

# NZCPS 2010 guidance note

## Policy 21: Enhancement of water quality



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## ***Policy 21 Enhancement of water quality***

Where the quality of water in the coastal environment has deteriorated so that it is having a significant adverse effect on ecosystems, natural habitats, or water based recreational activities, or is restricting existing uses, such as aquaculture, shellfish gathering, and cultural activities, give priority to improving that quality by:

- (a) identifying such areas of coastal water and water bodies and including them in plans;
  - (b) including provisions in plans to address improving water quality in the areas identified above;
  - (c) where practicable, restoring water quality to at least a state that can support such activities and ecosystems and natural habitats;
  - (d) requiring that stock are excluded from the coastal marine area, adjoining intertidal areas and other water bodies and riparian margins in the coastal environment, within a prescribed time frame; and
  - (e) engaging with tangata whenua to identify areas of coastal waters where they have particular interest, for example in cultural sites, wāhi tapu, other taonga, and values such as mauri, and remedying, or, where remediation is not practicable, mitigating adverse effects on these areas and values.
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**Disclaimer:** This guidance is intended as general guidance on implementing the New Zealand Coastal Policy Statement 2010 and has been written primarily for local government practitioners. It does not substitute for professional advice where and when that is needed and should not be taken as providing legal advice or the Crown's legal position. This guidance is not official government policy.

## *Overview of the policy*

Policy 21 of the New Zealand Coastal Policy Statement 2010 (NZCPS 2010) requires that priority be given to improving the water quality of both coastal waters and water bodies<sup>1</sup> where this has deteriorated and is having significant adverse effects or is restricting existing uses. It then outlines the means by which improvements could be achieved.

Policy 21 is one of three policies in the NZCPS 2010 that directly address water quality in the coastal environment.

- Policy 21: Enhancement of water quality.
- Policy 22: Sedimentation.
- Policy 23: Discharge of contaminants.

Therefore, this guidance note should be read alongside the guidance notes for Policies 22 and 23.<sup>2</sup> To avoid duplication, some information that is common to all three policies is only included in this guidance for Policy 21.

Readers of this NZCPS 2010 guidance note should also refer to the NZCPS 2010 Implementation Guidance Introductory Note,<sup>3</sup> which contains general information and guidance that is important for implementing all of the objectives and policies of the NZCPS 2010.

## *Rationale*

The degradation of coastal habitats and ecosystems as a result of human activities has been identified as one of New Zealand's top three marine issues by the Ministry for the Environment and Statistics New Zealand.<sup>4</sup> In particular, excess sediment loading and nutrient runoff from urban development and agriculture are considered some of the most important pressures causing degradation of coastal waters.<sup>5</sup> Pathogens and metallic and organic contaminants are also often significant contributors to degraded coastal water quality near urban areas.

Policy 21 indicates that more attention and effort is required in areas of deteriorated water quality, where discharges have put habitats and ecosystems at risk and threatened economic and community uses. Consideration of both individual and cumulative effects will help determine which areas of the coastal environment should be prioritised for improvement. Improving water quality will require an integrated approach that considers direct discharges, riverine inputs and land uses both within and inland of the coastal environment. National policy through documents such as

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<sup>1</sup> These areas include freshwater or geothermal waters in rivers, lakes, streams, ponds, wetlands or aquifers, or any part thereof, that are not located within the coastal marine area (section 2 of the Resource Management Act 1991) but are still in the coastal environment. Such water bodies would be located in the part of the coastal environment that is landward of the coastal marine area (ie mean high water springs).

<sup>2</sup> <https://www.doc.govt.nz/about-us/science-publications/conservation-publications/marine-and-coastal/new-zealand-coastal-policy-statement/policy-statement-and-guidance/>

<sup>3</sup> Department of Conservation 2018: NZCPS 2010 implementation guidance introductory note. Department of Conservation, Wellington. 12 p. [www.doc.govt.nz/globalassets/documents/conservation/marine-and-coastal/coastal-management/guidance/introductory-note.pdf](http://www.doc.govt.nz/globalassets/documents/conservation/marine-and-coastal/coastal-management/guidance/introductory-note.pdf)

<sup>4</sup> Ministry for the Environment; Statistics New Zealand 2016: New Zealand's Environmental Reporting Series: Our marine environment 2016. Ministry for the Environment and Statistics New Zealand. Page 8.

<sup>5</sup> Ibid, pages 12, 39 and 40.

the NZCPS 2010 and the National Policy Statement for Freshwater Management 2014 (NPS-FM)<sup>6</sup> provides direction to help local authorities prioritise efforts to improve deteriorated water quality and choose appropriate management tools.

## ***Related objectives, policies and provisions***

This section covers the links between the various provisions of the NZCPS 2010, the Resource Management Act 1991 (RMA)<sup>7</sup> and other national policy statements in terms of the management of water quality.

### **NZCPS 2010**

The implementation of Policy 21 of the NZCPS 2010 requires careful consideration of all of the NZCPS 2010 objectives and policies. The table below outlines the key objectives and policies in relation to planning and decision-making regarding the enhancement of water quality, as well as other provisions that are relevant.

<b>Key related objectives and policies</b>	<b>Other related objectives</b>	<b>Other related policies</b>
Objectives 1, 2 and 3 Policies 1, 2, 4, 7, 8, 14, 22 and 23	4 and 6	13

#### ***Objective 1***

Objective 1 specifically refers to the maintenance or enhancement of coastal water quality as a means of safeguarding the integrity, form, functioning and resilience of the coastal environment and sustaining its ecosystems. Therefore, Policy 21 is closely related to this objective.

#### ***Objective 2***

Objective 2 seeks to preserve the natural character of the coastal environment. Policy 21 is important to the implementation of this objective because water quality is a key component of the natural character and the restoration of deteriorated water quality contributes to the restoration of natural character.

#### ***Objective 3***

Objective 3 is concerned with taking account of the Treaty of Waitangi principles of (i) kaitiakitanga (guardianship) and (ii) tautiaki ngangahau (active protection of Māori interests). Policy 21 is closely related to this objective because it seeks to

<sup>6</sup> Ministry for the Environment 2017: National Policy Statement for Freshwater Management 2014 (amended 2017). Ministry for the Environment, Wellington. 47 p. [www.mfe.govt.nz/publications/fresh-water/national-policy-statement-freshwater-management-2014-amended-2017](http://www.mfe.govt.nz/publications/fresh-water/national-policy-statement-freshwater-management-2014-amended-2017)

<sup>7</sup> <http://www.legislation.govt.nz/act/public/1991/0069/latest/DLM230265.html>

identify deteriorated water quality by actively engaging with tangata whenua,<sup>8</sup> and because water, its mauri (life force) and kai moana (seafood) have high cultural and spiritual significance for tangata whenua.

### ***Policy 1: Extent and characteristics of the coastal environment***

Policy 1 recognises that the coastal environment includes not only the coastal marine area<sup>9</sup> but also areas where coastal processes, influences or qualities play a significant role, including coastal lakes<sup>10</sup>, lagoons, tidal estuaries, saltmarshes and coastal wetlands. Deteriorated water quality usually occurs in shallow, poorly flushed water bodies in the coastal environment.

Policy 21 requires the identification of ‘water in the coastal environment’, including ‘areas of coastal water and water bodies in the coastal environment where water quality has deteriorated’. ‘Water body’ is defined in the RMA as ‘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’. Thus, Policy 21 applies to coastal, fresh and geothermal water in the coastal environment.

### ***Policy 2: The Treaty of Waitangi, tangata whenua and Māori heritage***

Policy 2 requires that account be taken of the principles of the Treaty of Waitangi, and the connection and relationships that tangata whenua have with the coastal environment. It promotes hapū and iwi involvement in coastal decision-making and recognises the importance of Māori cultural values.

Policy 21 requires that councils engage with tangata whenua to identify areas of coastal water where they have a particular interest and, where practicable, remedy the deteriorated water quality in those areas.

### ***Policy 4: Integration***

Policy 4 provides for the integrated management of natural and physical resources in the coastal environment, and any activities that affect that environment. Deteriorated water quality is often a consequence of discharges from land use activities and Policy 4 requires that particular consideration is given to land use activities that affect or are likely to affect water quality, highlighting the links with Policy 21. Giving effect to Policy 4 also requires the coordinated management or control of activities within the coastal environment that cross administrative boundaries and working collaboratively with other resource management interests.

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<sup>8</sup> In section 2 of the RMA, ‘tangata whenua’ is defined as ‘in relation to a particular area the iwi, or hapu that holds mana whenua over that area’, while ‘mana whenua’ is defined as the ‘customary authority exercised by an iwi or hapu in an identified area’.

<sup>9</sup> Refer to the ‘Glossary of terms and definitions’ at the end of this guidance note for a definition of ‘coastal marine area’.

<sup>10</sup> Coastal lakes may contain a mixture of both fresh and saline water.

### ***Policy 7: Strategic planning***

Policy 7 directs that, in preparing regional policy statements and plans, local authorities give consideration to areas where future development and other activities should be provided for in the coastal environment, and identify areas where particular activities and forms of subdivision, use and development are inappropriate. It also directs local authorities to identify where coastal resources or values are at risk from adverse cumulative effects and to include provisions in their plans to manage these effects.

