

New Plymouth District Council Draft Annual Plan 2017/18

Submission from Climate Justice Taranaki Inc., 12 May 2017

Introduction

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 Draft Annual Plan 2017/18 proposals in relation to the airport and water supply.

New Plymouth Airport terminal project

3. The draft Annual Plan includes a proposal *“to proceed with the detailed design and construction of a new unique terminal at New Plymouth Airport”*. The project is estimated at \$21.7 million to \$28.7 million to be *“loan funded”* and *“servicing of the loan for interest and capital repayments will be met from Airport revenue”*, with *“a pay-back period of 20 years or until a debt to equity ratio of 30/70 has been achieved”* (NPDC, March 2017)².
4. CJT is supportive of council's preference for a *“new unique terminal”* (integrating local cultural narrative and elements of sustainability) over a *“functional design”* for a new terminal at New Plymouth Airport.
5. However, CJT has serious concern over the completeness and therefore validity of the risk analysis.

Risks from oil and gas activities onsite

6. Todd Energy and Greymouth Petroleum have both drilled oil wells at the airport next to the runway. In September 2016, a drill rig (photo below) was seen outside the airport café. Taranaki Regional Council (TRC) said it was there to plug old wells.



7. The Parliamentary Commissioner for the Environment (PCE, June 2014)³ warned: *“The bigger challenge comes once a well has been abandoned. The likelihood of an abandoned well leaking increases with its age. Moreover, there is no guarantee that the company that drilled the now abandoned well will still be*

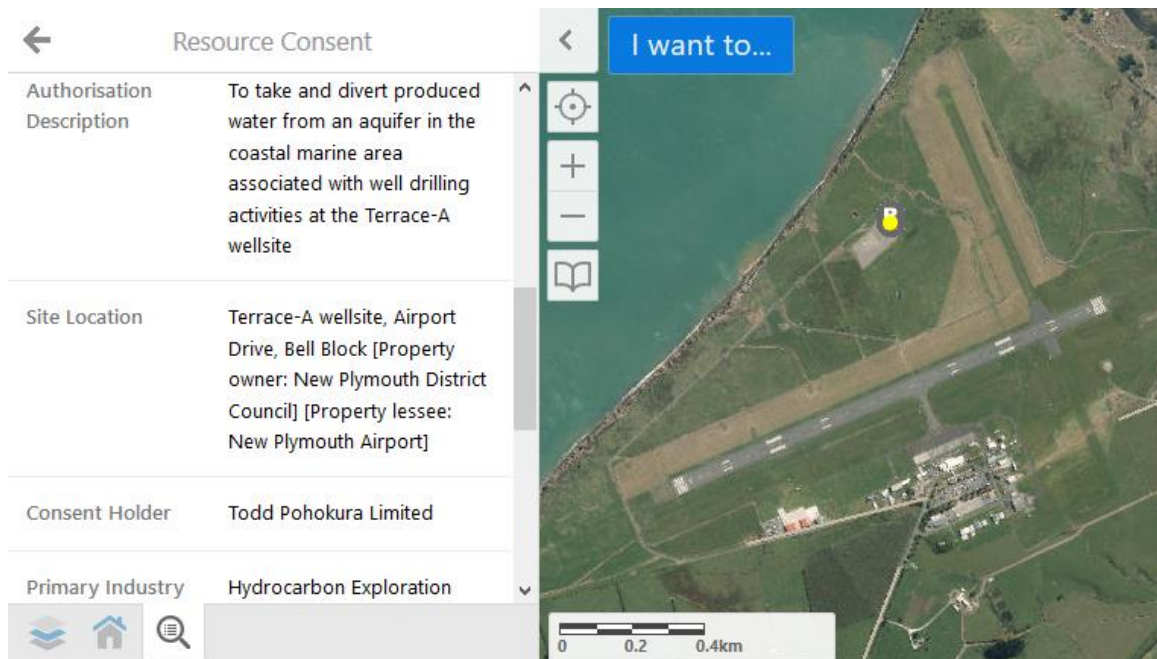
operating in New Zealand... Under law, once a well has been abandoned and 'signed off' by the High Hazards Unit and the councils, any leaks from the well become the responsibility of the owner or occupier of the land. But what tends to happen is that the cost of cleaning up contamination from historic economic activities falls on the public..."

