Environment Committee Meeting

24 November 2022

This Report relates to Item 9 in the Agenda

“Section 32 Report – Variation 2 – Ecologically Significant Marine Sites”

File Reference: M100-11-07

Proposed Marlborough Environment Plan

Proposed Variation No. 2: Ecologically Significant Marine Sites

Report prepared by Louise Walker and Emma Toy to fulfil the requirements of Section 32 of the Resource Management Act 1991

MARLBOROUGH DISTRICT COUNCIL

Contents

Overview

Introduction

1. This report provides an evaluation of Marlborough District Council's proposal to make changes to the Proposed Marlborough Environment Plan (PMEP) through the inclusion of new ecologically significant marine sites (ESMS) and boundary adjustments to some existing ESMS in the Marlborough Sounds.
2. The purpose of the variation is to:
    - Add 64 new significant sites where they have been identified through Council's significant marine site survey and monitoring programme;
    - Adjust the spatial boundaries of 44 existing sites and subsites;
    - Amend the category status of one existing sites where no change is made to the site boundary;
    - Add ESMS 5.5: Hitaua Bay to standard 16.3.16.1, placing a restriction on the take and use of coastal water;
    - Add new sites to Appendix 27 of Volume 3 as applicable (as required by their category rating).
3. There are no proposed changes to the objectives and policies of the PMEP for ecologically significant marine sites, therefore there is no detailed evaluation of effectiveness and efficiency included in this report.
4. The ESMS inclusions sought have been recommended by an expert panel based on their review of evidence from the Council's significant marine site survey and monitoring programme undertaken between 2016 and 2021. The purpose of adding the newly identified sites, adjusting the spatial boundaries and amending categories in the PMEP is to provide for the protection of these significant sites as a matter of national importance in accordance with Section 6(c) of the Resource Management Act 1991 (RMA) and to give effect to Policy 11 of the NZCPS.
5. The evaluation process pursuant to Section 32 of the Resource Management Act 1991 supports transparent and evidence-based decision making, with all assumptions and decisions being justified and well documented.
6. Section 32[1] of the RMA requires that:
    - reviewed regional policy statements and plans must be examined for their appropriateness in achieving the purpose of the RMA;
    - the benefits, costs and risks of new policies and rules on the community, the economy and the environment be clearly identified and assessed; and
    - the written evaluation must be made available for public inspection.

[1] See Appendix A.

7. The Section 32 process is intended to ensure that the objectives, policies and methods the Council decides to include in the new resource management framework have been well-tested against the sustainable management purpose of the RMA.
8. This evaluation report relating to ecologically significant marine sites is set out as follows:

    - Background
    - Summary of Key Changes
    - Summary of Reasons for the Proposed Changes
    - Description of issues – an overview of the resource management issues concerning ecologically significant marine sites.
    - Statutory obligations – the extent to which there are direct links with Section 6 or 7 matters and whether the provisions are directed or influenced by national policy statements or national environmental standards.
    - Information and analysis – specific projects, investigations or other information that have influenced the inclusion of provisions or other responses to dealing with resource management issues.
    - Consultation – an overview of the extent and nature of specific consultation undertaken on the proposed provisions.
    - Option Evaluation – an assessment of the issues and options identified in the report.

Background

9. Marlborough's extensive coastline supports a diverse marine environment with habitats ranging from exposed rocky shores and tidal passages to sheltered sandy bays and estuarine environments. The coastal environment is affected by a wide range of physical and biological processes such as tidal currents, wave energy water clarity, substratum and temperature. This makes it one of the most interesting coastal areas in New Zealand, and enables it to support a high level of biodiversity of indigenous plant and animal life.
10. However, as identified in Issue 8A of the PMEP, there has been a reduction in the extent and condition of indigenous biodiversity in Marlborough over time. The ecologically significant marine sites include habitats and species that are fragile and susceptible to damage and can be adversely affected by both land and water-based activities. Some of the issues and threats identified[2] include land clearance and sedimentation, discarded rubbish, bottom towed devices and anchoring, infilling and reclamation, fencing and stock (particularly on estuarine environments), exotic species, pollution and enrichment, shipping and boating, marine farming, commercial and recreational set-netting, and predators (such as ship rats) colonising islands.

