

Policy Review
Oil and Gas Exploration Development
For Hawke's Bay Regional Council



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1 Executive Summary

In the context of the Parliamentary Commissioner for the Environment's (PCE) June 2014 report titled *Drilling for oil and gas in New Zealand: Environmental oversight and regulation*, the current policy provisions in the Hawke's Bay Regional Resource Management Plan (including the Regional Policy Statement) and the Hawke's Bay Regional Coastal Environment Plan would not appear to be fully effective in relation to managing the effects of oil and gas exploration and production activities. Nevertheless, in practice, the limited number of oil and gas exploration applications received to date by Hawke's Bay Regional Council have been adequately dealt with under the existing Regional Resource Management Plan rules.

The region's district plans are more effective in the context of the PCE's report, but they still fall short of the PCE's recommendations.

Consequently, if HBRC wishes to give effect to the PCE's recommendations, a limited scope regional plan change is both necessary and appropriate.

2 Background

In June 2014 the Parliamentary Commissioner for the Environment (PCE) released her report titled *Drilling for oil and gas in New Zealand: Environmental oversight and regulation*. It makes six recommendations for "fit for purpose" regulation of onshore oil and gas activity and associated risks in New Zealand. In response to the PCE's report and submissions on the 2014-15 Annual Plan, HBRC voted in June 2014 to lead the discussion on oil and gas regulation in Hawke's Bay and to make a funding allocation to enable public consultation and the potential development of plan changes to the Regional Resource Management Plan (RRMP) and Regional Coastal Environment Plan (RCEP). However, specific engagement on the oil and gas issue did not progress in 2014-15.

In its Long Term Plan 2015-25, HBRC signalled the preparation of a report for the Regional Planning Committee's consideration as to whether a 'limited scope' plan change could address any relevant recommendations made by the PCE, specifically those relating to consent categories and notification. Accordingly, in August 2015 HBRC commissioned a policy review which was to achieve the following two objectives:

1. *To review the effectiveness of current policy provisions in the Hawke's Bay Regional Resource Management Plan (includes Regional Policy Statement) and the Hawke's Bay Regional Coastal Environment Plan in relation of managing effects of oil and gas exploration and development activities (This would include a review of the District Plan provisions); and*
2. *Explore whether a 'limited scope' regional plan change is necessary and appropriate to address any relevant recommendations from the Parliamentary Commissioner for the Environment's June 2014 report "Drilling for oil and gas in New Zealand: environmental oversight and regulation."*

For the purposes of this report the two objectives set out above are referred to as Question 1 and Question 2.

3 PCE Report Recommendations

The PCE report deals with the system of laws, agencies, and processes that oversee and regulate the oil and gas industry. It is restricted to drilling on land, so does not cover offshore exploratory drilling applications. The PCE report concludes by making specific recommendations on eight topic areas.¹

The PCE's first recommendation is that Minister for the Environment directs the Ministry for the Environment to prepare a national policy statement on onshore oil and gas exploration and production. It is understood that Ministry staff are expecting to report to the Minister in December 2015 regarding the need for such national direction.²

The PCE report states:

The second recommendation is focused on regional council plans – some of these are being, or are soon to be, revised. That virtually all of these plans have rules for drilling bores that do not distinguish between drilling for water and drilling for oil and gas shows how unprepared the country's environmental regulators are for a potentially rapid expansion of the industry.³

The PCE's seven sub-recommendations for regional plans are set out in Table 1 overleaf, together with a summation of the PCE's reasoning. While the PCE's recommendations are specific to regional plans, the body of her report also discusses the important role that district plans play in the regulation of oil and gas exploration and production. Consequently, this report examines both the Hawke's Bay regional plans and district plans.

With regard to Table 1, the PCE's recommendation 4 (bundling) does not need to be reflected in plan provisions as it is a practice that already occurs and for which clear case law exists. Similarly, recommendation 6 (joint hearings) is a process that should occur as a matter of course under existing statutory guidance. Those two recommendations are not discussed further in this report.

4 Question 1 – adequacy of the existing plan framework

Hawke's Bay currently has two relevant regional plans⁴ and five relevant district plans.⁵ These documents were examined to determine how oil and gas industry exploration and production activities are currently regulated.

4.1 Regional plans

HBRC staff⁶ have previously assessed the rules within both the Regional Resource Management Plan (RRMP) and the Regional Coastal Environment Plan (RCEP). Appendix 1 sets out the relevant rules that cover various activities associated with oil and gas exploration and production. As the PCE report does not deal with off-shore oil and gas exploration the focus in this report is on the RRMP.