8. Did Council take such risks and liability into account when conducting the risk analysis on which the Business Case for the new airport terminal was built?
9. The danger of oil and gas activities, whether it is current or historic, is real. In April this year, a Colorado home was blasted to the ground, killing two people and injuring two (High Country News, 3/5/2017⁴ and photo below from 9 News in Coloradoan, 2/5/2017⁵). The cause of the explosion was gas leak from a cut pipeline that's connected to an old gas well that was recently restarted. The home was just 54 metres from the gas well and 3 metres from the pipeline. Once the cause was revealed, the governor ordered inspections of all similar gas lines within 300 metres of occupied buildings (NZ Herald, 5/5/2017)⁶.



10. The Greymouth Waimanu wellsite is less than 300 m from the New Plymouth airport cross runway and the Todd Terrace-A wellsite is about 600 metres from the existing terminal building (See maps below from TRC, 2017)⁷.



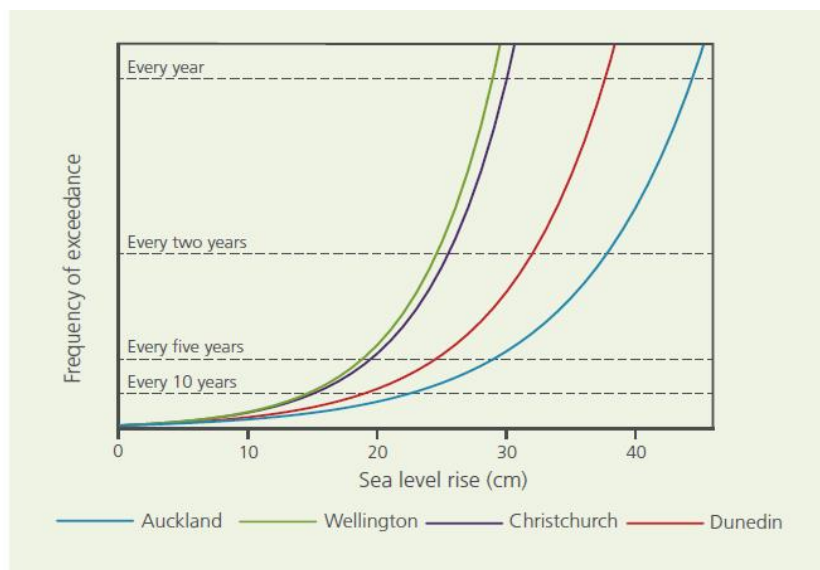


11. Is Council confident that the preparation and construction work on the proposed expansion of the airport terminal will be conducted with adequate caution and in collaboration with the relevant oil companies to avoid any catastrophic incident, bearing in mind the close proximity between oil/gas infrastructure and the many stakeholders involved? What if an oil company decides to resume drilling, fracking, production or injection activities onsite? Is Council certain that the health and safety risks associated with the increase in aviation and passenger traffic that follows the expansion of the terminal are justified or manageable?
12. Although the draft New Plymouth District Plan⁸ does mention the need for separation distances between hazardous infrastructures (e.g. oil/gas wellsites and production stations) and sensitive landuse (e.g. homes, schools, hospitals), there is no explanation or guideline on how such setbacks would be determined or how large they should be (CJT, Dec 2016)⁹. During the South Taranaki District Plan review process, oil companies objected vehemently to having any set separation distances, claiming that they had their own standards and they would be worked out between the companies and the landowners concerned. The South Taranaki District Council, under pressure from the oil companies, dropped all the setback requirements, despite Taranaki Energy Watch's expert witnesses arguing strongly for minimum setbacks based on analysis of effects and risks to human health, property and the environment (TEW, 16/12/2016)¹⁰.

