Version 8

Deliberations [note: Consequential renumbering will occur prior to this plan change becoming operative. The Regional Natural Resources Plan has replaced the Regional Water and Land Plan and the title page is changed accordingly]



# Region-wide Water Quantity -Proposed Plan Change 9 to the Bay of Plenty Regional Natural Resources Plan (Track Change Version from Operative Plan)

Bay of Plenty Regional Council PO Box 364 Whakatane 3158 The Water Quantity provisions in the Bay of Plenty Regional Water and Land Plan are being changed to become a separate subject. The introduction, issues, objectives, policies and methods are contained in Part II. Rules including definitions and schedules are contained in Part III. Both parts of this subject are identified by the unique identifier 'WQ'.

## **PART II : Water Quantity**

This part contains provisions relating to the allocation, taking and use of surface water and groundwater; damming and diversion; artificial control of lake water levels; and, flood hazard management. The non-consumptive use of water (e.g. for hydro-electricity generation), is also addressed in Section 5.2 Damming and Diversion of the regional plan.

#### Unless otherwise specified all clauses apply within each provision.

The <u>allocation, taking</u> and use of geothermal fluid <u>(water >30 degrees Celsius)</u> is covered by provisions in Section 7 Geothermal Resources of this regional plan, and the Rotorua Geothermal Regional Plan (for activities in the Rotorua Field), and is not subject to the provisions in <u>Part II WQ</u>. The exception to this is the <u>Tauranga Geothermal Resource</u>, covering much of the Western Bay of Plenty, which shares the same aquifer systems as the groundwater resource. Therefore, groundwater management in this area must account for, and consider the effect on, the Tauranga Geothermal Resource.

### Take and <u>/or</u> Use of Surface Water and Groundwater

<u>Part II WQ</u> of this regional plan addresses consumptive use of water where the water is taken out of a surface water body or groundwater system (e.g. irrigation, industrial use, municipal water supply).

To give effect to the National Policy Statement on Freshwater Management 2014 (NPSFM), Water Management Areas (WMAs) have been established throughout the region. Water Management Areas are large catchments that Council has decided will be prioritised in order to break NPSFM implementation into manageable geographic units. The Council will work with tangata whenua, city and district councils, resource users and the community WMA by WMA to progressively develop water management frameworks (i.e. sub-regional plans) for each of the WMAs. These planning processes will involve the setting of freshwater objectives and limits for the water bodies within Freshwater Management Units (FMUs) in the WMAs.

The NPSFM defines "Freshwater management unit" as an area determined by the regional council as the appropriate spatial scale for setting freshwater objectives and limits and for freshwater accounting and management purposes. This is a much smaller scale than WMAs, which exist solely for Council administrative/project management purposes. Council will develop FMUs for each WMA depending on a mixture of scientific and community views. FMUs may comprise multiple water bodies for which limits are to be set.

Due to the relatively complex nature of the NPSFM the term "interim limits" is used in relation to water quantity take limits that are considered provisional and will benefit from further analysis and consideration under more detailed WMA processes. Most of these limits will be superseded by specific provisions within the relevant Water Management Area chapters of this plan. Part II WQ in its entirety will continue to apply across all catchments in the region, except where the sub-regional plans specify that its application has been superseded. Part II WQ will also guide the development of these sub-regional plans. This is to ensure an holistic and integrated approach to developing subregional frameworks for managing freshwater.

The NPSFM recognises that tangata whenua have particular values and interests in freshwater. Therefore, it is important that freshwater management and decisionmaking reflects these values and interests. A key element of the WMA process will be working with tangata whenua to determine how this can best be achieved.

#### Issue<u>s</u>

# <u>WQ I1</u> The over-abstraction of surface water can degrade water quality and adversely affect ecological values, landscape values, recreational values, tangata whenua values and existing uses.

'Pressure abstraction' areas are those where surface water is at or near full allocation relative to the allocation policy, which determines the flow available for use from a specific stream or river. In all WMAs, there are surface waters under abstraction pressure. Potential adverse effects of over-abstraction are reduced habitat for fish and invertebrates, reduced water velocities (which can allow the accumulation of sediment and algae), reduced dilution of contaminants (which increases the impact of contaminants such as ammonia), increased water temperature, and reduced oxygen concentration as re-aeration is reduced and plant respiration increases. Over-abstraction of surface water can adversely affect other users, including non-consumptive uses.

# <u>WQ I2</u> Increasing demand for water in the Bay of Plenty is placing pressure on <u>rivers</u>, streams, <u>lakes</u>, springs and groundwater.

Increasing water demand in the Bay of Plenty is evident due to increasing amounts of water being abstracted for irrigation, domestic water supply (e.g. lifestyle blocks), and municipal water supply as a result of population growth. Increased water abstraction is inappropriate where it may cause significant or <u>cumulative</u> adverse effects on the environment and the resulting availability of water resources may limit land use intensification or urban growth in some areas of the region.

#### <u>WQ I3</u> <u>The inefficient allocation and use of water can significantly reduce the</u> overall benefits <u>that could</u> be derived from the use of the resource.

Other potential water <u>users or benefits of water use</u> may be excluded where a water body is fully <u>or over</u> allocated, but actual water use is lower than the <u>rate of</u> <u>take</u> consented by water permits. Inefficient water use also occurs where a greater volume of water is taken than <u>is actually</u> required <u>through</u> the <u>lifecycle of the</u> <u>activity</u> or when an activity wastes water.

There are a significant number of resource consents, particularly those rolled over from the Water and Soil Conservation Act 1967, where the Bay of Plenty Regional Council may need to review the amount of water that is allocated or whether the guantity taken is used efficiently.

<u>WQ I4</u> Over-abstraction of groundwater can degrade groundwater quality, and reduce water levels in aquifer systems and associated surface water bodies.

Over abstraction in coastal aquifers can result in seawater entering the aquifer. Groundwater provides base flow to rivers and streams, and maintains the water level in wetlands.

<u>WQ I5</u> Continued abstraction of <u>surface</u> water during <u>low flows</u> may reduce <u>surface</u> water flows below that necessary to <u>safeguard the mauri and life-</u> <u>supporting capacity and other values of water bodies</u>.

It may be necessary to restrict the take and <u>/or</u> use of water to ensure <u>the values</u> of water bodies <u>are</u> safeguarded.

- <u>WQ I6</u> Water abstraction from <u>rivers</u>, streams and <u>lakes</u> can reduce flow variability, which is necessary <u>to maintain</u> instream <u>ecological integrity</u> and <u>the</u> flushing of stream systems <u>to remove deposited sediment and growths of</u> <u>nuisance algae.</u>
- <u>WQ I7</u> <u>The effective management of water allocation and use relies on the</u> <u>collection and availability of good quality information.</u>

The Bay of Plenty Regional Council and the public require robust information on both the amount of available water and the amount being taken to effectively make decisions around the management of rivers, streams and aquifers. This includes understanding the values and interests associated with freshwater bodies, access to scientific information and mātauranga Māori pertaining to freshwater.

# WQ I8The ability to provide for the growing social and economic needs of people<br/>is dependent on water being available.

Key social and economic activities in the region require reliable and secure access to water.

 WQ I9
 The unauthorised taking of water creates difficulties in managing allocation, can impede achieving the objectives of this regional plan and can adversely affect the taking of water by authorised users.

These difficulties include lack of accurate information on the number of existing water takes and the amount of water taken; an inability to ensure that each take and/or use is efficient; and managing the potential adverse effects of such takes.

 WQ I10
 Inadequate recognition of tangata whenua values and interests and the mauri of water in freshwater management can adversely affect the relationship of tangata whenua with fresh water.

Cross reference: Issues 1-9 (Chapter 2: Kaitiakitanga)

<u>WQ I11</u> <u>The taking of water from\_over-allocated\_surface\_waters</u> or aquifers <u>can</u> <u>have adverse effects on the values associated with those freshwater bodies.</u>

> The NPSFM requires the avoidance of any further over-allocation of freshwater and phasing out of existing over-allocation.

### **Objectives**

<u>WQ 01</u> Efficient <u>allocation and</u> use of water resources in the Bay of Plenty.

- WQ 02
   Allocation of water resources in the Bay of Plenty recognises and maintains the generation capacity of renewable energy sources.
- WQ O3 Manage the allocation and abstraction of surface water at rates of take that:
  - (a) <u>Safeguard or improve the mauri and life-supporting capacity of the water</u> body.
  - (b) Maintain <u>or improve ecological integrity</u>, significant ecological values, landscape values, recreational values, and <u>tangata whenua values</u> <u>associated with</u> rivers<u></u> streams<u>and lakes</u>.
  - (c) Recognise and provide for the relationship of tangata whenua with the freshwater resource.
  - (d) Maintain <u>or improve</u> water quality <u>in order</u> to <u>sustain</u> the <u>identified</u> values<u>of</u> <u>rivers</u>, <u>streams</u> and <u>lakes</u>; <u>including</u> through the <u>setting</u> of <u>freshwater</u> objectives and limits.
  - (e) Avoid or mitigate adverse effects on downstream environments, and existing <u>authorised users</u> of the water resource.
  - (f) Meet the reasonably foreseeable needs of future generations.
  - (g) <u>Maintain\_or improve</u> flow variability to allow for ecological integrity and the flushing of stream systems to remove deposited sediment and growths of nuisance algae.
  - (h) Recognise and provide for the interactions and interrelationships between ground and surface water and, where appropriate, manages them as a single resource.
- WQ 04 Manage the allocation and abstraction of groundwater at rates of take that:
  - (a) <u>do not result in a sustained decline in groundwater levels or pressure except</u> in localised situations for the purpose of dewatering.
  - (b) <u>do not permanently</u> or unsustainably lower water levels <u>to an extent that is</u> <u>contrary to WQ O3 in</u> rivers where groundwater and surface water bodies are <u>connected</u>.
  - (c) <u>do not adversely affect groundwater quality in aquifer systems, including</u> <u>taking into account the risk of saltwater intrusion.</u>
  - (d) <u>do not cause</u> the mixing of water between different aquifers where those aquifers are not naturally connected.
  - (e) Recognise and provide for tangata whenua values and interests including the mauri of water and relationship of tangata whenua with the groundwater resource.
  - (f) Recognise and provide for the interactions and interrelationships between ground and surface water and, where appropriate, manage them as a single resource.
- <u>WQ 05</u> Land use changes, including urban growth and land use intensification, are planned to account for water resource limitations of the location, particularly in areas with existing and projected high water demand, and limited water resources.

