

Waikato District Council – Hazardous Substances Management

**HAZARDOUS SUBSTANCES PROVISIONS OF THE WAIKATO DISTRICT PLAN
- EXPLANATION OF ISSUES AND OPTIONS**

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Hazardous Substances Management

Hazardous Substances Provisions of the Waikato District Plan – Issues and Options

Prepared for
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1.0 SUMMARY

This report provides an analysis of relevant issues and discusses options for the review of the provisions in the Operative Waikato District Plan (**WDP**) in relation to the management of hazardous substances. The report analyses details ranging from potential inconsistencies, overlaps or gaps in the wording of objectives and policies; the scope of, and exemptions from, controls; the method to determine the activity status of hazardous facilities to the definition of relevant terms. It refers also to the relevant national and regional planning instruments. Both the Waikato and Franklin sections of the Plan are analysed.

The review of the hazardous substances provisions of the WDP has identified that providing appropriate, consistent and updated policies and rules which are more accessible for plan users will be an improvement to current provisions. Maintaining the status quo is not considered a good option, as is doing nothing.

The updated provisions proposed for the WDP will supersede the current plan which comprises the Waikato Section and Franklin Section. This means that the new Plan will apply a consistent set of provisions for hazardous substances across the whole of the Waikato District. These new proposed provisions will be based largely on those currently contained within the Waikato Section in terms of content and format but will be updated to reflect legislative changes. Wording of objectives, policies and rules also need to be improved so that it is clearly understood why and when resource consents are triggered and what environmental outcomes are sought.

It is therefore intended that the proposed WDP to be notified in early 2018 will contain provisions which:

1. Continue to control the use, storage, transport and disposal of generally the same type of hazardous substances which are covered by the operative provisions,
2. Retain an Activity Status Table similar to Table HT 1 to determine the activity status,
3. Include controls are of a similar nature to current requirements which, however, will need to be updated to better reflect the requirements of other legislative regimes and established and good planning practice.

2.0 CURRENT PROVISIONS IN THE OPERATIVE WAIKATO DISTRICT PLAN

The use of land associated with the use, storage, transport and disposal of hazardous substances, otherwise termed hazardous facilities, are controlled through provisions of both the Waikato and Franklin Sections of the Operative Waikato District Plan (**WDP**). The current provisions in both sections vary considerably and are discussed separately below.

2.1 The Franklin Section of the WDP

The following provides a brief analysis of the provisions of Chapter 15.3 of the Operative WDP – Franklin Section, using the section headings in the Plan.

Issue

There is one issue identified, addressing both the risks from hazardous substances and contaminated sites together. While the generic nature of the statement provides little room for disagreement, it is considered to be too general and nonspecific to be of much use in the formulation of meaningful objectives and policies for future provisions.

Objectives

Two objectives are stated under section 15.3.1. The first objective refers to 'hazardous activities' which is a term not defined in the Plan. This objective specifically refers to the release of radioactive substances. The second objective refers to contaminated sites.

Policies

Three policies are listed in section 15.3.1. These deal with contaminated sites, the accidental release of radioactive substances, air discharges from industrial activities, water resources and stormwater quality. There is no specific policy addressing the risks from the use of land by activities involving hazardous substances.

Methods

Five methods are listed in section 15.3.1 three of which address the management of contaminated sites. The other methods prohibit the manufacture and production of any radioactive material or cross-reference other methods elsewhere in the Franklin Section that manage air discharges and water quality. No statutory or non-statutory methods address the broader management of hazardous substances.

Other

The following section 15.3.2 'Objective – Contaminated Sites' basically repeats statements on all Issues, Objectives, Policies and Methods with regard to the management of contaminated sites. It provides a bit more detail with regard to subdivisions but the purpose of the repetition of all statements is unclear. This could simply be a Plan drafting error.

Rule 29.5.9 in section 29.5 'Development Standards for Permitted Activities – Business Zone' deals with LPG storage in business and industrial zones. This rule permits the storage of up to 6 tonnes of LPG in a single vessel per site "provided that between 2 and 6 tonnes may be stored where the installation is in accordance with the separation distances specified in Rule 29.9 (see below). Explanations are given in Rule 29.5.9 for the tonnage thresholds and reference is made to the HSNO Act 1996. The storage of LPG which exceeds the threshold of 6 tonnes is assessed as a restricted discretionary activity.

Rule 29.5.15 'Hazardous Substances Monitoring' requires reporting to Council of details of permitted activities in terms of Rule 29.8 (see below) including emergency response procedures.

Rule 29.6.5 in section 29.6 'Performance Standards for all Activities – Business Zone' is relevant to activities in the business and industrial zones. While this rule refers to 'Contaminants', there is mention of the "storage of potentially hazardous liquids" in proximity to natural water bodies. This would appear to invite confusion with respect to the definition and management of contaminants and hazardous substances and whether some overlap exists between them.

Rule 29.8 in the Business zone chapter sets quantity thresholds for hazardous substances in the industrial and business zones. Activities are permitted if the quantities of the hazardous substances

used or stored are less than the thresholds listed. The list includes some 90 individual chemicals and several generic categories of substances with selected flammable or explosive properties.

Rule 29.9 requires various separation distances for LPG installations and is based on extracts from a 1997 standard.

Apart from the general shortcomings of the substance lists in Rule 29.8 (which are addressed further in section 5 of this report), there is limited information about the issues associated with the selected substances. The various Rules are scattered throughout the Business zone chapter and there is no clear link between sections 15.3 and 29 of the Plan. There are also no specific assessment matters or information requirements specified for activities triggering consent in Rule 29.4. or in Rule 29.7B.

If resource consent is required, Part 52 sets out the information requirements. This includes a description of the nature and use of any hazardous substances, including their manufacture, transportation, storage and disposal; and an assessment of any risk associated with such use. The relevant Assessment Criteria in Part 53 are limited to a generic matter on how risks associated with the use of hazardous substances or hazardous installations will adversely affect the convenience, health and safety of people in the neighbourhood or wider community.

Overall I consider that the provisions are not particularly clear or well presented. The specific provisions in the Business zone chapter also do not apply to activities involving hazardous substances in other zones. This seems to reflect a misconception that the use and storage of hazardous substances is limited to industrial land uses.

2.2 The Waikato Section of the WDP

The following provides a brief analysis of the provisions of the Operative WDP – Waikato Section, specifically Chapter 14 and Appendix H, using the section headings in the Plan.

