funding projects of \$400,000, including a maximum of 50% funding, only caters to large organisations or expensive projects which may not necessarily deliver better results than many small projects collectively. Community driver projects tend to be more sustainable in the long run due to greater sense of ownership and participation, especially when designed with a strong capacity building component.

21. We sincerely urge that the government redirects its irrigation investment, such as the Irrigation Acceleration Fund, to the Freshwater Improvement Fund and other support for community initiatives that enhance environmental health and sustainability.

Excluding Stock from Waterways

22. We fully support the exclusion of stock (all cattle, pigs, deer) from waterways including rivers, streams, drains, lakes and natural wetlands.
23. We further support the submission from Forest and Bird which urged that the deadlines for the proposed exclusions for various stock be brought forward²³.
24. We request that the exclusion requirements be expanded to include seasonal (not just permanently flowing) rivers, streams and drains on plains, and waterways smaller than 1 metre wide on rolling and steep land.
25. We further request that the stock exclusion requirements be applied to 'all hooved animals', e.g. sheep, goat and horses also.
26. Fences need to be effective, e.g. minimal 2 hot-wire, and be maintained and checked throughout their lengths. Steep gradient farms must maintain riparian planting if fencing is not possible.

Stock Reduction and Cap on Dairy Conversion

27. We reiterate our call to reduce stocking rate and to put in place a cap or ban on further dairy conversion across the country, as we wrote in our 2016 submission.
28. According to the government report Our Fresh Water 2017²⁴ released yesterday (27 April 2017), New Zealand has one of the world's highest rates of agricultural land intensification over recent decades²⁵. Between 1994 and 2015, dairy herd numbers increased nationally by 69 percent, to 6.5 million. In Canterbury, Southland and Nelson regions, dairy cattle numbers rose almost six-fold. The resulting environmental impacts have been drastic and far-reaching, from nitrogen leaching to accelerated erosion, aquifer depletion or contamination, loss of biodiversity and significant ecosystems²⁶, and of course climate change. No amount of riparian planting and fencing would be enough to counter such impacts, without a halt in further dairy conversion and a substantial reduction in stock numbers in many areas.

Water, Agriculture and Climate Change

29. The Prime Minister's own chief science adviser Prof. Peter Gluckman recently reported²⁷ that our rivers and lakes are under increasing stress²⁸ from agricultural intensification, urban expansion, industrial pollution, hydroelectric development and climate change. The latter will in turn impact on agriculture, power generation, water demand and supply (including aquifer recharge), public health, infrastructure²⁹ and biodiversity.
30. The OECD Environmental Performance Review on New Zealand 2017³⁰ warned, "...New Zealand's growth model, based largely on exploiting natural resources, is starting to show its environmental limits with increasing greenhouse gas emissions and water pollution... While the country only accounts for a tiny share of global emissions, the OECD's third Environmental Performance Review of New Zealand finds that intensive dairy farming, road transport and industry have pushed up gross GHG emissions by 23% since 1990. Despite generating 80% of its electricity from renewable sources, among the highest in OECD

countries, New Zealand has the second-highest level of emissions per GDP unit in the OECD and the fifth-highest emissions per capita.”

31. The proposed NPS policy A1 requires regional councils to ensure that, when making or changing regional plans, give effect to the objectives of the NPS, having regard to “i. the reasonably foreseeable impacts of climate change; ii. the connection between water bodies; and iii. the connections between freshwater bodies and coastal water”; and “b) establish methods (including rules) to avoid over-allocation” (NPS Policy A1). While we support this policy, we believe it is futile and counter-productive to ask councils to address the impacts of climate change while not allowing them to consider the impacts of an activity or a plan on climate change. We challenge the government to restore the Resource Management Act³¹ and EEZ-CS Act³² so that the **effects on climate change of discharging greenhouse gases into the air** must be considered, not just the impacts of climate change on an activity or plan.
32. It is clear that in many regions and circumstances, over-allocation in terms of water quality or quantity has already occurred. It is time to really rethink our ‘growth model’, respect environmental limits, honour Te Mana o te Wai and embark on alternatives that are gentle and responsible to earth and to people, now and into the future.

¹ Climate Justice Taranaki website: www.climatejusticetaranaki.info

² Climate Justice Taranaki Inc. 2016. Submission on Ministry for the Environment Consultation on Next Step for Fresh Water 2016. <https://climatejusticetaranaki.files.wordpress.com/2013/03/cjt-submission-on-mfe-next-steps-for-freshwater.pdf>

³ Radio NZ, 2 Feb 2017. Tests reveal source of Havelock North water contamination. <http://www.radionz.co.nz/news/national/323594/tests-reveal-source-of-havelock-north-water-contamination>

⁴ Ministry for the Environment website. Water quality for swimming in the Waitara River catchment – E. coli levels in the Waitara River catchment Waitara at Bertrand Rd. <http://www.mfe.govt.nz/fresh-water/about-freshwater/taranaki/waitara-river>

⁵ Government of Canada Guidelines for Canadian Recreational Water Quality – Third Edition. <https://www.canada.ca/en/health-canada/services/publications/healthy-living/guidelines-canadian-recreational-water-quality-third-edition/guidelines-canadian-recreational-water-quality-third-edition-page-9.html#a411>

⁶ US EPA, 2012. Recreational Water Quality Criteria. <https://www.epa.gov/sites/production/files/2015-10/documents/rec-factsheet-2012.pdf>

⁷ Forest and Bird website. Maps show most NZ rivers are excluded from swimming standard. <http://forestandbird.org.nz/what-we-do/publications/media-release/maps-show-most-nz-rivers-are-excluded-swimming-standard>