- WQ O6
   The potential adverse effects of water abstraction during low surface water flows or low aquifer levels are avoided or mitigated to ensure WQ O3 and WQ O4 continue to be achieved.
- <u>WQ 07</u> Limits are set and applied for:
  - (a) Instream minimum flows for surface water bodies to safeguard their lifesupporting capacity, ecological integrity, significant ecological values, mauri, landscape values, recreational values, existing uses and take into account tangata whenua values and interests including the mauri of water where relevant.
  - (b) The total amount of water that can be taken from surface water bodies to ensure a reliable and accessible amount of water is available for users.
  - (c) Groundwater, which takes into account:
    - (i) The interaction between groundwater and surface water;
    - (ii) <u>Surface water flows in groundwater-fed rivers, streams, lakes and wetlands;</u>
    - (iii) The prevention of aquifer contamination by saltwater intrusion; and
    - (iv) Water levels in aquifers.
- WQ 08
   Decision-making and allocation of freshwater water resources in the Bay of Plenty recognises the:
  - (a) Social benefits from the use of water for domestic, marae, or municipal water supply, including in particular essential drinking and sanitation requirements.
  - (b) Social, economic and cultural benefits that existing water uses contribute, which are often associated with significant investment.
  - (c) Tangata whenua values and interests including the mauri of the water body.
  - (d) Social, economic and cultural benefits that new water takes can provide.
  - (e) Benefits to be derived from the use of water for, or directly associated with, energy generation from renewable resources.
  - (f) Long term certainty and priority required for safe and adequate municipal water supplies.
- WQ 09
   Integrated management of freshwater resources within Water Management Areas

   that reflects:
  - (a) <u>Tangata whenua values and interests, the mauri of freshwater and the</u> <u>future aspirations of tangata whenua.</u>
  - (b) Community values and aspirations.
  - (c) Scientific research and mātauranga Māori.
  - (d) Understanding of the relationship between freshwater quantity and quality and between land use and its management, and freshwater uses and values.
- **WQ 010** All water takes are authorised and accounted for.

- WQ O11
   Where water shortage is an issue in a Water Management Area, potential solutions are explored so the allocation and efficient use of water is improved over time by enabling:
  - (a) Water storage and managed aquifer recharge.
  - (b) <u>More efficient use of allocated water including through the transfer of water</u> <u>permits.</u>
  - (c) Water harvesting.
  - (d) <u>Temporary and periodic takes timed to avoid seasonal water shortage and</u> <u>low flow conditions.</u>
- WQ 012
   Decision making and the allocation of freshwater in the Bay of Plenty recognises and provides for tangata whenua values and interests including the mauri of water and maintains or enhances the relationship tangata whenua have with their ancestral waters.
- WQ 013
   Require, record, update and maintain good quality information about the water

   resources of the region, including the use of those resources and including system

   modelling, to ensure that water

   resources by the community to make good decisions on their current and future water

   use options.

### Policies

Water Management Areas

- <u>WQ P1</u> Establish <u>the following Water Management Areas within which</u> freshwater management units <u>will be delineated</u> and <u>freshwater objectives and limits set:</u>
  - Tauranga Harbour including Motiti Island
  - Kaituna, Maketū, Pongakawa and Waitahanui
  - <u>Rotorua Lakes</u>
  - <u>Tarawera</u>
  - Rangitaiki
  - Whakatāne and Tauranga
  - Ohiwa Harbour and Waiotahi
  - Waioeka and Otara



Map WQ 1 Water Management Areas

 WQ P2
 Work with co-governance partners, tangata whenua, city and district councils, the community, and other stakeholders relevant to each Water Management Area, to identify freshwater management units that include all freshwater bodies in the Water Management Area and within each of these to:

- (a) Evaluate:
  - (i) Surface water and groundwater resource quantities;
  - (ii) Water quality, and the suitability of surface and groundwater quality to support various values and uses;
  - (iii) The capacity of surface and groundwater resources to meet expected future water demand;
  - (iv) Information needs for the purposes of water accounting; and
  - (v) The potential effects of climate change.
- (b) Identify tangata whenua values and interests relating to freshwater,
- (ba) Consider how to recognise and provide for Te Mana o te Wai in freshwater management.
- (c) Identify social, economic and environmental values relating to freshwater including the significant values of wetlands and outstanding freshwater bodies.

- (d) Establish freshwater objectives taking into consideration:
  - (i) <u>The current state of the freshwater management unit, and its</u> <u>anticipated future state on the basis of past and current resource use;</u>
  - (ii) The limits that would be required to achieve the freshwater objectives;
  - (iii) Any choices between values that would be required;
  - (iv) Any implications for resource users, including implications for actions, investments, ongoing management changes and any social, economic or cultural implications;
  - (v) <u>Values identified through community and tangata whenua</u> <u>engagement and discussion;</u>
  - (vi) <u>Timeframes required to achieve the freshwater objectives;</u>
  - (vii) The reasonably foreseeable effects of climate change; and
  - (viii) Other matters relevant and reasonably necessary to give effect to the <u>freshwater objectives.</u>
- (e) Set environmental flows and levels for rivers, streams, lakes and aquifers:
  - (i) Based on the freshwater values and objectives;
  - (ii) <u>That reflect tangata whenua values and interests and the mauri of</u> <u>freshwater; and</u>
  - (iii) The reasonably foreseeable impacts of climate change;
- (f) <u>Set water allocation and water quality limits for rivers, streams, lakes and</u> aquifers based on the freshwater values and objectives, that have regard to:
  - (i) <u>The reasonably foreseeable impacts of climate change;</u>
  - (ii) The connection between water bodies;
  - (iii) The connection between freshwater bodies and coastal water;
  - (iv) The connection between land use, water quantity and water quality;
  - (v) <u>The connection between groundwater and low temperature</u> geothermal resources, where applicable;
  - (vi) The level of reliability for abstraction;
  - (vii) Whether water is to be allocated to a particular type of use or value;
  - (viii) The protection of significant values of wetlands and outstanding freshwater bodies and;
  - (ix) <u>The mauri of the water body.</u>
- (g) Within fully allocated water bodies, consider requiring resource consents for takes <u>otherwise allowed</u> under <u>s14</u>(3)(b) of the <u>RMA or by</u> permitted activity <u>rules</u>.
- (ga) Account for water abstracted under <u>s14(3)(b)</u> and permitted <u>activity rules</u> <u>before setting allocation</u> limits for consented takes.
- (h) <u>Incorporate</u> mātauranga and tikanga Māori into fresh water planning, management and decision-making.
- (i) Identify methods to avoid or phase out over-allocation of water.
- (j) Identify opportunities to enhance water availability in areas under abstraction pressure.
- (k) Identify opportunities to improve the efficient allocation and use of water, including:
  - i) Metering and reporting;

- ii) Shared use and management of water such as water user groups and rostering;
- iii) Community awareness and education; and
- iv) The transfer of water permits.
- (I) Identify specific actions to manage water allocation, including triggers for water take restrictions during times of low water flows or aquifer levels.
- (m) Consider initiating a collective review of resource consents, in accordance with section 128(b) and section 68(7) of the Act
- (n) Prepare a monitoring plan that includes matauranga indicators, sufficient to track progress towards the achievement of objectives set for the Freshwater Management Units.

#### Existing over allocation

```
        WQ P3
        Take steps to phase out over-allocation, where applicable, by 1 October 2027_or
any earlier date specified in a Water Management Area plan change, by:
```

- (a) Encouraging voluntary reductions in authorised takes.
- (b) Reviewing existing resource consents to determine reasonable and efficient take and/or use requirements in compliance with WQ P13 and Schedule 7 and whether any efficiency gains can be made, including through altering the volume, rate, or timing of take pursuant to s128(1)(b) of the Act.
- (c) Council at any time prior to 1 October 2027, pursuant to ss68(7) and 130(5) of the RMA, notifying its intention to review existing water permits in any nominated over-allocated water with the aim of achieving compliance with the limits in WQ P5 and with Objective B2 of the NPSFM 2014.
- (d) Rostering users or reducing the rate of take.
- (e) Encouraging the establishment of water user groups and voluntary agreements between water users, provided that does not enable an increase in the actual volume or rate of water abstracted.
- (<u>f</u>) Directing applicants to consider alternative sources including water harvesting, storage or rain water collected from impervious surfaces.
- (g) <u>Shared reduction applied to all users of the water resource, including</u> permitted activity rate of takes via a plan change.

#### Advice note:

In relation to (c) Bay of Plenty Regional Council may review resource consents for the take and/or use of water where the total rate of take authorised to be taken is greater than that provided for in WQ P5(b) or (e).