Introduction

This section provides some background to the issues and explains briefly the statutory context for the management of hazardous substances. It is noted that the specific function of local authorities for managing hazardous substances under the RMA may or may not be amended or removed in future, however, at this point in time the function remains. This is considered appropriate, and even if specific reference to that function was to be removed from the Act, the matter is still subject to the general provisions for the management of land use under the RMA and can be controlled by local authorities if considered necessary.

Issue

The issue identified is uncontentious in principle but is phrased in very general terms. If retained an issues section could be made more specific, potentially referring to more than one clearly identified issue.

Objective

One objective is stated which, like the issue, is generally agreeable but nonspecific. The benefits of hazardous facilities, while acknowledged elsewhere in the Plan provisions, is not reflected in the objective. While risk is the primary adverse effect to be managed, this is also not reflected in the current wording. Therefore, while the principle expressed in the current objective is generally appropriate, it could be phrased clearer and more precise.

Policies

There are two policies specified in the plan, with one referring exclusively to the transport of hazardous substances. The other is more comprehensive but strays into methods (HS management plan – Policy 14.2.2 - 8.) or is somewhat repetitive (Policies 14.2.2 - 3. and 6.). The policy may also need to be reviewed in terms of the directive given ('should avoid'). It is recommended that it be amended to be more precise and consistent. Policies on interaction with natural hazards and on reverse sensitivity with regard to risk should also be considered.

Reasons and Explanations

I consider this part to be very useful in principle for Council staff and decision makers, as well as hazardous facility operators/applicants. While some Councils have decided to provide the bare

minimum in their Plan text and may include reasons in the s. 32 analysis (or not provide any), I support inclusion of reasons and explanations in the Plan text. The actual wording needs to be updated and parts could be included in the Introduction, considering the length and detail of the explanations (including six specific matters), but the approach is supported.

Methods of Implementation

Three generic methods are listed in the Plan with varying detail, one of which refers specifically to Council owned sites and operations. It is unclear (despite the twice included 'reasons') whether this matter deserves specific attention or whether it reflects Council's approach across the Plan on other matters as well (amenity issues such as noise, lighting etc., or soil disturbance, contamination, transport et al.). The other methods list either the regulatory or non-statutory methods, some of which are useful in principle. However, Council would need to reflect whether particularly the non-statutory methods have actually been developed in any detail or actively implemented during the life of the current plan. If that has not been the case it needs to be evaluated consequently to what degree listing such methods in the Plan is of practical value.

The reasons given for the methods are somewhat generic, repetitive (or have been subject to an editing error) and of limited use. They should be either deleted or significantly re-written.

The Anticipated Environmental Results are useful in principle but I consider that they would require actual monitoring data to determine to what degree any, or all, have been achieved. In the absence of that, the reasons and explanations for the approach taken and methods selected may be more useful as guidance on what Council's intention is with regard to the management of hazardous substances.

This section does not contain any specific rules which I understand are included in the zone-specific provisions of the DP. I understand that this remains the preferred approach by Council.

Appendix H

Appendix H contains

- the criteria for permitted activities;
- the rule with regard to discretionary activities and applicable information requirements;
- the Activity Status Table (**AST**) (Table HT1), and
- a table (HT 2) with conditions for permitted activities.

As stated above, specific rules for the management of hazardous substances/facilities are repeated through the zone-specific sections of the DP.

I consider the information in the Appendix not particularly well written and difficult to follow. Some errors appear to have avoided detection during Plan drafting. The numbering of the criteria for permitted activities, for example, is repetitive and inconsistent. The standards in Table HT 2 are described in Appendix H as 'conditions' but in Chapter 14 itself as 'rules based on performance standards' (s. 14.4.1). The information requirements are based on guidance and established practice, however, there are no assessment matters specified to determine how the information supporting a consent application would be evaluated.

With regard to the definition of terms relevant to the management of hazardous substances it is noted that the term 'hazardous substance' is currently defined in the Appendix P of the WDP (Defined Terms). The term 'hazardous facility' is not used specifically and hence not defined, however, the terms 'facility', 'hazardous operation' and 'hazardous activity' are all used interchangeably without being defined. Other terms such as 'use' or 'storage' of a hazardous substance are also not defined, nor are they defined in the RMA (or the HSNO Act, for that matter). Some other terms specific to this issue, particularly in relation to 'risk' (in the context of hazardous facilities – note that natural hazards may require somewhat different terminology) are also not defined. It is recommended to evaluate the relevance of all specific terms used and define them correctly, unambiguously and clearly (including the terms 'hazardous substance' and 'hazardous facility').

2.3 Proposed new Objectives and Policies

I was asked to provide a brief review of draft Objectives and Policies which had been prepared by WDC staff recently. These Objectives and Policies are based on those of the Waikato Section of the WDC. They state:

Issue Statement

The use, handling, storage, transportation and disposal of hazardous substances have the potential to adversely affect people's health, safety, property and the environment.

Objective

People's health, safety, property and the environment are protected from the adverse effects of hazardous substances.

Policy

Activities that use, store, transport and dispose of hazardous substances should avoid risk to human health, safety property and the environment by:

- *being separated from incompatible activities, sensitive land uses and environments.*
- *being designed, constructed and operated to contain any hazardous substances that may be accidentally released*
- *disposing of hazardous substances to authorised disposal sites with appropriate management systems in place*
- *not causing contamination of land, its soil resource, or bio-accumulation of toxic substances in plants, animals and ecosystems*
- *having a hazardous substances management plan if appropriate to deal with accidental or uncontrolled releases and procedures for storing and handling hazardous substances.*

Issue

The issue statement is correct in principle but very general. If it is intended to retain an Issue statement, I recommend in particular to refer to adverse effects (risks) off-site to differentiate clearly from the HSNO/workplace safety aspect managed under those statutes.

Objective

The objective proposed is also phrased in general terms. Again, it is correct in principle and reflects a common approach under Resource Management Plans. However, the benefits of hazardous facilities are currently acknowledged in the WDP – Waikato Section. Hence it would make sense to reflect that in an objective. Similarly the relative nature of risk management means that risk minimisation could, and probably should, be the aim for managing hazardous facilities. I note that the primary purpose of the management of land use in respect of hazardous facilities is the minimisation of risk. Risk is a potential effect – actual effects, for example of permitted or consented discharges, are not meant to be controlled as a land use matter. It is also noted that the minimisation of risk is a process which can still result in some residual risk (i.e., an environmental effect) being present after mitigation.