Risks from climate change impacts

13. The eight "key project risks" give no mention of the risks or vulnerability of the proposed new terminal from the impacts of climate change and the associated extreme weather events and sea level rise.
14. According to Taranaki Regional Council (TRC, 2009)¹¹, the "airport is fronted by large cliffs that varying in height from 5 m to 20 m. Below these cliffs is a narrow sand and cobble beach backed by a steep cobble berm which is largely covered at high tide (TCC, 1988). The cliffs are composed of a layer of black sands overlying brown ash, overlaying organic rich tempras resting on volcanic material (Bevean, 2002). Some layers present a subvertical face which is prone to erosion."

15. Over the next 70-100 years, Taranaki could be “up to 20% wetter with more varied rainfall patterns, and flooding is likely to become more frequent and severe” (TRC, 2010)¹². The draft Coastal Plan of Taranaki acknowledged that “The risk or vulnerability to coastal hazards may increase over time due to climate change and sea level rise” (TRC, Aug 2016)¹³. Sea level rise and extreme storm surge will exacerbate coastal erosion, threatening the airport and nearby infrastructure.
16. Even a small amount of sea level rise will substantially exacerbate the costs of flooding and storm surges. In New Zealand, sea level is projected to rise by about 30 centimetres between 2015 and 2065, according to the Parliamentary Commissioner for the Environment (PCE, 2015)¹⁴. The Commissioner warned that the frequency of extreme water levels will increase drastically with sea level rise. For example, with a 30 cm rise in sea level, a 1 in 100 years’ extreme high water event would occur every 4 years at the port of Auckland and every year at the port of Wellington (See graph below from PCE, 2015).



Data: Hunter, 2015

Figure 3.3 In the future, the tide gauges at the four ports will record exceedances of today’s ‘100 year events’ more and more often.

17. Recent research on housing insurance and climate adaptation concluded that homes within 1.5m height of the present average spring high tide (there are some 43,683 in NZ)¹⁵ will likely lose their insurance:
18. “Evidence from international markets suggests that when a risk becomes uneconomic, insurers can decide that an area is ‘uninsurable’ and withdraw insurance altogether... Local authorities, and their insurers, could find themselves holding unexpected liabilities if future courts rule that councils are liable for resource consents provided to homes threatened by climate change... Local councils are also responsible for managing risk insofar as they construct infrastructure and make planning decisions which affect exposure to coastal hazards...” (Storey et al, 2017)¹⁶.
19. Has there been any analysis on (i) the vulnerability of the existing airport and the proposed new terminal and associated infrastructure to the impacts of climate change, (ii) the likelihood of the airport becoming ‘uninsurable’ and (iii) the liability on the Council, as party of the Airport Joint Venture?

20. Has Council evaluated the proposal against the Ministry for the *Environment Guidance for local government on preparing for climate change* (MfE, 2016)¹⁷, and the Regional Policy Statement for Taranaki in particular section 7.2 Responding to the effects of climate change (TRC, 2010)¹⁸?