Setting limits, managing allocation and providing for flow variability

<u>WQ P4</u> To <u>maintain</u> flow variation in <u>rivers and</u> streams when <u>setting environmental flows</u> <u>or levels</u>, allocating water <u>and setting resource consent conditions for water takes</u>, damming and diversion activities.

WQ P5	To use the following interim allocation limits, until permanent limits are set through			
	regional and/or sub-regional plans within each Water Management Area :			
	(a) <u>Primary instream minimum</u> flows: 90% of Q <sub>5</sub> 7-day low flow for each river or stream.			
	(b) <u>Primary allocation limit for surface water:</u>			
	<u>10% of Q<sub>5</sub>7_day low flow for each river or stream.</u>			
	(c) <u>Secondary instream minimum flow for rivers or streams with a mean flow of greater than 5 cubic metres per second: 100% of Q<sub>5</sub> 7-day low flow for each river or stream.</u>			
	(d) Secondary allocation limit for rivers or streams with a mean flow of greater than 5 cubic metres per second of 40% of the Q <sub>5</sub> 7-day low flow, providing that the combined total of primary and secondary allocation does not exceed 50% of the Q <sub>5</sub> 7-day low flow.			
	(e) Primary allocation limits for groundwater:			
	35% of the long-term Residual Average Annual Recharge.			
	where Q5 7-day low flow and Residual Average Annual Recharge are calculated as described in Schedule 15.			
	Advice Note: Accounts detailing the assessment of allocation limits and current amount of water allocated for abstraction are available at Bay of Plenty Regional Council's offices and on its website. These accounts exclude any water takes undertaken as permitted activities provided for under Rules WQ R1, WQ R2, and WQ R3, and section 14(3)(b) of the RMA.			
	WQ P10, WQ P12 and WQ R9 provide for renewals of consents in over-allocated water bodies, subject to efficient use and other criteria.			
	No secondary allocation is allowed for rivers or streams with a mean flow of less than 5 cubic metres per second or for groundwater.			
	<u>Clauses (c) and (d) provide</u> a second tier of lower reliability surface water takes. In fully allocated <u>water bodies</u> , this enables more water to be allocated providing the applicant accepts the lower reliability. <u>Applicants may build on-site storage to enable continued operation during low flow periods, or use this water for an activity such as frost protection that generally doesn't occur during low flow periods.</u>			
<u>WQ P6</u>	To provide for the harvesting of water during periods of high river or stream flow where:			
	(a) The flow upstream of the take is above the median flow.			
	<ul> <li>(b) The additional take does not compromise the achievement of WQ O3.</li> <li>(c) No more than 10% of the median flow is allocated to all harvesting takes.</li> <li>(d) The take is not upstream of a hydroelectric power scheme identified in Schedule 11, unless the flow into the dam of the hydroelectric power scheme exceeds the flow allocated to the dam operator (where applicable).</li> </ul>			
<u>WQ P7</u>	To take a precautionary approach to granting water take permits (including through the imposition of short-term durations and robust review conditions) where there is uncertainty about the level of effects a proposed abstraction may have on the environment. This may include adaptive management conditions (where the allowable abstraction is linked to surface water flows or aquifer levels) on any resource consent granted, where the allocated rate or volume of water take is at or exceeding the interim limits in WQ P5(b) and WQ P5(e).			

#### **WQ P9** To integrate the management of groundwater and surface water resources to:

- (a) Recognise the interrelationship between adjoining bodies of water.
- (b) Manage abstraction from aquifers that have a direct or partial connection to surface water.
- (c) <u>Avoid adverse effects</u> from the abstraction of groundwater on associated values and uses of <u>connected</u> surface water.
- (d) Support freshwater accounting.

#### Consent processing

 
 WQ P10
 To generally decline applications to take and/or use surface water or groundwater, where the consented abstraction exceeds the interim limits identified in WQ P5, or any NPS-FM locally specific limits, levels and flows set under WQ P2.

This policy shall not apply to:

- (a) <u>A renewal of an existing authorised take that is:</u>
  - (i) At the same or lesser rate and volume of take; and
  - (ii) Assessed as a reasonable and efficient rate and volume of take; or.
- (b) For the harvesting of surface water under WQ P6.

 WQ P11
 To generally grant applications to take and/or use surface water or groundwater

 where the rate of consented take
 will not exceed the interim limits identified in WQ

 P5, or any NPSFM locally specific limits, levels and flows set under WQ P2, provided that:

- (a) The proposed rate and volume of take are reasonable and efficient.
- (b) In the case of surface water, the take does not result in localised adverse effects including on fish entrainment and river bed or bank erosion.
- (c) In the case of groundwater:
  - (i) <u>The take does not result in adverse localised adverse effects,</u> including bore interference;
  - (ii) If applicable, the potential for saltwater intrusion can be avoided or mitigated to an acceptable level; and
  - (iii) If applicable, adverse effects on the Tauranga Geothermal Resource or associated surface water bodies can be avoided or mitigated to an acceptable level.
- WQ P12
   To recognise and provide certainty to existing authorised users of freshwater, including non-consumptive users, by:
  - (a) Ensuring that any granting of a water take permit does not adversely impact upon the exercise of existing resource consents.
  - (b) Giving priority to existing users over new users when considering the renewal of existing resource consents.
  - (c) Considering granting an application that is the renewal of an existing authorised take and is
    - (i) At the same or lesser rate and volume of take; and

- (ii) Assessed as a reasonable and efficient rate and volume of take.
- WQ P13 To promote the efficient use of freshwater resources by:
  - (a) Requiring the quantity of water granted to be no more than that required for the intended use of water and applying the reasonable and efficient use criteria in Schedule 7.
  - (b) Requiring the use of water conservation methods and encouraging the use of alternative water sources. These measures may include (but are not restricted to) the following measures:
    - (i) requiring water audits and water budgets to check for leakages and water-use efficiency as appropriate;
    - (ii) enabling the transfer of water permits, including temporary transfer; and
    - (iii) raising awareness about water efficiency issues and techniques.
  - (c) Requiring good management practices for all uses. <u>These measures may</u> include (but are not restricted to) the following measures:
    - (i) requiring the use of, or progressive upgrade to, infrastructure;
    - (ii) promoting water storage; and
    - (iii) promoting the shared use of water through water user groups, or alternative arrangements which result in improving certainty of supply and efficient use of water
  - (d) Promoting the shared use and management of water, through water user groups or other arrangements where it results in an increased efficiency in the allocation and use of water.
  - (e) Enabling the transfer of water permits in accordance with WQ P23.
  - (f) Working with, and seeking co-operation from, holders of existing rights granted under section 386(1) of the Act to encourage:
    - (i) <u>Consent renewal prior to 1 October 2026 to match allocation to use;</u> and
    - (ii) <u>Greater water use efficiency.</u>

#### <u>WQ P14</u>

To provide an opportunity for existing users who require but do not have resource consents for their activities to become or remain authorised by:

- (a) Providing a more permissive activity status for applications to authorise those activities, where applications are lodged within 12 months of WQ R4 and WQ R5 becoming operative;
- (b) Providing information regarding the need for resource consent;
- (c) Working in conjunction with industry groups and representatives of unauthorised users to increase awareness and share information;
- (d) Providing opportunities for authorisation in preference to compliance action; and
- (e) <u>Undertaking compliance when the period provided for those activities to</u> become authorised expires

**WQ P15** When considering any application for resource consent to take and/or use water, decision makers must have regard to:

- (a) The efficient use of water in accordance with WQ P13.
- (b) Water availability <u>relative to the interim allocation limits in WQ P5(b), WQ P5(d), WQ P5(e) and WQ P6, the level of allocation within the water body to which the application relates, and any measures to phase out over-allocation in accordance with WQ P3.</u>
- (c) <u>The rate, and timing of take for surface water takes.</u>
- (d) The relative social and economic benefits of the proposed use of the water.
- (e) <u>The value of investment that existing consent holders have made which is</u> <u>dependent</u> on the water <u>to be taken and/or used</u>.
- (f) <u>The cumulative effects of water take and use on the assimilative capacity of</u> the water body with regard to the effects on water quality.
- (ga) Potential cumulative effects of this and other water takes on ecological values.
- (g) The potential effect on:
  - (i) Instream flows, including flow variability;
  - (ii) Authorised users;
  - (iii) Ecological, landscape and recreational values, where applicable; and
  - (iv) Tangata whenua values and interests including the mauri of <u>freshwater</u>.
- (h) <u>The outcome of pumping tests and hydrogeological assessments for</u> groundwater takes.
- (i) The degree of connectivity between groundwater and surface water.
- (j) The potential risk of saltwater intrusion, where applicable.
- (k) <u>The potential risk to the sustainability of the Tauranga Geothermal</u> <u>Resource, where applicable.</u>
- (I) Relevant iwi and hapū resource management plans.
- (la) The extent to which the applicant may have consulted with tangata whenua and taken into account any views expressed.
- (m) The extent to which the applicant has considered other sources of water, for example deep groundwater, where the water body is at or exceeding the interim limits in WQ P5.
- (n) The duration of the take.
- <u>WQ P16</u> <u>Decision-makers must address</u> the following <u>matters via conditions on resource</u> <u>consents for the take and/or use of water unless site specific circumstances</u> <u>determine a particular matter to be irrelevant:</u>
  - (a) The maximum allowable water take over specific time periods. This includes maximum seasonal rate of take for irrigation and frost protection based on estimated crop water requirements (see Reasonable and Efficient Use Criteria in Schedule 7).
  - (aa) The maximum allowable water take during periods when water take restrictions are in place to protect minimum flows and levels.
  - (aaa) When evidence of need has been demonstrated to Council, the maximum volume allowed as crop and rootstock survival water during periods when water take restrictions to protect minimum flows and levels are in place.