[2] Davidson RJ, Duffy CAJ, Gaze P, Baxter A, DuFresne S, Courtney S, Hamill P. 2011. Ecologically significant marine sites in Marlborough, New Zealand. Co-ordinated by Davidson Environmental Limited for Marlborough District Council and Department of Conservation.

11. In promoting the sustainable management of natural and physical resources, the RMA requires the Council to recognise and provide for the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna as a matter of national importance (Part 2, Section 6 (c)). The protection of these values, whether on land, in freshwater or coastal environments also helps to achieve other matters of national importance, including landscape and natural character values and historic heritage.

Proposed Marlborough Environment Plan – Other concurrent processes

Appeals on the proposed plan

12. The proposed Marlborough Environment Plan (PMEP) is a combined regional policy statement, regional plan, regional coastal plan and district plan. After hearings were held on the content of the proposed plan in 2018-2019, the PMEP Hearing Panel issued a decision in February 2020. Appeals were received on the decision and these are currently being processed by the Environment Court. As the PMEP is under appeal it does not hold an operative status.
13. Several objectives and policies in Volume 1, Chapter 8: Indigenous Biodiversity of the PMEP that make up the policy framework for ESMS are still under appeal, managing activities within ESMS boundaries and their buffers. Volume 3, Appendix 3: Ecological Significance Criteria for terrestrial, wetland, freshwater and marine environments is also under appeal. The appealed status effects the weighting provisions can be afforded.
14. Policies 8.1.1 to 8.1.3 in the PMEP set out the criteria used for determining significance, how the areas will be identified in the plan and managed by Council, and why and how Council will continue to survey and monitor the sites for biodiversity values. The significance criteria are further explained in Volume 3, Appendix 3 of the PMEP and future sites will be assessed using the criteria set out there. The Appendix 3 criteria is attached to this report in Appendix D - along with the objectives, policies and rules specifically relating to ecologically significant marine sites in Appendix C.

Variation 1: Marine Farming and Variation 1A: FinFish Farming

15. Compared to Variation 2: ESMS, Variation 1: Marine Farming and Variation 1A: FinFish Farming are both further through their respective variation processes with a hearing having already been held in November 2021. The ESMS variation was not notified during the evidence gathering phase of the variation 1 and 1A process. However, having been identified as ecologically significant through the ESMS programme, the sites that form part of the ESMS variation hold status in terms of the requirement to avoid significant adverse effects of activities and avoid, remedy or mitigate other adverse effects of activities as required by Policy 11, NZCPS. Therefore when the spatial allocation of areas appropriate for marine farming (Aquaculture Management Areas) was proposed as part of Variation 1, the ESMS were considered, and marine farm overlaps removed. Since Variation 1 and 1A were notified, some boundary adjustments have been recommended that will cause additional overlap not previously considered. It is further noted that a decision has not yet been issued on either variation but are likely to issue before the end of the year.

Ecologically Significant Marine Site Programme

16. Council has supported the programme for surveying of marine sites within the Marlborough region since 2010[3]. Identification of specific ecologically significant marine sites in Marlborough was first undertaken in 2011 as part of the Council's responsibilities under Section 6 (a) and (c) of the RMA. The criteria for these inclusions is set out in the 2011 report[4]. A total of 129 sites of biological significance were identified in the area from Cape Soucis (Croisilles Harbour) through the Marlborough Sounds and down the east coast of Marlborough[5]. A subsequent survey of selected sites in 2014/15 saw a reduction in the overall area of significant sites and the remaining areas were then mapped in Volume 4 of the PMEP as part of the notified version of the plan.

17. A survey and monitoring programme of Marlborough's significant marine sites was later established in 2014/15 by Marlborough District Council and the Department of Conservation. The protocols and process for the monitoring programme were devised on guidance from Davidson et al[6], as well as a protocol for receiving and assessing new sites of significance[7].

18. The programme collects data on biodiversity values at significant sites using a detailed range of survey protocols including techniques suited for rapid reconnaissance (i.e. qualitative descriptions) and techniques suitable for monitoring (i.e. quantitative and certain qualitative data) (Davidson *et al.,* 2014)[8]. Significant sites selected each year for investigation are chosen by a panel of expert ecologists (the Expert Panel) who prioritise sites on the basis that they:

    - Have limited or old biological information

---

[3] Davidson R, Duffy C, Gaze P, Baxter A, du Fresne S, Courtney S, Hamill P 2014. Ecologically significant marine sites in Marlborough: recommended protocols for survey and status monitoring. Prepared by Davidson Environmental Limited for Marlborough District Council and Department of Conservation (CM14147713).