Economic risks in the face of climate change

21. The Business Case ignores the direct and indirect economic impacts from climate change, and is based heavily on the assumption that passenger number and airline services will continue to grow in the next ten years. The ten-year horizon is too short, considering the payback period of the loan alone is 20 years long, and Council has recently bought the Crown's 50% share of the airport, becoming the sole owner (NPDC, 2017)¹⁹.
22. We share the view of Tom Bennion and many others, that: *"air travel demand within the next 2 to 3 decades will reduce due to voluntary and compulsory GHG [greenhouse gas] reduction measures, changes in passenger views regarding GHG emissions, and changes in the international and domestic economy due to climate-change effects"* (Bennion, 2016)²⁰.
23. In 2013, the International Civil Aviation Organization (ICAO)²¹ and its members including the International Air Transport Association (IATA) affirmed their commitment in addressing GHG emissions from international aviation to *"continuously improve CO2 efficiency by an average of 1.5 per cent per annum from 2009 until 2020, to achieve **carbon neutral growth from 2020** and to reduce its carbon emissions by 50 per cent by 2050 compared to 2005 levels"*. The 2020 baseline does not take into account current country commitments under the 2015 Paris Treaty and the need for over-delivery on current commitments to secure a reasonable chance of meeting the target of keeping warming well below 2 degrees Celsius.
24. The goal to achieve carbon neutral growth at 2020 would require *"nearly complete replacement of petroleum-based jet fuel with sustainable alternative jet fuels besides the implementation of aggressive technological and operational scenarios... approximately 170 new large biorefineries to be built every year from 2020 to 2050, at an approximate capital cost of US\$15 Billion to US\$60 Billion per year if growth occurred linearly... Achieving this level of emissions reduction would also require the realization of the highest assumed increases in agricultural productivity, highest availability of land for feedstock cultivation, highest residue removal rates, highest conversion efficiency improvements, largest reductions in the GHG emissions of utilities, as well as a strong market or policy emphasis on bioenergy in general, and alternative aviation fuel in particular. This implies that a large share of the globally available bioenergy resource would be devoted to producing aviation fuel, as opposed to other uses"* (ICAO, 2016)²². This constitutes a highly optimistic and unlikely scenario, and ignores many environmental and social justice issues.
25. At least 40 countries now put a price on carbon, with over half using some form of Emission Trading Scheme (ETS). Within countries, more than 20 states and provinces have implemented or are planning to implement trading and offset crediting programs. *"With the spread of emissions trading more broadly, time is running out for sectors to remain exempt from compulsory actions to cut their emissions... The cost of carbon offsetting for operators would range from 0.2 to 0.6 % of total revenues from international aviation in 2025; and 0.5 to 1.4 % of total revenues from international aviation in 2035"* (ICAO, 2016).
26. The cost of biofuel production and carbon offset will almost certainly be levied on airlines and passengers, making air travel less affordable.

27. Globally, the Stern Review (2006)²³ predicted that under the business-as-usual scenario: *“climate change will reduce welfare by an amount equivalent to a reduction in consumption per head of between 5 and 20%”*. A recent study published in Nature (Burke, et al. 2015)²⁴ concluded that: *“If future adaptation mimics past adaptation, unmitigated warming is expected to reshape the global economy by reducing average global incomes roughly 23% by 2100 and widening global income inequality, relative to scenarios without climate change.”*
28. Irrespective of the economic situation, increasing climate change awareness means that many people are already reconsidering their travel patterns and mode of transport to reduce GHG emissions.
29. The airport *“is infamous for crosswinds, due mostly to the fact that although the tarmac runway faces into the prevailing SSW wind the area regularly receives a strong SSE/SE. The cross runway is not sealed, and thus airline traffic is limited to the tarmac runway, parallel to the sea,”* (Wikipedia, accessed in May 2017)²⁵. The current proposal to construct a new terminal building does not address the constraints of the runway. With increasing frequency of extreme weather events resulting from climate change, flights will be disrupted more often and airports will be affected by rising sea level (ICAO, 2016), making air travel even less attractive.
30. The Business Case prepared to support the new airport terminal has not considered any of the above factors, making it incomplete and unreliable.
31. CJT believes a decision to commit Council, now the sole owner of the airport, to go into debt for 20 years in order to proceed with the proposed project is extremely risky, and deserves further investigation.
32. With close to \$30 million, there are other much more urgent infrastructure or visionary projects that could be considered instead; e.g. building a more modern and effective wastewater treatment plant, developing an electric fleet of Council vehicles and public transport, or investing in sustainable energy systems to create green jobs and enable a just transition away from fossil fuels.

