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## Submission on Proposed Gisborne Regional Freshwater Plan

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### Introduction

This document constitutes the Petroleum Exploration and Production Association of New Zealand's (PEPANZ) submission in respect of the Proposed Gisborne Regional Freshwater Plan ("the Plan") dated August 2015. PEPANZ's members include private sector companies holding petroleum exploration and mining permits, service companies and individuals working in the industry.

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We could not gain an advantage in trade competition through this submission.

We do wish to be heard in support of our submission.

## Submission on specific objectives, policies and rules in the Plan

Provisions	Support/ Oppose	Reasons for submission	Relief Sought
Policy 5.2.4	Oppose, in relation to Aquifer Management Areas	<p>It is unnecessary to prohibit hydraulic fracturing or deep well injection activities to prevent effects of concern such as groundwater contamination (i.e. of aquifers). It would not occur in normal operations and any specific issues with a proposed activity could be considered through the consenting process on a case by case basis as these activities are proposed to be classified as Discretionary at minimum.</p> <p>Hydraulic fracturing and deep well injection activities do not pose a direct risk to groundwater because the injection takes place far below any fresh groundwater resources and with geological sealing layers in-between. The very low probability risk to fresh groundwater would be from a failure of wellbore integrity in a shallower freshwater zone leading to contamination from the injection activity (e.g. hydraulic fracturing) or through wellbore migration from a deeper higher pressure geological zone. Intensive monitoring is undertaken (particularly in regard to hydraulic fracturing) and in the unlikely event of any well integrity issues injection would be stopped.</p> <p>In contrast, avoiding hydrocarbon extraction, hydraulic fracturing, or deep well injection activities within Regionally Significant Wetlands and Outstanding Waterbodies is logical and appropriate in regard to surface and shallow activities.</p>	Remove references in policy 5.2.4 to “Aquifer Protection Areas”.

Policy 5.2.7	Support with amendment	Policy 5.27(b) provides “Any natural hazards including faults, flood risks and areas of land instability shall be identified and measures taken to avoid, remedy or mitigate <u>the risks</u> ”. It is not obvious from this policy or otherwise what risks are being referred to and whether these are risks to, or from, the activity. Greater clarity or clearer linkages in this area would be appropriate.	Amend the drafting as required to make clearer the risks being referred to.
Rule 5.2.5	Support with amendment	Note our proposed new Permitted Activity rule below in relation to shallow shot holes drilled as part of seismic surveys.	Include proposed new rule outlined below.
Proposed New Rule	New rule related to holes for seismic surveys	<p>When we met with GDC officials in October 2014 it was noted that whilst seismic surveying is a permitted activity in terms of land use, because the drilling of the holes (like other small bores) can involve minor discharges to the ground, and is not provided for specifically in the Plan, it could be considered to require a Discretionary Consent. We submit that the shallow holes associated with seismic surveying can and should be managed effectively through a clearly prescribed permitted activity rule.</p> <p>The Taranaki Regional Council is working to implement this approach, with specific controls provided to prevent any surface or groundwater effects and minimise land disturbance, and with rules to require the provision of detailed information on the activity to the council. We propose that a similar permitted activity rule should be adopted in the Gisborne Regional Freshwater Plan.</p>	<p>Create a new permitted activity rule as follows:</p> <p><b>Activity</b> Use of land to drill a hole to undertake a seismic survey.</p> <p><b>Classification</b> Permitted.</p> <p><b>Permitted Activity Standards</b></p> <p>(a) Holes to be capped at surface on the same day that drilling occurs.</p> <p>(b) There must be no aquifer cross contamination.</p> <p>(c) Holes to be re-capped on the same day as detonation and data acquisition.</p> <p>(d) Holes to be restored and abandoned within 42 days of detonation.</p> <p>(e) All drilled holes comply with the following separation distances:</p> <p>(i) 25 metres from any surface water and the coastal marine area, unless for the latter the base of the hole is above the mean high water spring level;</p> <p>(ii) 50 metres from any effluent treatment system, holding pond or septic tank; AND</p>

			<ul style="list-style-type: none"> <li>(iii) 50 metres from any bore or spring used for water supply purposes.</li> <li>(f) Only water or water-based drilling muds to be used.</li> <li>(g) The discharger shall at all times adopt the best practicable option to prevent or minimise any adverse effects of the discharge on the environment.</li> <li>(h) Drilling cuttings must be: <ul style="list-style-type: none"> <li>(i) removed following detonation and data acquisition; OR</li> <li>(ii) used for hole abandonment.</li> </ul> </li> <li>(i) Council must be informed that the activity is to occur at least 15 days prior to the commencement of drilling.</li> <li>(j) Within 30 days of the completion of the activity, the following information must be submitted to the Council: <ul style="list-style-type: none"> <li>(i) the total area of the survey;</li> <li>(ii) the location and depth of shot holes;</li> <li>(iii) a description of the groundwater resource encountered across the whole area; AND</li> <li>(iv) the abandonment method applied.</li> </ul> </li> </ul>
Rules 5.2.6 and 5.2.7	Support	Given it is proposed that all bores (water wells etc.) are classified as Restricted Discretionary under the Plan it is broadly consistent with this approach for hydrocarbon bores and discharges to be classified as Discretionary.	
Rule 5.2.10	Oppose in regard to Aquifer Management Areas	<p>The issues associated with oil and gas bores within an aquifer area and those close to a waterbody or wetland are fundamentally different. For example surface contamination is principally relevant to the latter and a minimum separation distance as proposed here is logical in that situation. As such separating these concepts would be appropriate.</p> <p>The drilling and construction of petroleum bores within</p>	Make the following under the plan a Discretionary rather than prohibited activity: “Making, altering or installing any hydrocarbon bore within an Activity Aquifer Management Area”

		<p>aquifers is however common in New Zealand and internationally and has occurred on the Poverty Bay Flats, Heretunga and Ruataniwha Plains in recent times. The interaction with the aquifer is similar to that involved with drilling and constructing water bores because the drilling method and muds used in this zone are similar. We therefore question the effects based rationale for prohibiting one of these activities within an Aquifer Management Area and not the other, especially when the effects involved may be no more than minor.</p> <p>Making, altering or installing any hydrocarbon bore should be a Discretionary, or at most Non-Complying, activity in regard to Aquifer Management Areas.</p>	
Rule 5.2.11	Oppose	<p>As noted above in relation to Rule 5.2.10 it is not apparent what activities or effects leading to discharges this rule is looking to manage in relation to “bedrock”. It is however logical in relation to shallow and drinkable freshwater.</p> <p>It is not necessary to prohibit petroleum activities taking place at substantial depths below any freshwater in the vicinity of aquifers or waterbodies to avoid adverse effects on them. For example, any discharges associated with hydraulic fracturing would be at a depth (1000 metres plus) such that they would not pose a risk to freshwater resources at much shallower depths.</p> <p>Issues associated with the depth of injection vis-a-vis groundwater could be considered as part of a Discretionary consent and so Prohibited status is unnecessary. We also note the rule is uncertain in its application, specifically in terms of the vertical extent of referenced features (i.e. 50</p>	Remove references to “bedrock” from this rule.

		metres measured from where?).  Given the focus on avoiding the contamination of fresh groundwater the reference to “bedrock” should be removed as this is unnecessary to achieve the objectives sought.	
Method 5.2.1	Comment	As outlined above we consider the proposed buffer zones are unnecessary. We would nonetheless welcome the opportunity to participate in the studies envisaged in this method should they progress.	