AUCKLAND UNITARY PLAN

Report To: Unitary Plan Political Working Party
Report Name: Natural Environment Issues and Approaches paper

Executive Summary

The Natural Environment workstream is divided into four topics - Air, Land, Water and Indigenous Biodiversity.

This report identifies:

- opportunities for innovation on issues identified in the Natural Environment workstream
- the issues which need to be addressed in the Unitary Plan for each of the Natural Environment workstream topics, and
- recommended approaches for addressing the identified issues.

Opportunity for innovation

The approaches identified to address the above issues provide the opportunity to integrate the regional and district functions to enable a single plan, the Unitary Plan, to achieve desired planning outcomes relative to a number of issues identified in this report. This in itself is a major opportunity for innovation.

Air Issues

Issue 1: Domestic Heating Emissions

Domestic home heating is the greatest contributor to fine particle emissions and has a significant impact on air quality in the region. The emission of fine particles are linked to human health effects such as respiratory symptoms and premature death. There is an Air Quality National Environmental Standard (AQNES) for fine particles that the Council must meet by 1 September 2016.

The recommended approaches for addressing the domestic heating emission issue are:

1. Give effect to the AQNES by developing consistent region wide land use controls in the Unitary Plan to manage open fires and wood burners.
2. Ensure that any regulatory approach is accompanied by non-regulatory methods (e.g. incentives and communications) to assist in offsetting any costs associated with regulatory methods.
3. Investigate the option of managing domestic emissions through bylaws as implemented by Rotorua District Council.

Issue 2: Statutory Integration

Since the ARP: ALW was notified in 2001 there has been the introduction of the AQNES and the Energy and Climate Change Amendment Act 2004 and the formation of the Auckland Council. Integrating these statutory processes into regional planning documents is either required by statute or would make management of the air resource more efficient and effective.

The recommended approach to address integration of all air quality statutory requirements is:

1. Integrate all air quality provisions in the Unitary Plan to promote a "one stop shop" for the management of air quality.

Issue 3: Landuse and Air Quality

The exposure of the Auckland population to industrial and transport generated air pollution and its adverse health effects requires an integrated management approach of land use and air discharges to:

- reduce population exposure to air pollution using tools such as separation distances, and
- reduce reverse sensitivity issues, which occur when the operation of established landuses such as industry or rural industries are affected by sensitive activities such as schools or residential areas being located nearby because of complaints

The recommended approach to address landuse and air quality is:

1. Integrate air quality discharges and land use provisions in the Unitary Plan. This could include:
    - the replacement of existing Clean Air Act schedules
    - providing minimum separation distances between sensitive activities and known sources of air pollution
    - providing assessment criteria for land use activities that generate air discharges including within designation and structure plan processes
    - requirements for large transportation projects and traffic generating activities to assess and mitigate air quality effects
    - providing liberal activity statuses for air monitoring sites to be established

Issue 4: Industrial Provisions

The provisions in the ARP: ALW for coffee roasting, volatile organic compound (VOC), and combustion rules for solid and liquid fuelled boilers (combustion rules) are currently not working effectively and should be revised. Offsets introduced by the AQNES need to be provided for.

The recommended approaches for addressing industrial provisions are:

1. Include provisions in the Unitary Plan to manage coffee roasting, VOC, and solid and liquid fuelled boiler combustion and enable the inclusion of the AQNES particulate offset requirements.
2. Develop non regulatory methods for coffee roasters including education and best practice guidance to minimise the effects of their operations and reduce enforcement issues.

Land Issues

Issue 1: Sediment Discharges

Sediment is a significant water quality issue for the Auckland region as eroded soil from multiple sources such as earthworks, vegetation clearance, pastoral and horticultural activities can be mobilised and deposited into freshwater bodies and coastal waters.

The recommended approach for addressing sediment discharges is:

1. The development of consistent region wide (district and regional level) provisions in the Unitary Plan sediment discharge controls.