Policies

The policies proposed are largely extracted from what is in the current WDP – Waikato Section. I recommend a critical evaluation where they stray into the control of discharges ('bioaccumulation of toxic substances') or methods (HS management plan). I also suggest that matters such as the actual assessment of risk originating from hazardous facilities, the interaction with natural hazards and possibly reverse sensitivity to risk be reflected in new policies. The use of the term 'should avoid risk' in the policies ought to be reconsidered.

3.0 RELEVANT NATIONAL AND REGIONAL POLICIES AND PLANS

3.1 The Law

It is noted that the Resource Legislation Amendment Act 2017 has just been enacted. It removes the function of territorial authorities in Section 31(1) (b) of the RMA with regard to the management of hazardous substances. The same applies to the equivalent in section 30 for the function of Regional Councils and the part of section 62 which provides for the split of functions within a region to be specified in a Regional Policy Statement. While this arrangement had generally worked well across the country for over 25 years, some people considered the possibility of duplication of controls under the Hazardous Substances and New Organisms (**HSNO**) legislation to be a problem. It is noted that, where such duplication could occur, the Minister has already the power under RMA section 360 (1) (h) to make regulations that specify the status of activities which may be affected. The Resource Management (Exemption) Regulations 2017 with regard to the use of some vertebrate poisons in certain circumstances is such an example. However, other regulations in this field have never been proposed, or up-to-date guidance provided, by the Minister or the Ministry for the Environment.

Regardless of the latest RMA amendments, the principle of section 5 of the RMA applies that the use of resources are to be managed in a way which enables people and communities to provide, among other things, for their health and safety. Equally section 7 applies that, in achieving the purpose of the RMA, local authorities among others shall have particular regard to maintenance and enhancement of the quality of the environment. The generic function of section 31 (1) (a) that TAs shall establish and implement objectives, policies and methods to achieve integrated management of the effects of land use also remains. The 4th Schedule finally continues to contain the assessment of adverse effects of hazardous installations as a relevant matter.

Section 142(3) of the HSNO Act 1996 specifies that Council can require controls for the management of hazardous substances in addition to minimum HSNO requirements where this is considered necessary. There is no limitation in the law on how, where, when and why such controls can be required. The only constraint specified in s. 142(2) is that no control can require less than what is necessary to comply with the HSNO minimum requirements. Regardless of whether this section is retained in the HSNO Act, the principle expressed remains relevant.

3.2 National Environmental Standards

There are no National Environmental Standards (**NES**) for the management of hazardous substances under the RMA. NES for the management of contaminated land are not applicable for this specific matter.

3.3 Waikato Regional Policy Statement

The Waikato Regional Policy Statement (**WRPS**) became operative on 20 May 2016. Section 4.2.9 of the WRPS sets out the responsibilities for controlling the use of land to prevent or mitigate the adverse effects of the storage, use, disposal, or transport of hazardous substances. The responsibility for specifying objectives, policies and methods including rules is specified as being the District Councils in the Waikato Region in relation to all land outside of the coastal marine area and beds of rivers, lakes and other water bodies. This remains current policy unless amended.

3.4 Operative Waikato Regional Plan

The Operative Waikato Regional Plan (**WRP**) (online version – undated) contains issues, objectives policies and rules relating to a number of matters within the region. The interface with hazardous substances is primarily in relation to the discharge of contaminants to water, soil and air. The quality of surface waters, including stormwater quality management, is also addressed. There are no land use specific requirements for hazardous facilities. The provisions appear somewhat dated and there is reference made to regulations under the HSNO Act being developed (which began more than 20 years ago and was largely completed a decade ago) or licensing under the HSNO legislation (which ceased after the transition from the dangerous goods legislation). It is understood that the WRP is under review.

3.5 Waikato Regional Coastal Plan

The Waikato Regional Coastal Plan (**WRCP**) for the coastal environment within the Waikato region became operative on 27 October 2005, apart from a few minor variations. The WRCP defines hazardous substances and includes one specific clause on the discharge of hazardous substances into the Coastal Marine Area (**CMA**). Clause 16.3.12 makes such discharges a discretionary activity provided certain standards and terms are met. The provision is phrased to apply to the deliberate use and discharge into the CMA, such as from antifouling paint, not to accidental spills into the CMA from hazardous facilities.

3.6 Iwi Environmental Management Plans

The relevant Iwi Environmental Management Plans (**EMP**) for the Waikato District have been identified by Council staff as the Waikato-Tainui EMP and the Maniapoto EMP (Ko Ta Maniapoto Mahere Taiao). While I have not independently reviewed these Plans I understand from the evaluation by Council staff that neither Plan contains policies specific to land use activities involving the management of hazardous substances. Individual matters addressed relate to pest control and soil/water quality, particularly discharges of contaminants. While that is primarily a Regional Council function, it needs to be ensured that provisions for the land use management of hazardous facilities in District Plans is not inconsistent with the relevant objectives of the Iwi Environmental Management Plans.

4.0 NEIGHBOURING DISTRICT COUNCIL POLICIES AND PLANS

When deciding on the preferred management approach, it is important to consider the regime applied by neighbouring districts under RMA section 74(2)(c). The Waikato District has six neighbouring districts and the approaches taken by these Councils are briefly explained below, in order of perceived relevance.

4.1 Auckland Council Unitary Plan

While the provisions for the management of hazardous substances in the Auckland Unitary Plan (**AUP**) are both regional and district objectives, policies and rules, they are similar in nature and scope to the current provisions in the WDP – Waikato Section. Unlike some other matters of the AUP these provisions were not appealed and became operative on 15 November 2016. The consent status of most activities is determined by thresholds specified in an AST. Unlike the AST in the Operative WDP - Waikato Section, the AST in the AUP provides for both Restricted Discretionary and Discretionary Status. Another difference in how the provisions are presented is that there are no appendices, and all controls and assessment matters are included in the main text of the AUP.

As a new approach the AUP introduces a section on risk management areas to address reverse sensitivity to hazardous substance risks around identified significant hazardous facilities and infrastructure. The extent of such areas is defined on the basis of quantitative risk assessments that have been undertaken for the facilities specified in that part of the AUP. If such risk assessment information is not available for more significant facilities in the Waikato District I do not consider it necessary to reflect this approach in the WDP.

