

## **Appendix 3.29.1 Option Evaluation Paper for the Natural Resources Workstream 2012**

### **Executive Summary**

Notes:

1. Water quality continues to decline in Auckland due to land use and development, discharges and increased water abstraction.
2. The current activities based approach for managing discharges and land use is not effective in enabling Auckland to meet the purpose or principles of the RMA. Our waters continue to degrade and with it we lose ecosystems, economic opportunities, amenity value and destroy mauri of our water resources.
3. The Auckland Plan gives clear direction to protect, restore and improve ecosystems, avoid negative environmental effects of rural growth and recognises that land based activities impact coastal areas. Collectively, these directives indicate a lower tolerance of environmental degradation than is currently practised in Auckland.
4. Regional state of the environment monitoring evidence indicates that the major contributor to the loss of both marine and freshwater quality is due to the excessive suspended sediment loads that originate on the land, then enter freshwater systems and finally deposit in the marine environment. In addition to this, extensive, and an over-proportionate loss of riparian ecosystems has occurred due to the predominance of pastoral farming practices in many rural parts of the region.
5. The exclusion of livestock from both freshwater and coastal water bodies has been shown to be an effective means to reduce sediment loads. The planting of native riparian vegetation also reduces sediment loads and contributes to the restoration of ecosystem function.
6. In response to these issues, five policy approaches were considered. Each approach would result in varying degrees of additional fencing, and the encouragement of additional riparian planting.
7. “Policy Approach 4” is recommended as the most effective approach. This approach utilises a mixture of financial incentives and regulatory initiatives to be applied in selected priority catchments. Therefore, within any prioritised catchment, a subsidy would be applied to encourage fencing and riparian planting. In addition, a regional rule regime (as a permitted activity) would be implemented to require the fencing of all types of livestock from rivers and water bodies within priority catchments. The planting of riparian vegetation would also be required. Outside priority catchments, the fencing of livestock on intensively farmed land would be a condition of a permitted activity. Fencing of the CMA from livestock would also be required within the region. Existing district plan rules would also be utilised to require fencing due to subdivision or land use change.

## **Introduction**

Water of adequate quality and quantity is central to the integrity of the environment. It is essential for our drinking water and economy; central to tangata whenua and provides amenity value across Auckland. Water is used to dilute and convey wastewater and other contaminants. However, the ability of many streams, rivers, aquifers and lakes to assimilate the waste has been over allocated and these water bodies, and the coastal marine receiving environment, have been significantly degraded.

The focus on our water resources is often on the volume of water available for particular purposes, but it is water quality that determines the suitability of water for a particular purpose. Managing water quality requires a catchment-based approach as land use has a major effect on the quality of water resources. A concerted effort by Auckland Council, land managers, industry, the community and environmental groups is required to protect, maintain and enhance the quality of Auckland's water resources.

Water quality in many parts of Auckland is declining across a number of indicators and is a key concern. The degradation of water quality is particularly concerning in low-land rivers, streams, lakes, and groundwater and in the marine receiving environments of degraded catchments. Declining water quality also has costs for our economic growth and well being.

The decline in water quality is closely linked to land-use intensification and the increasing level of water use. In particular the level of discharges to water from diffuse sources has greatly increased in the last 20 years. Levels of nutrients (eg, nitrogen and phosphorus) have increased in our rivers over the past two decades, reflecting the impact of pollution from urban stormwater, animal effluent, and fertiliser run-off.

In rural areas the decrease in water quality can be attributed to a number of issues, such as, the intensification of agriculture (increased stock numbers) and rural subdivision. Some degradation of ecological quality (as measured by "MCI") is also correlated with rural landuse.

We need to ensure there is sufficient water quality and availability in our lakes, rivers, streams, wetlands and aquifers to deliver the values that are important to the community; protect our freshwater ecosystems; prevent and clean up pollution of waterways; and ensure that Auckland gains the greatest benefit from the allocation of available water. The ability to deal with these issues well is vital to ensuring Auckland's economic growth potential and environmental integrity is provided for and for making Auckland one of the most liveable cities in the world.

## **Issue 1**

1. Discharges of contaminants from land based activities into rivers, streams and lakes in the Auckland Region reduce water quality, damage aquatic ecosystems and the mauri of freshwater by increasing the levels of suspended solids, nutrients, faecal coliforms and other contaminants. Pastoral activities, earthworks and land

clearance, land cultivation and stream bank disturbances accelerate water quality decline in our rivers and streams through increased sediment loadings.

2. Auckland's coastal waters are also degraded by the influx of sediment and other contaminants from streams draining adjoining catchments.
3. The loss of the regions unique indigenous biodiversity has been extensive, especially riparian ecosystems.