¹ Providing national direction, improving regional plans, ensuring a well has 'integrity', paying when something goes wrong, enforcing the controls on hazardous substances, dealing with solid waste from oil and gas wells, and climate change.

² Personal communication, Shane Lambert, Senior Planner, HBRC

³ Drilling for oil and gas in New Zealand: Environmental oversight and regulation, Parliamentary Commissioner for the Environment, June 2014, page 2.

⁴ Regional Resource Management Plan (manages land, water and air), Regional Coastal Environment Plan.

⁵ Central Hawke's Bay District Plan, Operative Hastings District Plan, Proposed Hastings District Plan, City of Napier District Plan, Wairoa District Plan.

⁶ Chris Reed

Table 1: PCE Recommendations: Improving Regional Plans

PCE Recommendation	PCE Reasoning
1. Classify drilling an oil and gas well, fracking, and waste disposal as ‘discretionary’ activities	Councils are treating oil and gas wells like water wells. Councils should have the power to decline applications even at the exploratory stage, consider all environmental effects and impose appropriate conditions. Will assist control of location, cumulative effects and avoid raising industry expectations at the outset.
2. Identify areas where oil and gas drilling can take place and where it cannot	Power to prohibit activity in sensitive locations e.g. productive aquifers (such as Ruataniwha and Heretaunga), proximity to major faults and sensitive ecosystems. Also integrate with land use strategies and human settlement needs.
3. Set out core requirements for environmental monitoring	Need for robust environmental monitoring of adjacent environment before, during and after oil and gas activity.
4. Require applications for consents for establishing well sites and for drilling wells to be ‘bundled’ together	Consents associated with establishing a well site and for drilling the well should be ‘bundled’ together. Bundling consents assists holistic assessment, transparency and efficient decision-making, but becomes impractical for operators if too onerous.
5. Make explicit the circumstances when consents will be publicly notified and when they will not be	Oil and gas is an emotive issue but exploration and well-drilling applications are often non-notified and under the public radar. Transparency creates trust.
6. Hold joint hearings with district councils whenever possible	This is efficient, aids transparency and joined up decision-making as appropriate. Regional and district councils have split functions regarding managing oil and gas activities.
7. Identify and plan for the cumulative effects of an industry that may expand very rapidly	In the past, regional councils have struggled to deal with the cumulative impacts of activities under the Resource Management Act (RMA). It requires a proactive approach to managing risks, including zoning, agreed thresholds and robust monitoring.

Considering the RRMP, a number of matters are apparent:

- A plethora of rules cover oil and gas exploration and production activities;
- The consent categories predominantly range from permitted to discretionary;⁷
- There is little if any guidance on whether or not applications should be publicly notified, which is understandable given the criteria within the RMA itself that guide decisions on whether or not to notify an application (sections 95A to 95E).

HBRC officers have previously considered that shallow bores for seismic surveys do not require consent and site preparation activities (vegetation clearance and earthworks) could be undertaken as a permitted activity.

Well (bore) drilling is a controlled activity⁸ if conditions are met and a restricted discretionary activity⁹ otherwise. The only condition that the well drilling needs to meet to be a controlled activity is that the well (bore) must be cased and sealed to prevent aquifer cross-connection, and leakage from the ground surface into ground water.

⁷ However, unwanted or leaking bores are non-complying activities in the RRMP. The storage of petroleum products is prohibited in a significant conservation area in the coastal marine area under the RCEP.

⁸ RRMP Rule 1

⁹ RRMP Rule 2

Key oil and gas production activities (hydraulic fracturing, deep injection of produced water, land farming of solid drill wastes) are discretionary activities. It is therefore likely that any application for oil and gas 'production activities' (including production well testing), as opposed to 'exploration activities', would be 'bundled' and categorised as a discretionary activity.¹⁰

However, in overall terms the PCE's recommendations 1 and 5 are not met.

The PCE's recommendations 2 (area based controls), 3 (monitoring requirements) and 7 (cumulative effects) rely on the inclusion of relevant and appropriate objectives and policies in the plans. Tellingly, both the RRMP and RCEP are completely silent when comes to specific objectives or policies dealing with oil and gas exploration and production or with minerals¹¹ generally. The result is that there is an absence of regional policy guidance that decision-makers can look to when assessing resource consent applications for oil and gas exploration or production activities.

Consequently, the PCE's recommendations 2, 3 and 7 are also not met.

4.2 District plans

Appendix 2 sets out the relevant district plan provisions relating to various activities associated with oil and gas exploration and production. The Central Hawke's Bay, Hastings and Wairoa district plans all have relevant provisions, including objectives, policies and rules specific to the oil and gas activities. The Napier City District plan has no provisions relating specifically to oil and gas activities and they are covered instead by general provisions relating to mining, which is not surprising given that Plan's predominantly urban focus.