[4] Davidson RJ, Duffy CAJ, Gaze P, Baxter A, DuFresne S, Courtney S, Hamill P. 2011. Ecologically significant marine sites in Marlborough, New Zealand. Co-ordinated by Davidson Environmental Limited for Marlborough District Council and Department of Conservation.

[5] Davidson RJ; Duffy CAJ; Baxter A; DuFresne S; Courtney S; Hamill P. (September 2011). *Ecologically significant marine sites in Marlborough, New Zealand.* Coordinated by Davidson Environmental Limited for Marlborough District Council and Department of Conservation.

[6] Davidson et al, 2014.

[7] Rob Davidson, Clinton Duffy, Peter Gaze, Andrew Baxter, Sam DuFresne, Shannel Courtney, Peter Hamill. 2013. Ecologically significant marine sites in Marlborough: protocol for receiving and assessing new sites and reassessing existing sites. Research, survey and monitoring report number 768.

[8] Davidson, R. J;1 Baxter, A. S;2 Duffy, C. A. J;2 Handley, S;5 Gaze, P;4; du Fresne, S;3 Courtney, S.2 2019. Expert panel review of selected significant marine sites surveyed in 2018-2019. Prepared for Marlborough District Council and Department of Conservation. Survey and monitoring report no. 972.

- Are areas where additional information is needed for management purposes
- Are under threat or vulnerable to impacts
- Are suitable for monitoring
- May contain significant undocumented values[9].

19. The results of the surveys are reviewed by the Expert Panel who then make decisions on the significance of the sites based on criteria, as set out in expert panel reports. Those sites that qualify as ESMS are then rated for susceptibility to benthic disturbance (category rating) and potential for threats to the benthos (buffer rating). These reports are placed before the Marlborough District Council Environment Committee (now the Environment and Planning Committee) who receive the information. The identification of sites as ESMS then triggers policy in Chapter 8 of the PMEP requiring site protection.

20. The additional information provided by the survey and monitoring programme enables Council to review details providing a baseline for monitoring. This is important for understanding the extent and health of the coastal environment over time, assessing the impact on biodiversity values from various activities, and in assisting decision making on resource consent or variation/plan change applications. Surveying has continued to identify some degradation of biodiversity values at specific sites that is likely caused by anthropogenic activity such as trawling, dredging, drop anchor damage from recreational fishing, marine farming, and from sedimentation for example.[10]

21. There have been 7 monitoring surveys undertaken since the adoption of the programme:

    Year 1: 2014-2015, 21 sites and sub-sites in eastern Marlborough Sounds.

    Year 2: 2015-2016, 15 sites, subsites in Croisilles Harbour and D'Urville Island

    Year 3: 2016-2017, 15 sites, subsites Croisilles to Waitui Bay, outer Sounds

    Year 4: 2017-2018, 14 sites in central Pelorus Sound

    Year 5: 2018-2019, 11 sites in Pelorus, Tory Channel and Catherine Cove

    Year 6: 2019-2020, 18 sites, subsites in QCS, Tory Channel and Port Underwood.

    Year 7: 2020-2021, 11 sites in Port Underwood, Queen Charlotte Sound and Pelorus Sound

22. The findings from the Year 1 and 2 surveys have been mapped in the PMEP.

23. The five subsequent surveys (Years 3, 4, 5, 6 and 7) form the basis of this variation. They provide more accurate, detailed and up to date data on the extent and composition of the sites surveyed than has previously been available. To enable better protection of the life-supporting habitats and diversity of flora and fauna within these areas, the survey reports recommended boundary modifications for some sites, and the addition

[9] Davidson, et al., 2019

[10] Davidson RJ, Richards LA. 2015. Significant marine site survey and monitoring programme: summary 2014-2015. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 819.

of new significant sites. The Expert Panel have reviewed the recommendations and confirmed the sites which meet the criteria for significance.