## **Strategic Direction**

As the Auckland Plan was being drafted, central government released the NPS for Freshwater Management 2011. Freshwater management must now be viewed in a broader, more integrated manner, and the effects of land use, development, water abstraction and discharges must collectively be managed to safeguard the life supporting capacity and ecosystems of our lakes, wetlands, streams, rivers, and aquifers. By delivering improved freshwater quality Auckland also stands to benefit from improved water quality in coastal marine environments. Auckland Council is responsible for implementing the NPS: FM in Auckland through its policies, plans and programmes.

The NPS: FM requires local authorities to involve iwi and hapu in the management of freshwater and identify and reflect tangata whenua values and interests in freshwater and fresh water ecosystems management.

The Auckland Plan recognises the value of the natural resource of the Region and the issues faced to overcome environmental degradation, including poor freshwater quality. The plan recognizes the need to manage development such that the quality of our environment is valued and sustained.

The Auckland Plan has four directives closely aligned with the management of freshwater quality.

*Directive 5.4 Protect ecological areas, ecosystems and areas of significant indigenous biodiversity from inappropriate use and development, and continue to restore and improve ecosystems and indigenous biodiversity.*

*Directive 5.7 Set appropriate limits on pollutants to achieve water quality improvements.*

*Directive 5.9 Protect nationally and regionally significant freshwater from land based development and enhance less significant and degraded areas.*

*Directive 5.11 Protect coastal areas, particularly those with high values, special natural character or significant marine habitats and recreational importance, from the impacts of land based development.*

*Directive 7.5 Apply pre-conditions to future growth of rural towns and villages as follows:*

- .....
  - avoid negative environmental impacts

.....

The Auckland Plan gives clear direction to protect, restore and improve ecosystems (Directive 5.4) and avoid negative environmental effects of rural growth (Directive 7.5). Directive 5.11 recognises that land-based activities impact coastal areas. Collectively, these directives indicate a lower tolerance of environmental degradation than is currently practised in Auckland.

The stance aligns with the freshwater objectives of the NPSFM to protect and enhance freshwater and contribute to Auckland Council's legislative requirement to give effect to both the NPSFM and the NZCPS. Directives 5.7 and 5.9 further contribute to this by aligning with NPS: FM objectives for water quality, although it should be noted that the Draft Auckland Plan directives for water should be revised to more accurately reflect the NPS, which was released at the time the final draft Auckland Plan was compiled.

For 2040 the plan envisages, amongst other things, clean and healthy waterways that everyone enjoys and the world recognises the way we protect and care for them.

### **RMA implications**

The RMA requires local authorities to amend regional policy statements and plans, including proposed plans to give effect to any provision in an NPS: FM that affects those documents. The proposed Unitary Plan is to include regional policy, regional plans and district plans. Therefore, the proposed Unitary Plan will need to give effect to the NPS objectives and policies, which is a shift from operative provisions for managing water quality in Auckland. However, the NPS is not a complete shift from the operative ARPS and ALWP but the efficacy of those provisions in addressing the NPS for water quality needs review.

The ALWP provisions for land and water management are primarily activity based but the NPS freshwater management is effects based. These are not incompatible but in order to meet the requirements of the NPS, consideration of how best to approach natural environment chapter must be made. Similarly regional and district provisions that manage land use and development must be reviewed to ensure they meet objectives of the NPS. Policy C1 requires council manage fresh water and land use and development in catchments in an integrated and sustainable way, so as to avoid, remedy or mitigate adverse effects, including cumulative effects. Policy C2 requires council provide for the integrated management of the effects of the use and development of land on fresh water, including encouraging the co-ordination and sequencing of regional and/or urban growth, land use and development and the provision of infrastructure

The sections of the RMA that influence the regulatory regime for freshwater quality. These are provided in Appendix A.

### **Strategic Objective**

The Draft Auckland Plan and the Draft ARPS provide direction for water quality management and associated freshwater ecosystems but, due to the timing of the release of the NPS, are not directly aligned with the objectives and policies within the NPS. It is recommended that the RPS objectives for water quality and aquatic ecosystems are:

1. To integrate the management of freshwater and the use and development of land in whole catchments, including the interactions between freshwater, land, associated ecosystems and the coastal environment.
2. To improve the overall quality of freshwater within the region by:
  - a. protecting the quality of outstanding freshwater bodies
  - b. protecting the significant values of wetlands and
  - c. improving the quality of freshwater in water bodies that have been degraded by human activities to the point of being over-allocated.
3. To safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of freshwater, in sustainably managing the use and development of land, and of discharges of contaminants, and the taking, using, damming or diverting of freshwater

The strategic objectives are appropriate in achieving the purpose of the RMA and several matters of national importance including s.6(a),(b), (c) and (e). They are also appropriate in achieving the purpose of the RMA through Other matters (s.7) particularly kaitiakitanga, the ethic of stewardship, the maintenance and enhancement of amenity values, the intrinsic values of ecosystems, the maintenance and enhancement of quality of the environment, and any finite characteristics of natural and physical resources.