4.2 Hamilton District Plan

The second-generation Hamilton District Plan was made partly operative on 21 October 2016. This plan includes in Chapter 25.4 provisions for the management of hazardous facilities. Appendix 12 includes the Hazardous Facilities Screening Procedure (**HFSP**) to determine the requirement for a consent for hazardous facilities. The HFSP used appears to be the dated 2001 version (see section 5 below) and it does not appear as if (necessary) updates to, and improvements to the workability of, the HFSP in the Hamilton DP have been undertaken. Hamilton is probably the local authority with the largest population in New Zealand which has decided to retain the HFSP in recent Plan reviews. It is noted that in contrast to retaining a dated version of the HFSP the Hamilton DP is up-to-date in addressing reverse sensitivity risks and interaction with natural (particularly: flooding) hazards.

The applicable provisions are somewhat scattered through the Plan. In addition to Chapter 25.4 and Appendix 12 there is another appendix (Appendix 1) which includes information requirements and assessment criteria, including matters for control. However, I noted that, while the retail of fuels (up to specified quantities) is a controlled activity, there is nothing included in the matters for control of such activities. Despite some good features I would not recommend the format of, or details such as adoption of a dated HFSP in, the Hamilton DP as a particularly good example of land use planning provisions for hazardous facilities.

4.3 Otorohanga District Plan

The Otorohanga District Plan became operative on 30 October 2014. Its provision in relation to the management of hazardous substances are similar in its approach to the current provisions of the WDP – Waikato Section with an AST being used to determine the activity status of hazardous facilities. However, provisions for hazardous substances and contaminated land are combined which I do not recommend to adopt for the Waikato District.

4.4 Hauraki District Plan

The Hauraki District Plan - operative since 26 September 2014 - provides requirements for hazardous substances and contaminated land in one district-wide section. Section 7.7 contains provisions which, despite being in force for only 2 ½ years, appear dated on matters such as

- combining provisions for hazardous substances and contaminated land;
- the method to determine the activity status of hazardous facilities (2001 version of HFSP);
- over-emphasis of hazardous substance transport as a primary land use planning issue;

- reference to obsolete agencies and organisations.

I note that the HFSP itself does not appear to be included in the Hauraki District Plan text but only by reference. This makes it difficult to apply in practice.

4.5 Waipa District Plan

The Waipa District Plan - operative since 1 November 2016 – also combines requirements for hazardous substances and contaminated land. Section 19 contains provisions for the management of hazardous substances which appear dated despite the recent date of the provisions becoming operative. The section appears largely to be a roll-over of older provisions, including the HFSP to determine the activity status of hazardous facilities. They are somewhat similar to the provisions of the Hamilton and Hauraki District Plans, however, unlike the latter the HFSP is actually included here in the Plan in Appendix O7.

4.6 Matamata-Piako District Plan

The Matamata-Piako District Plan (online version undated) provides in section 3.3.2 the policies and in section 5.7 the rules for the management of hazardous facilities. It is unique in all the Plans reviewed for this report in combining activity and substance threshold lists for rural, industrial and business zones with the HFSP to determine the activity status of hazardous facilities. It appears, however, that the HFSP is not included in the Plan itself, nor access to any version of it referenced in the Plan. This makes the application of the HFSP in any meaningful manner practically impossible.

4.7 Summary Evaluation of Approaches by Neighbouring Councils

None of the provisions for the management of hazardous substances and facilities of neighbouring Councils have been operative for more than 3 years, and all could therefore be described as being fairly up-to-date in principle. Nevertheless there is high variability in approaches and details, in fact, all Plan provisions are somewhat different. This certainly affects the usability for prospective applicants and hazardous facilities operators across district boundaries. However, it is even worse if provisions are not up-to-date, inaccurate or incomplete.

The HFSP as a method to determine the activity status was first introduced almost 25 years ago but is by now widely perceived to be rather complex and potentially too technical as a planning tool. Updates and improvements to the HFSP have not occurred for over 15 years. Consequently it has been replaced by about half the Councils that initially adopted it, with most opting for an AST. Activity and substance lists are rare and widely considered to be more activity- than effects-based. More background on all methods is provided in section 5 of this report.

District Plans of the smaller Councils often combine hazardous substances provisions with those for the management of contaminated land. This can lead to misperception about purpose, scope of policies and applicability of controls. While one aim (among several) of managing land use activities involving hazardous substances is the avoidance of future contamination, the management of contaminated land deals with past failures. It is considered advantageous to separate these two matters in a District plan to avoid confusion.

5.0 THE METHOD TO DETERMINE THE ACTIVITY STATUS

Despite only being one specific tool in the planning framework, the method to determine the activity status of a hazardous facility is considered an important matter, not the least because of its relative complexity compared to other land use planning tools. Acceptable risk levels cannot be easily specified, measured and enforced, and systems combining quantities and hazard levels as an approximation of risk are generally applied. The following provides some more detailed background of the methods currently in use in New Zealand.

5.1 History and development of the Hazardous Facilities Screening Procedure (HFSP)

The method to determine the activity status of hazardous facilities became an important feature of relevant provisions in many 1st generation district plans. This is not necessarily justified but reflects the (perceived) complexity of such methods, particularly of the HFSP. Due to some misconceptions about the HFSP it is often perceived in the following ways which do not reflect its purpose:

- as a risk assessment method - rather it is generally part of the assessment criteria which may lead to a detailed risk assessment,
- a planning strategy – it is all but one tool within the planning strategy;
- a control mechanism - this is primarily the function of performance requirements/standards.

The HFSP is in fact a screening procedure assisting in establishing the activity status, like other methods of this kind.

The HFSP was initially developed for the Auckland City Council (i.e., a large urban local authority with numerous industrial and commercial activities involving hazardous substances). For such Councils the HFSP could be an appropriate screening tool to establish the activity status of hazardous facilities.

The HFSP is a screening tool to establish the activity status of a proposed hazardous facility. It is deemed to be a largely effects (risk) based tool. The HFSP, properly used, provides a mechanism to establish a rough approximation between the land use 'hazardous facility' and its particular environmental effect, 'risk'. It requires information on the substances involved and the activities proposed. This includes the quantities of individual substances and their specific hazards, the activities carried out with them, and the specific location. Identifying these matters provides some assistance in defining the issues that need to be addressed as part of a land use consent, or even if the activity is permitted.

A significant feature of the HFSP are (a number of) exemptions. Some activities are generally not required to carry out HFSP calculations to determine their activity status, but could be required to comply with specified standards. This often includes activities involving the use or storage of radioactive materials, retail outlets for the sale of petrol, diesel and LPG, and sometimes research and teaching laboratories, or selected activities involving agrichemicals.