The PCE Report states that district councils are responsible for the more 'people' or 'nuisance' oil and gas matters such as noise, the light from flaring, heavy traffic movements¹² and hazardous substances (particularly avoiding spills and leaks).¹³ All of the district plans have relevant provisions dealing with those matters. The PCE Report also indicates that the location of wells could be controlled by district plans through zoning rules.¹⁴ The issue of concern to the PCE appears to be the cumulative effect of many wells on the landscape.¹⁵ Only the Hastings plan appears to address that issue.

In terms of consent categories, oil and gas exploration surveys, distribution pipelines and site preparation works are variously permitted activities or controlled activities, although in the case of the Hastings District Plan, site preparation works for production well testing are discretionary activities and (as of 12 September 2015 when decisions on the proposed Plan were released) exploration, extraction and production activities over the Heretaunga Plains unconfined aquifer are now prohibited activities. This change was made in response to submissions on the notified Plan, but was also influenced by the recommendations in the PCE Report and its explicit mention of the aquifer.

Well drilling is a controlled activity in Wairoa and Central Hawke's Bay and discretionary in Hastings (outside of the Heretaunga Plains unconfined aquifer). Production testing of wells and oil and gas production are discretionary activities in the Central Hawke's Bay and Hastings plans (again outside Heretaunga Plains unconfined aquifer), while production testing of wells is a controlled activity in the Wairoa plan.

In overall terms, the district plans adequately address the 'nuisance' effects of concern to the PCE, but they do not comprehensively address the cumulative impact of many wells on the landscape.

¹⁰ Bundling applies when an activity requires multiple consents under multiple rules. If the disparate components of the activity are inseparable (i.e. the activity could not be physical undertaken if one components was omitted), then the harshest of the disparate activity classifications is applied to whole activity.

¹¹ Under the Crown Minerals Act oil and gas are defined as minerals.

¹² Section 2.2, page 21.

¹³ Section 3.3, page 33; sections 5.2 and 5.3.

¹⁴ Section 3, page 25; section 3.3, page 32.

¹⁵ Section 3.3, page 34.

The consent categories for oil and gas activities range from permitted to prohibited, so presumably that does not meet the PCE's aspiration for all oil and gas exploration and production activities to be categorised as at least discretionary activities.

5 Question 2 – is a 'limited scope' regional plan change necessary and appropriate

As outlined above, neither the regional plans nor the district plans give full effect to the PCE's recommendations. In saying that, it should be noted that the regional plans appear to be more deficient than the district plans. Consequently, if HBRC wishes to give effect to the PCE's recommendations then a limited scope regional plan change would be both necessary and appropriate.

However, HBRC has only received around twenty consent applications for exploration wells since 1998 and all of them were situated outside the coastal marine area. HBRC has also received one application for seismic surveying related activities near Wairoa. Those applications were all adequately processed under the existing RRMP rules, although consents processing staff consider that the RRMP provisions could be improved (or clarified) in relation to seismic surveys, hazardous substance controls and well integrity. They also consider that further policy guidance would be beneficial in relation to cumulative effects, well site selection, well decommissioning and failed wells.¹⁶ This reinforces the desirability of addressing the PCE's recommendations for regional plans, although the historically low number of applications, coupled with the recent industry downturn in exploration activity, suggests that there may be no urgent need to do so.

The scope of a regional plan change could be limited to objectives, policies and rules. It is beyond the scope of this report to consider detailed wording, but clearly the objectives and policies should cover the range of matters raised in the PCE report, the recent Ministry for the Environment guidelines on hydraulic fracturing,¹⁷ and the matters raised by HBRC consents staff.

These matters would include:

- a) Distinguishing between wells (bores) for water takes and wells for oil and gas activities;
- b) Well site selection and development;
- c) Design, construction and operation of oil and gas wells (including earthworks and stormwater management);
- d) Well integrity;¹⁸
- e) Avoiding adverse cumulative effects of many wells on the landscape;
- f) Avoiding productive aquifers (such as the Ruataniwha and Heretaunga plains aquifers) and sensitive ecological areas and ecosystems;
- g) Avoiding known active fault lines;
- h) Induced seismicity and seismic monitoring;
- i) Taking and use of water for hydraulic fracturing activities;
- j) Subsurface discharge of fluids as part of a hydraulic fracturing operation;
- k) Managing produced water;¹⁹
- l) Discharge of contaminants to air (eg, for flaring or venting);
- m) Disposing of waste from wells, whether by disposal to land (land farming) or by deep well injection;
- n) Avoiding and managing spills and leaks of hazardous substances;
- o) Well decommissioning and abandonment;

¹⁶ Email from Paul Barrett to Gavin Ide, dated 16 October 2015.