The objectives assist council carry out its s.30 and s.31 functions, especially those functions relating to ss.30(1)(c) and s.31(1)(b). They align with the NPSFM 2011 and contribute to Auckland Council meeting s.59 (local authorities recognition of National policy Statements). The objectives reflect a regional resource issue to be addressed (s.59 purpose of regional policy statements) and will assist Council in carrying out its function through regional provisions (RMA ss. 63 and 66(1)) and through district provisions (RMA ss. 72 and 74(1) in the Unitary Plan).

### **Assessment of Objective**

The proposed objectives are drawn from the NPS: FM. The NPS: FM directs councils to implement its objectives and policies for freshwater management in their regions. By applying these objectives across the Unitary Plan and ensuring regional and district polcies and methods meet these objectives Auckland Council will be achieving at least part of its legislative requirements and will be meeting some of the Auckland Plan directives for freshwater.

Auckland Council does not have the choice whether to implement the NPS: FM objectives and policies but it can decide how and when this would be done – out to a maximum of year 2030. The draft Auckland Plan and Unitary Plan provide the vehicle for adopting at least high level direction and objectives for water quality management.

## **Policy Approaches for the Exclusion of Livestock**

In the Auckland region, the major contributor to the loss of both marine and freshwater quality is due to the excessive loads of suspended sediment that originate on the land, then enter freshwater systems and finally deposit in the marine environment. In addition to this, extensive, and an over-propionate loss of riparian ecosystems has occurred due to the predominance of pastoral farming practices in many rural parts of the region.

There is evidence that a large proportion of the contamination of rural streams by sediment, nutrients and faecal matter is derived from livestock access to the riparian zone and the stream channel itself (Davis-Colley & Parkyn, 2001). Unrestricted livestock access to streams and riparian zones appears to be widespread throughout the rural areas of New Zealand (MfE, 1997) and the Auckland region.

The literature suggests that livestock cause appreciable damage to streams and the riparian zone (Belsky et al, 1999). The negative effects that stem from livestock having access to water bodies are due to the removal and damaging of existing riparian vegetation, the breakdown of the riparian soils by trampling (Davis-Colley & Parkyn, 2001), the loss of stream bank stability (which can induce stream channel erosion) (Magner, et al, 2008), the mobilisation of stream bed sediments, and the direct input of effluent. These effects can then culminate in the degradation of water quality and ecosystem function.

In an effort to guide the determination of a range of policy approaches, a number of “principles” are suggested. These principles were used to generate the policy approaches in relation to livestock exclusion. These principles are:

- Reduce the amount of sediment that enters streams from out-of-stream sources (i.e. from riparian zones and adjacent steep slopes);
- Reduce the amount of sediment that enters fresh water bodies from in-stream sources (i.e. from stream channel erosion and disturbance of the stream bed);
- Minimise significant cumulative adverse effects of sediment that is transported to estuaries and harbours via rivers and streams,

For reasons of consistency with other policy papers, this paper uses the terms “river” and “water body”, as defined by the RMA:

**River** means a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse (including an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal).

**Water body** means fresh water or geothermal water in a river, lake, stream, pond, wetland, or aquifer, or any part thereof, that is not located within the coastal marine area.

## **Policy Approach 1 – The Status Quo**

4. The Proposed Auckland Regional Plan: Air, Land and Water (“PARP: ALW”) contains a number of issues (Issues 5.2.30 & 31), objectives (Objectives 5.3.17 & 18) and policies (Policies 5.4.49 & 50) – but no rules - that relate to the issue of livestock access to streams. A number of District Plans contain various regulatory controls – triggered by land use change and/or subdivision - which require the fencing of livestock from streams.
5. The current policy approach, as set out in the PARP: ALW, is essentially a relatively permissive non-regulatory advocacy approach. The associated policy explanation to Policy 5.4.49 signifies the intention to notify a Plan Variation/Change to the stock access section of Chapter 5 within two years of the notification of the ARC Hearings Committee decisions. Notification of a plan variation/change to limit unrestricted stock access to rivers and streams has not been carried out. Note: Existing district plan rules would also be utilised to instigate fencing due to subdivision or change of land use.

<b>Benefits/Advantages</b>	<b>Costs/Disadvantages</b>
<ul style="list-style-type: none"><li>• The benefit of retaining an essentially permissive advocacy policy approach would only be that drafting and implementing such a policy/planning approach would be low cost and relatively easy to complete.</li><li>• Low risk of “kick-back” from landowners of this option.</li><li>• No loss of land for landowners</li></ul>	<ul style="list-style-type: none"><li>• This current permissive advocacy approach has had limited effect in inducing the new fencing of streams. There is approximately 13,500 km of stream bank still unfenced in the Auckland region.</li><li>• High probability that applying this approach would not be very effective towards improving water quality and restoring biodiversity values in rural areas.</li><li>• Does not contain any incentives to plant riparian vegetation.</li><li>• </li></ul>

## **Policy Approach 2- Non-Regulatory - Financial Incentives Only**

6. This policy approach would involve subsidising the capital costs of fencing, but only within certain “priority” catchments. A number of other regional councils have used this financial incentive approach to subsidising the cost of fencing material of between 30 to 50% in selected catchments in an attempt to encourage additional fencing. But the final level of financial incentives (subsidy) would be determined

politically. Funding for this subsidy would also need to be secured within the 2012/22 LTP.