⁸ Forest and Bird website. <https://www.dropbox.com/sh/ry443cwo1emzq1l/AABaBFx5-RTy3cXemfaNPf5a?dl=0&preview=RECIIncludedTaranakiP1.jpg>

⁹ Taranaki Regional Council, June 2015. Freshwater Macroinvertebrate Fauna Biological Monitoring Programme Annual State of the Environment Monitoring Report 2013-2014. <http://www.trc.govt.nz/assets/Publications/state-of-the-environment-monitoring/environmental-monitoring-technical-reports/1603850w.pdf>

¹⁰ Land Air Water Aotearoa (LAWA) website. Waitara River approx. 1200 m u/strm Petralgas. <https://www.lawa.org.nz/explore-data/taranaki-region/river-quality/waitara-river/waitara-river-approx-1200-m-ustrm-petralgas/>

¹¹ Taranaki Regional Council, Jan 2017. Todd Petroleum Mining Company Limited McKee Production Station and Power Plant Monitoring Programme Annual Report 2015-2016. <https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGproduction/MR2016-ToddMcKeeProductionStationPowerPlant.pdf>

¹² Taranaki Regional Council, Sep 2014. Ballance Agri-Nutrients (Kapuni) Ltd monitoring programme annual report 2012-2013. <https://trc.govt.nz/assets/Documents/Environment/Monitoring-Industry/MR2013-BallanceAgriNutrientsKapuni.pdf>

¹³ Taranaki Regional Council, March 2017. Dow AgroSciences (NZ) Ltd Monitoring Programme Annual Report 2015-2016. Doc 1806247. <https://trc.govt.nz/assets/Documents/Environment/Monitoring-Industry/MR2016-DowAgroSciences2.pdf>

¹⁴ Taranaki Regional Council, Feb 2015. BTW Company Limited Brown Road-Wellington Landfarm Monitoring Programme 2013-2014. <https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGwaste/MR2014-BTWWellingtonLandfarm.pdf>

¹⁵ Taranaki Regional Council, Nov 2016. BTW Company Ltd Wellington Landfarm Monitoring Programme Annual Report 2015-2016. <https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGwaste/MR2016-BTWWellingtonLandfarm.pdf>

¹⁶ Green, 26 April 2010. ECan Act breaches rule of law. <https://blog.greens.org.nz/2010/04/26/ecan-act-breaches-rule-of-law/>

¹⁷ Crown Irrigation Investments website. <http://www.crownirrigation.co.nz/news/>

¹⁸ Radio NZ 28 April 2017. Reduce dairy cow number to stop water harm – ecologist. <http://www.radionz.co.nz/news/national/329640/reduce-dairy-cow-number-to-stop-water-harm-ecologist>

¹⁹ Parliamentary Commissioner for the Environment, June 2015. Managing Water Quality: Examining the 2014 National Policy Statement. <http://www.pce.parliament.nz/media/1638/managing-water-quality-web.pdf>

²⁰ Waitangi Tribunal Wellington New Zealand, March 1983. Report of the Waitangi Tribunal on the Motunui – Waitara Claim (Wai 6). https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_68496669/Report%20on%20Motunui-Waitara%20Claim.pdf

²¹ Taranaki Regional Council, May 2016. New Plymouth District Council New Plymouth Wastewater Treatment Plant Marine Outfall and Sludge Lagoon Monitoring Programme Annual Report 2014-2015. <https://www.trc.govt.nz/assets/Documents/Environment/Monitoring-wastewater/MR2015-NPDCNPWastewaterTreatmentPlant.pdf>

²² Taranaki Daily News, 27/3/2016. Multi-million dollar sewer main springs a leak between Waitara and New Plymouth.

<http://www.stuff.co.nz/taranaki-daily-news/news/78292173/sewer-main-springs-a-leak-between-waitara-and-new-plymouth>

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- ²³ Forest & Bird website 26/4/2017. Defend our Freshwater. <http://www.forestandbird.org.nz/node/109920>
- ²⁴ Ministry for the Environment & Stats NZ, 2017. New Zealand's Environmental Reporting Series: Our fresh water 2017. http://www.mfe.govt.nz/sites/default/files/media/Environmental%20reporting/our-fresh-water-2017_1.pdf
- ²⁵ Radio NZ, 27 April 2017. Landmark report finds freshwater at risk. <http://www.radionz.co.nz/news/national/329582/landmark-report-finds-freshwater-at-risk>
- ²⁶ Radio NZ, 18 April 2017. Water Fools? Greening of Mackenzie. <http://www.radionz.co.nz/programmes/water-fools/story/201840679/water-fools-greening-of-mackenzie>
- ²⁷ Office of the Prime Minister's Chief Science Advisor Professor Sir Peter Gluckman, 12 April 2017. New Zealand's fresh waters: Values, state, trends and human impacts. <http://www.pmcsa.org.nz/wp-content/uploads/PMCSA-Freshwater-Report.pdf>
- ²⁸ NZ Herald, 12/4/2017. Freshwater report: five key findings. http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11836290
- ²⁹ Radio NZ, 18 April 2017. MetService defends forecasts: 'We're certainly seeing more extremes' <http://www.radionz.co.nz/news/national/328990/metservice-defends-forecasts-'we're-seeing-more-extremes'>
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- ³¹ Resource Management Act 1991 Article 70A. http://legislation.govt.nz/act/public/1991/0069/latest/DLM233656.html?search=sw_096be8ed814e8c6e_climate_25_se&p=1&sr=4
- ³² Exclusive Economic Zone and Continental Shelf Act 2012. Article 59. http://legislation.govt.nz/act/public/2012/0072/latest/DLM3956212.html?search=sw_096be8ed8151a876_climate_25_se&p=1&sr=0