The updated version of the HFSP is by now itself dated and not entirely consistent with HSNO. This means that, for example, substances may be classified in hazard categories which somewhat differ from HSNO. Particularly in cases where the actual current hazard classification indicates a higher hazard than was assumed originally, this can lead to underestimating risks relevant to land use safety. There are also issues with the presentation and level of information required to achieve the necessary workability and user-friendliness. If the HFSP was adopted for any District Plan today, a review and update would need to be undertaken.

It is noted that the 1999/2000 revised version of the HFSP published at the time by the Ministry for the Environment includes, and therefore allows for, the control of only a fraction of the substances classified under HSNO as corrosive and eco-toxic. The rationale of excluding substances corrosive to metal and ocular tissue (eyes) as well as substances with eco-toxic properties other than aquatic eco-

toxicity is unclear. There are substances that are corrosive to eyes but not (to the same degree) to skin, or eco-toxic to terrestrial invertebrates (such as bees) but not the aquatic environment.

Additional complexities can be introduced as part of the HFSP, such as buffer zones or hazardous 'sub-facilities'. The former may address the failure of zoning specifications allowing significant industrial size hazardous facilities in the immediate vicinity of sensitive land uses, rather than having a gradual transition. The latter can be used to address the problem of large sites or premises with activities involving hazardous substances occurring in areas (i.e., within one site) separated by potentially large distances. These matters add to the complexity of the HFSP.

5.2 The (Hazardous Facilities) Activity Status Table (AST)

The Activity Status Table (AST) has been developed in the early 2000s as a simpler and more user-friendly alternative to the HFSP. This method has now been adopted by about 12 TAs, in some cases (such as the Waikato District, Rotorua District, Ruapehu District, Thames-Coromandel District and Auckland) replacing the HFSP. The AST, unlike the HFSP, generally covers all relevant HSNO subclasses for hazards. The permitted quantities in the AST are largely derived from the HFSP using standardised use and storage scenarios.

The main reasons for the investigation and adoption of the AST by District Councils were the problems some territorial authorities faced in applying the HFSP adopted in their District Plans correctly, as well as the increasing acceptance that a simpler alternative would lead to a higher level of compliance. By stating permitted quantities directly in the plan, there is no need for the plan to mention effects ratios, base thresholds or adjustment factors, and therefore it simplifies the task of identifying the activity status of hazardous facilities.

Another feature of the AST is that it refers directly, and only (with the exception of high BOD substances), to the HSNO classifications of substances. This allows for much easier identification of the specific hazards of substances in the New Zealand context. Overall it can be expected that administration of this system is to be much simpler than under the HFSP. In many cases applicants will be able to decide for themselves if they need consent, instead of relying on Council staff or specialists to assist with assessment.

Further, the AST does not create artificial groupings, effects groups, combining different hazards, but links substance quantities directly to the HSNO hazard classification. This provides for the more accurate application of land use controls to the respective hazards, as and when necessary.

The system is also substantially briefer than the HFSP – generally about 2 to 3 pages (or up to ten pages of tables, depending on its presentation) instead of 20 or more pages for provisions including the HFSP.

The definition of the substances classes and subclasses in the AST are based on those in the Hazardous Substances Classifications Regulations 2001 which assists in the classification of substances for planning purposes (as their HSNO classification is known). It also ensures consistency with the controls and management approach under the HSNO legislation. The advantage compared to substance lists is that only the quantities of substance categories and classes are necessary, not of individual substances. It is noted that the Environmental Protection Agency (EPA) is working on a different nomenclature for the various HSNO classes, based on international agreements. However, at the writing of this report that work has not been completed.

The aggregate quantity thresholds defining the activity status in the AST within hazard classes are based on those developed for the HFSP for the storage of substances and consequently have been subject to analysis and scrutiny when proposed for inclusion in the planning process.

The AST uses the HSNO hazard classes and, unlike the HFSP, does not lump substances together in 'Effects Groups'. This applies in particular to substances with eco-toxic properties where substance quantities are specifically lowered to ensure a consent and specific assessment of adverse effects where waters may be adversely affected by the storage of eco-toxic substances. These advantages

are considered sufficient to alleviate the effect of not having adjustment factors applied as an approximation of adverse effects of a particular hazardous facility.

The 'buffer' provisions currently adopted by most Councils that have this method are unique for substances with specific hazardous properties, and consequently can be more precisely targeted than buffer zones sometimes adopted with the HFSP.

There are some challenges with regard to adopting an AST in a Plan. Being somewhat simpler in its approach, the methodology could be considered to be somewhat less effects based than the HFSP. This has to be balanced against user-friendliness and effectiveness.

Some minor refinement of threshold quantities may possibly need to be undertaken for specific plans to take into account the nature of hazardous facilities likely to be established newly in the area, and the specifics of the districts.

Possible exemptions of specified hazardous facilities from determining the consent status via the AST may be useful in individual cases. However, this is unlikely to apply to the same degree as for the HFSP as perceived complexity of determining the activity status is not an issue with this method.

5.3 Substance/Activity lists

Activity or substance lists are basically specific to individual business sectors or chemicals, and often represent a historical link to what was considered 'noxious industries'. They have the advantage of being relatively clear and simple but have numerous disadvantages. These include potential confusion about scope (e.g., the term 'milk processing' may include bulk storage of chemicals or apply equally to an artisan cheese maker, the term 'chemical storage' to a small warehouse or a bulk storage facility) and, by its very nature, the limitation to the listed activities or substances. The activity status of substances or activities/industries not listed is often unclear. The quantity thresholds for listed substances are often based on historical precedents or perceptions and do not necessarily reflect current thinking.

Generally controls in Plans that have activity and/or individual substance threshold lists are by their very nature activity rather than effects (risk) based. This can lead to inconsistencies between activities with cases of more significant adverse effects not included being treated more permissive than specified activities with lower risk. Assessment matters or information requirements are often not stated. These matters can often also lead to either gaps or overlaps in land use planning requirements between different parts within one Plan where, for example, amenity issues or nuisance effects (e.g., smoke, dust, odour) are addressed differently.