7. Existing district plan rules would also be utilised to instigate fencing due to subdivision or change of land use.

Benefits/Advantages	Costs/Disadvantages
<ul style="list-style-type: none"> <li>• Financial incentives are generally a popular and politically attractive mechanism for encouraging behaviour change.</li> <li>• Probably some improvement in water quality due to uptake of fencing incentives</li> </ul>	<ul style="list-style-type: none"> <li>• Public costs. For example, if a total of \$500,000/year were allocated to incentivise 7-wire post and batten fencing at a subsidy rate of 30% of the capital cost, then a total of 110km (55 km of stream length) fencing per year would be fenced. This length would increase to 420km (210 km of stream length) per year if 4-wire electric fencing was installed.</li> <li>• Risk that the uptake of a fencing incentive could be poor, so not inducing a large behaviour change. Therefore only a limited improvement of water quality and ecosystem health.</li> <li>• Requires administration, monitoring and evaluation programmes being installed by the Council and maintained.</li> <li>• Would be a need to justify why ratepayer's money is being transferred to pastoral farms.</li> <li>• Priority catchments have not been identified</li> </ul>

#### **Policy Approach 3 – Financial Incentives and a Regulatory Initiative – Fencing of livestock from rivers and water bodies on intensive farms via permitted activity conditions applied to the whole region**

8. This policy approach would utilise a regional land use permitted activity rule regime to require the fencing of intensively farmed livestock from rivers and water bodies. Minimum fencing requirements would consist of a two-wire electric fence installed at a minimum of a 2-metre horizontal setback from the stream bank. In relation to non-intensive (otherwise known as "extensive") farming practices, permitted land use activity conditions would encourage fencing, or other "best management practice" methods of livestock exclusion. These regional permitted activity rules would come into effect 5 years after the notification of the Unitary Plan and would require ratepayer funding to monitor compliance. Financial incentives for fencing would also be available after the notification of the Unitary Plan and access to this funding would be prioritised via assessment criteria. The fencing of livestock from the coastal marine area would also be required – but more analysis required to confirm this.

9. The level of financial incentives (subsidy) would be determined politically, as well as being based of a review of other council's approaches. Note: Existing district plan rules would also be utilised to instigate fencing due to subdivision or change of land use.

Benefits/Advantages	Costs/Disadvantages
<ul style="list-style-type: none"> <li>• Good chance of positive buy-in by affected landowners, since this approach is consistent with the "Clean Streams Accord", i.e. fencing would only apply to permanent streams and water bodies.</li> <li>• Less opposition to permitted activity rules than controlled activity rules.</li> <li>• Specifying a fencing requirement as a condition of a permitted activity is easier to monitor than having a no "adverse effect" type condition.</li> <li>• The "minimum fencing standard" would result in relatively low fencing and land loss costs on affected farmers as compared to a 7-wire post and baton fence with larger set-back distances.</li> <li>• Financial incentives are generally a popular and politically attractive mechanism for encouraging behaviour change.</li> <li>• Some environment benefit would be achieved due to the fencing of "intensive" farming activities – this approach is similar to Fonterra's "Clean Stream Accord."</li> </ul>	<ul style="list-style-type: none"> <li>• Would mainly achieve the fencing of livestock from intensive farming practices, therefore resulting in limited improvements in water quality ecosystem function and protection of stream bank margins.</li> <li>• Would require a greater compliance monitoring effort than currently.</li> <li>• May be more difficult to recover compliance monitoring costs, but could utilise section 150 of the LGA 2002 to achieve this.</li> <li>• Would need to define what "intensive" farming actually is.</li> <li>• Would result in less protection of streams from livestock on non-intensive farms.</li> <li>• Public costs. For example, if a total of \$500,000/year were allocated to incentivise 2-wire fencing at a subsidy rate of 30% of the capital cost, then a total of 420km (210 km of stream length) per year would be completed.</li> <li>• Requires administration, monitoring and evaluation programmes being installed by the Council and maintained.</li> <li>• Would be a need to justify why ratepayer's money is being transferred to pastoral farms.</li> <li>• </li> </ul>

**Policy Approach 4 – Financial Incentives and a Regulatory Initiative – Fencing of all livestock from rivers and water bodies in priority catchments, via permitted activity conditions AND apply policy option 3 to the remaining non-priority catchments**

10. This policy approach utilises the application of a regional land use permitted activity rule regime to require the fencing of all types of livestock, from rivers and water bodies, in priority catchments, as well as for the planting of riparian vegetation. The primary purpose of fencing and planting is the maintenance and enhancement of water quality and ecosystems in water bodies, as per s. 30(1)(c) and the protection of

stream bank margins as per s. 6(a). If one or more of the associated permitted activity conditions are not complied with, then the activity should default to restricted discretionary. This is recommended because since a regional rule regime for livestock exclusion, and riparian planting, would be a new initiative, (and can be applied to existing land uses) stating what matters that discretion would be limited to will help to guide potential consent holders through the consent application and monitoring process.