¹⁷ MfE Guidelines titled "Managing Environmental Effects of Onshore Petroleum Development Activities (Including Hydraulic Fracturing): Guidelines for Local Government", Ministry for the Environment, March 2014.

¹⁸ Ensuring that the well is cased adequately when it passes through freshwater layers.

¹⁹ A primary waste issue during hydraulic fracturing and production is the removal of sometimes large amounts of deep saline groundwater from the oil and gas reservoir, referred to as 'return flow' or 'return fluid' (which refers to the flow back of fluid at the end of a hydraulic fracturing operation), and 'produced water' (which refers to brine from the reservoir entrained with hydrocarbons in the production phase). MfE Guidelines, section 5.6.1.

- p) Groundwater monitoring, including baseline monitoring, before, during and after well drilling activities;
- q) Operational or compliance monitoring; and
- r) Bonds and financial contributions.

To give effect to the PCE's desire that oil and gas activities be categorised as discretionary activities, a new single 'catch-all' rule could be drafted that made all oil and gas exploration and production activities²⁰ a discretionary activity, notwithstanding any other rules in the RRMP or RCEP.²¹ Prohibited activity rules would most effectively give effect to any policy direction to avoid productive aquifers, sensitive ecological areas and active fault lines.

To give effect to the PCE's desire that consents for oil and gas activities be publicly notified, it could be stated that, as provided for by section 95A(1) of the RMA, all applications under the new 'catch-all' rule would be publicly notified. However, the appropriateness of such a blanket approach would need to be carefully considered against the criteria in sections 95A to 95E of the RMA and relevant case law, amongst other matters.²²

²⁰ It would be highly desirable to define these terms.

²¹ For example, the Proposed Auckland Unitary Plan categorises the discharge of contaminants associated with hydraulic fracturing onto or into land or water as a discretionary activity (PART 3 – Regional and District Rules, Chapter H: Auckland-wide rules, 4 Natural resources, 4.18 Other discharges of contaminants, 1. Activity table).

²² Including the likely scale and degree of adverse effects, adequacy of information provided by the applicant, level of general public interest in the activities, activities that might follow from the activities for which consent has been sought, likely costs to the applicant and so on.

APPENDIX 1: REGIONAL PLAN PROVISIONS

Table 1: Indicative summary of RRMP rules for onshore oil and gas activity

Activity Type	Rules	Rationale for consent requirements	Likely consent requirements
Seismic surveying	None	Requires shallow bore drilling. HBRC precedent that not created for the purpose of accessing underground water, oil or gas.	Possible need for related consents.
Site preparations: vegetation clearance and soil disturbance	Rules 7 or 8	All stages of activity require some site preparations. Protection of water bodies from soil loss.	Permitted (Rule 7) or restricted discretionary (Rule 8). Permitted conditions include proximity to waterbodies (non Schedule X land)
Bore drilling (exploration or production)	Rules 1 or 2	Council regulates all drilling of bores	Controlled activity (Rule 1) or restricted discretionary (Rule 2) if matters for control not met (includes location)
Discharge to air from hydrocarbons flaring, diesel generators or any other air discharges on site	Rules 17, 18, 28 or 30	Discharges to air from industrial and trade premises are regulated by the Council. Discharge consent would be required if any flaring of hydrocarbons occurs that is unable to comply with Rule 17. Other discharges to air may require consents in accordance with Rule 28 or Rule 30.	Consent likely to be required for flaring and generators – will depend on applications as to what activity status applies. Status ranges from permitted (Rule 17) to discretionary (Rule 28)
Discharge of bore drilling fluids onto or into land	Rule 34 and Rule 52	Some exploration companies have previously indicated that they would use synthetic drilling fluids which would be unable to comply with the standards relating to oil and grease.	Discretionary (Rule 52), or no consent required if taken outside of the region to an approved disposal site
Diversion and discharge of stormwater to land / water	Rule 42 or Rule 52	Discharge of stormwater from an industrial or trade premises used for the storage of hazardous substances	Stormwater consent will be required. Status will be controlled (Rule 42) or discretionary (Rule 52). Depends on measures to avoid adverse effects.
Hydraulic fracturing (discharge of contaminants to land)	Rule 52	Discharges to land from an industrial or trade premise are regulated by the Council and there is no relevant permitted activity.	Discretionary.
Take of surface water from a farm dam	Rule 54 or Rule 55	May be able to comply with permitted activity rule (Rule 54). Main triggers for consent will be maximum volume and residual flow requirements.	Permitted (Rule 54) or discretionary (Rule 55)
Culverts in the bed of watercourses as part of upgrading access roads	Rule 72 or Rule 69	May be able to comply with permitted activity rule (Rule 72). Main trigger will be catchment size upstream of any structure (150 ha max).	Permitted (Rule 72) or discretionary (Rule 69)