- (b) The maximum abstraction rate.
- (c) The requirement to measure, record and report on water use and rate of take, including any specific conditions to enable confirmation of compliance with restrictions relating to secondary allocation under WQ P5(d) or water harvesting under WQ P6.
- (d) The requirement to measure and record water flows or levels in the river or lake from which abstraction occurs, including any specific conditions to enable confirmation of compliance with restrictions relating to secondary allocation under WQ P5(c) or water harvesting under WQ P6.
- (da) <u>The requirement to manage or cease the taking of water when minimum</u> flows are reached to minimise <u>effects</u> on the environment and other users.
- (e) <u>The requirement to monitor the risk of saltwater intrusion associated with</u> <u>groundwater takes near the coast.</u>
- (f) <u>Common review dates within specified catchments or Water Management</u> <u>Areas.</u>
- (g) <u>Provision for review of the resource consent, in accordance with section 128</u> of the Act, to:
  - (i) <u>Require</u> <u>efficiency gains or in combination with other resource</u> <u>consents in the same water body, phase out over-allocation, including</u> <u>through altering the rate, volume, or timing of take; and</u>
  - (ii) Deal with any adverse effects on the environment which may arise from the exercise of that consent.
- (h) For surface water takes and stream depleting groundwater takes, other than for secondary takes, consideration is given to the need to have conditions that require abstraction to cease when the flow in the river reaches 90% of the Q<sub>5</sub> 7-day low flow.
- (i) For takes under WQ P5(d) consideration is given to the need to have conditions that require abstraction to cease when the flow in the river reaches 100% of the Q<sub>5</sub>7 Day low flow.
- (j) For water harvesting takes under WQP6 consideration is given to the need to have conditions that require abstraction to cease when the flow in the river reaches the median flow and to ensure that when combined with all other harvesting takes does not cause more than 10% of the median flow to be allocated.
- WQ P17
   When determining the duration of a resource consent to take and/or use water, to apply a:
  - (a) Consent term of no more than 10 years for water bodies which are at or exceeding the interim limits in WQ P5(b) or WQ P5(e); or.
  - (b) Consent term of no more than 15 years for all other water bodies.
  - (c) <u>Notwithstanding clauses (a) and (b) above, a longer consent term if the take</u> <u>and/or use of water:</u>
    - (i) Enables the use or development of regionally significant infrastructure; or
    - (ii) Is for a non-typical activity such as dewatering and the access to, and use and development of, mineral resources; or
    - (iii) Is demonstrated by the applicant to be appropriate in the circumstances.

#### Requirement of National Policy Statement Freshwater Management

When considering any application the consent authority must have regard to theWQ P18following matters:

- (a) The extent to which the change would adversely affect safeguarding the lifesupporting capacity of fresh water and of any associated ecosystem; and
- (b) The extent to which it is feasible and dependable that any adverse effect on the life-supporting capacity of fresh water and of any associated ecosystem resulting from the change would be avoided.

This policy applies to:

- (a) Any new activity; and
- (b) Any change in the character, intensity or scale of any established activity

that involves any taking, using, damming or diverting of fresh water or draining of any wetland which is likely to result in any more than minor adverse change in the natural variability of flows or level of any fresh water, compared to that which immediately preceded the commencement of the new activity or the change in the established activity (or in the case of a change in an intermittent or seasonal activity, compared to that on the last occasion on which the activity was carried out).

This policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management took effect on 1 July 2011.

#### Advice Note:

This policy was inserted to meet the requirements of the National Policy Statement for Freshwater Management 2011 (<u>now the National Policy Statement Freshwater</u> <u>Management 2014</u>).

## Map WQ2 Kaimai Upstream Extent

# Map WQ 3 Wheao, Aniwhenua, Matahina and Karaponga Upstream Extent



WQ P19

To recognise the importance of maintaining existing renewable electricity generation capacity by not allowing any new taking or out of catchment diversion of surface water or shallow groundwater connected to surface water upstream of the hydroelectric power schemes listed in Schedule 11 except in the following limited circumstances:

- i. <u>For the Rangitaiki River above Matahina Dam, when the flow into Lake</u> <u>Matahina is greater than the consented maximum take from Lake</u> <u>Matahina; or</u>
- ii. Where the take and/or use is within the interim primary or secondary allocation limits set in WQ P5, subject to any seasonal restrictions required to ensure adverse effects on the schemes and the environment are acceptable; or
- iii. <u>Where the take is for existing dairy shed washdown authorised under Rule</u> <u>WQ R4.</u>

Advice Note:

The upstream extent of hydroelectric power schemes listed in Schedule 11 is shown in Maps WQ 2 and WQ 3.

Importance of domestic, marae and municipal water supply

WQ P21To recognise the essential nature of domestic, papakāinga, marae and municipal<br/>water supply requirements when considering the granting of water take permits<br/>and to require applications to take water for municipal water supplies to provide a<br/>water management plan in accordance with the requirements of Schedule 7.

#### Construction of bores

- WQ P22
   Require groundwater bores to be constructed to:
  - (a) Minimise the leakage of water.
  - (b) Protect headworks against wastage.
  - (c) Have appropriate casing and construction.
  - (d) <u>Be screened for only one aquifer to prevent cross contamination between aquifers.</u>
  - (e) Prevent backflow of water and contaminants into the aquifer.
  - (f) <u>Fully penetrate the aquifer as appropriate, to ensure reliable access to water.</u>

#### Transfer of water permits

<u>WQ P23</u> <u>To consider the transfer of water permits to take and/or use water in whole or part</u> to another site providing the transfer:

- (a) Is within the same catchment or aquifer as the original resource consent.
- (b) Is for the same or a lesser amount of water.
- (c) Does not result in more than minor adverse effects.
- (d) Is no more than that required for the intended use.
- (e) Does not increase the rate and volume of take of water that the transferor is able to demonstrate has actually been taken and used in accordance with the conditions on the existing water permits at any time in the preceding 5 years.

Water metering, reporting and accounting

- WQ P24
   Require the installation of a water measuring device (water meter) for consumptive water takes, and electronic reporting as follows:
  - (a) <u>All takes authorised by a water permit and, for takes authorised as a permitted activity, where the total amount of water (permitted takes plus takes allowed by RMA s14(3)(b)) exceeds the permitted activity limit for that property.</u>
  - (b) <u>The minimum metering requirement for all water permits, and for permitted</u> <u>activities that require metering shall be a daily recording of the volume taken</u> (in cubic metres) and monthly reporting in a council approved electronic format.
  - (c) If considered necessary to meet the objectives of this plan, require more frequent reporting. This may include, but is not restricted to, the following circumstances:

- (i) The maximum allowed rate of take exceeds 5l/s;
- (ii) The stream or aquifer is over allocated;
- (iii) The water permit was granted as secondary allocation or for flood harvesting; or
- (iv) The resource use is under restriction.

#### Advice notes:

- Horizons Regional Council Technical Report December 2007 "Reasonable Stock Water Requirements Guidelines for Resource Consent Applications" (available at: https://www.boprc.govt.nz/media/470831/reasonable-stockwater-requirements-guidelines-horizons.pdf) provides a means of assessing stock drinking water requirements.
- 2. <u>Dairy shed water requirements (milk cooling and wash down) shall be</u> assessed according to Schedule 7.
- 3. <u>Properties taking water under section 14(3)(b) of the Act from multiple</u> <u>locations on a property must include all water taken from all locations when</u> <u>determining whether metering is required, but only need to meter and report</u> <u>water that is used as a permitted activity.</u>
- 4. <u>If considered necessary to meet the objectives of this plan, require more</u> <u>frequent reporting. This may include but is not restricted to the following</u>

#### WQ P25

<u>Council will undertake</u> <u>freshwater</u> <u>accounting to support</u> <u>management</u> <u>of the</u> <u>freshwater</u> <u>resource</u>. The accounts shall include calculations of</u>:

- (a) <u>The amount of freshwater available for allocation;</u>
- (b) <u>The amount of freshwater allocated by types of resource consent:</u>
- (c) <u>The amount of freshwater estimated to be taken without resource consent;</u>
- (d) <u>The proportion of the allocable rate or volume that has been allocated;</u>
- (e) <u>The effect of non-consumptive takes and discharges;</u>
- (f) <u>The proportion of consented water used; and</u>
- (g) <u>The proportion of water allocated to, and taken by, each major category of use</u>.
- **WQ P26** To establish an accurate record of permitted takes within the region by:
  - (a) Requiring all water takes permitted under WQ R1, R2 and R3 to be registered and to be metered if, in combination with water taken for stock drinking water under section 14(3)(b) of the Act the total rate of take exceeds the Permitted Activity volume on a property.
  - (b) Establishing and maintaining a model to quantify water takes permitted under WQ R1, R2 and R3 and allowed by section 14(3)(b) of the Act.
  - (c) Undertaking audits in selected areas to estimate or verify water use.

Ensuring and enhancing water availability

- WQ P27To encourage landowners, developers, the city council and district councils to take<br/>into account the ongoing availability of surface and groundwater based on the<br/>interim allocation limits in WQ P5 before making any land use changes.
- WQ P28Promote and help investigate enhanced water availability options, including water<br/>harvesting, water storage and managed aquifer recharge that provide for the<br/>social, economic or cultural well-being of communities while remedying existing<br/>adverse effects and avoiding further adverse effects on water resources.