Water supply (non-metered and metered)

33. The draft Annual Plan includes a proposal to change the rating system for water supply, by introducing a choice for ‘low water users’ to voluntarily switch to a metered supply *“to save money on their water rate”*. This is being offered in the name of fairness (creating *“a level playing field”*) and the need to conserve water as per the government’s National Fresh Water Reforms.
34. On the surface, it does appear fairer that residents who use more water should pay more for it – and those who conserve water should pay less – provided that the metered charge is deducted from the rates structure as outlined in the current proposal²⁶.

Residential supply

35. The proposal’s financial incentive to reduce water usage will only appeal to owner/occupiers. Landlords will obviously opt for a flat rate as they have no control over water usage by tenants. Tenants therefore have no financial incentive to save water as they will continue to pay the flat rate covered in their rents.
36. To create a real incentive for owner/occupiers, the rate differential between high and low users could be greater to better reward those who are conserving water. To balance lower charges for low users,

the pivot point set for charging the higher rate could be lower than the marker set by “average usage” (226m³) which the Council says is actually too high.

37. It is important that basic water charges do not creep up over time, such as the base rate increase (1.4%) in the proposal, so as to deny low income households access to water as an absolute basic right. Protection could be accomplished by having a policy to keep the low use charges as low as possible and make up the differential by increasing the high use charges in subsequent Annual Plans.

Commercial and Industrial supply

38. The major drawback in the Annual Plan proposal is the lack of mention of metering for commercial users. What sorts of ‘household’ use up to 50,000m³ of water a year? Presumably these metered users are commercial users. If commercial users are allowed to take huge quantities of water at the same rate of \$1.11/m³ as households, there is no “level playing field” as families and low income earners are hit disproportionately much harder.
39. Moreover, we are really concerned that there appears to be no upper limit for commercial or industrial users who consume in excess of 50,000m³ of water each year, and at just \$1.13/m³. The proposal states that the 2016/17 rate of \$0.82/m³ of untreated water for ‘Waitara industrial supply’ is to remain the same for 2017/18 when all other rates are to be raised. So in essence, the council is asking residents to subsidize the water use of businesses and industries which are profiting from a shared, limited and increasingly overused resource.
40. What does ‘Waitara industrial supply’ actually include? Who are the users?
41. What about industrial users outside Waitara that may or may not be on reticulated water supply; e.g. the Fitzroy-Glen Avon-The Valley and the Waitaha catchment (Bell Block) industrial area users? Are they charged the same rate as the ‘Waitara industrial supply’?

Water use by the oil and gas and petrochemical industry

42. Notably numerous oil and gas and petrochemical operations in Taranaki hold water abstraction consents from the Taranaki Regional Council (TRC) which allow them to take water from streams or bores.
43. For example, the Methanex Motunui and Waitara Valley Plants²⁷ together can take up to **40,800 m³ of water each day** from the Waitara River while the Nova Energy McKee Power Plant²⁸ can take 1,714 m³ from the Mangaone Stream each day. Todd Energy can take up to 172.8 m³ of water each day from the Mangahewa Stream for its McKee Production Station²⁹ and 150 m³ of groundwater from a bore for its Mangahewa-C wellsite. Greymouth Petroleum can take 550 m³ of groundwater from a bore each day for its Kaimiro-O wellsite³⁰. There are numerous other petroleum production stations and wellsites which likely also take water.
44. Do these operations pay for the water they use? If so, how are they charged?

Water for hydraulic fracturing

45. The process of hydraulic fracturing (aka fracking) that companies commonly use to extract oil and gas also requires water. The table below shows the amount of fluid used in fracking operations at various

wellsites in New Plymouth district in recent years, as reported in the respective TRC compliance reports³¹.