Activity Type	Rules	Rationale for consent requirements	Likely consent requirements
Deep injection of produced water and contaminants into land	Rule 52	Produced water (largest volumes of waste generated) contain residual hydrocarbons and heavy metals. Shales 'produce' saltier water that may contain natural radioactive substances. May enter groundwater.	Discretionary
Land farming (disposal of solid waste to land)	Rule 52	Bioremediation process for contaminated solid waste (drill cuttings, mud, sludges) mixed with to soil. Potential future pasture use.	Discretionary
Mix-bury-cover (disposal of solid waste to land)	Rules 48 or 52	Some solid drilling waste might meet clean fill criteria, the rest contaminated (high salts, heavy metals, hydrocarbons).	Permitted (Rule 48) or discretionary (Rule 52)
Unwanted or leaking bores	Rule 3	Bore leaking oil, gas or water is environmentally unacceptable. Unclear if applies at surface and below ground.	Non-complying
Bore decommissioning	Rule 4	Backfill and seal to prevent contamination or migration of groundwater. Undertaken by a suitably qualified person. Council notified.	Permitted

TABLE 2: Indicative summary of RCEP rules for offshore oil and gas activity

Activity Type	Rule(s)	Rationale for consent requirements	Likely consent requirements
Disturbances, depositions and extractions in CMA			
Removal or Deposition of Material	Removal: Rule 144 [D] Deposition: Rule 147 [RD] Rule 151 [D]	Removal of sand or gravel other than small scale. Deposition of any substance on the foreshore or seabed. Relevant threshold 50,000m ³ at a site in any 12 month period.	Discretionary activity. Restricted Discretionary or Discretionary activity.
Drilling, construction or alteration of bores for gas and oil resources, seabed explorations and geotechnical investigations	Rule 138 [P] Rule 130 [D]	Disturbance of the foreshore and seabed, including location in relation to management areas: <ul style="list-style-type: none"> ▪ Port or Harbour Management Area ▪ Significant Conservation Area ▪ Historic Heritage Area ▪ Aquaculture Management Area 	Permitted or Discretionary activity.
Disturbance of foreshore and seabed affecting historic heritage	Rule 141 [RD]	Disturbance in a manner that will destroy, damage or modify an historic heritage feature. Refer to Schedule M and planning maps for locations.	Restricted Discretionary activity.
Disturbances within specified Significant Conservation Areas	Rule 144 [D]	Disturbance or removal of materials in four SCAs, - exemption for applies scientific purposes.	Prohibited activity.
Disturbances of seabed arising from manoeuvring of ships (e.g. propeller wash)	Rule 135 [P]	Disturbance of foreshore and seabed arising from passage and manoeuvring ships.	Permitted activity.
Discharges to land and water in CMA			
Discharge of contaminant or water into water in CMA, or discharge of contaminant into land (e.g. hydraulic fracturing)	Rule 160 [D]	Discharge of contaminant which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water in the CMA	Discretionary activity <i>(unless specifically classed by another rule in the RCEP as non-complying or Prohibited activity).</i>
Discharge of drilling muds, cuttings and fluids for purposes of investigating oil and gas resources	Rule 161 [P] Rule 160 [D]	Control over location, contamination level and risk of discharge of groundwater to surface water.	Permitted or Discretionary activity.

Activity Type	Rule(s)	Rationale for consent requirements	Likely consent requirements
Discharges to air			
Flaring of hydrocarbons from petroleum exploration or mining	Rule 79 [C] Rule 86 [D]	Discharge of contaminants to air impacting surrounding areas.	Controlled or Discretionary activity.
Discharges of contaminants to air in Coastal Environment	Rule 81 [P] Rule 63 [RD] Rule 64 [D]	Other discharges of contaminants to air.	Permitted (minor discharges) or Restricted Discretionary (not complying with Permitted activity conditions) or Discretionary (not regulated by other rules).
Structures in CMA			
Structures for storage of petroleum products or other contaminants within a SCA	Rule 129 [Pr]	Any activity involving erection or placement of such a structure in, on, under or over the foreshore or seabed within a SCA.	Prohibited activity (consent cannot be applied for).
Removal and demolition of structures in, on, under or over the foreshore or seabed	Rule 121 [P] Rule 117 [D]	Disturbance and any associated deposition.	Permitted or Discretionary activity.
Occupation of space in CMA			
Occupation of space associated with exploration operations and structures	Rule 180 [P] Rule 178 [D]	Effects of excluding public and other activities from use of coastal space, including potential conflict with other uses and users.	Permitted or Discretionary activity.
Storage and dumping of hazardous substances in CMA			
Hazardous substances in the CMA (storage or dumping)	Storage: Rule 172 [P] Rule 171 [RD] Rule 174 [Pr] Dumping: Rule 173 [Pr]	Manage risk according to character, scale and intensity of activity and any associated effects of potential spillage or discharge, including sensitivity of environment.	Permitted, Restricted Discretionary or Prohibited activity (in a SCA). Prohibited activity.