The thrust of Policy 7 in relation to water quality is to ensure that activities and forms of subdivision, use and development do not result in deteriorated water quality, which would require the application of Policy 21. Where deteriorated water quality has been identified in resource management plans in accordance with Policy 21, it will be an important consideration in determining the appropriateness of future development activities in the affected area.

### ***Policy 8: Aquaculture***

Policy 8 identifies that aquaculture can significantly contribute to the social, economic and cultural wellbeing of people and communities. It recognises the need for high water quality for aquaculture activities and that development in the coastal environment can reduce the water quality to a level that is unfit for aquaculture. Policy 21 directs that priority be given to improving the water quality in areas of existing aquaculture and in areas that have been identified as being appropriate for aquaculture but have not yet been developed for that purpose where deteriorated water quality is restricting current or potential future aquaculture activities.

### ***Policy 14: Restoration of natural character***

Policy 14 seeks to promote the restoration and rehabilitation of the natural character of the coastal environment by providing policies, rules and methods in regional policy statements and plans and, where practicable, imposing or reviewing restoration or rehabilitation conditions on resource consents and designations. Policy 14(c) lists possible approaches for addressing degraded areas of the coastal environment, which includes the reduction or elimination of discharges of contaminants and the decommissioning or restoration of historic landfill and other contaminated sites that are leaching or have the potential to leach materials into the coastal marine area. This will assist in restoring water quality, which is directly linked to Policy 21.

### ***Policy 22: Sedimentation***

Policy 22 directs that sedimentation levels and impacts on the coastal environment are to be assessed and monitored, and requires action to reduce sedimentation in the coastal marine area. Excess sediment loading from land use activities is a significant

contributor to degraded water quality throughout New Zealand.<sup>11</sup> Sediment-bound heavy metal contaminants (zinc, copper, mercury and lead), which are associated with urbanisation and historical mining activity, can cause localised water quality issues.<sup>12</sup> Giving effect to Policy 22 by reducing sediment inputs will assist in improving the water quality in areas where it has deteriorated and is therefore closely related to the successful implementation of Policy 21.

### ***Policy 23: Discharge of contaminants***

Policy 23 is concerned with managing the discharges of contaminants into water in the coastal environment and includes specific provisions for the discharges of human sewage and stormwater, and discharges from ports and other marine facilities. The intent of Policy 23 is to ensure that water quality does not deteriorate to the extent that action is required under Policy 21. However, where water quality has already deteriorated, implementation of the management approaches outlined in Policy 23 will reduce the effects of such discharges on water quality, particularly when having regard to the sensitivity of the receiving environment.

## **Resource Management Act 1991**

Water quality plays an important role in enabling people and communities to provide for their social, economic and cultural wellbeing, and in safeguarding the life-supporting capacity of water and ecosystems. It may also affect the health and safety of people. The definition of ‘sustainable management’ given in section 5 of the RMA requires that adverse effects on the environment be remedied. Since giving effect to Policy 21 is important for remedying the adverse effects of activities on water quality, this policy assists in achieving the purpose of the RMA.

Section 6 of the RMA sets out matters of national importance that all persons exercising powers and functions under the RMA need to recognise and provide for. Section 6(e) (The relationship of Māori and their culture and traditions with their ancestral waters and taonga) is especially relevant in the context of Policy 21. Water quality and the ability to safely harvest kai moana is a significant aspect of cultural and spiritual values within the coastal environment. Policy 21 requires local authorities to engage with Māori to identify areas of deteriorated water quality and to improve water quality in those areas.

Section 7 of the RMA lists matters that should be given particular regard when managing the use, development and protection of natural and physical resources. Matters relevant to water quality are (a) kaitiakitanga; (aa) the ethic of stewardship; (c) maintenance and enhancement of amenity values; (d) intrinsic values of ecosystems; and (f) maintenance and enhancement of the quality of the environment.

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<sup>11</sup> Ministry for the Environment; Statistics New Zealand 2016: New Zealand’s Environmental Reporting Series: Our marine environment 2016. Ministry for the Environment and Statistics New Zealand. Page 40. [www.mfe.govt.nz/sites/default/files/media/Environmental%20reporting/our-marine-environment.pdf](http://www.mfe.govt.nz/sites/default/files/media/Environmental%20reporting/our-marine-environment.pdf)

<sup>12</sup> Hauraki Gulf Forum 2011: State of our Gulf: Tikapa Moana – Hauraki Gulf. State of the Environment Report 2011. Hauraki Gulf Forum, Auckland. Page 63. <http://knowledgeauckland.org.nz/assets/publications/Hauraki-Gulf-Forum-state-environment-2011.pdf>

The following provisions of the RMA are also relevant to Policy 21.

- Section 15, which provides that no person may discharge any contaminant into water unless the discharge is specifically allowed for in a national environmental standard, a rule in a relevant regional plan, including a proposed plan, or a resource consent.
- Section 30, which sets out the function of regional councils. This includes control of the use of land for the purpose of maintaining and enhancing the quality of water in water bodies and coastal waters (section 30(1)(c)(iii)), and maintaining and enhancing ecosystems in water bodies and coastal waters (section 30(1)(c)(iiia)).
- Section 31, which sets out the functions of territorial authorities. These include achieving integrated management of the effects of the use, development and protection of land in the district through the preparation and implementation of district plans. Since a district plan is required to give effect to the NZCPS 2010 (section 75 of the RMA), territorial authorities should have regard to the effects on coastal water quality when considering areas that are appropriate and inappropriate for particular land use activities and forms of subdivision use and development in the coastal environment. Considerations in relation to the effects on water quality are especially relevant in respect to giving effect to Policy 21 when a regional policy statement or regional coastal plan has identified an area of deteriorated water quality.
- Section 69, which sets out rules relating to water quality and provides that, subject to the reasonable mixing of a discharged contaminant, a regional council should not set water quality standards in a regional plan that result or may result in a reduction in water quality unless it is consistent with the purpose of the RMA to do so.
- Schedule 3, which defines certain water quality classes, and section 69, which empowers regional councils to develop rules that require the observance of water quality standards based on those classes (or more stringent or specific standards). In accordance with section 69(4), which was inserted by the Resource Legislation Amendment Act 2017, Schedule 3 is no longer applicable to fresh water. Therefore, where an area of coastal water has been identified as having deteriorated water quality that results in adverse effects on tangata whenua values in accordance with the criteria of Policy 21, a regional council could adopt water quality class C (water managed for cultural purposes) or a more stringent or specific standard as a policy response and assess all



applications for discharge permits, including ‘replacement consents’,<sup>13</sup> against that standard.

## Other national policy statements

### *National Policy Statement for Freshwater Management 2014 (amended 2017)*<sup>14</sup>

The NPS-FM applies to all freshwater resources, including those within the coastal environment. The preamble to the NPS-FM cross-references the NZCPS 2010 and emphasises the need for an integrated and consistent approach.

In many cases, the water quality in the coastal environment becomes degraded due to the poor quality of the fresh waters entering it.<sup>15</sup> The NPS-FM includes a number of objectives and policies that relate to managing water quality within streams and rivers that will also help address the effects on deteriorated water in the coastal environment.

Objective A2 of the NPS-FM requires the maintenance and improvement of the overall quality of fresh water in a ‘freshwater management unit’,<sup>16</sup> while protecting any significant values of outstanding freshwater bodies<sup>17</sup> and wetlands<sup>18</sup> and improving the quality of fresh water in water bodies that have been degraded as a result of over-allocation<sup>19</sup> by human activities. Appendix 1 of the NPS-FM establishes two compulsory national values for fresh water (ecosystem health and human health for recreation) and sets out a further 11 national values.

Objective A3 of the NPS-FM requires the improvement of water quality in a freshwater management unit so that it is suitable for primary contact (immersion, including swimming) unless naturally occurring process preclude further improvement.

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<sup>13</sup> This refers to a new discharge permit that replaces an existing permit on its expiry. It is often referred to as a ‘re-consent’ or ‘renewal’, but the term ‘replacement consent’ was adopted by the High Court in *Ngāti Rangī Manawatu Whanganui Regional Council* [2016] NZHC 2984.

<sup>14</sup> Ministry for the Environment 2017: *National Policy Statement for Freshwater Management 2014 (amended 2017)*. Ministry for the Environment, Wellington. 47 p. <http://www.mfe.govt.nz/publications/fresh-water/national-policy-statement-freshwater-management-2014-amended-2017>

<sup>15</sup> ‘Fresh water’ is defined in section 2 of the RMA as ‘all water, except coastal water and geothermal water’. ‘Coastal water’ is defined as:

- ... seawater within the outer limits of the territorial sea and includes-
- (a) seawater with a substantial fresh water component; and
- (b) seawater in estuaries, fiords, inlets, harbours, or embayments.

The preamble to the NPS-FM refers to ‘freshwater lakes, rivers, aquifers and wetlands’, all of which may be fully or partly within the coastal environment and all of which ultimately drain into the coastal marine area.

<sup>16</sup> A ‘freshwater management unit’ is defined in the NPS-FM as ‘the water body, multiple water bodies or any part of a water body determined by the regional council as the appropriate spatial scale for setting freshwater objectives and limits for freshwater accounting and management purposes’.

<sup>17</sup> These may be in the coastal environment.

<sup>18</sup> Wetlands include permanently or intermittently wet areas, shallow water and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions (section 2 of the RMA).

<sup>19</sup> ‘Over-allocation’ is defined in the NPS-FM and applies to both the quality and quantity of water.