11. This rule regime would take effect 5 years after the unitary plan had been notified. Financial incentives for fencing would also be available after the notification of the Unitary Plan for at least 5 years and access to this funding would be prioritised via an assessment criteria. Minimum set back fencing requirements (still to be confirmed) would be a horizontal distance of between 5 and 10-metres for continuing flowing portions of rivers (exact set back distance is dependent upon topography and other site conditions, so as determined by a “case-by-case” basis) and a 2-metre (horizontal) set-back for intermittently flowing portions. This fencing regime would mean that approximately 12% of the total land area of an average farm would be fenced off. The level of financial incentives (subsidy) would be determined politically (probably using a “mixed funding model”), as well as being based of a review of other council’s approaches. The application of financial incentives to encourage the restoration of native riparian vegetation, with the objective of restoring a representative portion of riparian ecosystems within each of the priority catchments is also recommended. Fencing of livestock from the coastal marine area would also be required – but more analysis required to confirm this.
12. It is also recommended that an additional regulatory incentive be applied. If compliance with the PA is poor after 5 years after its introduction (even after issuing abatement notices) in priority catchments, then the fencing of livestock rivers and water bodies should become a condition of a controlled activity.
13. For pastoral areas outside the priority catchments, policy approach 3 would apply. These regional permitted activity rules would also come into effect for non-priority catchments 3 years after the notification of the Unitary Plan. Note: Existing district plan rules would also be utilised to instigate fencing due to subdivision or change of land use.

<b>Benefits/Advantages</b>	<b>Costs/Disadvantages</b>
<ul style="list-style-type: none"> <li>• This approach would be most effective at inducing an improvement in freshwater water quality (and hence improving coastal receiving environments) and enhancing ecosystems (as per s.30(1)(c) within prioritised catchments, and protecting stream bank margins.</li> <li>• Probably less resistance to the use of permitted land use rules than utilising a controlled activity status.</li> </ul>	<ul style="list-style-type: none"> <li>• High chance of resistance from pastoral farmers, especially within the priority catchments. This would be primarily due to additional private costs and the introduction of a new rule regime. As a result, this approach would be slow and costly to implement.</li> <li>• Private costs to landowners within priority catchments could be high. Costs include the capital and installation costs of fencing,</li> </ul>

<ul style="list-style-type: none"> <li>• Specifying a fencing requirement as a condition of a permitted activity is easier to monitor than having an “no adverse effect” type condition</li> <li>• This approach would also be effective at helping to restore riparian ecosystems within priority catchments.</li> <li>• NZCPS sets a policy direction (Policy 21) to exclude livestock, therefore this option would satisfy this requirement.</li> <li>• Draft Auckland Plan and Draft APRS highlight the importance of coastal, freshwater and biodiversity values of the Auckland region.</li> <li>• State of the environment monitoring data indicates loss of freshwater quality is associated with the activity of rural land-use. Therefore, this policy approach would help reverse this.</li> <li>• State of environment shows loss of CMA ecological values associated with land derived sediment discharges, mainly from diffuse sources. Therefore, this policy approach would help reverse this</li> <li>• Good international evidence base that demonstrates the effectiveness that excluding livestock has on improving water quality.</li> <li>• Financial incentives are generally a popular and politically attractive mechanism for encouraging behaviour change.</li> <li>• </li> </ul>	<p>installation of alternative water supplies, construction of stream crossings, loss of productive land and riparian planting costs.</p> <ul style="list-style-type: none"> <li>• A 5 to 10 m wide set-back for continuously flowing portions of rivers (a minimum of 10 metres is recommended by TP 148 (ARC, 2001)) and a 2 m wide set-back for intermittently flowing portions would mean about 12% of the total land area of an average farm in the Auckland region would be fenced off.</li> <li>• Public costs. For example, if a total of \$500,000/year were allocated to incentivise 7-wire and batten fencing at a subsidy rate of 30% of the capital cost, then a total of 110km (55 km of stream length) fencing per year would be fenced. This length would increase to 420km (210 km of stream length) per year if 4-wire electric fencing was installed.</li> <li>• Equity issues – a farm within a priority catchment would face relatively high fencing costs, while a neighbouring farm that is just outside a priority catchment would face substantially less costs.</li> <li>• Difficult to quantify the expected water quality benefits of this option when applying this approach.</li> <li>• Requires administration, monitoring and evaluation programmes being installed by the Council and maintained.</li> <li>• Would be a need to justify why ratepayer’s money is being transferred to pastoral farms.</li> <li>• Catchments have not been prioritised.</li> <li>• Prioritised freshwater catchments may not drain to highly valued coastal environments that are at risk from sediment.</li> </ul>
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#### **Policy Approach 5 – Regulatory Initiative – Controlled Activity Status – with financial incentives**

14. This policy approach would make the fencing of livestock from rivers and streams and water bodies a condition of a controlled land use activity in priority catchments.