Activity Type	Rule(s)	Rationale for consent requirements	Likely consent requirements
Noise emissions in CMA			
Emission of noise for marine seismic surveying purposes	Rule 175 [P], Rule 176 [RD]	Potential impact of underwater noise (including vibration) on marine life.	Permitted or Restricted Discretionary activity. <i>Rule 176 includes “effects on marine mammals” as a matter for discretion.</i>
Noise emissions in CMA	Rule 176 [P] Rule 175 [RD]	Level, characteristics and frequency of noise (construction and other) including compatibility with surrounding environment. Rule 175 includes effects on marine mammals as a matter for discretion.	Permitted or Restricted Discretionary activity.
Take and, use of coastal water			
Taking and use of coastal water	Rule 156 [P] Rule 154 [D]	Effects of water take on SCAs and their values. Permitted rule does not apply to taking of water in six SCAs.	Permitted or Discretionary activity (in some SCAs).

APPENDIX 2 – DISTRICT PLAN PROVISIONS

Central Hawkes Bay District Plan 2003

Policy 10.1.2 To avoid, remedy, or mitigate adverse environmental effects created by the construction, installation, operation and maintenance of utilities through the separation of incompatible activities and maintenance of visual amenities, safety, and the quality of the environment anticipated within different areas of the District

Definitions:

Utility is defined as including “wells, structures, plant and equipment necessary for the exploration and production of petroleum oil and gas, including pipes and necessary incidental structures and equipment for transporting oil and gas away for refining”.

Operative Hastings District Plan 2003

- Objective MO1 To provide for the investigation of the Hastings District's mineral resources.
- Objective MO2 To provide for the efficient and economic utilisation of the mineral resources of the Hastings District, in order to meet international, national and district demands for such resources, and to meet the social and economic needs of the Hastings District.
- Objective MO3 To ensure that the investigation of the Hastings District's mineral resources, and their utilisation occurs in such a manner that the life supporting capacity of air, water, soil and ecosystems is safeguarded and that significant adverse effects of prospecting, exploration or mining and associated activities on the environment are avoided, remedied or mitigated.
- Objective MO4 To ensure that future settlement patterns take into account the location of known mineral resources.
- Policy MP1 Allow the prospecting of minerals where the effects on the environment are likely to be minor.
- Policy MP2 Control exploration and mining activities to ensure that they will not adversely affect the natural and physical environment, as well as the amenity of the community and adjoining land uses.
- Policy MP3 Prevent exploration or mining activities in areas where adverse effects on the environment cannot be avoided, remedied, or mitigated.
- Policy MP 7 Control exploration and mining activities on land located over the Heretaunga Plains Unconfined Aquifer, to ensure that the land resource can be rehabilitated to support a range of productive land use activities.

Section 12.1 of the Plan contains a “Heretaunga Plains Unconfined Aquifer Resource Management Unit”. However, there are no provisions that appear to relate to petroleum (mineral) exploration, well drilling or production. The aim of the RMU is simply to protect groundwater in the Unconfined Aquifer from the accidental spillage of chemicals, fuels and fertilisers on to the land and stormwater.

Definitions:

“Network utility” includes gas and petroleum lines.

Mineral: Has the same meaning as in the Crown Minerals Act 1991 and any subsequent amendments.