Objectives A2 and A3 are supported by a range of policies that direct regional councils to take action. Policy A1 directs that when making or changing regional plans, establishing freshwater objectives or setting quality limits, regional councils are to have regard to the connections between water bodies, including the connections between freshwater bodies and coastal waters. Thus, when giving effect to policy A1 and planning for freshwater quality, regard must also be given to the matters outlined in relevant policies of the NZCPS 2010, which include Policy 8 (Aquaculture), Policy 13 (Preservation of natural character), Policy 14 (Restoration of natural character), Policy 21 (Enhancement of water quality), Policy 22 (Sedimentation) and Policy 23 (Discharge of contaminants).

Having established freshwater objectives for each freshwater management unit, Policy A2 requires every regional council to set specific targets and implement methods to achieve the objectives within a defined timeframe. Appendix 6 of the NPS-FM establishes a national target that 80% of lakes and rivers will be suitable for primary contact by 2030 and 90% by 2040.

Objective C1 of the NPS-FM is concerned with integrated management and provides clear direction for the integration functions of regional councils – that is, to improve the integrated management of fresh water and land use and associated interactions, including interactions with the coastal environment. This emphasis on integrated management is consistent with a similar emphasis in the NZCPS 2010, including Policy 7 (Strategic planning), Policy 11 (Indigenous biodiversity) and Policy 21 (Enhancement of water quality). The requirement to achieve integrated management is also reflected in the RMA statutory functions of regional councils (section 30) and territorial authorities (section 31), which require councils to achieve integrated management of the natural and physical resources for which they are responsible.

Further information about the NPS-FM is available on the Ministry for the Environment's website.<sup>20</sup> The NPS-FM is subject to ongoing national consultation with the intent of further modifying and setting additional water quality standards at a national level.

## *Origins of the policy*

Policy 5.1.1 of the NZCPS 1994 directed local authorities to include rules in their plans with the objective of enhancing water quality in the coastal environment where it was desirable to achieve the purpose of the RMA, and identified a number of circumstances where rules may be particularly desirable.

The Board of Inquiry that recommended the current NZCPS identified that there had been insufficient action to maintain water quality in many areas, with discharges putting habitats, ecosystems, and economic and community uses at risk<sup>21</sup>. The Board noted that water quality had deteriorated in many coastal areas and that this deterioration was having widespread adverse effects on economic, social, cultural and environmental wellbeing.

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<sup>20</sup> [www.mfe.govt.nz/publications/fresh-water/guide-national-policy-statement-freshwater-management-2014](http://www.mfe.govt.nz/publications/fresh-water/guide-national-policy-statement-freshwater-management-2014)

<sup>21</sup> <https://www.doc.govt.nz/globalassets/documents/getting-involved/consultations/closed-consultations/nzcps/nzcps-2008-board-of-inquiry-vol-2.pdf>

A key issue that was raised during the Board of Inquiry process was the need for a restoration target. In their submissions, some councils asked ‘in this type of already degraded environment, what is the baseline to bring the state of that water to one of acceptable quality?’ and many councils sought that a baseline be defined or established. In its report, the Board noted that Schedule 3 of the RMA (Water quality classes)<sup>22</sup> sets out standards for particular classes of use, such as water that is managed for ‘contact recreation’ or ‘cultural’ purposes (p. 283). The Board further noted that these standards could be applied to areas where the quality of coastal water has significantly deteriorated and concluded that they should be considered the relevant minimum baselines and applied to areas of deterioration accordingly.

Certain existing uses, such as aquaculture, were specifically identified by the Board of Inquiry as needing better water quality management for their continuation. For example, oyster and mussel farmers are very dependent on high water quality to meet shellfish harvesting standards – poor water quality can lead to farm closures.

More generally, the Board of Inquiry noted that a key issue affecting the coastal environment that needed to be addressed was the relationship between tangata whenua and the planning process. The Board observed that there was ‘a need for key agencies to build on, and in some places establish relationships to provide for tangata whenua involvement’. Policy 21(e) of the NZCPS 2010 requires engagement with tangata whenua to identify areas of coastal waters that are of particular value to them.<sup>23</sup>

For further information, refer to Volume 2 of the Board of Inquiry report.<sup>24</sup>

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<sup>22</sup> Included here as Appendix 1.

<sup>23</sup> Board of Inquiry 2009: Proposed New Zealand Policy Statement (2008). Board of Inquiry report and recommendations. Volume 1: Findings, recommendations and recommended NZCPS (2009). Page 5. [www.doc.govt.nz/documents/getting-involved/consultations/closed-consultations/nzcps/NZCPS-2008-board-of-inquiry-vol-1.pdf](http://www.doc.govt.nz/documents/getting-involved/consultations/closed-consultations/nzcps/NZCPS-2008-board-of-inquiry-vol-1.pdf)

<sup>24</sup> Board of Inquiry 2009: Proposed New Zealand Coastal Policy Statement (2008). Board of Inquiry report and recommendations. Volume 2: Working papers. Pp. 273-284. <https://www.doc.govt.nz/globalassets/documents/getting-involved/consultations/closed-consultations/nzcps/nzcps-2008-board-of-inquiry-vol-2.pdf>

## *Implementing the policy*

When implementing Policy 21, it is necessary to consider the entire NZCPS 2010 as well as the guidance provided here. Therefore, please also refer to the NZCPS 2010 Implementation Guidance Introductory Note,<sup>25</sup> which covers the matters that are relevant in giving effect to the NZCPS 2010.

Policy 21 guides the planning approach that is needed to enhance water quality where it has degraded to such an extent that it is having significant adverse effects on values and uses of the coastal environment. This policy requires that priority is given to improving water quality by:

- identifying areas of deteriorated water quality and including them in plans (Policy 21(a))
- developing plan provisions to address the deterioration in water quality by seeking to improve it (Policy 21(b))
- where practicable, restoring water quality so it can at least support activities, ecosystems and habitats (Policy 21(c))
- excluding stock from the coastal environment within a prescribed timeframe (Policy 21(d))
- engaging with tangata whenua to identify areas of the coastal environment where they have a particular interest, and remedying (or mitigating) adverse effects (Policy 21(e)).

The implementation of Policy 21 requires that plans identify key areas for improving water quality in the coastal environment, and set out objectives, policies, rules and other methods to improve water quality. Although Policy 21 refers only to ‘plans’, if deteriorated water quality is a significant resource management issue for the region, the appropriate starting place may be the regional policy statement with implementation through regional and district plans, noting that district plans are to have regard to the relevant regional policy statement. District plans control land use activities and are relevant to Policy 21 where deteriorated water quality is a consequence of the cumulative effect of land uses rather than point source discharges.

Both Policy 21(c) and (e) include the concept of practicability. This recognises that the water quality will be badly deteriorated in some areas and there may be limits to the technical, economic or practical ability of a community to restore such areas. However, practicability is a concept that requires regular review, as circumstances such as land management concepts, waste water treatment technologies, and council and community expenditure priorities and leadership will change over time. Policy 21(e) makes it clear that where remediation cannot be achieved, mitigation will be required in relation to cultural values.

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<sup>25</sup> <https://www.doc.govt.nz/about-us/science-publications/conservation-publications/marine-and-coastal/new-zealand-coastal-policy-statement/policy-statement-and-guidance/implementation-guidance-introductory-note/>

## **Significant adverse effects**

Policy 21 directs that priority be given to improving the water quality in those areas where the quality of water in the coastal environment has deteriorated to such an extent that it is having a 'significant adverse effect' on ecosystems, natural habitats or water-based recreational activities, or is restricting existing uses, such as aquaculture, shellfish gathering and cultural activities.

Determination of whether an adverse effect is significant in the context of a particular area of water in the coastal environment needs to be informed by the identification of tangata whenua values, an understanding of the adverse effects of the deteriorated water quality on ecosystems, natural habitats and contact recreational activities, and information on the extent to which the deteriorated water quality is restricting existing uses such as aquaculture. This will be a subjective test or a matter of judgement that is informed by some objective information, as the circumstances (and therefore what is considered significant) will vary between areas. Since the areas that are subject to Policy 21 must be identified and included in proposed plans, the information that is being used to identify significant adverse effects can be expected to be tested through the statutory planning processes.

## **Identifying areas of deteriorated water quality**

Policy 21(a) should be used to inform the spatial areas within which specific efforts to improve water quality in the coastal environment should be concentrated. This policy is an acknowledgement that resources for improving water quality are finite and provides a means of prioritising efforts by delineating the spatial area(s) of the coastal environment within a region to which Policy 21 applies.

Policy 21 does not define 'deteriorated' or set technical standards or thresholds. Rather, a particular regional council, in consultation with tangata whenua and the community, is expected to have regard to the factors set out in Policy 21 to determine whether coastal water quality is having a significant adverse effect on ecosystems and natural habitats or water-based recreational activities, or is restricting existing uses, such as aquaculture, shellfish gathering and cultural activities.

Policy 21, as well as Objective 1 (Maintaining coastal water quality and enhancing it where it has deteriorated from its natural condition) and Policies 8 (Aquaculture), 13 (Preservation of natural character), 14 (Restoration of natural character), 22 (Sedimentation) and 23 (Discharge of contaminants) all require knowledge of the actual quality of the water.

Policy 21 requires consideration of the effects of water quality on human health (water-based recreational activities, aquaculture and shellfish gathering), as well as on ecosystems, natural habitats and cultural activities.