Issue 2: Soil Contamination

Land potentially affected by soil contamination can limit its use and potentially endanger the health and safety of people. The Proposed National Environmental Standard for Assessing and Managing the Contaminants in Soils to Protect Human Health requires Council to identify and assess land affected by contaminants in soil at the time of being developed to make sure the land is safe for human use.

The recommended approach for addressing soil contamination is:

1. Develop provisions in the Unitary Plan to cover both the regional and district functions for the management of soil contamination, such as:
    - planning controls to assess contaminants in soils to make the land safe for human use
    - ensure land affected by soil contamination is identified prior to it being subdivided for residential use
    - include nationally recognised chemical-specific soil contaminant thresholds that will define an adequate level of protection for human health for a range of different land uses

Issue 3: Farm Dairy Effluent

The discharge of farm dairy effluent (FDE) contributes to the degradation of water quality of Auckland's freshwater bodies and coastal waters, whether it is applied to land or discharged directly to water.

The approach is to include provisions to manage FDE in the Unitary Plan. Approaches to better minimize the impact of FDE include:

- options to phase out the discharge of treated FDE into water bodies
- provisions that provide greater certainty and specificity to plan users e.g. contingency planning, the setting of irrigation rates and storage requirements based on soil types and climate conditions and investigating options for controlling silage and feed pads
- the use of a mixture of regulatory and non-regulatory methods. Education and advocacy will be vital in ensuring FDE is managed appropriately.

Issue 4: Hazardous Substances

Nationally the Auckland region has the largest proportion of industry and therefore the largest number of activities which use and create hazardous substances. If hazardous substances are used, stored, transported, or disposed inappropriately they have the potential to impact on the health and safety of people and the natural environment.

The recommended approaches for managing hazardous substances are:

1. Develop provision in the Unitary Plan to better manage the use, storage, transport and disposal of hazardous substances by including the following landuse (district) functions:
   - a region wide comprehensive set of provisions that reflects international best practice
   - a two-tier identification system that separates hazardous facilities into small-medium enterprises or major hazard facilities. This recognizes the difference in scale and thereby the level of potential effects
   - implement a risk based approach and a quantitative risk assessment system
2. Investigate the use of bylaws for the storage of hazardous substances.
3. Continuing the use of non-regulatory mechanisms including the Hazmobile service and other education and advocacy measures.

Issue 5: Natural Hazard Risk

Life, property, infrastructure, natural resources and the Auckland region economy are at risk from natural hazards such as floods, coastal inundation, storm surge, land instability, cyclones, volcanic eruptions, tsunamis and earthquakes.

The recommended approach for managing natural hazards is:

1. Development of consistent and specific region wide provisions in the Unitary Plan to manage landuse activities at risk from natural hazards. This includes:
   - consistent controls for land use activities subject to natural hazards such as floor levels, vegetation clearance, stormwater infrastructure and earthworks
   - assessment criteria for developing hazard models which provide the basis for plan provisions
   - reliable and accurate hazard maps based on known hazards in the region
   - investigations and recognition within plan provisions of climate change and how this may exacerbate the effects of natural hazards
   - continuing to work with and improve integrated hazard management with Civil Defence.

Issue 6: Minerals and Aggregates

The extraction, processing and transportation of land based minerals and aggregates from quarries in the Auckland region can cause adverse environmental effects.

The recommended approaches for minerals and aggregates are:

1. Include provisions to manage the effects of quarrying activities as follows:
   - develop rules to manage reverse sensitivity effects
   - use of provisions to address the types of adverse effects associated with mineral and aggregate extraction

Water Issues

Issue 1: Stormwater

Stormwater runoff from urban areas presents significant water quality and quantity issue for the Auckland region. If not managed appropriately, stormwater runoff can cause flooding, stream erosion, and degradation of water quality in the region's estuaries, rivers, lakes, groundwater aquifers and coastal marine areas.

The recommended approaches for stormwater are:

1. Develop consistent region wide (district and regional level) provisions in the Unitary Plan to manage stormwater, such as
   - avoidance of new development and re-development in flood prone areas and the protection of overland flow paths to enable the safe conveyance of stormwater
   - restrictions on the amount of impervious area associated with development
   - a requirement for Low Impact Design
   - a requirement for on-site stormwater treatment
2. Ensure that education and advocacy initiatives undertaken by the Auckland Council's legacy authorities are consolidated and their delivery is continued.