*Mineral means a naturally occurring inorganic substance beneath or at the surface of the earth, whether or not under water; and includes all metallic minerals, non-metallic minerals, fuel minerals, precious stones, industrial rocks and building stones, and a prescribed substance within the meaning of the Atomic Energy Act 1945
fuel minerals includes coal and petroleum*

Exploration: has the same meaning as in the Crown Minerals Act 1991 and any subsequent amendments.

exploration means any activity undertaken for the purpose of identifying mineral deposits or occurrences and evaluating the feasibility of mining particular deposits or occurrences of 1 or more minerals; and includes any drilling, dredging, or excavations (whether surface or subsurface) that are reasonably necessary to determine the nature and size of a mineral deposit or occurrence; and to explore has a corresponding meaning

Prospecting: means those activities undertaken at an early stage of mineral resource identification and definition, with the objective of appraising the mineral potential of a large area using standard geological surveying techniques, and ranking any mineralisation identified as being worthy of more detailed exploration. Prospecting activities include geological mapping, geological surveys, geochemical surveys, gridding and line surveying, and the use of hand held equipment and where practicable, existing access roads or tracks.

Mining: means to take, win or extract, by whatever means, a mineral existing in its natural state in land, or a chemical substance from that mineral, for the purpose of obtaining the mineral or chemical substance; or the removal of more than 25m³ of earth (including topsoil) from any site in any 12 month period; and includes gravel extraction, quarrying and the processing of minerals, but does not include prospecting or exploration, or any of the foregoing where the material is for use on the same site (for example for the establishment or maintenance of tracks on a farm); and to 'mine' has a corresponding meaning.

Mining Operations: means operations in connection with mining, exploring, or prospecting for any mineral including: -

- (a) the extraction, transport, treatment, processing, and separation of any mineral; and
- (b) the construction, maintenance, and operation of any works, structures, and other land improvements, and of any machinery, and equipment, connected with such operations; and
- (c) the removal of overburden by mechanical or other means, and the stacking, deposit, storage, and treatment of any substance considered to contain any mineral; and
- (d) the deposit or discharge of any mineral, material, debris, tailings, refuse, or wastewater produced from or consequent on, any such operations; and
- (e) the doing of all lawful acts incidental or conducive to any such operation - when carried out at or near the site where the mining, exploration or prospecting is carried out.

Proposed Hastings DP 2013 (Decisions Version – 15 September 2015)

Objective EM02	To ensure that investigations into the Hastings District's mineral resources, and their utilisation, occur in such a manner that the life-supporting capacity of air, water, soil and ecosystems is safeguarded and that adverse effects on the environment are avoided, remedied or mitigated
Objective EM03	The water quality and life supporting capacity of the Heretaunga Plains Unconfined Aquifer Water Resource is not compromised by the effects of land use activities occurring above it, including activities associated with the extraction of oil and gas,
Policy EMP6	Prevent exploration or mining activities in areas where adverse effects on the environment cannot be avoided, remedied, or mitigated.
Policy EMP 7	Prohibit oil and gas extraction activities, including all associated structures and substances, whose effects have the potential to cause irrevocable damage to the Heretaunga Plains Unconfined Aquifer.
Policy EMP8	Control exploration and mining activities (excluding oil and gas extraction) on land located over the Heretaunga Plains unconfined aquifer, to ensure the protection of the potability of the underlying water resource.

Section 29.1 "Hazardous Substances And Genetically Modified Organisms District Wide Activity" Imposes controls over the storage, handling or use of hazardous substances (excepting Arsenic (As) and Major Hazardous Facilities) within the Heretaunga Plains Unconfined Aquifer. Oil and Gas extraction is considered a 'Major Hazardous Facility' under Section 29.1 and would be considered a Discretionary Activity under that Section. The Decisions version now contains specific provisions relating to Oil and Gas Exploration, Extraction and Production over the Heretaunga Plains Unconfined aquifer and additional Assessment Criteria (Section 27.1.7G(5)) that cover matters raised by the PCE including cumulative effects, well abandonment and effects between exploration and production stages.

Definitions:

"Network utilities" includes gas and petroleum lines.

Mineral: same as Operative Plan

Exploration: same as Operative Plan

Prospecting: same as Operative Plan

Mining: same as Operative Plan

Mining Operations: same as Operative Plan

Napier City District Plan 2011

No specific objectives or policies relating to petroleum exploration, well drilling or production. These would be covered under general provisions for "mining", which includes exploration. Additionally, the Hazardous Substances Chapter (Chapter 63) lists Major Hazardous Facilities as a Discretionary Activity and the definition of Major Hazardous Facilities includes Oil and Gas Exploration and extraction facilities.

Definitions:

"Network utility operator" includes gas or petroleum lines.