The human health aspects of water quality, such as levels of faecal contamination, are generally well understood, and there is considerable certainty regarding monitoring methods and acceptable limits of contamination. For coastal waters that are popular for contact recreation, there is often a history of monitoring faecal indicator bacteria

under the previous 1992 Department of Health recreational bathing guidelines<sup>26</sup> or the subsequent 2003 Ministry for the Environment / Ministry of Health microbiological water quality guidelines.<sup>27</sup>

By contrast, the effects of water quality on ecosystems and habitats are often poorly understood, particularly where, as usually occurs, multiple stressors may have impacted on populations and habitats independently of water quality, such as commercial and recreational fishing, and shellfish harvesting.

Understanding the effects of water quality on ecosystems and habitats requires more than an analysis of water quality in the water column. It may also require consideration of benthic conditions, as well as ecosystem and habitat diversity and abundance. Furthermore, there will often be information gaps on the documented historic health of ecosystems and extent of habitats, as well as little information on their current condition. However, anecdotal information may be held by members of the community, particularly iwi (māturanga Māori).<sup>28</sup>

The following information will assist in identifying areas of deteriorated water quality.

- Historical data on water quality and ecosystems (where available), including information on how catchment activities and land uses, particularly land clearance and land use intensification resulting in increased sediment loadings in waterways, have changed over time to evaluate long-term trends and changes in water quality.
- The current water quality in a water body. Key water quality parameters that could be measured include dissolved oxygen, temperature, salinity, pH, 5-day biochemical oxygen demand<sup>29</sup> (BOD<sub>5</sub>), total suspended solids, nutrients, microbiological contaminants and heavy metals, all of which measure the 'pressures' on water quality. In addition, the concentration of chlorophyll a in the water column could be measured as an indicator of the ecological state of the water quality.
- The current state of ecosystems and natural habitats in the area of interest.
- General information on the coastal environment, including known pressures, the current state and the effects of existing management approaches, such as existing uses, cultural values and biodiversity values, to identify those areas that are particularly valued and have been impacted by a deterioration in water quality. This information could be obtained by engaging with the

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<sup>26</sup> McBride, G.B.; Cooper, A.B.; Till, D.G. 1992: Provisional microbiological guidelines for recreational and shellfish-gathering waters in New Zealand. Department of Health, Wellington. 17 p.  
[www.moh.govt.nz/NoteBook/nbbooks.nsf/0/12B31E91CCF058504C2565D7000E2178/\\$file/Water%20quality%20guidelines.pdf](http://www.moh.govt.nz/NoteBook/nbbooks.nsf/0/12B31E91CCF058504C2565D7000E2178/$file/Water%20quality%20guidelines.pdf)

<sup>27</sup> Ministry for the Environment; Ministry of Health 2003: Microbiological water quality guidelines for marine and freshwater recreational areas. *ME number 474*. Ministry for the Environment, Wellington. 89 p. plus appendices. [www.mfe.govt.nz/publications/fresh-water/microbiological-water-quality-guidelines-marine-and-freshwater-0](http://www.mfe.govt.nz/publications/fresh-water/microbiological-water-quality-guidelines-marine-and-freshwater-0)

<sup>28</sup> Māori customary knowledge, traditional knowledge or intergenerational knowledge (see the glossary of the NZCPS 2010).

<sup>29</sup> **Biochemical Oxygen Demand (BOD, also called Biological Oxygen Demand)** is the amount of [dissolved oxygen](#) needed (i.e. demanded) by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period. The BOD value is most commonly expressed in milligrams of oxygen consumed per litre of sample during 5 days of incubation at 20 °C and is often used as a surrogate of the degree of [organic pollution of water](#).

community, iwi and coastal users to determine their values associated with local coastal waters.

- The quality of the fresh water entering the coastal environment.
- The level of contamination in the benthic sediment and biota, and assessments to determine the relative contributions of different potential sources to those contaminants.

A deterioration in water quality may be caused by circumstances that are not always apparent, such as the accumulation of contaminants that remain buried or stored in the benthic sediment or biota. Filter-feeding shellfish have a tendency to accumulate a wide range of contaminants in their tissues. However, over time, monitoring information can provide a longitudinal history of contaminant exposure and ecological changes at a particular site.<sup>30</sup>

Identifying the causes of water quality deterioration can be complex, as the interconnected nature of the coastal environment means that it is not as simple as assuming that all inputs have come from 'upstream' of an area. Establishing cause-and-effect relationships can also be difficult. Consequently, a careful and holistic consideration of the causes of deterioration should be undertaken over an area that is appropriately scaled to identify all possible sources, ideally in collaboration with the local community.

Using the information gathered, it should be possible to compare the existing state of coastal water quality with the values of the area, and to establish the level of exposure to adverse effects and the significance of those effects.

Examples of coastal water quality assessments and monitoring that have been undertaken by a number of regional councils to give effect to the NPS-FM and/or the NZCPS 2010 are provided under 'Related and ongoing work', with the relevant links provided under 'Resources'.

Once areas of deteriorated water quality have been identified, they can be included in plans by way of descriptions and/or schedules supplemented with maps. Although Policy 21(a) does not specify how plans are to identify such areas, mapping provides a level of certainty that is particularly necessary if the restoration methods include rules. To ensure integrated management, consideration may need to be given to the extent of the coastal environment and how the areas can best be appropriately included in plans. Provisions to address deteriorated coastal water quality may require the inclusion of objectives, policies and methods in regional plans in relation to land uses and discharges to water, and the consideration of land uses and spatial development in district plans. The integrated and strategic planning that is required by Policies 4 and 7 of the NZCPS 2010 are particularly relevant to giving effect to Policy 21 where deteriorated water quality has resulted from the effects of land use activities.

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<sup>30</sup> Stewart, M.; Olsen, G.; Gadd, J. 2013: Shellfish contaminant monitoring programme review. *Technical Report TR2013/055*. Prepared for Auckland Council by the National Institute of Water & Atmospheric Research Ltd. 92 p. <http://knowledgeauckland.org.nz/assets/publications/TR2013-055-Shellfish-contaminant-monitoring-programme-review.pdf>



## Plan provisions

Policy 21(b) requires that provisions be included in plans to address improving the water quality in areas where it has been identified as deteriorated and causing significant adverse effects or is restricting existing uses. To achieve integrated management and address the causes of water quality deterioration, provisions could be included in both regional and district plans. In many situations, rules relating to activities will be insufficient to achieve the improvements required by Policy 21, so councils will need to consider other methods such as active collaboration with existing users, community-based clean-up programmes, and upgraded stormwater and sewerage infrastructure to achieve this policy.

The requirement in Policy 21 is to give priority to improving water quality where it has deteriorated to such an extent that it is having significant adverse effects. Issues statements in regional policy statements or plans should identify the areas where water quality is of concern and, if possible, the activities that are placing pressure on water quality.<sup>31</sup> Objectives, policies and methods (including rules) should then outline the expectations for improvement and, consistent with the NPS-FM, include time-bound targets for seeing improvements in water quality parameters.

The inclusion of directly measurable outcomes, monitoring and reporting methods in relevant planning documents will provide the greatest amount of certainty to the community and resource users that the issue of poor water quality is being addressed and that restoration efforts to restore water quality will be measured and reported on. Any activities that will or are likely to contribute to the ongoing deterioration of water quality should be identified in plans and appropriately managed.

Integrated management of the effects of activities within freshwater catchments that have a coastal outlet should also be considered. The status of activities with direct discharges to the coastal marine area and other waters in the coastal environment should, in particular, reflect the need to impose appropriate conditions and monitoring regimes, including for activities that may have cumulative adverse effects.

### *Water quality classifications and setting limits*

The Board of Inquiry for the NZCPS noted that the water quality classifications listed under Schedule 3 of the RMA provide legislative guidance on what may be achieved in coastal waters that do not sustain activities such as contact recreation, cultural values or the cultivation of shellfish for human consumption. The Board considered that these water quality classifications should be considered minimum standards and applied to areas of deteriorated water accordingly.

Although the use of water quality classifications is not a statutory requirement, current best practice for regional coastal plans includes the use of these classifications or, where they are not adequate or appropriate, the establishment of

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<sup>31</sup> For example, see sections B7.1 (Issues) and B7.4 (Coastal water, fresh water and geothermal water) in the Auckland Unitary Plan.  
[http://unitaryplan.aucklandcouncil.govt.nz/pages/plan/Book.aspx?exhibit=AucklandUnitaryPlan\\_Print](http://unitaryplan.aucklandcouncil.govt.nz/pages/plan/Book.aspx?exhibit=AucklandUnitaryPlan_Print)



new classes and standards under section 69(2) of the RMA for waters identified as having deteriorated to such an extent that water quality is restricting existing activities or having other significant adverse effects. Classes and standards other than those included under Schedule 3 may need to be included in plans where it is necessary to better align the relevant attributes and bands for coastal waters with the relevant NPS-FM state attributes, bands and minima.

Once the appropriate water quality classification has been set in accordance with section 69(1) of the RMA, or section 69(2) where the Schedule 3 classes are not adequate or appropriate, the accompanying rules in the regional coastal plan should require the application of those standards for that classification. These rules will apply to any new applications for coastal permits or discharge permits<sup>32</sup> and to all applications for 'replacement permits'<sup>33</sup> for an existing permit that is about to expire.