These regional rules could come into effect 5 years after the notification of the Unitary Plan. A fencing subsidy should also be made available for the first 5 years after notifying the plan. The level of financial incentives (subsidy) would be determined politically, as well as being based of a review of other council's approaches. Existing district plan rules would also be utilised to instigate fencing due to subdivision or change of land use.

15.

Benefits/Advantages	Costs/Disadvantages
<ul style="list-style-type: none"> <li>• Once these Controlled Activity rules were given effect, then new fencing would be established within priority catchments over a relatively short timeframe.</li> <li>• Would enable Council to have greater control over livestock access than using a permitted land use activity approach.</li> <li>• This approach would be most effective at inducing an improvement in freshwater water quality (and hence improving coastal receiving environments) within prioritised catchments.</li> <li>• This approach would also be effective at helping to restore riparian ecosystems within priority catchments.</li> <li>• NZCPS sets a policy direction (Policy 21) to exclude livestock, therefore this option would satisfy this requirement.</li> <li>• Draft Auckland Plan and Draft APRS highlight the importance of coastal, freshwater and biodiversity values of the Auckland region.</li> <li>• State of the environment monitoring data indicates loss of freshwater quality is associated with the activity of rural land-use. Therefore, this policy approach would help reverse this.</li> <li>• State of environment shows loss of CMA ecological values associated with land derived sediment discharges, mainly from diffuse sources. Therefore, this policy approach would help reverse this</li> <li>• Good international evidence base that demonstrates the effectiveness that excluding livestock has on improving water quality.</li> <li>• Financial incentives are generally a popular and politically attractive mechanism for encouraging behaviour</li> </ul>	<ul style="list-style-type: none"> <li>• High risk of stakeholder "kick back" if a controlled activity status requirement was introduced. This would represent a relatively large change in regulatory approach to the issue of livestock exclusion for the Auckland region.</li> <li>• This policy approach would in effect make farming a "consentable" activity in the priority catchments. This would be perceived as the start of a "slippery slope" by many land owners and therefore would be strongly resisted.</li> <li>• Would be a lengthy and costly appeal process due to strong resistance.</li> <li>• Loss of potentially productive land to a riparian buffer.</li> <li>• Priority catchments not identified.</li> </ul>

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## Recommended Policy Approach

### 16. Policy Approach 4

In consideration of these five policy approaches, policy approach 4 is recommended primarily because it would be the most effective approach to counter the adverse environmental effects (particularly water quality and ecosystem function) that can be caused by livestock access to water bodies.

In the Auckland region, excessive sediment loads continue to be deposited in many near-shore areas and estuaries causing significant adverse effects to associated ecosystems. A relatively robust evidence base demonstrates that unmanaged livestock access to freshwater bodies does cause adverse environmental effects. Also, this Council's regional state of the environment monitoring data indicates that rural land use is correlated with degraded water quality. Extensive areas of riparian ecosystems have also been destroyed in the Auckland region.

There would be less resistance to utilising a permitted activity rule regime within policy approach 4 to exclude livestock from rivers and water bodies, as compared to implementing this initiative as a controlled activity.

In addition to this, the values associated with, and the importance of both the coastal environment and freshwater bodies to Aucklanders is highlighted in both the Draft Auckland Plan and Draft Auckland Regional Policy Statement. The NZCPS also includes a policy (Policy 21) that requires the exclusion of livestock in coastal areas where water quality has been degraded.

## Methods

### Regulatory Methods – Permitted Activity Status

17. Permitted Activity Status – The use of land, pursuant to section 9, is a permitted activity, where as a condition, fencing is constructed to exclude livestock from permanent and intermittent streams and water bodies and the CMA.

Benefits/Advantages	Costs/Disadvantages
<ul style="list-style-type: none"> <li>Less opposition to permitted activity rules than controlled activity rules.</li> <li>This approach would be effective at inducing an improvement in freshwater water quality (and hence improving coastal receiving environments) within prioritised</li> </ul>	<ul style="list-style-type: none"> <li>Would require a greater compliance monitoring effort.</li> <li>May be more difficult to recover compliance monitoring costs, but could utilise section 150 of the LGA 2002 to achieve this.</li> <li>Cost of consent applications.</li> </ul>

<p>catchments.</p> <ul style="list-style-type: none"> <li>• This approach would also be effective at helping to restore riparian ecosystems within priority catchments.</li> <li>• NZCPS sets a policy direction (Policy 21) to exclude livestock, therefore this option would satisfy this requirement</li> <li>• </li> </ul>	
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## Regulatory Methods – Controlled Activity Status

18. Controlled Activity Status: The use of land, pursuant to section 9, is a controlled activity, where the standards and terms require the exclusion of livestock by fencing from various types of streams and the CMA.