Company	Well Site	Start	End	Depths (m)	Frack fluid (m3)
Greymouth Petroleum	Turangi-B	15/11/2011	7/03/2012	3400-4100	2572
Greymouth Petroleum	Kaimiro-A	29/04/2014	29/04/2014	3328-3351	211
Greymouth Petroleum	Kaimiro-A	9/06/2015	9/06/2015	3603-3612	229
Greymouth Petroleum	Kowhai-B	23/03/2013	2/04/2013	3802-4067	1138
Greymouth Petroleum	Kowhai-B	12/03/2015	18/03/2015	3360-3396	488
Greymouth Petroleum	Kowhai-C	17/01/2014	22/07/2014	3627-4094	909
Greymouth Petroleum	Ngatoro-E	3/10/2014	15/04/2015	3297-5032	2127
Greymouth Petroleum	Ohanga-A	2/02/2015	11/02/2015	2962-2984	519
Greymouth Petroleum	Ohanga-A	25/03/2015	25/03/2015	3000-3071	337
Greymouth Petroleum	Urenui-1	12/01/2015	12/01/2015	3093-3096	272
Todd Energy	Mangahewa-A	18/07/2012	4/08/2012	3437-4093	612
Todd Energy	Mangahewa-C	30/04/2012	8/05/2012	4103-4280	943
Todd Energy	Mangahewa-C	20/05/2013	20/05/2013	4082-4086	377
Todd Energy	Mangahewa-C	31/08/2013	6/09/2013	3557-4227	814
Todd Energy	Mangahewa-C	31/08/2013	9/09/2013	4124-4206	1176
Todd Energy	Mangahewa-C	27/10/2013	2/11/2013	4074-4162	1106
Todd Energy	Mangahewa-C	26/10/2013	27/10/2013	4104-4107	414
Todd Energy	Mangahewa-C	3/07/2014	3/07/2014	4186-4200	136
Todd Energy	Mangahewa-D	17/10/2011	21/11/2011	4006-4052	550
Todd Energy	Mangahewa-D	1/11/2012	12/11/2012	3861-4057	764
Todd Energy	Mangahewa-D	11/05/2014	2/06/2014	3330-4029	2325
Todd Energy	Mangahewa-D	28/10/2015	3/01/2016	3423-4125	5298
Todd Energy	Mangahewa-E	23/11/2014	26/11/2014	3676-4117	618
Todd Energy	Mangahewa-E	13/12/2014	20/12/2014	3410-4085	1085
Todd Energy	Mangahewa-E	28/11/2014	7/12/2014	3571-4168	718
Todd Energy	Mangahewa-E	21/11/2014	23/11/2014	3637-4135	663
TOTAL					26401

46. It is not clear where the water used for fracking comes from or what kind of 'water' is required.

47. TRC compliance monitoring reports on fracking suggest that freshwater is needed: *"The process of hydraulic fracturing involves the pumping of fluids (consisting of freshwater and a small volume of chemicals) and a proppant (medium-grained sand or small ceramic pellets) down a well, through a perforated section of the well casing, and into the target reservoir..."* (TRC, Nov 2015)³²

48. When we asked TRC where companies take water for fracking operations, we were told *"From municipal supplies or taken under the permitted activity rule. District councils hold the municipal take consents that allow for industrial use. Minor permitted takes are allowed under the Regional Fresh Water Plan. So the TRC doesn't need to monitor and report on the water takes"* (TRC response to information request, 2 May 2017).

49. NPDC has yet to respond to a similar request of information dated 26 April 2017.

50. The industry often says they reuse or recycle the frack fluid. A former oil industry worker explained that the initial fracking contents in the string requiring freshwater can be quite small, and production (or produced) water, chemicals and proppant are measured and mixed in batch tanks to make the much greater volume of total frack fluid.
51. Irrespective of the total volume of freshwater used, if it comes from municipal supply, it should be clearly measured or metered and charged at an industrial rate that is acceptable to the public and the industry. At the moment, there is no transparency as the public is not informed.
52. The oil and gas industry is largely a self-regulating industry. This is not just our view, but sentiments expressed to us by industry workers. Regulatory capture is well documented in international and NZ research³³. One case in point, we are gravely concerned and disappointed that the NPDC has chosen to join sides with the oil and gas industry in resisting efforts by Taranaki Energy Watch³⁴ to introduce international best practice standards in health and safety relating to industry activities, through the Proposed South Taranaki District Plan³⁵.