There are several limitations to using the classes and standards in Schedule 3 for effective coastal water quality management. Some coastal water quality attributes are not present in the Schedule and several of the Schedule 3 standards are effects standards rather than environmental state standards. In addition, since the quality of coastal waters results from a complex mix of both diffuse and point sources of contaminants, the methods for managing these risks are several and complex, and the allocation of contaminating loads from diffuse and point sources is more difficult in coastal waters than in land drainage catchments.

Establishing minimum water quality standards through the inclusion of rules in regional coastal plans provides the means to undertake a review of the conditions of discharge permits that discharge to the areas of deteriorated coastal water quality identified in the plan under section 128(1)(b) of the RMA. Since deteriorated water quality generally results from diffuse rather than point sources, the primary focus should remain on land use activities.

While the NPS-FM sets water quality 'bottom lines' for lakes and rivers, it does not specifically include wetlands, which also require consideration in the coastal environment, as do coastal aquifers. New Zealand water quality guidelines provide alternative references for water quality management, which may be more specific than the RMA Schedule 3 classifications and the specific standards for each of these.

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<sup>32</sup> The term 'coastal permit' includes a consent under section 15 of the RMA to discharge into the coastal marine area, while 'discharge permit' refers to a discharge to fresh water in the coastal environment (refer section 87 of the RMA).

<sup>33</sup> Often referred to as a 're-consent' or 'renewal'.

Commonly used guidelines include:

- Microbiological Water Quality Guidelines for Marine and Freshwater Recreational Areas<sup>34</sup>
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality<sup>35</sup>
- New Zealand Periphyton Guideline: Detecting, Monitoring and Managing Enrichment of Streams<sup>36</sup>
- Blueprint for Monitoring Urban Receiving Environments.<sup>37</sup>

These guidelines provide methods for setting limits for pollutant concentrations in coastal environments. Many of the water quality guidelines that are used in New Zealand are complex and require professional technical advice to interpret. However, this should not be perceived as a barrier to their use in setting standards for water quality in identified areas where a plan seeks improvement over time.

The Australian and New Zealand Guidelines for Fresh and Marine Water Quality recommend that the values from southeast Australia be used where locally derived New Zealand values do not exist, which is the situation for most New Zealand coastal waters. However, the values in these guidelines are conservative and so exceeding these will not necessarily imply that an adverse effect will occur. Accordingly, these values should be used to trigger a response such as further monitoring and investigation rather than as an enforceable 'bottom line'.

Implementation of Policy 21 should be considered alongside other policies in the NZCPS 2010 that address activities in the coastal environment, including Policy 6 (Activities) in the coastal environment and Policy 7 (Strategic planning). Policy 7(2) of the NZCPS 2010 directs local authorities to set thresholds (including zones, standards or targets) or to specify acceptable limits to change, where applicable, to assist in determining when activities causing adverse cumulative effects are to be avoided. The more specific requirements of Policy 23 relating to discharges should also be applied.

As at November 2018, a number of regional councils, including Northland, Hawke's Bay and Canterbury, have completed or are undertaking work around setting water quality trigger values for coastal and harbour waters.

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<sup>34</sup> [www.mfe.govt.nz/publications/fresh-water/microbiological-water-quality-guidelines-marine-and-freshwater-0](http://www.mfe.govt.nz/publications/fresh-water/microbiological-water-quality-guidelines-marine-and-freshwater-0)

<sup>35</sup> [www.mfe.govt.nz/publications/water/anzecc-water-quality-guide-02/anzecc-water-quality-guide-02-pdfs.html](http://www.mfe.govt.nz/publications/water/anzecc-water-quality-guide-02/anzecc-water-quality-guide-02-pdfs.html)

<sup>36</sup> Biggs, B.J.F. 2000: New Zealand periphyton guideline: detecting, monitoring and managing enrichment of streams. Prepared for Ministry for the Environment by the National Institute of Water & Atmospheric Research Ltd. 122 p. [www.mfe.govt.nz/sites/default/files/nz-periphyton-guide-jun00.pdf](http://www.mfe.govt.nz/sites/default/files/nz-periphyton-guide-jun00.pdf)

<sup>37</sup> Auckland Regional Council 2004: Blueprint for monitoring urban receiving environments. *ARC Technical Publication 168* (revised edition). Auckland Regional Council, Auckland. 66 p. <http://www.aucklandcity.govt.nz/council/documents/technicalpublications/TP168%20Blueprint%20for%20Monitoring%20Urban%20Receiving%20Environment%20-%20revised%20edition%20Aug%202004.pdf>

### ***Interrelationship between Policy 21 and the NPS-FM in developing plan provisions***

Policy 21(b) is closely linked to Policy A1 of the NPS-FM, which requires regional councils to establish freshwater objectives and set freshwater quality limits for all freshwater bodies in their regions, including having regard to the connections between freshwater bodies and coastal waters. Policy A2 of the NPS-FM requires that upgrading is required and targets must be set and timeframes defined for degraded freshwater management units.

While these NPS-FM policies do not directly apply to coastal waters, the requirement under Policy A1 of the NPS-FM to have regard to the interconnections between freshwater bodies and coastal waters may mean that a limit that is set for a freshwater body may be influenced by a water quality classification in the coastal marine area. Therefore, a *ki uta ki tai* (from the mountains to the sea) approach is required to adaptively and effectively manage the freshwater and coastal water environments. The joint outcome of Policy 21 of the NZCPS 2010 and Policies A1 and A2 of the NPS-FM should lead to improved coastal water quality over time.

The NPS-FM policies also apply to freshwater bodies located in the coastal environment. Therefore, regard must also be had and effect given to the relevant matters in the NZCPS 2010 including, where relevant, Policy 21 for those freshwater bodies.

The NPS-FM adopts a limits-based approach to freshwater management. Although the NZCPS 2010 does not specifically state that a limits-based approach must be used, Policies 7(2) and 21 provide scope to use or set water quality thresholds or limits in plans.

### ***Review of discharge permit conditions***

Where a consent authority has concerns that the water quality in an area may be deteriorating but this has not yet reached the point of causing demonstrated significant adverse effects, consideration could be given to including a condition provided for under section 128(1)(a) of the RMA at the time of granting a discharge permit. Under that section, and provided that it is included as a condition of the consent, the regional council may review the consent conditions to require the consent holder to adopt the best practicable option (this would allow, for example, evolving water treatment or other technologies to be applied, having regard to the financial implications of adopting such technologies). Section 128(1)(a) of the RMA also provides for a review for any other reason specified.

It should be noted, however, that diffuse discharges remain the most likely source of deteriorated water quality, particularly where coastal waters are exposed to contaminant risks from urban and intensive production land uses. Therefore, addressing issues of deteriorated coastal water quality requires the integrated use of regulatory and non-regulatory methods, with the review of conditions only one part of the mix.

## ***Monitoring***

Most regional councils undertake state of the environment monitoring, which can identify trends in coastal water quality. However, once areas of deteriorated water quality have been identified, a carefully designed and dedicated monitoring programme will usually be required to measure changes and trends in water quality in those areas. Monitoring and reporting will be critical to ensuring the success of plan provisions and, ultimately, the improvement of water quality in the identified areas. Council commitments to undertake monitoring and to regularly report results should be included as methods in plans and, over time, such methods can be used to demonstrate the effectiveness of other plan provisions in working towards achieving Policy 21.

## **Restoring water quality (discharges and land use)**

Policy 21(c) directs that water quality should be restored 'where practicable'. The use of this term indicates that in some situations it may not be possible to restore water quality to a state that can support some of the activities identified in Policy 21. There may be realistic practical limits on what can be done or achieved, particularly when dealing with water quality issues that have a long legacy. Often a combination of regulatory and non-regulatory methods will be useful for supporting the restoration of coastal water quality at a particular place. Water quality restoration is also likely to require collaboration with adjacent land users and upstream communities.

The primary regulatory method for restoring water quality will be through the inclusion of rules in plans, particularly rules that establish minimum standards of water quality, as this will provide the means to review existing discharge permits under section 128 of the RMA. Rules can also determine the activity status of any new activities that will or may discharge contaminants to coastal waters, or to fresh water or land where it may subsequently enter coastal waters.

There are a number of options for rules.

- The activity status of discharge activities, including for 'replacement consents' for existing discharge permits and the matters over which control has been reserved (controlled activity) or discretion restricted (restricted discretionary activity).
- The activity status and controls on land use activities that have been shown to contribute to water quality deterioration.
- Discharge standards for specific contaminants.
- The management of water courses and water bodies in a way that maintains their ecological vitality and viability (such as maintaining or requiring riparian planting; limits on realignment and culverting).
- The identification of existing discharge permits of concern and control through a review of existing consent conditions if provided for in the consent or if the review of a regional plan has been made operative and sets new standards for water quality.

Where 'replacement consents' for existing discharge permits are required, it is possible for councils to work with applicants to identify matters such as treatment

levels for discharges, upgrade options for existing discharges, and alternative treatments and discharge locations. Monitoring of the receiving environment associated with consents can also provide useful information on the state and trends in water quality, and contribute to determining whether water quality restoration is being achieved.

Local authorities should consider all sources of potential contaminants (including point and non-point source discharges) that may impact on water quality in the coastal environment where this has deteriorated to the extent that it meets the criteria for identification under Policy 21.

The guidance note for Policy 14 (Restoration of natural character)<sup>38</sup> provides further information that will assist efforts to restore degraded waters.