### Low flows and aquifer levels

<u>WQ P29</u>	To require water conservation procedures in accordance with WQ P during times of low water flows or aquifer levels, specifically:		
	(a) When surface water flows or aquifer levels fall below instream minimu		
	(b) When a water shortage direction is issued under section 329 of the Act		
	(b) when a water shortage direction is issued under section 525 of the Act.		
<u>WQ P30</u>			
	I o take the following actions during times of low water flows or aquifer levels:		
	(a) Advise abstractors and work with councils and industry groups to conser water and limit non-essential use of water as far as practicable.		
	(b) Provide water conservation advice to the community.		
	(c) Work with water users and encourage support from the horticultural a agricultural sectors to encourage and support the use of rationing rostering.		
	(d) Require water permit holders to manage abstraction in accordance with t instream minimum flows or levels specified as conditions on their consents		
	(e) Require non-consumptive users to ensure that the discharge from dam/impoundment is equal to the inflow.		
	(f) Consider the need to issue a water shortage direction under section 329 the Act.		
<u>NQ P31</u>	To give priority to water abstraction for the following uses during times of low water flows or aquifer levels:		
	(a) Essential domestic drinking and sanitation requirements.		
	(b) Municipal water supplies, in compliance with the requirements of any Wa Management Plan prepared in accordance with Schedule 7.		
	(c) Reasonable animal drinking and sanitation needs.		
	<u>(d)</u> Non-consumptive takes, provided that the discharge from a da impoundment is equal to the inflow.		
	(e) Crop and rootstock survival water, when scientifically proven as necessar provided that no more than 25% of the rate of take allocated by the releva water permit shall be taken		
	Advice Note: If a water shortage direction is issued under section 329 of the Act is expected that all water users will reduce their rate of taking		
	<u>to expected that an water deele will reduce their jate of taking.</u>		
	Methods of Implementation		
	Bay of Plenty <u>Regional Council</u> will:		
WQ M1	Make submissions on district plans and district resource consents to advise tha land use changes, intensification and urban growth should not occur withou adequate assessment of water resources, and account for any limitations on the available resource.		
<u>WQ M2</u>	Provide <u>updated</u> information to the community on the availability of freshwa resources, where such information is available. <u>This includes</u> :		

	(a)	Reference to technical reports detailing the calculation of flow statistic	s for		
	<u>(u)</u>	surface water allocation or aquifer recharge for groundwater allocation.	<u>o ioi</u>		
	<u>(b)</u>	Reference to information regarding the hydraulic connection of ground surface water bodies.	and		
	<u>(c)</u>	A map showing surface and groundwater boundaries.			
	<u>(d)</u>	The present allocation of surface and groundwater resources.			
	<u>(e)</u>	Advice for potential water users within fully allocated water bodies regare alternatives such as accessing secondary allocations of surface water harvesting of high flow surface wateror accessing groundwater.	<u>rding</u> ater);		
	<u>(f)</u>	How freshwater objectives, values and limits environmental flows ar evels are set or evaluated.	<u>nd/or</u>		
<u>WQ M3</u>	Enco <u>comn</u>	rage <u>city councils, district councils and</u> the community, <u>including the</u> ercial, industrial, horticultural, agricultural and energy sectors to:			
	(a)	Use water audits <u>or irrigation performance assessments</u> to identify volution wastage, or opportunities to conserve or use water more efficient	vater itly.		
	(b)	Adopt efficient water use and conservation practices.			
	(c)	Utilise water conservation devices.			
	<u>(d)</u>	Adopt recognised industry good management practices.			
	<u>(e)</u>	Use alternative water sources to supplement supply, such as wharvesting, managed aquifer recharge and storage.	<u>vater</u>		
<u>WQ M4</u>	<u>Supp</u> appro water	rt initiatives by local communities, sector groups or tangata whenua and ariate, undertake investigations to identify and evaluate options to enha	<u>d, as</u> ance		
	Initiat	res may include, and are not limited to:			
	<u>(a)</u>	Community water supply schemes.			
	<u>(b)</u>	Water storage dams.			
	<u>(c)</u>	Managed aquifer recharge.			
	<u>(d)</u>	Water harvesting.			
	Bay of Plenty Regional Council will provide support by:				
		<ul> <li><u>providing</u> <u>data and information that will assist identification</u> <u>evaluation of the options;</u></li> </ul>	and		
		(ii) <u>participating, as appropriate, in the option identification</u> evaluation process; and	and		
		(iii) where appropriate, undertaking investigations into methods enhance water availability.	<u>s to</u>		
	Advo	ate that the city council and district councils use individual property wate	er		

<u>WQ M5</u>

Advocate that the city council and district councils use individual property wate metering systems in reticulated areas to reduce water usage and wastage.

<u>WQ M6</u>	<u>Req</u> scier and	uire resource consent applicants for groundwater to use an appropriate ntific method to calculate the likely degree of connection between groundwater surface water at the location of the groundwater take.
<u>WQ M7</u>	All m	neasurements taken relating to water quantity should adhere to the:
	<u>(a)</u>	National Environmental Monitoring Standards.
	<u>(b)</u>	Bay of Plenty Regional Council's specified format documents.
	<u>(c)</u>	Resource Management (Measurement and Reporting of Water Takes) Regulations 2010.
	<u>(d)</u>	Any other specified format stated within resource consent conditions.
<u>WQ M8</u>	<u>Sup</u> Cou	port the establishment of water user groups to assist <u>Bay of Plenty Regional</u> ncil and water users in the management of water through the following:
	<u>(a)</u>	Co-ordinating the take and/or use of water authorised by resource consent.
	<u>(b)</u>	Voluntary rostering or rationing of water takes during times of low water availability.
	<u>(c)</u>	Pro rata reduction of water allocated by resource consent.
	<u>(d)</u>	Recording and reporting information to Bay of Plenty Regional Council.
	<u>Advi</u>	ce Note:
	<u>Sup</u> help	port may include provision of staff time, co-ordination and administration to establish and maintain groups.
<u>WQ M9</u>	Reco	ognise:
	<u>(a)</u>	The value of involving iwi and hapu to identify the extent of cultural impacts associated with resource consent applications to take water.
	(b)	The value of iwi and hapū management plans to articulate issues of

(c) <u>The role of specialists in mātauranga and tikanga, such as kaumātua and pūkenga, in resource management decisions where tangata whenua values or interests, or the mauri of freshwater are affected.</u>

Advice Note:

significance to tangata whenua.

WQ M9(c) supports the preparation of Cultural Values/Impact Assessments as well as the use of Hearing Commissioners who have a strong background and understanding of mātauranga and tikanga.

## Part III WQ: Water Quantity

### Take and Use of Water

Advice Note:

- 1 Section 14(3)(e) of the Act allows the take and use of water for fire-fighting purposes. This applies to surface water, groundwater, geothermal and coastal water.
- 2 Section 14(3)(b) of the Act allows the take and use of freshwater (this excludes geothermal water [greater than 30<sup>o</sup> Celsius] and coastal water) for:
  - (a) An individual's reasonable domestic needs,
  - (b) The reasonable needs of an individual's animals for drinking water, providing the take and use does not, or is not likely to, have an adverse effect on the environment. Adverse effects include, but are not limited to, effects on other persons, abstraction (either singularly or cumulative takes within the<u>water body</u>) at a rate or volume that cause the water flow to fall below the instream <u>minimum</u> flow (including the default instream <u>minimum</u> flow ) or groundwater or lake level.

People taking and using water may take a reasonable volume of water for the purposes of (a) and/or (b) above, plus an additional volume permitted by WQ R1 or R2 (groundwater) or WQ R3 (surface water).

3 <u>Unless otherwise specified all clauses apply within each rule.</u>

#### Permitted Activity – Take and Use of Groundwater

WQ R1

In addition to any take under section 14(3)(b) of the Act, the take and use of groundwater with a temperature of less than 30° Celsius, where the property size is less than 5 hectares, the rate of take does not exceed 2.5 litres per second and the quantity of water taken does not exceed 15 cubic metres per day per property, is a Permitted Activity subject to the following conditions:

- (a) <u>Existing takes are registered with the Bay of Plenty Regional Council within</u> <u>one year of the rule becoming operative, and new takes prior to the</u> <u>commencement of the take. The following information is to be provided to</u> <u>Council with all registrations:</u>
  - (i) Location of all water takes on the property, including those that supply water for stock:
  - (ii) <u>General purpose for which the water is being used or is proposed to be used;</u>
  - (iii) Confirmation that conditions (b) to (c) below can be met;
  - (iv) Whether the take provides for stock or domestic drinking requirements; and
  - (v) Name, address and contact details of person responsible for the take and use.
- (b) <u>Metering is undertaken and data is provided to Council in accordance with</u> <u>WQ P24 if required.</u>

#### (c) No additional water is taken under WQ R3.

Advice Note: <u>Clause b of this rule requires the metering and reporting of permitted</u> water takes on the property if the total volume of water taken, including stock drinking water, exceeds the permitted activity quantity. Stock drinking water is provided for in addition to the permitted activity quantity. The purpose of metering and reporting is to assist with water accounts, and to enable compliance monitoring.