5.4 Comparison of different methods

The rationale, specific features and limitations of the most common methods can be summarised as follows:

Method Feature	Hazardous Facilities Screening Procedure (HFSP)	Activity Status Table (AST)	Substance/activity lists
Technique	Provides mechanism to calculate dimensionless effects (or quantity) ratios which determines activity status	Provides quantity limits for substance aggregates (generally within HSNO sub-categories) above which consent is required	Provides quantity limits for individual substances or groups of substances; states activity status for specified activities
Principle	Largely effects-based calculation method; groups types of effects together	Comparison of proposed quantities with stated limits for each hazardous property	Provides clear direction on activity status of substances and activities covered
Scope	Covers all HSNO classes but not necessarily all sub-classes (e.g., not those for chronic toxicity parameters in latest version)	Generally designed to cover all HSNO classes and all relevant hazard levels; can include environmentally damaging substances (i.e., has the widest scope and is most closely aligned with HSNO classes)	Limited by its very nature, covers specified substances and activities only
Advantages	More effects-based than other methods, adjustment factors allow for more precise reflection of risk, comprehensive	Comprehensive, user-friendly, brief, clear link between specific hazard and activity status can be provided	Clear (in theory), possibly consistent with historical approaches
Limitations	Some room for interpretation; 'artificial' grouping of different hazards together to generate 'Effects Groups'; no updates available	Not strictly effects based (aggregate quantities for specific hazard classes and sub-categories are used as an approximation for risk)	Does not provide for management of unspecified substances and activities; not effects-based
Challenges	Potential confusion about two versions, both of which are dated Requires some mathematical operations Ability of applicants and processing staff to use, understand (explain) procedures Not considered to be user-friendly by layperson	Relative simplicity may induce complacency in understanding necessary elements and details Potential for amendments by Councils that may not reflect philosophy and background (this may apply, to a degree, to all methods)	No flexibility in scope Potential confusion about what is covered and what is not Possible conflicts in activity status between different activities covered by other plan provisions Potential for significant gaps

A judgement has to be made between complexity versus clarity of the different methods, being dated or current, more effects- or activity-based, comprehensive or somewhat disjointed and with gaps. While activity/substance lists were more common pre-RMA, they were often replaced by a number of local authorities by the other then available, more sophisticated, methods in their 1st generation Plans. For 2nd generation Plans many of the Councils that had initially adopted the HFSP replaced it with an AST. This was primarily based on user-friendliness and (perceived) complexity, probably lately also a lack of national guidance. On balance, although it is not strictly effects-based, I consider that the Activity Status Table (AST) is the best method currently available to determine the activity status of hazardous facilities/installations. There are many resource management methods that use an approximation for an effect to determine the activity status. In the case of the AST it is substance quantities for risk, a type of effect difficult to determine precisely in any case.

5.5 Buffer provisions

Established zoning or other (historical) grouping of land use activities are generally not specifically designed for the management of hazardous facilities risks but rather amenity (or sometimes nuisance) issues. For some areas existing land use patterns may result in land use environments or zones of a distinctly differing sensitivity being directly adjacent to each other, for example residential areas in proximity to a major hazardous facility. For example, this has occurred with the establishment of correctional facilities.

Providing for a buffer between such zones can assist in providing a separation of potentially incompatible land uses. Such buffer would be specific to the hazardous facility. An example is to provide for the activity status of a hazardous facility within a defined distance of an area of more sensitive land use, to be the same as within that specific area. It is recommended to provide for buffer provisions within the AST, specifying different thresholds depending on whether a proposed activity is within or outside a defined buffer area.

Another issue is permissive zoning provisions which may also result in potentially incompatible land uses being established in the vicinity to each other. This could apply in particular in rural zones, and I understand that this could possibly be an issue in the Waikato District. This may need to be addressed by appropriate thresholds in an AST for such (rural) zones which would be less permissive than in the industrial/(commercial) land use group.

6.0 THRESHOLD VALUES IN THE AST

6.1 Background

The values widely adopted for the Activity Status Table (AST) such as in the Waikato Section of the WDP, in Auckland, Kaipara or Thames-Coromandel are based on the work carried out in the early 1990s for the HFSP, initially by the Auckland City Council, then the HFSP Review Group. The technical experts who provided risk expertise for the development of the HFSP at the time were Professor David Elms of Canterbury University, Paul Jarret of the University of Auckland, Dr. Derek Mullins of the NSW Dept. of Planning and Professor Mark Tweeddale of the University of Sydney.

The Base Thresholds of the HFSP were set in line with limits specified in the then used substance list by the then Auckland Regional Council, the Australian New South Wales State Environmental Planning Policy (SEPP) 33 and the UK CIMAH (Control of Industrial Major Accident Hazards).

The applicable factors between industrial, residential and other land uses are based on the respective land use risk acceptance criteria of the NSW Hazardous Industries Planning Advisory Paper (HIPAP) No. 4 which specify a variation of a factor of about 50 between industrial land use and residential/sensitive land use, with land uses of medium sensitivity in between. This is largely reflected in the respective thresholds of the AST for each hazard category (for example: a 1 tonne threshold for industrial zones compared with a 0.02 tonne threshold in residential zones for hazard classes 4.2, 4.3, 5.2). The development and application of the principles and relevant values/thresholds of both HFSP and AST have been subject to repeated rigorous analysis over several decades.

6.2 Example: Liquefied Petroleum Gas (LPG)

As an example the rationale specifically for the LPG threshold applicable to sensitive land uses is briefly explained. For liquefied gases the threshold values of the documents referred to in above paragraph ranged from 1 tonne to 10 tonnes. The HFSP Base Threshold value adopted for LPG was 30 tonnes, with an Adjustment Factor (generally applicable to gases) of 0.1 resulting in an Adjusted Threshold of 3 tonnes (that compared well with nationally and internationally adopted thresholds). The model consent status matrix (as per the then Ministry for the Environment Land Use Planning Guide) recommended an applicable ratio of 1 for industrial areas (which is the basis for setting the thresholds, for example, in NSW). This equates to the Adjusted Threshold of 3 tonnes of LPG before a land use consent was required. For residential areas a safety factor of 50 was adopted – based on international practice for calculating acceptable fatality risk parameters (see previous paragraph). This means the recommended ratio in the consent status matrix for residential land use was recommended at 0.02. For LPG this would result for most credible cases in an ‘Effective Threshold’ or ‘Effective Quantity’ of 3 tonnes x 0.02= **60 kg**.

On the basis of the above it has been widely accepted practice in NZ by those Councils using an AST that a threshold for LPG in residential areas **should be in the range of 50 to 150 kg**. To permit specifically – and pragmatically – on each site two 45 kg cylinders (plus a 9kg bottle, e.g. for a BBQ) a value of 100 kg is now widely adopted. This is also the case for the Waikato Section of the WDP, and it is recommended that such thresholds which have been subject to rigorous analysis be adopted/retained in new district-wide provisions.