### **Restoring water quality (stock exclusion)**

Policy 21(d) directs that stock exclusion can be required within a prescribed timeframe in those areas where water quality deterioration has occurred. This policy applies to both the coastal marine area and water bodies and riparian margins in the coastal environment, and so its implementation may be the responsibility of both regional councils and territorial authorities. Therefore, as part of the process of gathering information on the coastal environment to determine areas with deteriorated water quality, areas where stock has access to the coastal marine area and water bodies in the coastal environment should be identified.

During February to April 2017, as part of the consultation on the proposed amendments to the NSP-FM, the Ministry for the Environment included a proposal to exclude dairy cattle and pigs from waterways and lakes by 1 July 2017, with the exclusion of other stock to be progressively included through to 2030. The proposal was to be implemented through a regulation under the RMA. Various practical difficulties were subsequently identified with respect to the effectiveness and difficulty of implementing and monitoring a national regulation of this type, in particular the determination at a national level of a suitable riparian buffer that would apply to all local situations. However, stock exclusion from waterways remains a priority for national direction and there is ongoing analysis of the various policy options. Any future national direction would apply to freshwater bodies, including coastal lakes, downstream to estuaries.

Stock exclusion can be achieved through a number of different regulatory and non-regulatory approaches. Above mean high water springs, rules could be made under section 9 of the RMA (Restrictions on use of land) in regional or district plans, while below mean high water springs rules could be made under section 12 of the RMA (Restrictions on use of coastal marine area) in the coastal marine area.

Rules alone may not be the most effective means of achieving stock exclusion, however, if there are limited council resources available for monitoring and compliance. Rather, collaborating with the agricultural sector and local landowners to agree on priority areas, and the adoption of education programmes, grants and

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<sup>38</sup> <https://www.doc.govt.nz/globalassets/documents/conservation/marine-and-coastal/coastal-management/guidance/policy-14.pdf>

incentives may be more effective in these circumstances. Existing programmes, such as the Sustainable Dairying: Water Accord and the Primary Sector Water Partnership,<sup>39</sup> include targets for achieving stock exclusion that could be integrated with local measures to achieve Policy 21(d). Local landcare and community catchment groups also often work towards stock exclusion. Incentive programmes and grants, such as the Freshwater Improvement Fund<sup>40</sup>, which provides funding for improvement projects, including for wetland and aquifer improvement within quality and quantity limits, can also assist.

Mechanisms to achieve stock exclusion include the fencing of waterway margins to prevent stock access, which is often most effective in improving water quality when carried out alongside the establishment of vegetated riparian buffers and the planting of stream banks.

Timeframes for achieving stock exclusion should be set in consultation with the local stakeholders. Efforts may need to be prioritised if large areas of the coastal environment currently allow stock access. For instance, the stock exclusion rules included in the Auckland Unitary Plan require that stock (other than those used for droving and horse riding) are to be excluded from those areas of coastal water that are identified in the plan as being degraded by human activities by 30 September 2020. The rules further provide that stock are to be excluded from areas that are identified as significant ecological areas or as having high or outstanding natural character and landscapes from 30 September 2018.<sup>41</sup>

## Engagement with tangata whenua

Throughout the NZCPS 2010, and particularly in Policies 21 and 23 in relation to water quality, there is an emphasis on the importance of engaging with tangata whenua to identify, recognise and provide for tangata whenua values in the coastal environment. Policy 21(e) is one such example.

Policy 21(e) refers to areas of coastal waters where tangata whenua have particular interests, such as cultural sites, wāhi tapu and other taonga, as well as areas of coastal waters with values to tangata whenua, such as mauri.<sup>42</sup> The distinction between areas and values is important because the appropriate level of water quality that is sought by tangata whenua for a particular wāhi tapu area could differ from that required to preserve or restore the mauri of the wider water body.

When giving effect to Policy 21, councils should determine who the tangata whenua are. If a statutory acknowledgement under any relevant Treaty of Waitangi Settlement Act applies to the relevant part of the coastal environment, this will assist in identification. Where a customary marine title, protected customary right and/or applications for recognition orders under the Marine and Coastal Area (Takutai

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<sup>39</sup> <http://rda.co.nz/wp-content/uploads/2013/11/Sustainable-Dairying-Water-Accord-1.pdf>

<sup>40</sup> <http://www.mfe.govt.nz/more/funding/funding-fresh-water/freshwater-improvement-fund>

<sup>41</sup> Auckland Council 2018: Table F2.19.4 Activity table – coastal marine area disturbance: A39. Section F2 Coastal – General Coastal Marine Zone. P. 47 in: Auckland Unitary Plan Operative in part. Auckland Council, Auckland. <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-by-laws/our-plans-strategies/unitary-plan/Pages/the-auckland-unitary-plan-operative-in-part.aspx>

<sup>42</sup> See the ‘Glossary of terms and definitions’ at the end of this guidance for definitions of ‘wāhi tapu’, ‘taonga’ and ‘mauri’.

Moana) Act 2011<sup>43</sup> applies, the relevant iwi and applicant groups should also be consulted. Where tangata whenua have not yet settled with the Crown or been identified through any other legislation, local authorities will need to make their own enquiries rather than relying on these statutory identification mechanisms.

Contact details for iwi authorities and hapū are available on the Te Kāhui Māngai website,<sup>44</sup> and details regarding applications and orders under the Marine and Coastal Area (Takutai Moana) Act 2011 can be found on a webpage administered by the Ministry of Justice.<sup>45</sup> Local authorities are also required to keep records of the contact details of each iwi authority and hapū within their regions or districts (section 35A of the RMA).

Where a council has a Mana Whakahono ā Rohe iwi participation arrangement under section 58R or the RMA, consultation will need to be in accordance with that document. Iwi management plans and any other relevant planning documents that have been recognised by the appropriate iwi authority or hapū and lodged with the council should also be taken into account.

Consistent with Policy 2, such engagement should occur early in the process of identifying areas of deteriorated water quality, be meaningful and, as far as practicable, be in accordance with tikanga Māori.

Policy 21 requires that where a regional council determines that the quality of water has deteriorated to such an extent that it is having a significant adverse effect on an area that has been identified by tangata whenua as being of particular interest to them or on tangata whenua values, such as mauri, then priority needs to be given to remedying the water quality. In accordance with Policy 21(e), if remediation is not practicable then mitigation of the adverse effects on those areas and values of importance to tangata whenua is required. Remediation and mitigation measures should provide the opportunity for tangata whenua to exercise kaitiakitanga and should incorporate mātauranga Māori<sup>46</sup> as appropriate.

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<sup>43</sup> <http://www.legislation.govt.nz/act/public/2011/0003/latest/DLM3213131.html>

<sup>44</sup> <http://www.tkm.govt.nz/>

<sup>45</sup> <https://justice.govt.nz/maori-land-treaty/marine-and-coastal-area/applications/>

<sup>46</sup> Māori customary knowledge, traditional knowledge or intergenerational knowledge (NZCPS 2010: Glossary).

## *Related and ongoing work*

### **Identifying areas of deteriorated water quality**

#### *Hauraki Gulf Forum – State of Environment Reports 2011, 2014 and 2017*

[www.knowledgeauckland.org.nz/assets/publications/Hauraki-Gulf-Forum-state-environment-2011.pdf](http://www.knowledgeauckland.org.nz/assets/publications/Hauraki-Gulf-Forum-state-environment-2011.pdf)

Hauraki Gulf Forum 2011: State of our Gulf: Tikapa Moana – Hauraki Gulf. State of the Environment Report 2011. Auckland Council, Auckland. 163 p.

[www.aucklandcouncil.govt.nz/EN/environmentwaste/coastalmarine/Documents/stateofourgulf2014.pdf](http://www.aucklandcouncil.govt.nz/EN/environmentwaste/coastalmarine/Documents/stateofourgulf2014.pdf)

Hauraki Gulf Forum 2014: State of our Gulf 2014: Tikapa Moana – Hauraki Gulf / Te moananui a toi. State of the environment report 2014. Popular summary. Auckland Council, Auckland. 5 p.

[www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/harbour-forums/docsstateofgulf/state-gulf-full-report.pdf](http://www.aucklandcouncil.govt.nz/about-auckland-council/how-auckland-council-works/harbour-forums/docsstateofgulf/state-gulf-full-report.pdf)

Hauraki Gulf Forum 2017: State of our Gulf 2017: Hauraki Gulf / Tikapa Moana / Te Moana-nui-a-Toi. State of the Environment Report 2017. Auckland Council, Auckland. 253 p.

The Hauraki Gulf Forum is a statutory body established under the Hauraki Gulf Marine Park Act 2000 <sup>47</sup>that is responsible for the promotion and facilitation of integrated management of the Hauraki Gulf. It has wide representation, including members of the Auckland Council and Waikato Regional Council.

The 2011 version of the State of our Gulf: Tikapa Moana – Hauraki Gulf evaluated the current state of the environment and fisheries against historical information to provide a historical baseline for the degree of change due to human activities. The report includes analysis of previous studies relating to water quality, including studies on sedimentation, sediment contamination, stormwater contamination, nutrient contributions from rivers and wastewater, and coastal water quality monitoring (including nutrient concentrations and bathing beach microbiological counts).

This report was updated with recent monitoring results and case studies in 2014 and 2017.