#### Explanation/Intent of Rule

To allow minor takes of groundwater for any purpose that are unlikely to have adverse effects on the environment, and to prevent a proliferation of small takes on a single property that may have significant cumulative effects on a groundwater system. <u>12 months is provided as time for registration of permitted activity and installation of any meters that are required.</u>

#### WQ R2 Permitted Activity – Take and Use of Groundwater

In addition to take under section 14(3)(b) of the Act, the take and use of groundwater with a temperature of less than 30° Celsius, where the property size is equal or greater than 5 hectares, the rate of take does not exceed 2.5 litres per second and the quantity of water taken does not exceed 35 cubic metres per day per property, is a Permitted Activity subject to the following conditions:

- (a) <u>Existing takes are registered with the Bay of Plenty Regional Council within one year of the rule becoming operative, and new takes prior to the commencement of the take. The following information is to be provided to Council with all registrations:</u>
  - (i) Location of all water takes on the property, including those that supply water for stock;
  - (ii) <u>General purpose for which the water is being used or is proposed to be used;</u>
  - (iii) Confirmation that conditions (b) to (c) below can be met;
  - (iv) Whether the take provides for stock or domestic drinking requirements; and
  - (v) Name, address and contact details of person responsible for the take and use.
- (b) <u>Metering is undertaken and data is provided to Council in accordance with</u> <u>WQ P24 if required.</u>
- (c) No additional water is taken under WQ R1 or WQ R3.

Advice Note: <u>Clause b of this rule requires the metering and reporting of permitted</u> water takes on the property if the total volume of water taken, including stock drinking water exceeds the permitted activity guantity. Stock drinking water is provided for in addition to the permitted activity guantity. The purpose of metering and reporting is to assist with water accounts, and to enable compliance monitoring.

#### Explanation/Intent of Rule

To allow minor takes of groundwater for any purpose that are unlikely to have adverse effects on the environment, and to prevent a proliferation of small takes on a single property that may have significant cumulative effects on a groundwater system.

Rules 39-40B [are not relevant for this Plan Change and will be shifted under a new heading Groundwater Bores and Flooding Conditions].

#### Permitted Activity – Take and Use of Surface Water

<u>WQ R3</u>

In addition to any take under section 14(3)(b) of the Act, the take and use of water from any surface water body where the rate of take does not exceed 2.5 litres per second, the water has a temperature of less than 30° Celsius and the quantity taken does not exceed 15 cubic metres per day per property is a Permitted Activity subject to the following conditions:

- (a) ) <u>Existing</u> <u>takes are registered with the Bay of Plenty Regional Council within one year</u> <u>of the rule becoming operative, and new takesare registered prior to the</u> <u>commencement of the take. The following information is to be provided to</u> <u>Council with all registrations:</u>
  - (i) Location of all water takes on the property, including those that supply water for stock;
  - (ii) General purpose for which water is being used;
  - (iii) Confirmation that requirements (b) to (j) can be met;
  - (iv) Whether the take also provides for stock or domestic drinking requirements; and
  - (v) Name, address and contact details of person responsible for the take and use.
- (b) Metering is undertaken and data is provided to Council in accordance with WQ P24 if required.
- (c) No additional water is taken under WQ R1 or WQ R2.
- (d) The take is not from a water resource that is fully <u>or over-allocated at the</u> time the take is established, unless the take was established prior to 18 October 2016.
- (e) The take is not from a wetland.
- (f) <u>The take is not from waters flowing into a wetland that will be adversely</u> <u>affected by the take</u>.
- (g) The intake shall be screened with a mesh aperture size:
  - (i) <u>Not exceeding three (3) millimetres by 30 millimetres in the tidal areas</u> of rivers, streams or lakes; and
  - (ii) <u>Not exceeding five (5) millimetres by 30 millimetres or five (5)</u> <u>millimetres diameter holes in any other areas that is not in the tidal area</u> <u>of a river stream or lake.</u>
  - (iii) The intake velocity through the screen shall not exceed 0.3 metres per second.
- (h) Where the take is from a river or stream, the total abstraction (all users) of surface water takes shall not <u>cause</u> the instream <u>minimum</u> flow <u>to be</u> <u>breached</u> at any point.

Advice Note:

- 1 Potential water abstractors are encouraged to seek the advice of Bay of Plenty <u>Regional Council</u> to ensure that there is sufficient flow in a water body to accommodate their water take and comply with condition <u>(e)</u>. This is particularly relevant for small streams. Bay of Plenty <u>Regional Council</u> will take appropriate action when flows fall below the instream minimum flow.
- 2 Surface water intake structures for the take and use of water under this rule must also be authorised (refer to Rule 52).
- 3 This rule requires the metering and reporting of stock drinking water where the volume used, in combination with any permitted uses on the property exceeds the permitted activity limit. Stock drinking water is provided for in addition to the permitted activity volume. The purpose of metering and reporting is to assist with water accounts, to encourage efficiency by providing information about water use and to ensure that the volume is reasonable, as required by the Act.

#### Explanation/Intent of Rule

To allow small takes of water from rivers, streams, lakes and other surface water bodies excluding wetlands which are unlikely to cause adverse environmental effects. Conditions (c) and (d) are to avoid adverse effects on small streams, which are particularly sensitive to abstraction pressure. 15 cubic metres per day is a reasonable amount for small uses, such as wash-down <u>and milk cooling for small dairy sheds</u>, small glasshouse operations, horticultural spray makeup, or irrigation of gardens (up to approximately 0.5 hectares). Condition (b) is to prevent a proliferation of small takes on a single property, which may have significant cumulative effects on <u>surface waters</u>. Intake velocity conditions are to prevent adverse effects on aquatic life.

#### <u>WQ RX</u> Permitted activity – the Taking of Water for the Purpose of Aquifer or Pump <u>Testing</u>

The taking of groundwater for aquifer or pump testing is a permitted activity subject to the following:

- (a) <u>The Bay of Plenty Regional Council shall be notified in writing at least 1</u> week in advance of a test.
- (b) <u>No test for a particular well shall exceed a pumping period of 7 days in</u> <u>duration.</u>
- (c) The rate of take shall not exceed 2,500 cubic metres or tonnes per day.
- (d) <u>Records of the pump test(s) shall be kept by the owner and provided in</u> writing to the Bay of Plenty Regional Council within one month of completion.
- (e) The records shall include:
  - (i) <u>The location of the bore and any observation bores;</u>
  - (ii) <u>Temperature/pressure profiles; and</u>
  - (iii) <u>The amount of water taken.</u>

Advice note:

<u>The Bay of Plenty Regional Council can provide information on constant discharge</u> <u>pump testing methodology to assist the applicant determining the appropriate</u> <u>protocol with regard to the information needed to support any future application for</u> resource consent to take and use water from the bore. A separate consent to discharge aquifer or pump test water may be required.

#### <u>WQ R4</u> <u>Controlled Activity – Take and Use of Water for Existing Dairy Shed Wash</u> Down and Milk Cooling Purposes

The take and use of surface water or groundwater for the purposes of dairy shed washdown and milk cooling is a Controlled Activity that does not require notification\_under section 95A or 95B of the RMA, subject to the following:

- <u>1</u> The take and use is not permitted by a rule in this regional plan.
- <u>2</u> The take and use is not prohibited by Rule 49.
- <u>3</u> <u>The take and use is not otherwise provided for by a rule in the Tarawera</u> <u>River Catchment Plan</u>
- <u>A resource consent application is lodged within 12 months of this rule becoming operative.</u>
- <u>5</u> Where the take is from a river or a stream:
  - (a) The rate of abstraction shall not exceed 2.5 litres per second or 10% of the estimated five year low flow ( $Q_57$ -day low flow) at the point of abstraction, whichever is the lessor.
  - (b) The intake shall be screened with a mesh aperture size:
    - (i) <u>Not exceeding three (3) millimetres by 30 millimetres in the tidal</u> areas of rivers, streams or lakes; and
    - (ii) <u>Not exceeding five (5) millimetres by 30 millimetres or five (5)</u> <u>mm diameter holes in any other area that is not in the tidal area</u> <u>of a river, stream or lake.</u>
- 6 Where the take is from groundwater:
  - (a) The rate of take shall not exceed 2.5 litres per second.
  - (b) The bore shall be registered with the Bay of Plenty Regional Council.
  - (c) <u>The bore shall be maintained and decommissioned in accordance</u> with the relevant requirements of schedule 14.
- 7 The application information contains verifiable evidence of the existence of the take on 18 October 2016, including but not limited to:
  - (i) Any consent to discharge dairy shed effluent; and
  - (ii) Evidence of the presence of a water pump on the property and the volume and rate of take is proven to be the same or less than that occurring as at 18 October 2016.

Bay of Plenty Regional Council reserves its control over the following matters:

- (a) Rate and volume of take.
- (b) <u>Measures to restrict or stop the take during periods of low river flow or</u> <u>low aquifer level or to enable flow monitoring by Council.</u>
- (c) Metering and reporting requirements.
- (d) <u>Measures to achieve efficient use of water and consistency with</u> schedule 7 dairy shed water use.
- (e) Where the proposed take is from a water body that is allocated above the limit identified in WQ P5(b) or WQ P5(e):

- (i) <u>Measures to avoid, or mitigate adverse effects on the</u> <u>environment, including on the matters in WQ O3 and WQ O4;</u> <u>and</u>
- (ii) <u>Measures to avoid or mitigate adverse effects of the take on</u> <u>existing authorised users, and on tangata whenua values and</u> <u>interests.</u>

#### Advice Note:

- 1 This rule does not enable an additional volume to be added to an existing resource consent or permitted activity relating to the take and use of water on the same property.
- <u>2</u> No pump testing is required.
- <u>3</u> The rate of take may be reduced to the minimum required to achieve the daily volume. Storage may be needed to enable higher rates of use.

Explanation

The intent of the 12-month period in (4) is to ensure all relevant activities are registered with Council, and that meters are installed.