6.3 Sub Classes often not included in the AST

There are some HSNO subclasses for which specific land use controls are generally not considered to be necessary. This is either due to their lower hazard level compared to other substances or the perception of other requirement being adequate. For example, some hazard categories for (particularly chronic) toxicity are not included as they are more likely to be a workplace health issue, or adverse effects are more likely caused by intended application or discharge (the control of which is a Regional Council function). In particular the numerous categories of toxic or eco-toxic substances are not fully reflected in the proposed provisions due to the main sub-classes of 6.1 (acute human toxicity) and 9.1 (aquatic toxicity) being the most important within their class.

Specific sub-classes often not included in the AST are 1.4, 1.5, 1.6, 6.1D, 6.1E, 6.3, 6.4, 6.5, 9.1D, 9.2D, and 9.3. Such an approach would slightly reduce the scope of what is currently covered by the AST in Appendix H of the operative provisions of the WDP - Waikato Section. However, this would both increase user friendliness and acceptance without adversely affecting the intent or effectiveness.

7.0 LIMITATIONS OF OTHER REGIMES FOR MANAGING HAZARDOUS SUBSTANCES

The control of land uses of hazardous facilities is linked to other statutory requirements on the management of hazardous substances. The hierarchy with regard to the HSNO Act is clear insofar as requirements of District Plans cannot stipulate less than what HSNO requires (s. 142 HSNO Act). Repetition of HSNO requirements, even by reference, is unnecessary. This applies particularly to HSNO-specific matters such as details on packaging and containers, labelling or competency of users. Matters such as facility signage can have additional controls applied but this has proven generally not to be necessary as well.

Certain aspects of the management of hazardous substances are sufficiently controlled through various regulatory regimes such as the HSNO, workplace safety legislation or transport statutes. However, they are generally limited to specific technical aspects, provide minimum requirements based on legacy legislation (Dangerous Goods, Explosives, Toxic Substances Acts etc.) and don't take into account land use patterns or sensitive environments, or provide for a process of local consultation and co-operation. These shortcomings are acknowledged by most local authorities in New Zealand.

Numerous industry specific and/or technical codes and standards exist as a means of compliance with the more technical statutes, specifically the HSNO and workplace safety legislation. Their limitations as a land use planning tool are described below, together with a number of matters not addressed specifically, or not necessarily sufficiently, in the HSNO legislation.

7.1 Cumulative risks

Controls under the HSNO Act do not specifically take into account the additional risk that may result from the accumulation and concentration of a range of different hazardous substances present in different, not even necessarily adjacent, sites. For example, two facilities which store bulk flammable liquids on one and other reactive substances (such as oxidisers) on the other may present a combined cumulative off-site fire risk which may be significant and which requires an added degree of risk management. Similarly, numerous minor hazardous substance spills from different sites within a catchment may be deemed tolerable individually but may result in potentially significant adverse cumulative effects in the receiving environment. Only an assessment on a case-by-case basis can establish whether this may become significant or not. This is generally only possible through the consenting process.

7.2 Interaction with natural hazards

The issue of interaction between natural hazards (such as land instability, coastal hazards, seismic events, flooding etc.) and hazardous facilities has been recognised for some time. In particular a natural event may damage a hazardous facility and trigger the release or reaction of one or more hazardous substances with adverse effects on the surrounding environment. This is a location (and natural hazard) specific risk which is not addressed by HSNO requirements.

It is understood that particularly some flooding hazards (and potentially associated land instability) may have been identified as being relevant for the Waikato District. These matters are best addressed in a Natural Hazards section of the WDP. Therefore these matters would not need to be addressed in specific controls in the provisions for the management of hazardous facilities, apart from assessment matters (information requirements) for more significant facilities, but appropriate cross-references between the two sections should be included in the Plan.

7.3 Reverse sensitivity issues (risks)

Reverse sensitivity effects in relation to hazardous substance risk can occur where more sensitive land uses are proposed or established near an existing, lawfully established and operating hazardous facility. This is of specific relevance if the existing facility involves hazardous substances with

hazardous properties potentially damaging to human health and property. This matter has proven to be significant for a number of major facilities in other parts of the country (e.g., Auckland Waterfront/Western Reclamation/Wynyard, Wiri industrial area – South Auckland, Dunedin Stadium). It has been acknowledged that this issue requires specific planning scrutiny in particular as risk as an adverse environmental effect is harder to manage (and even understand) than amenity issues more often associated with reverse sensitivity.

Major hazardous facilities have an associated risk profile which can be shown on the basis of a quantitative risk assessment (**QRA**). Such an assessment may be undertaken in relation to providing assurance of the ability to continuously operate a facility if changes are proposed to the facility or to the land use surrounding the facility (within the risk profile).

It is unclear whether within the Waikato District there are currently any facilities which could be described as major facilities, however, Council may wish to confirm this with Worksafe NZ. While smaller facilities may also have risk profiles which extend beyond their sites, the effects are likely to be less than significant and/or localised. In the absence of relevant data I consider it unnecessary to include specific rules for this matter in the proposed Plan provisions, apart from potentially a general policy.

It is noted that the Health and Safety at Work (Major Hazard Facilities) Regulations 2016 do not control neighbouring land use effects with regard to risk which could affect the operation of a Major Hazard Facility.

7.4 External Codes and Standards

I note that the current Plan provisions do not rely on compliance with specific external codes or standards. This is supported, specifically for the controls, due to problems such as:

- the need for specific references to relevant aspects of an external document rather than the document as a whole;
- the need to refer always to specific versions/editions of external documents;
- the need for, at times, very frequent expensive and lengthy Plan changes due to changes in the external documents
- the problem that discretion provided for in an external document such as a standard or code of practice may give unreasonable discretion to a council (or unacceptable means to 'dodge' sensible requirements to users)
- the issue of inconsistencies of details of external documents with objectives in a plan.

In particular compliance with external codes or standards is not to be linked with variations in the activity status, or applicable performance standards and controls. This can create confusion, discretion or inconsistencies in terms of activity status or applicable requirements. Many management options in standards are not necessarily mandatory but discretionary and often reasonable vague.

It is my professional opinion providing for compliance with external documents as a means of compliance with District Plan requirements for hazardous substances is often inconsistent with objectives and policies of the Plan, as well as occasionally the purpose of the external document itself. It generally does not provide for ease of use or administration of the District Plan and is also often not transparent and should be avoided. I recommend to draft new Plan provisions on this basis, reflecting the current approach of the operative provisions.