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<sup>47</sup> <http://www.legislation.govt.nz/act/public/2000/0001/latest/DLM52558.html>



### ***Auckland Council – Auckland Unitary Plan***

[http://unitaryplan.aucklandcouncil.govt.nz/pages/plan/Book.aspx?exhibit=AucklandUnitaryPlan\\_Print](http://unitaryplan.aucklandcouncil.govt.nz/pages/plan/Book.aspx?exhibit=AucklandUnitaryPlan_Print)

Section B7.4 of Chapter B of the Regional Policy Statement of the Auckland Unitary Plan sets out objectives and policies in relation to maintaining the quality of fresh and coastal waters where they are in excellent or good condition, and progressively improving the quality of these waters over time where they are degraded. The policies are supported by a map (Figure B7.4.2.1), which identifies two categories of ‘areas of coastal water that have been degraded by human activities’ and three grades of bathing beach water quality using monitoring data from 2011/12 to 2013/14.

### ***Waikato Regional Council – River management guidelines***

[www.waikatoregion.govt.nz/services/regional-services/river-and-catchment-management/about-rcs/river-management-guidelines/](http://www.waikatoregion.govt.nz/services/regional-services/river-and-catchment-management/about-rcs/river-management-guidelines/)

Waikato Regional Council has developed river management guidelines that can be used to assist landowners in maintaining and protecting the region’s waterways.

### ***Bay of Plenty Regional Council – Proposed Coastal Environment Plan***

[www.boprc.govt.nz/your-council/plans-and-policies/plans/regional/regional-coastal-environment-plan/](http://www.boprc.govt.nz/your-council/plans-and-policies/plans/regional/regional-coastal-environment-plan/)

The Proposed Bay of Plenty Regional Coastal Environment Plan describes the areas of coastal water where deteriorated water quality is an issue and identifies the contaminants of concern in those areas (refer Issue 1.3 Water quality, issue 11). The proposed plan contains objectives and policies to address these water quality issues.

### ***Environment Canterbury –Report and recommendations of the Hearing Commissioners***

<https://www.ecan.govt.nz/your-region/plans-strategies-and-bylaws/canterbury-land-and-water-regional-plan/change-1-selwyn-waihora/>

This link is to the report and recommendation of the Hearing Commissioners on the Proposed Canterbury Land and Water Regional Plan – Variation 1 Selwyn Te Waihora in April 2015.

Lake Ellesmere (Te Waihora) is a coastal lake in Canterbury that, together with the lower reaches of the contributing catchment rivers and streams, has poor ecological health. Te Waihora and its surrounds have high cultural significance, and agriculture in the catchment is the mainstay of the economy. The Commissioners considered submissions to a variation to the Canterbury Land and Water Plan for the Selwyn River catchment including Te Waihora in April 2015 in terms of the various RMA provisions and relevant national policy statements, including Policy 21 of the NZCPS 2010. This plan change was then made operative on 1 February 2016.

In implementing Variation 1, Environment Canterbury is working with the Papatipu Rūnanga to enhance water quality in Te Waihora.

### ***Environment Southland – Waituna Lagoon: closed to the sea***

[www.es.govt.nz/environment/land/wetlands/waituna-lagoon/](http://www.es.govt.nz/environment/land/wetlands/waituna-lagoon/)

The Waituna Lagoon forms part of an internationally recognised and culturally important wetland that remains relatively unmodified. The water quality in the lagoon is under stress from excess nutrient and sediment runoff from the surrounding catchment. A multi-agency programme of physical works, individual advice to landowners and assistance to community restoration groups is being implemented.

## ***Resources***

### **Reports, websites and additional information**

#### ***Convention on Biological Diversity***

The following websites and reports may be helpful in determining the significance of any adverse effects on ecosystems and natural habitats.

- Marine and coastal biodiversity. <http://www.cbd.int/marine/>
- Ecologically or biologically significant marine areas (EBSAs) brochure (2012). [www.cbd.int/marine/doc/ebsa-brochure-2012-en.pdf](http://www.cbd.int/marine/doc/ebsa-brochure-2012-en.pdf)
- Druel, E. 2012: Ecologically or biologically significant marine areas (EBSAs): the identification process under the Convention on Biological Diversity (CBD) and possible ways forward. Working Paper No.17/12 (Biodiversity). Institut du développement durable et des relations internationales, Paris. 22 p. [www.iddri.org/Themes/Biodiversite-et-ressources-naturelles/](http://www.iddri.org/Themes/Biodiversite-et-ressources-naturelles/)

#### ***Parliamentary Commissioner for the Environment***

- Parliamentary Commissioner for the Environment 2012: Water quality in New Zealand – understanding the science. Parliamentary Commissioner for the Environment, Wellington. 93 p. [www.pce.parliament.nz/media/1278/pce-water-quality-in-new-zealand.pdf](http://www.pce.parliament.nz/media/1278/pce-water-quality-in-new-zealand.pdf)

This 2012 report recognises that the science of water quality can be complex and highly technical, and was written to help provide an accessible guide to inform debate and decision-making. While it was written primarily in relation to freshwater quality, many of the science principles are also applicable to coastal water quality.

#### ***Department of Conservation***

- Freshwater Ecosystems geo-database.  
[www.doc.govt.nz/conservation/land-and-freshwater/freshwater/freshwater-ecosystems-of-new-zealand/](http://www.doc.govt.nz/conservation/land-and-freshwater/freshwater/freshwater-ecosystems-of-new-zealand/)

This Freshwater Ecosystems of New Zealand (FENZ) geo-database provides an independent, national representation of the biodiversity values and pressures on New Zealand's rivers, lakes and wetlands.

- Our Estuaries  
[www.doc.govt.nz/estuaries](http://www.doc.govt.nz/estuaries)

'Our Estuaries' is an internet hub that connects people and organisations who are monitoring and protecting estuaries throughout New Zealand. As well as promoting and raising awareness of the importance of estuaries, the website provides technical information, updates on estuary monitoring, information on restoration projects and case studies. This web-based resource includes three interactive maps that highlight the opportunities for people to explore estuaries and provide a nationwide overview of the sites where management agencies and local estuary care groups are active.

### ***Ministry for the Environment***

- Ministry for the Environment 2017: A Guide to the National Policy Statement for Freshwater Management 2014 (as amended 2017). Ministry for the Environment, Wellington. 98 p.  
[www.mfe.govt.nz/publications/fresh-water/guide-national-policy-statement-freshwater-management-2014](http://www.mfe.govt.nz/publications/fresh-water/guide-national-policy-statement-freshwater-management-2014)
- Ministry for the Environment Clean Water Reform Package 2017.  
[www.mfe.govt.nz/fresh-water/freshwater-management-reforms/clean-water-package-2017](http://www.mfe.govt.nz/fresh-water/freshwater-management-reforms/clean-water-package-2017)
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000).  
[www.mfe.govt.nz/publications/water/anzecc-water-quality-guide-02/anzecc-water-quality-guide-02-pdfs.html](http://www.mfe.govt.nz/publications/water/anzecc-water-quality-guide-02/anzecc-water-quality-guide-02-pdfs.html)
- Ministry for the Environment 2003: Microbiological water quality guidelines for marine and freshwater recreational areas. Ministry for the Environment, Wellington. 159 p.  
[www.mfe.govt.nz/publications/fresh-water/microbiological-water-quality-guidelines-marine-and-freshwater-0](http://www.mfe.govt.nz/publications/fresh-water/microbiological-water-quality-guidelines-marine-and-freshwater-0)
- Tipa, G.; Teirney, L. 2006: A Cultural Health Index for streams and waterways: a tool for nationwide use. Ministry for the Environment, Wellington. 54 p.  
[www.mfe.govt.nz/sites/default/files/cultural-health-index-for-streams-and-waterways-tech-report-apr06.pdf](http://www.mfe.govt.nz/sites/default/files/cultural-health-index-for-streams-and-waterways-tech-report-apr06.pdf)

### ***Ministry for Primary Industries***

- Morrison, M.A.; Lowe, M.L.; Parsons, D.M.; Usmar, N.R.; McLeod, I.M. 2009: A review of land-based effects on coastal fisheries and supporting biodiversity in New Zealand. *New Zealand Aquatic Environment and Biodiversity Report No. 37*. Ministry of Fisheries, Wellington. 100 p.  
[www.fish.govt.nz/en-nz/Environmental/Land-based+Effects+on+Fisheries+and+Ecosystems/NIWA+review+of+land-based+effects+on+coastal+fisheries+and+ecosystems.htm?WBCMODE=PresentationUnpublished%252c](http://www.fish.govt.nz/en-nz/Environmental/Land-based+Effects+on+Fisheries+and+Ecosystems/NIWA+review+of+land-based+effects+on+coastal+fisheries+and+ecosystems.htm?WBCMODE=PresentationUnpublished%252c)

### ***Greater Wellington Regional Council***

- Managing stock access to waterways in the Wellington region.  
<http://www.gw.govt.nz/assets/Our-Environment/Land%20and%20soil/WGNDOCS-962755-v1-ManagingStockAccesstoWaterwaysintheWellingtonregion-FINAL.PDF>

These guidelines were produced by Greater Wellington Regional Council, in association with Federated Farmers, DairyNZ, the New Zealand Deer Farmers Association and Fonterra, to assist farmers in managing stock access to water bodies that run through their properties. It provides a range of management options for protecting and improving water quality.