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- Policy 7.5.9 Enable the prospecting for, exploration and processing of minerals including petroleum - related activities in a manner that avoids, remedies or mitigates any actual or potential adverse effects on the environment
- Policy 26.4.1 Ensure that, as far as practicable, utilities, and minerals exploration and energy developments are located in a manner consistent with the character and amenity values of an area.
- Policy 26.4.2 Manage the use and development of land in such a way that buildings and structures are sited and designed so as not to compromise the operational and design requirements of, and access rights to, network utility facilities.
- Policy 26.4.3 Ensure that new and existing utilities, and minerals exploration and energy developments are operated to enable people and the community to provide for their social, economic and cultural wellbeing and for their health and safety, in a way that safeguards the life supporting capacity of the District's water resources and ecosystems and that avoids, remedies or mitigates any adverse effects on the environment.
- Policy 26.4.4 Ensure that the provision of utilities, and minerals exploration and energy developments generally is done in a way that safeguards the life supporting capacity of the District's air, water, soils and ecosystems and avoids, remedies or mitigates any adverse effects on the environment, particularly:
- Significant indigenous vegetation and/or significant habitats of indigenous fauna as defined in Chapter 31, and threatened plants and animals (Schedule 6); and
 - The natural character of lakes, rivers, and wetlands and their margins, particularly those in Schedule 5; and
 - Reserves in Schedule 3; and
 - Heritage resources listed in Schedule 1 – Historic Buildings, Sites, Waahi Tapu and Notable Trees; and
 - Amenity values of the surrounding area; and
 - Transportation routes and facilities; and
 - Human health and safety.

Definitions:

Petroleum exploration survey, meaning the activity to define a potential petroleum resource, and includes geological and geophysical prospecting, including seismic survey (contained in Rule 26.5.1(8)).

Pipeline operations, meaning the construction and installation of underground pipes for bulk distribution or transmission of natural or manufactured gas, petroleum, or geothermal energy, and ancillary works, not provided for [as a PA] (contained in Rule 25.5.2).

Production testing: means the processes employed in petroleum exploration to test and control hydrocarbons in order to assess the commercial viability of the resource field
(Part E – Chapter 31: Definitions)

District Plan Rules	Central HB	Hastings (Operative)	Hastings (Proposed) ²³	Napier	Wairoa
Operative Date	2003	2003	2013	2011	2005
Activities					
Petroleum exploration survey	C / D ²⁴	P ²⁵	P ²⁵ / Pr ²⁶	D / NC ²⁷	P
Distribution pipelines	C ²⁸	P	P	D / NC	P
Site preparation works	C	P / D ²⁹	P / D ²⁹ / Pr	D / NC	C ³⁰
Well drilling activities	C	D ³¹	D ³¹ / Pr	D / NC	C ^{30,32}
Well clean-up	-	-	-	D / NC	C ³²
Production testing of wells	D	D	D / Pr	D / NC	C ³³
Petroleum production from wells	D	D ³⁴	D ³⁴ / Pr	D / NC	-
Controls³⁵					
Noise	Yes	Yes	Yes	Yes	Yes
Lighting (flaring)	Yes	Yes	Yes	Yes	Yes
Access and parking	Yes	Yes	Yes	Yes	Yes
Traffic	-	Yes	Yes	Yes	Yes
Well location	-	Yes	Yes	Yes	-
Hazardous substances	Yes	Yes	Yes	Yes	Yes
Indigenous vegetation	Yes	Yes	Yes	Yes	Yes
Landscape	Yes	Yes	Yes	Yes	No
Automatic public notification required	No	No	No	No	No

²³ Decisions Version, 15 September 2015.

²⁴ Seismic surveys default to a Discretionary Activity.

²⁵ Defined as "prospecting".

²⁶ Under Rule EM 10 "Oil and Gas Exploration, Extraction and Production" over the Heretaunga Plains Unconfined aquifer is a Prohibited Activity.

²⁷ Mining is a discretionary activity in the Rural and Rural Residential Zones. Oil and gas exploration is Non-complying in the Main Rural and Rural-Residential Zones as it is not specifically listed and so defaults to that category. Oil and Gas exploration and extraction facilities are a Discretionary Activity under the Hazardous Substances Chapter.

²⁸ Controlled activity if part of an exploration survey otherwise a Discretionary activity.

²⁹ Depending if it is classified as exploration survey or production testing.

³⁰ Controlled activity activities are conditional on being of 90 days duration or less. Defaults to a Discretionary activity.

³¹ "Exploration", which includes "drilling" is a Discretionary activity. Exploration probably encompasses production testing.

³² Includes well testing and the flaring or hydrocarbons.

³³ If less than 120 days duration and located in the Rural Zone. Defaults to a Discretionary activity.

³⁴ "Mining", which includes extracting minerals, is a Discretionary activity.

³⁵ "Controls" in this context means Permitted activity conditions, Controlled activity conditions, Controlled activity matters of control, Restricted Discretionary activity matters of discretion, performance standards or assessment criteria.