Polluters pay

53. Furthermore, industrial operations, including but not limited to the petroleum and petro-chemical industry, also hold consents to discharge contaminated water resulting from their operations, back into water (streams, tributaries) or onto land where it may enter water.
54. We strongly recommend that NPDC (and the other district councils) work with TRC to instigate water charges and other measures that address fresh water conservation and all mechanisms where fresh water is being lost or contaminated.

¹ Climate Justice Taranaki website: www.climatejusticetaranaki.info

² New Plymouth District Council, March 2017. Council agenda – Airport Terminal Redevelopment. <http://www.newplymouthnz.com/-/media/NPDC/Documents/Have%20Your%20Say/Council%20Report%20New%20Plymouth%20Airport%20Terminal%20Redevelopment%20March%202017.ashx>

³ Parliamentary Commissioner for the Environment, June 2014. Drilling for oil and gas in New Zealand: Environmental oversight and regulation. <http://www.pce.parliament.nz/media/1265/fracking-report-web-may2015.pdf>

⁴ High Country News, 3/5/2017. Fatal Colorado home explosion reignites drilling safety debate – Have regulators done enough to protect public safety? <http://www.hcn.org/articles/fatal-colorado-home-explosion-reignites-drilling-safety-debate>

⁵ Coloradoan, 2/5/2017. Small gas pipeline blamed for fatal Colorado home explosion. <http://www.coloradoan.com/story/news/2017/05/02/cut-abandoned-gas-line-caused-firestone-home-explosion/309230001/>

⁶ NZ Herald, 5/5/2017. Pipeline inspections ordered in Colorado after fatal blast. http://www.nzherald.co.nz/world/news/article.cfm?c_id=2&objectid=11850270

⁷ Taranaki Regional Council Taranaki Regional Explorer, 11/5/2017. <http://apps.geocirrus.co.nz/HTML5/Index.html?viewer=trc>

⁸ New Plymouth District Council, 2016. Draft District Plan 2016. <http://www.newplymouthnz.com/-/media/NPDC/Documents/Council%20Documents/Plans%20and%20Strategies/District%20Plan/Draft%20District%20Plan%20October%202016%20Includes%20district.ashx>

⁹ Climate Justice Taranaki, Dec 2016. Draft New Plymouth District Plan – Feedback from Climate Justice Taranaki Inc. <https://climatejusticetaranaki.files.wordpress.com/2013/03/cjt-feedback-on-draft-np-district-plan-dec2016-final.pdf>

¹⁰ Taranaki Energy Watch, 16/12/2016. Notice of appeal on behalf of Taranaki Energy Watch Incorporated against decisions on the Proposed South Taranaki District Plan. https://www.southtaranaki.com/uploaded_files/District-Plan/2017-01-30%20District%20Plan%20Appeals%20Full%20Document.pdf

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¹² Taranaki Regional Council, 2010. Regional Policy Statement for Taranaki. <https://trc.govt.nz/assets/Documents/Plans-policies/RPS/rps-full-web.pdf>

¹³ Taranaki Regional Council, Aug 2016. Coastal plan for Taranaki. <https://www.trc.govt.nz/assets/Documents/Plans-policies/CoastalPlan/Draft-Coastal-Plan-for-Taranaki-Main-body.pdf>

¹⁴ Parliamentary Commissioner for the Environment, 2015. Preparing New Zealand for rising seas: Certainty and Uncertainty. <http://www.pce.parliament.nz/publications/preparing-new-zealand-for-rising-seas-certainty-and-uncertainty>

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