7.5 Transport of Hazardous Substances

The transport of hazardous substances is one of the matters specifically included in the listed items under RMA sections 30 and 31 over which local authorities have control. There are land use aspects of the transport of hazardous substances which are not subject to requirements of land transport legislation [such as the Land Transport Act etc.] or the HSNO legislation. They include:

- transport routes,
- transport times and
- transport frequencies,

associated with the transport of hazardous substances to and from hazardous facilities. This can be particularly important with regard to adverse effects on the roading network and surrounding land uses if transport is a significant part of activities. If a significant hazardous facility triggers a land use consent, the aspect of transporting hazardous substances to or from that facility may be relevant to be assessed.

It is important to recognise that hazardous substances while transported on roads (or by rail or other mode of transport on land) are not subject to the thresholds of the AST, as no clear location can be specified to which the threshold is meant to be applied. This is established convention and is not recommended to be changed in any proposed provisions. The same applies to underground pipelines (generally for petroleum products). Also, matters such as transport containers, marking/labelling of containers and vehicles, or driver competency, are all part of the HSNO, workplace safety or land transport regimes and are consequently not required to be controlled as a land use issue.

7.6 Emergency Management Plans

It is sometimes claimed that land use planning requirements for hazardous facilities are unnecessary as the HSNO legislation, and in particular its Regulations, provide a comprehensive, complete and maximum level of control on all hazardous substances. As an example of limitations of HSNO Regulations in managing hazardous substance risks to acceptable levels in all circumstances, below is a brief review of one aspect of the Hazardous Substances (Emergency Management) Regulations 2001. I outline what the HSNO Regulations do not require with regard to emergency management planning and what is sensibly a Resource Management matter. This can be repeated for other matters in relation to other HSNO Regulations, however, in the time available it is impossible for me to document all the respective differences.

The provision in the Hazardous Substances (Emergency Management) Regulations 2001 specifying the circumstances and content of emergency response plans are in Regulations 27 to 34. They do only apply for reasonably likely emergencies (regulation 28), less likely events are not covered. This is particularly important where an adverse effect of an emergency in a particular location may fall within the definition of RMA s.3(f) as one of low probability which has a high potential impact. The ability to provide for such emergencies, in addition to the minimum HSNO requirements, is clearly a location specific and hence a resource management matter. Also, some of the thresholds in the Emergency Management Regulations are relatively high before controls apply. The higher thresholds for emergency response planning (Level 3 Emergency Management) are as high as five or ten tonnes. These represent significant quantities in sensitive environments or zones which consequently rely on land use controls for emergency management if stored in quantities below these thresholds in those areas.

In addition the HSNO Emergency Management Regulations do NOT provide for any of the following:

1. Any involvement of the Council, local community or even affected parties off-site to be involved in the development, testing/review or implementation of plans, be it in the form of consultation about off-site effects and the appropriate response to those, or even being informed about the existence or content of such plans;
2. Any response in terms of buildings, structures or environmental features off-site potentially affected by an emergency (specific reference in Regulation 29 (iii) is limited to injury to persons);
3. Any equipment, materials, systems or actions off-site necessary or useful to respond to an emergency, or even on-site if the emergency is not a fire or involves specified oxidisers/peroxides (Regulation 30);
4. Any information to be provided to potentially affected off-site parties BEFORE an emergency, even just to inform about the type of emergency likely or possible;

5. Any meaningful differentiation in controls for more sensitive land use activities or environments reflecting variable risks (this applies in fact to most HSNO Regulations).

There may be additional matters that I have not identified in the time available to compile this list. It is my professional opinion that these matter are important enough to warrant an ability to add to the minimum HSNO controls when considered necessary. I support that Plan provisions are proposed for the Waikato District that retain some local control.

8.0 VARIABLES AND RISKS OF RECOMMENDED APPROACH

Reasonably practicable options for the management of hazardous substances and facilities could be considered to include doing nothing, maintaining the status quo, adopting different management tools (such as the HFSP) or consolidating and amending existing provisions to achieve a meaningful set of controls. To assist with the s. 32 analysis, the following provides a brief comparison of the latter recommended approach for the management of hazardous substances and facilities with other possible options.

8.1 Doing Nothing

Doing nothing, while possible, is not considered a feasible option as it does nothing to protect people, local communities or environmental features from risks associated with specific hazardous facilities, beyond the legal minimum of other legislation. It is not an approach that has been favoured by the vast majority of local authorities in New Zealand in the two decades the RMA and HSNO legislation have been in place together. Specifically, it is also not an approach taken by any of the Councils neighbouring the Waikato District. This approach would expose the Waikato District Council to environmental, legal and consequently monetary risks if incidents occur with adverse effects which could be prevented. The approval of buildings which turned out to be leaky under previous building legislation, or of subdivisions of contaminated land which have proven to be costly to many local authorities are relatively recent examples of where 'doing nothing' (or doing little) has led to highly undesirable results. It is not without some irony that contamination caused by the mismanagement of hazardous substances has become a more prominent matter in the RMA regime over time.

8.2 Status Quo

The status quo for the Waikato District is two sets of District Plan provisions for the management of hazardous substances which are completely different in their approach, underlying thinking, scope and effectiveness. It would be counter-productive to retain provisions for the part of the District currently covered by the Franklin Section of the WDP which are badly written and of limited use in practice. This option hardly qualifies as reasonably practicable and should be dismissed.

8.3 Adopt a new Approach

The Council may want to consider a different approach which could include a method such as the HFSP to determine the activity status of hazardous facilities. This would be comparable in principle to neighbouring Districts Hauraki, Waipa and Hamilton City. However, apart from the shortcomings of that method explained elsewhere in this report, this approach was included in the first generation Plan for the Waikato District and was consequently dismissed and replaced. It would not make sense to revert back to a method which was considered by the Council to be ineffective and not user-friendly in the past. The method, like other different elements of control, would also require significant (further) development work which is considered ineffective in terms of time and cost for carrying out that development work, and of questionable acceptability by stakeholders and communities of such changes.

8.4 Retain Provisions of Waikato Section with Amendments and Updates

The recommended provisions are based on:

- the current provisions of the WDP – Waikato Section;
- the approach taken by a number of the neighbouring local authorities, particularly Auckland;
- the framework given by the Waikato Regional Council, and
- the current wording of the law.

They have been updated and amended to avoid unnecessary controls and any possible duplication with requirements of the HSNO legislation or other statutes, such as for workplace safety. The

provisions are considered effective to protect the local environment and communities to acceptable levels and minimise compliance costs to hazardous facility operators. Likely numbers of activities which require some scrutiny in terms of adverse environmental effects remain low overall as the thresholds above which consents would be required are virtually unchanged from the current provisions of the WDP - Waikato Section.