#### WQ R5 Controlled Activity – Take and Use of Groundwater

The take and use of groundwater is a Controlled Activity that does not require notification, subject to the following:

- <u>1</u> <u>The total daily volume of take does not exceed 35 cubic metres per property.</u>
- <u>2</u> The take and use is not permitted by a rule in this regional plan.
- <u>3</u> The take and use is not prohibited by Rule 49.
- <u>A resource consent application is lodged within 12 months of this rule becoming operative.</u>
- 5 The application incudes verifiable evidence of the existence of the take as at 18 October 2016, including but not limited to:
  - (i) Any resource consent to discharge the volume of water sought; and
  - (ii) Evidence of the presence of a water pump on the property

and the volume and rate is proven to be the same or less than that occurring as at 18 October 2016.

Bay of Plenty Regional Council reserves its control over the following matters:

- (a) Rate and volume of take.
- (b) Measures to restrict or stop the take to enable monitoring by Council.
- (c) The restriction or cessation of the takes at times of low aquifer levels.
- (d) Metering and reporting requirements
- (e) Measures to achieve the efficient use of water.

#### Advice Note:

<u>1</u> This rule does not enable an additional volume to be added to an existing resource consent or permitted activity relating to the take and use of water on the same property.

<u>2</u> <u>No pump testing or ecological assessment is required.</u>

#### <u>WQ R6</u> <u>Controlled Activity – Take and Use of Water for Existing Municipal Water</u> <u>Supplies</u>

The taking and use of water for a municipal water supply is a Controlled Activity, providing that the application:

- <u>1</u> <u>Relates to an existing take authorised by a resource consent.</u>
- 2 Retains the same or lessor rate and volume of water authorised by a resource consent.
- <u>3</u> <u>Is subject to a Water Management Plan, which meets the requirements set</u> in Schedule 7, if the application is for more than 35 cubic metres per day.

Bay of Plenty Regional Council reserves its control over the following matters:

- (a) All issues contained in the municipal water supplies component of Schedule 7 - Reasonable and efficient use criteria.
- (b) The rate and volume of water to be taken.
- (c) <u>The restriction or management of the take when instream minimum flows or</u> <u>minimum aquifer levels are reached.</u>
- (c1) The extent to which the supply is used for purposes other than domestic water use.
- (d) Measures to avoid, remedy or mitigate any adverse effects on:
  - (i) <u>River flows (including effects on flow variability and duration) or</u> aquifer water levels;
  - (ii) The mauri and life-supporting capacity of the water body; and
  - (iii) Landscape values, recreational values and existing uses.
- (e) The availability and reliability of supply for existing users and water quality.
- (f) Water measurement, monitoring and reporting requirements.
- (g) <u>The extent to which the applicant has consulted with tangata whenua and</u> taken into account tangata whenua values

# WQ R7 Permitted Activity – Temporary Transfer of Water Permits to Take and Use of Water

The transfer of a <u>water permit</u> to take and to use surface water, in whole or part, on a temporary basis, to another site is a Permitted Activity subject to the following conditions:

- (a) <u>The transferor and transferee are part of the same Water User Group.</u>
- (aa) The transfer is for a duration of no longer than 12 months.
- (b) The transfer is within the same catchment to any point downstream (excluding downstream tributaries) of the location to which the permit applies.
- (c) Written notice signed by the transferor and transferee is given to the Bay of Plenty Regional Council five working days prior to the transfer specifying:
  - (i) Full names and addresses of transferor and transferee;

- (ii) If the whole water permit is not being transferred, the portion of the permit being transferred;
- (iii) Proposed daily volume (cubic metres per day) and rate (litres per second) of take at both sites;
- (iv) The number of the permit to be transferred and the number of the use consent, if required, held by each party;
- (v) <u>The location of new take and use site (shown on a map or identified</u> by NZMS map reference);
- (vi) The date of transfer and the date on which the transfer ceases;
- (vii) Description of purpose for which water is to be used;
- (viii) It is for the same or a lesser amount of water;
- (ix) It is no more than that required for the intended use; and
- (x) It does not increase the rate and volume of take of water that the transferor is able to demonstrate has actually been taken and used in accordance with the conditions on the existing water permits at any time in the preceding 5 years.
- (d) The resource consent shall retain the same conditions (excluding location).
- (e) In the case of transfers of more than five days per annum, all parties to the transfer shall have metering and reporting at the appropriate recording and reporting level as defined in WQ M7.

Advice Note: The transferee is required to have any necessary resource consent to use the water transferred.

#### WQ R8 Discretionary Activity - Transfer of Water Permits to Take and Use Water

Any transfer of a water permit that does not comply with rule WQ R7 is a discretionary activity.

Rule 42 [This Rule is not part of the plan change and will be shifted under a new heading].

#### WQ R9 Restricted Discretionary Activity – Take and Use of Water

The take and use of surface water or groundwater is a Restricted Discretionary Activity where:

- 1 The take will not result in the primary interim limits set out in WQ P5(b) or WQ P5(e) being exceeded, unless the activity is a renewal of a consent that was granted after 1 October 1991 and is for the same or lesser rate and volume of take.
- <u>2</u> <u>The take and use is not permitted or controlled by a rule in this regional plan.</u>
- <u>3</u> The take and use is not prohibited by Rule 49.
- <u>4</u> <u>A water meter is installed.</u>

Bay of Plenty Regional Council reserves its discretion over the following matters:

(a) Location, rate and volume of take, taking into account the interim limits in P5(b) or WQ P5(e) or any subsequent limits established under WQ P2.

- (b) <u>Measures to restrict or stop the take during periods of low flow or aquifer</u> <u>levels.</u>
- (c) Metering and reporting requirements, including separate metering of any water taken under provisions of section 14(3)(b) of the Act.
- (d) Measures to achieve reasonable and efficient use of water.
- (e) <u>Measures to avoid, or mitigate adverse localised effects on the surface</u> water or groundwater resource including the effects on <u>freshwater values</u>.
- (f) <u>The potential effect of the take on existing authorised users; on springs or</u> <u>surface water bodies and their values (including water quality).</u>
- (g) <u>The extent to which the applicant has consulted with tangata whenua and taken into account their values.</u>

Advice Note: Information on the assessment of the limits and current allocation status is available at Bay of Plenty Regional Council's offices and on its website.

This rule does not apply to take and use relying on WQ P5(d) or WQ P6 (i.e. secondary allocation or flood harvesting).

#### <u>WQ R10</u> Discretionary Activity – Take and Use of Water

<u>Until locally specific limits are established under WQ P2(e) and (f)</u> the take and use of surface water or groundwater that:

- <u>1</u> Is not <u>a</u> Permitted, <u>Controlled or Restricted Discretionary Activity</u> by <u>under</u> a rule in this regional plan; and
- 2
- 3 Is not prohibited by Rule 49

is a discretionary activity.

#### **Explanation/Intent of Rule**

To allow Bay of Plenty <u>Regional Council</u> to assess the effects of water takes on the environment on a case by case basis according to the objectives, policies and methods in <u>Part II WQ</u> of this regional plan.

## **Definition of Terms**

#### Plan change 9 introduces new definitions for the following:

**Crop and rootstock survival water** - Water provided for the survival of crop intended for human consumption, or their root stock. This includes permanent horticultural crops (e.g. kiwifruit, avocado, stonefruit, pipfruit) and hydroponic glasshouse crops and excludes <u>annual crops such as pasture species</u>, animal fodder crops and maize.

**Efficient use** – In relation to the use of freshwater, <u>means</u> the amount of water beneficially used in relation to <u>the total amount</u> taken. It relates to the performance of a water-use system, including avoiding water wastage.

**Electronic reporting -** For the purpose of supplying water meter data to council means supplied to council in a council approved machine-readable format.

**Full allocation -** The net allocation allowed by water permits equals the primary allocation limit in WQ P5(b), or WQ P5(e). For surface water the calculation shall be made at the proposed point of take as well as for the whole stream. Fully allocated has a corresponding meaning.

**Instream minimum flow**– The flow of water in a river or stream necessary to sustain aquatic life, water quality, recreational use, outstanding natural features <u>and/</u>or Māori cultural values.

**Municipal water supply** - A reticulated water supply provided by <u>or for a territorial authority primarily</u> to meet domestic, drinking water and public health requirements. The supply may include industrial commercial and irrigation supplies.

**Net allocation -** For the purpose of determining fully allocated/full allocation net allocation means the amount of water that is no longer available to others as a result of the allocation. Net allocation = Water authorised to be Taken minus Water required to be returned.

Over-allocation means the net allocation allowed by water permits exceeds the primary allocation limit in WQ P5(b), or WQ P5(e). Over-allocated has a corresponding meaning

<u>Primary Allocation</u> is the water allocated to a use which may continue to be used until a low flow or critical resource limit is reached. Typically, for surface-water, the taking of primary allocation water will only be required to cease in times of drought or severe water shortage.

Secondary Allocation is the water allocated to a use that may have to cease its take or use at water levels above the limits imposed on primary allocation. Secondary allocation is available to users at times of relative water abundance but is the first to be required to stop taking when water levels start dropping. Secondary water is intended for uses that do not require the reliability of primary water, or occur at times of water abundance.

<u>Water User Group</u> – means a group of authorised water users, or potential water users, whose members are registered with the Bay of Plenty Regional Council, that have voluntarily grouped together to collectively manage their water take permits, during times of restriction, or to improve the efficiency of their consented takes.

The following definitions are from the Regional Policy Statement and are provided for information purposes only. They are not part of the plan change.

#### Kaum<u>ā</u>tua - Elder.

**Mauri –** The essential life force, energy or principle that tangata whenua believe exists in all things in the natural world, including people. Tangata whenua believe it is the vital essence or life force by which all things cohere in nature. When Mauri is absent there is no life. When Mauri is degraded, or absent, tangata whenua believe this can mean that they have been remiss in their kaitiakitanga responsibilities and this affects their relationship with the atua (Māori gods). Mauri can also be imbued within manmade or physical objects.