Benefits/Advantages	Costs/Disadvantages
<ul style="list-style-type: none"> <li>• Easier to recover compliance monitoring costs.</li> <li>• Once controlled activity rules were given effect then new fencing would be established within priority catchments over a relatively short timeframe.</li> <li>• Would allow Council to have greater control over livestock access than using a permitted land use activity approach.</li> <li>• This approach would be effective at inducing an improvement in freshwater water quality (and hence improving coastal receiving environments) within prioritised catchments.</li> <li>• </li> <li>• </li> </ul>	<ul style="list-style-type: none"> <li>• High risk of stakeholder “kick back” if a controlled activity status requirement was introduced. This would represent a relatively large change in regulatory approach to the issue of livestock exclusion for the Auckland region.</li> <li>• This policy approach would in effect make farming a “consentable” activity in the priority catchments. This would be perceived as the start of a “slippery slope” by many land owners and therefore would be strongly resisted.</li> <li>• Would be a lengthy and costly appeal process due to strong resistance.</li> <li>• </li> </ul>

## Non- Regulatory Methods – Financial Incentives

19. Subsidise the capital costs of fencing – the level of financial incentives (subsidy) would be determined politically, as well as being based of a review of other council's approaches. The application of financial incentives to encourage the restoration of native riparian vegetation, with the objective of restoring a representative portion of riparian ecosystems within each of the priority catchments is also recommended. This method utilises the Long Term Plan process to secure appropriate funding.

Benefits/Advantages	Costs/Disadvantages
<ul style="list-style-type: none"> <li>• Financial incentives are generally a popular and politically attractive mechanism for encouraging behaviour change.</li> <li>•</li> <li>•</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Public costs. For example if a total of \$500,000/year were allocated to incentivise 7-wire and batten fencing at a subsidy rate of 30% of the capital cost, then a total of 110km (55 km of stream length) fencing per year would be fenced. This length would increase to 420km (210 km of stream length) per year if 4-wire electric fencing was installed.</li> <li>• Risk that the uptake of a fencing incentive could be poor, so not inducing a large behaviour change.</li> <li>• Requires administration, monitoring and evaluation programmes being installed by the Council and maintained.</li> <li>• Could be a need to justify why ratepayer's money is being transferred to pastoral farms.</li> <li>•</li> </ul>

## Bylaws

No real investigation as yet has been made of this approach, but no other councils have utilised a bylaw approach to exclude livestock.

Benefits/Advantages	Costs/Disadvantages
<ol style="list-style-type: none"> <li>1. No need to utilise the RMA process, which can be slow and litigious.</li> <li>2.</li> </ol>	<ol style="list-style-type: none"> <li>1. Little experience in producing by-laws.</li> <li>2. Would still face a similar "push back" response.</li> </ol>

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## Appendix A

### Purpose and Principles of the Act

The RMA's overall purpose and specific guiding principles or priorities which are relevant to all decisions made under the Act, including those relating to freshwater, are set out in sections 5 to 8. All decisions made under the RMA must be consistent with its purpose to promote the sustainable management of the country's natural and physical resources. Sustainable management is defined to incorporate not only the protection of natural and physical resources, but also the use and development of these resources. Therefore, central to the Act is a need to balance competing demands of protection on the one hand and various competing uses and development on the other.

Sections 6, 7 and 8 establish issues or values that are required to be given a degree of priority in decision-making and in the application of the RMA's purpose. Priorities of particular relevance to freshwater are:

- The preservation of the natural character of wetlands, rivers and lakes and their protection from inappropriate subdivision use and development (s.6(a));
- The protection of significant habitats of indigenous fauna (s.6(c));
- The maintenance and enhancement of public access to and along lakes and rivers (s.6(d));
- The relation of Māori and their culture and traditions with their ancestral water (s.6(e));

- The protection of recognised customary activities (s.6(g));
- The protection of the habitat of trout and salmon (s.7(h));
- The principles of the Treaty of Waitangi (s.8).

## **Restrictions on the use of water and discharge of contaminants**

The RMA establishes a permissive framework for new land-use activities, which in effect means land-use activities are permitted unless a national environmental standard, regional plan or district plan states otherwise (s.9). In contrast, a restrictive regime applies to water related activities (s.13, 14 and 15).

A similar contrast exists in relation to existing activities. Existing, lawfully established land-use activities may continue even if the activity contravenes a rule in a district plan or proposed district plan (s.10). The same ‘exemption’ does not apply to takes of, or discharges to water, nor to land-use activities covered by rules in a regional plan.