Issue 2: Livestock Access and Riparian Management

The access of stock to the beds of lakes, rivers and streams in rural areas of the Auckland region degrades water quality as well as instream and riparian habitat values. The restoration or enhancement of riparian vegetation can minimise these effects while also improving biodiversity.

The recommended approaches for livestock access are:

1. Combine the regional and district functions in the Unitary Plan and include:
   - The investigation of rules for stock access e.g. fence types, setback sizes and types of riparian plantings.
   - Investigate stock access provisions through subdivision and development controls. This includes requiring esplanade reserves around streams and other water bodies.
2. Investigate the use of various activity statuses for stock access within targeted catchments in the region instead of applying generalised controls across the region; and develop specific provisions for different water bodies such as coastal areas, permanent streams, wetlands and intermittent streams.
3. Provide a range of non regulatory provisions including:
   - financial incentives for fencing and riparian planting through policy in the Unitary Plan and funding secured within the 2012/22 Long Term Plan.
   - provide education to land owners on how to minimise the effects of stock access. Greater effort could be placed into fencing all types of water bodies, including permanent and intermittent streams, which could then be used for education and advocacy purposes for the public.

Issue 3: Stream Management

Issue 3A

The definitions for stream types used in regional and district plans are not consistent and do not reflect current scientific knowledge (i.e. permanent, intermittent, and ephemeral).

Issue 3B

Intermittent streams in the Auckland region are being degraded and lost due to activities involving structures, disturbance, deposition of substances, reclamation and drainage. The Auckland Regional Plan: Air, Land and Water (ARP: ALW) allows such activities as of right.

The recommended approach for stream management is:

Define permanent, intermittent and ephemeral streams and develop a new set of rules and associated objectives and policies that protect intermittent streams in the Unitary Plan

Indigenous Biodiversity Issues

Issue 1

Significant indigenous vegetation and significant habitats of indigenous fauna are under threat from human-induced activities such as subdivision, use and development along with animal and plant pests.

Issue 2

A focus on areas of significant indigenous vegetation and significant habitats of indigenous fauna is not enough to maintain the region's biodiversity.

Issue 3

Due to human habitation and activity many of the region's indigenous ecosystems have been degraded; with species either lost or in serious decline. These indigenous ecosystems and species may be lost unless the principle of 'no net loss' and preferably a net gain is applied.

Issue 4

As areas of significant indigenous biodiversity can cross regional, Crown agency, tribal boundaries or the boundary between public and private land, and those managed under other legislation; there is recognition that management efforts must be co-ordinated to achieve desired outcomes

Issue 5

The loss and degradation of indigenous ecological areas and species has had, and continues to have, a significant impact on iwi of the region.

Issue 6

The global impacts of climate change may have a significant negative impact on indigenous ecosystems and species, this needs to be understood and planned for. Indigenous biodiversity also has the ability to support efforts to reduce the negative effects of climate change.

The recommended approaches for indigenous biodiversity are:

- Identify a standard set of criteria for assessing ecological significance and map these areas within the Unitary Plan with associated regulatory provisions
- Ensure that the Unitary Plan gives effect to the proposed NPS on Indigenous Biodiversity
- Use both regulatory and non regulatory methods to protect ecological areas and to enhance, protect and restore degraded areas
- Explore the use of incentives for the protection and enhancement of biodiversity
- Develop adaptive management responses to climate change threats and investigate options to maximize the potential for species to expand or move their range
- Work collaboratively with tangata whenua in the development of any Unitary Plan provisions that relate to indigenous biodiversity
- Ensure Unitary Plan provisions are based on monitoring data and ensure that future provisions are able to be monitored for their effectiveness.
- Regular review of significant ecological sites identified in the Unitary Plan.

This report recommends:

That the issues and broad approaches in the Natural Environment Issues and Approaches paper be confirmed to enable further work to be undertaken.

Signatories

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