### ***The former Auckland Regional Council (now Auckland Council)***

- Auckland Regional Council 2004: Blueprint for monitoring urban receiving environments. *Technical Publication No. 168 revised edition*. Auckland Regional Council, Auckland. 66 p.  
[www.aucklandcity.govt.nz/council/documents/technicalpublications/TP168%20Blueprint%20for%20monitoring%20urban%20receiving%20environment%20-%20revised%20edition%20Aug%202004.pdf](http://www.aucklandcity.govt.nz/council/documents/technicalpublications/TP168%20Blueprint%20for%20monitoring%20urban%20receiving%20environment%20-%20revised%20edition%20Aug%202004.pdf)

### ***Cawthron Institute***

- Robertson, B.; Gillespie, P.; Asher, R.; Frisk, S.; Keeley, N.; Hopkins, G.; Thompson, S.; Tuckey, B. 2002: Estuarine environmental assessment and monitoring: a national protocol. Part C: Application of the Estuarine Monitoring Protocol. Cawthron Institute, Nelson. 40 p.  
[http://docs.niwa.co.nz/library/public/EMP\\_part\\_c.pdf](http://docs.niwa.co.nz/library/public/EMP_part_c.pdf)

## ***National Institute of Water & Atmospheric Research (NIWA)***

- Kaitiaki tools.  
[www.niwa.co.nz/our-science/freshwater/tools/kaitiaki\\_tools](http://www.niwa.co.nz/our-science/freshwater/tools/kaitiaki_tools)

This is a store of knowledge for people who manage natural resources. It contains information about the environmental impacts of different kinds of land use and industries, and how these will affect water quality and mahinga kai. It also helps people to apply this information to the resource consent process.

## ***Community initiatives***

- Whaingaroa Harbour Care Group: community initiative to restore a harbour and a fishery.

<https://www.waikatoregion.govt.nz/assets/WRC/Community/Ripple/Community-projects-for-ripple/Whaingaroa-Harbour-Care.pdf>

The Whaingaroa Harbour Care Group is a community response to concerns about degraded water quality in the Whaingaroa Harbour (also known as Raglan Harbour), which has largely resulted from sediment build up from land use activities in the catchment. The Harbour Care Group has worked with the Waitetuna Streamcare Group to undertake extensive planting of coastal and stream margins. This link describes the community response and provides additional links to relevant coastal water quality and water quality monitoring pages on the Waikato Regional Council website.

## *Glossary of terms and definitions*

### **NZCPS 2010 glossary**

**Intertidal zone or area** The landward boundary of the intertidal zone or area is the extreme high water of spring tides, which is the average of the two highest tides at the period of the year when the range of the tides is greatest. The seaward boundary of the intertidal zone or area is the extreme low water of spring tides, which is the average of the two lowest tides at the period of the year when the range of the tides is greatest.

### **Other definitions**

#### **Coastal marine area**

The foreshore, seabed, and coastal water, and the air space above the water –

- (a) Of which the seaward boundary is the outer limits of the territorial sea
- (b) Of which the landward boundary is the line of mean high water springs, except that where that line crosses a river, the landward boundary at that point shall be whichever is the lesser of—
  - (i) One kilometre upstream from the mouth of the river; or
  - (ii) The point upstream that is calculated by multiplying the width of the river mouth by 5.

(Section 2 of the RMA)

#### **Coastal water**

Seawater within the outer limits of the territorial sea and includes—

- (a) Seawater with a substantial fresh water component; and
- (b) Seawater in estuaries, fiords, inlets, harbours, or embayments.

(Section 2 of the RMA)

**Fresh water** All water except coastal water and geothermal water (section 2 of the RMA).

**Lake** A body of fresh water that is entirely or nearly entirely surrounded by land (adapted from section 2 of the RMA).

**Mauri** The life principle, special nature, a material symbol of a life principle (Māori Dictionary<sup>48</sup>).

**Riparian margins** Strips of land along the edges of natural watercourses, including streams, lakes and wetlands (Quality Planning website<sup>49</sup>).

**River** A continually or intermittently flowing body of fresh water. This includes streams and modified watercourses but does not include artificial watercourses (such as irrigation canals, water supply races, canals for the supply of water for electricity generation and farm drainage canals) (adapted from section 2 of the RMA).

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<sup>48</sup> <https://maoridictionary.co.nz/>

<sup>49</sup> <http://qualityplanning.org.nz/index.php/node/737>

**Taonga** Property, goods, possessions, effects, treasure, something prized (Māori Dictionary).

**Wāhi tapu** A place that is sacred to Māori in the traditional, spiritual, religious, ritual or mythological sense (adapted from section 2 of the Historic Places Act 1993). This can be tangible or intangible, and each iwi, hapū or whanau determines what wāhi tapu means to them.

**Water**

- (a) Means water in all its physical forms whether flowing or not and whether over or under the ground;
- (b) Includes fresh water, coastal water, and geothermal water;
- (c) Does not include water in any form while in any pipe, tank, or cistern

(Section 2 of the RMA).

**Water body** Fresh 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 (adapted from section 2 of the RMA).

[Note: The RMA definition only relates to a freshwater water body.]

**Wetland** Permanently or intermittently wet areas, shallow waters and land water margins that support natural ecosystems of plants and animals than are adapted to wet conditions (adapted from section 2 of the RMA).

## ***Appendix 1***

### **RMA Schedule 3: Water quality classes**

Note 1: The standards listed for each class apply after reasonable mixing of any contaminant or water with the receiving water and disregard the effect of any natural perturbations that may affect the water body (refer section 69 of the RMA).

Note 2: In accordance with section 69(4) of the RMA, Schedule 3 is no longer applicable to fresh water. Section 69(4) was inserted on 19 April 2017 under section 57 of the Resource Legislation Amendment Act 2017.

#### **1 Class AE Water (being water managed for aquatic ecosystem purposes)**

- (1) The natural temperature of the water shall not be changed by more than 3° Celsius.
- (2) The following shall not be allowed if they have an adverse effect on aquatic life:
  - (a) Any pH change;
  - (b) Any increase in the deposition of matter on the bed of the water body or coastal water;
  - (c) Any discharge of a contaminant into the water.
- (3) The concentration of dissolved oxygen shall exceed 80% of saturation concentration.
- (4) There shall be no undesirable biological growths as a result of any discharge of a contaminant into the water.

#### **2 Class F Water (being water managed for fishery purposes)**

- (1) The natural temperature of the water—
  - (a) Shall not be changed by more than 3° Celsius; and
  - (b) Shall not exceed 25° Celsius.
- (2) The concentration of dissolved oxygen shall exceed 80% of saturation concentration.
- (3) Fish shall not be rendered unsuitable for human consumption by the presence of contaminants.

#### **3 Class FS Water (being water managed for fish spawning purposes)**

- (1) The natural temperature of the water shall not be changed by more than 3° Celsius. The temperature of the water shall not adversely affect the spawning of the specified fish species during the spawning season.
- (2) The concentration of dissolved oxygen shall exceed 80% of saturation concentration.
- (3) There shall be no undesirable biological growths as a result of any discharge of a contaminant into the water.

#### **4 Class SG Water (being water managed for the gathering or cultivating of shellfish for human consumption)**

- (1) The natural temperature of the water shall not be changed by more than 3° Celsius.



- (2) The concentration of dissolved oxygen shall exceed 80% of saturation concentration.
- (3) Aquatic organisms shall not be rendered unsuitable for human consumption by the presence of contaminants.

**5 Class CR Water (being water managed for contact recreation purposes)**

- (1) The visual clarity of the water shall not be so low as to be unsuitable for bathing.
- (2) The water shall not be rendered unsuitable for bathing by the presence of contaminants.
- (3) There shall be no undesirable biological growths as a result of any discharge of a contaminant into the water.

**6 Class WS Water (being water managed for water supply purposes)**

- (1) The pH of surface waters shall be within the range 6.0–9.0 units.
- (2) The concentration of dissolved oxygen in surface waters shall exceed 5 grams per cubic metre.
- (3) The water shall not be rendered unsuitable for treatment (equivalent to coagulation, filtration, and disinfection) for human consumption by the presence of contaminants.
- (4) The water shall not be tainted or contaminated so as to make it unpalatable or unsuitable for consumption by humans after treatment (equivalent to coagulation, filtration, and disinfection), or unsuitable for irrigation.
- (5) There shall be no undesirable biological growths as a result of any discharge of a contaminant into the water.

**7 Class I Water (being water managed for irrigation purposes)**

- (1) The water shall not be tainted or contaminated so as to make it unsuitable for the irrigation of crops growing or likely to be grown in the area to be irrigated.
- (2) There shall be no undesirable biological growths as a result of any discharge of a contaminant into the water.

**8 Class IA Water (being water managed for industrial abstraction)**

- (1) The quality of the water shall not be altered in those characteristics which have a direct bearing upon its suitability for the specified industrial abstraction.
- (2) There shall be no undesirable biological growths as a result of any discharge of a contaminant into the water.

**9 Class NS Water (being water managed in its natural state)**

The natural quality of the water shall not be altered.

**10 Class A Water (being water managed for aesthetic purposes)**

The quality of the water shall not be altered in those characteristics which have a direct bearing upon the specified aesthetic values.

**11 Class C Water (being water managed for cultural purposes)**

The quality of the water shall not be altered in those characteristics which have a direct bearing upon the specified cultural or spiritual values.