## **RMA Functions of councils**

As a unitary authority Auckland Council is responsible (under s.30) for the management of natural resources including air, water, the coastal marine area and (under section 31) for the management of the effects of land uses and subdivision.

For freshwater management we are required to establish objectives, policies and rules for the integrated management of all natural and physical resources in our region, which includes land and its relationship to water(s.30(1)(a)); We have the ability to control the use of land to maintain the quantity of water in water bodies, to maintain and enhance the quality of water and ecosystems in water bodies and to avoid or mitigate natural hazards (s30(1)(c)). Historically Auckland has not exercised its ability to control land for the purpose of maintaining and enhancing water quality yet policies and methods developed under these functions may well deliver our freshwater objectives to a far greater degree than other powers.

## **Freshwater requirements for Policy Statements and Plans**

The purpose of the ARPS is to provide an overview of the resource management issues for Auckland and to include policies and methods to achieve the integrated management of all natural and physical resources of the region (s.59). The ARPS is due for review and needs to give effect to the NPS freshwater.

The ARPS is given effect to through regional district plans (s.67 (3) and s.75(3)).

Auckland has three regional plans; The ALWp, Dairy Discharge Plan and the sediment plan. Regional plans assist the council to carry out its regional functions and may include rules, in addition to objectives and policies. The RMA requires that such regional rules:

- Do not result in a reduction of the quality of water in any water bodies at the time of the public notification of the proposed rules, unless it is consistent with the purpose of the RMA to do so (s.69 (1)); and,

• Shall only permit the discharge of contaminants or water into water where the council is satisfied that, after reasonable mixing, the following adverse effects will not result (s.70(1)) in:

- The production of conspicuous oil or grease films, scums or foams or floatable or suspended materials;
- Any conspicuous change in the colour or visual clarity;
- Any emission of objectionable odour;
- The rendering of fresh water unsuitable for consumption by farm animals;
- Any significant adverse effects on aquatic life.

Regional plans can also manage water bodies in accordance with classes described in Schedule 3 of the RMA. Schedule 3 establishes 11 water quality classes including for example ‘aquatic ecosystem purposes’ and ‘contact recreation purposes’ and sets standards that councils must apply in relation to each.

District Plans assist the council to carry out its functions under the RMA and may include rules controlling land-use activities (including earthworks, farming and urban development) and also subdivision. Of particular relevance to freshwater, district plans may include rules relating to the taking of esplanade reserves at time of subdivision.

Given the clear direction from the NPS freshwater and the Auckland Plan the hierarchy of policies from RPS to RP and DP should be developed top down.

### **The consideration of resource consent applications**

Subject to the purpose and principles of the RMA, decision-makers on all resource consent applications must consider any actual and potential effects of the proposed activity, the relevant provisions of a range of RMA policy statements, plans, environmental standards and regulations, and any other relevant matter (s.104). In addition to these general requirements, for discharges to freshwater bodies decision-makers must also have regard to (s.105 (1)):

- The nature of the discharge and the sensitivity of the receiving environment;
- The applicant’s reasons for the proposed choice; and,
- Possible alternative methods of discharge including discharge to another receiving environment.

Likewise Schedule 4 of the RMA states that an assessment of environmental effects completed for a resource consent application should include, among other things, a description of the nature of the discharge, the sensitivity of the receiving environment and possible alternative methods of discharge.

The requirement to consider possible alternative methods of discharge has been considered at the Environment Court. The Court’s conclusion suggests that the scope of this requirement is related to the potential adverse effects of the proposed activity i.e. if it is found that a discharge is likely to have significant adverse effects then greater consideration of alternatives would be justified.

The ability of consent authorities to grant applications for discharge to freshwater is further restricted under s107 of the RMA which states that resource consent shall not be granted for a discharge that would, after reasonable mixing, result in a number of specified adverse effects.

The listed adverse effects are consistent with those that are applied through s.70 (1) to permitted activity rules in regional plans, and create a clear and consistent minimum baseline for decisions permitting the discharge of contaminants to water.

## **The New Zealand Coastal Policy Statement**

Three policies in the NZCPS (2010) relate to the management of freshwater in the coastal environment. These are specifically, policies 21 to 23.

Policy 21 'Enhancement of water quality' sets out methods by which priority is to be given to improving water quality where it has deteriorated such that it is having significant adverse effects on ecosystems, natural habitats, or water based recreational activities, or is restricting existing uses such as aquaculture, shellfish gathering and cultural activities.

Policy 22 'Sedimentation' directs controlling activities in order to reduce sedimentation within the coastal environment.

Policy 23 'Discharge of contaminants' sets out requirements in relation to the management of discharges within the coastal environment. These include general matters to which decision-makers must have particular regard, as well as specific directions in relation to discharges of human sewage and stormwater to the CMA.