**Pūkenga** – Tangata whenua persons acknowledged by their iwi, hapū or whānau as having the appropriate knowledge, expertise and genealogical linkages to allow them to assist kaitiaki to determine and express the group's relationships and their culture and traditions with their ancestral lands, water, waahi tapu, special sites and other taonga.

Tikanga Māori – Māori customary values and practices.

# Schedule 7 – Reasonable and Efficient Use Criteria

# The amount of water taken pursuant to any provision in this plan must be reasonable and justifiable with regard to the intended use and, where appropriate, comply with this schedule.

#### Irrigation

To determine reasonable and efficient irrigation requires use of a field validated model that considers land use, crop water use requirements, on site physical factors such as soil water holding capacity, and climatic factors such as rainfall variability and potential evapotranspiration. The model must reliably predict annual irrigation volume within an accuracy better than 15%.

The annual volume calculated using the model shall meet the following criteria:

- (a) An irrigation application efficiency of 80%, and
- (b) Water demand conditions that occur in nine out of 10 years.

The assessment should include consideration of the particular circumstances of the activity, whether there are any existing resource consents for the take and use of water for the same area of land, the documented growth plans of the business and the requirements of the crop through all phases of its life cycle. For the purposes of crop and rootstock survival water the allocation must not exceed 25% of the total consented daily water demand, and a scientific assessment of the need for that crop and rootstock survival water shall be provided. The cumulative effect of crop and other rootstock water allocations shall not cause minimum flows to fall below 80% of  $Q_5$ .

#### Municipal water supplies

<u>A</u> Water Management Plan is required and shall establish a long term strategy for the water requirements of domestic or municipal suppliers and their communities. It shall demonstrate that the rate and volume of water required, including any increase over that previously authorised, has been justified and that the water take will be used efficiently and effectively. A Water Management Plan is required whether the application is for the renewal of an existing take, or a new application. To this end the Water Management Plan shall, be developed to an extent which is appropriate for the scale of the activity, for supplies that take over 35 cubic metres per day and shall address the following:

- 1. <u>A description of the water supply system including system operation, distribution extent, levels</u> of service, water use measurement, maintenance and asset management procedures.
- 2. <u>A comprehensive assessment of existing and future demands for water with regard to an assessment of reasonable population growth within the planning horizon to meet the following:</u>
  - a. Reasonable domestic needs.
  - b. <u>Public health needs in accordance with requirements under any Act of Parliament or regulation.</u>
  - c. <u>Reasonable community needs (e.g. for public amenities).</u>
  - d. <u>Reasonable commercial, rural supply and industrial needs.</u>
  - e. <u>An assessment as to how each of the assessments required by clauses a) to d) above is</u> predicted to vary over time.
  - f. <u>A justification for each of the assessments required by clauses a) to e) above including</u> reference to any relevant planning instruments promulgated under the Resource Management Act 1991 that provide for future growth or relevant documents promulgated

under the Local Government Act 2002 such as long term plans, growth strategies or spatial plans.

- 3. <u>Any existing or proposed water pricing procedures, including the extent of metering of individual</u> <u>customers and any linkages with wastewater pricing or management.</u>
- 4. <u>How water reticulation networks are planned and managed to minimise their water losses as far</u> <u>as practicable.</u>
- 5. <u>A description of patterns of water use practices and/or behaviour in all sectors of use (and distribution) with the objective of maximising water use efficiency and reducing water use, as far as practicable.</u>
- 6. <u>Water saving targets for the full range of demand conditions including demand saving targets</u> for council owned facilities, domestic demand targets and demand saving targets for commercial and industrial customers.
- 7. Key performance indicators for each of the water saving targets.
- 8. <u>Any external auditing and benchmarking procedures that have been adopted.</u>
- 9. A drought management plan that includes:
  - (i) <u>Steps to be taken to reduce consumption during water shortage conditions, including ensuring that uses not identified as priorities in Policy 80B are restricted to a similar extent to which that that use would be restricted if it was not part of the municipal supply network.</u>
  - (ii) <u>Public and commercial user education programmes.</u>
  - (iii) <u>steps taken to reduce consumption when demand is approaching the maximum rate of</u> <u>take specified under the relevant resource consent.</u>
  - (iv) <u>Enforcement procedures.</u>
- 10. <u>Actions, performance measures and a timeline for implementing actions. The actions and performance measures identified will depend on the circumstances of each applicant.</u>
- 11. Any consultation undertaken with key stakeholders and outcomes of such consultation.
- 12. Details of an appropriate water conservation and demand management plan review process.
- 13. <u>Identification of any anticipated increases in water demand over the term of the consent and</u> <u>ability to stage water rates of take to more closely reflect demand requirements over time.</u>
- 14. <u>Ability to reduce the amount of water used by existing industrial and agricultural users, as a result of improvements in the efficiency of the use of water, in order to meet any increase in water demand over the term of the consent.</u>
- 15. <u>Identification of any single industrial, commercial or agricultural use of water that uses more than 15 cubic metres of water per day (not being water used for human drinking or human sanitation purposes).</u>
- 16. <u>Identification of future domestic or municipal supply take needs over and above that already</u> <u>authorised.</u>
- 17. Domestic or municipal supply takes required to meet growth and development that is provided for in planning instruments promulgated under the Resource Management Act 1991 or relevant documents promulgated under the Local Government Act 2002, such as Long Term Plans, growth strategies or spatial plans (or similar).
- 18. <u>The projected future needs shall be identified in terms of:</u>
  - (a) Location of take; and
  - (b) <u>Rates of take (including any seasonal variations); and</u>
  - (c) The date at which the water is likely to be required.

#### **Dairy Farm Water Use**

- 1. <u>For the purpose of determining whether an application to take and/or use water under WQ R4 is</u> reasonable and efficient, good management guidelines including the following should apply:
  - (a) <u>All water used to cool milk must be recaptured and reused for either stock drinking water or</u> <u>hygiene purposes in the dairy shed.</u>
  - (b) <u>Milk cooling water that is reused for the purpose of stock drinking water will be assessed as</u> being taken for stock drinking water and does not require resource consent.
  - (c) <u>The average rate of take of water used for both hygiene purposes and milk cooling shall not</u> <u>exceed 65 litres per cow per day when averaged over the entire milking season.</u>
  - (d) The maximum weekly volume shall not exceed 490 litres per cow.

<u>Applications to take and use water for milk cooling or dairy hygiene not relying on WQ R4 may</u> provide evidence for the use of alternative rate of takes.

#### Stock Drinking Water

For the purpose of estimating the combined volume of stock drinking water taken under s14(3)(b) the requirements for a dairy cow shall be estimated as 70 litres water per cow per day.

#### **Other Uses**

The amount calculated in accordance with good management practices for efficient use of water in relation to that use or by demonstrating that water is not being wasted, such as by means of a water use audit by an independent party to identify any wastage and any opportunities for re-use or conservation.

# Schedule 15 – Method for estimating surface water and groundwater allocation status

#### Surface water

<u>The five-year seven-day mean annual low flow ( $Q_5$  7-day) is the seven day low flow value which has a</u> 20% probability of occurring in any one year and is determined as follows:

- Calculate the daily moving averages of every seven day period in the record.
- Select the minimum seven day moving average value for the year.
- <u>Calculate the exceedance probability for each of the minima for the years.</u>
- <u>Plot on a probability graph and fit a curve.</u>
- Obtain the value for the 20% probability exceedance value.

<u>Data for all of the permanent flow monitoring stations is provided in the Environmental Data</u> <u>Summaries which are published periodically for the Bay of Plenty. These summaries include low flow</u> including the Q<sub>5</sub> 7-day low flow, as well as flood flow information.

<u>The  $Q_5$  7-day low flow will be assessed at the point of the proposed take, estimated from the assessed flows in a similar catchment.</u>

Total current authorised allocations will be calculated by summing the net instantaneous rate of take (litres/second) allocated in every water permit upstream of a proposed point of take. Water allocated for frost protection is not included in these calculations due to it not occurring at the same time as irrigation.

<u>Total current authorised allocations will be compared with the  $Q_5$  7-day low flow to determine whether</u> the river or stream is under-, fully or over-allocated at the proposed point of take in relation to the limits in WQ P5.

#### **Groundwater**

Residual Average Annual Recharge is calculated as follows:

- 1. <u>Calculate average annual flows into the relevant aquifer</u> or zone.
- Subtract from this flow an allocation to sustain stream flow, where it is determined that there is connection between groundwater and surface water (Note that this is not necessary for the deeper groundwater zones, where there is unlikely to be connection to surface water).
- 3. <u>The groundwater remaining is referred to as the 'Residual Average Annual Recharge'</u> (RAAR).
- 4. The allocation limit is set at 35% of RAAR as shown in the diagram.

<u>Total current authorised allocations are calculated by summing the net annual volume (cubic</u> <u>metres/year) allocated to every water permit to take water from that aquifer or zone, with the following</u> <u>modifications where the consent does not specify a period of use:</u>

- Annual use is assessed as daily use x 155 days for irrigation (includes crop and pasture)
- Annual use is assessed as daily use x 30 days for frost protection

#### Otherwise, annual use is calculated on the basis of 365 days continuous use (this includes municipal and commercial).

<u>Total current authorised allocations will be compared with 35% of RAAR to determine whether the aquifer or zone is under, fully or over-allocated in relation to the limits in WQ P5.</u>