Category Rating and Buffer Zones

24. All ESMS are categorised to identify the vulnerability to benthic damage. Category A to C are defined as follows:

> *Category A: Very sensitive: Site supports species, habitats or communities that cannot tolerate anthropogenic impacts (e.g. nutrient enrichment, sedimentation, pollution, colonisation by invasive species, anchoring, all forms of trawling and dredging). (Rating 100)*
>
> *Category B: Sensitive: Site supports species, habitats or communities that can tolerate low level of elevated turbidity, enrichment, invasive species or pollution. Can tolerate low-level anthropogenic seabed disturbance due to the nature of the substrata, community, species and/or hydrodynamic regimes (i.e. tolerant of occasional recreational anchoring). Not tolerant of dredging and trawling. (Rating 50)*
>
> *Category C: Robust and/or not known: Site supports species, habitats or communities that can tolerate high turbidity, enrichment, pollution or invasive species; and/or site not known to support sensitive or very sensitive attributes. Can be tolerant of anchoring, dredging and trawling. (Rating 0)*

25. The methodology to establish the categories and the category descriptions are set out in the November 2015 Davidson et al report[11].

26. The rating associated with each category is then used to calculate a 'buffer zone' in conjunction with a 'threat multiplier'. (Rating x multiplier = buffer distance).

27. The two threat multipliers are:

> *Physical disturbance: offshore, and/or sites accessible to dredging and/or trawling. Other: sites exposed or near threats (i.e. source of sediment, near human development, regularly human activity). (Multiplier x2)*
>
> *Physical disturbance: sites close to shore and/or protected by physical barriers or legislation (e.g. reef structure, marine reserve). Other: sites well removed from threats or located at remote locations. (Multiplier x1)*

28. The buffers have been implemented in recognition of the vulnerability of the habitat and the potential negative impacts on the ESMS from activities conducted in the surrounding coastal marine area. Those activities cannot necessarily be undertaken in a precise manner to avoid the adverse effects of seabed disturbance, particularly

[11] Davidson, R. J.; Baxter, A. S.; Duffy, C. A. J.; Gaze, P.; du Fresne, S.; Courtney, S.; Brosnan, B. 2015. Reassessment of selected significant marine sites (2014-2015) and evaluation of protection requirements for significant sites with benthic values. Prepared by Davidson Environmental Limited for Marlborough District Council and Department of Conservation. Survey and monitoring report no. 824.

given the physical separation between the sea surface and seabed. In these circumstances, a buffer represents a precautionary approach to the protection of the Ecologically Significant Marine Sites.

29. Appendix 27, Volume 3 provides a list of all category A and B sites, along with the width of their associated buffer zone. Rules (Volume 2) then reference the category/buffer zones in the appendix as a mechanism to manage activities at those sites[12].

King Shag

30. While the bulk of the proposed changes to ESMS were identified through the survey and monitoring reports and confirmed by the expert panel, three king shag roosting sites were identified through a different process. As the expertise of the expert panel for ESMS is focused on the area from mean high water springs and below, consideration of a terrestrial site would not be suitable to progress through that group.

31. A panel with expertise in birds considered the three sites and confirmed their status as ESMS. The memorandum confirming this information is available via Council's hearings portal, accessible through Council's website.

Summary of key changes

32. The key changes proposed are as identified through Council's significant marine site survey and monitoring programme and listed below:

- Add 64 new significant sites;
- Adjust the spatial boundaries of 44 existing sites and subsites;
- Amend the category status of one existing sites where no change is made to the site boundary;
- Add ESMS 5.5: Hitaua Bay to standard 16.3.16.1, placing a restriction on the take and use of coastal water;
- Add new sites to Appendix 27 of Volume 3 as applicable (as required by their category rating);

33. As mentioned previously, the new sites and boundary adjustments have been identified through survey and monitoring undertaken between 2016 and 2021 by Davidson Environmental Limited with recommendations being provided to an Expert Panel to review.

34. A table listing the new sites, boundary adjustments and category/buffer changes is attached as Appendix B to this report.

35. Volume 4 mapping of the spatial extent of the existing ESMS is available via Smartmaps on Councils website, labelled Environment Plan - Overlays. The sites that form part of this variation will be on display through a specific map labelled Variation 2: Ecologically Significant Marine Sites during the Schedule 1 notification and hearing process. The decision reached by the panel hearing the variation will determine what sites are

[12] See Appendix C for a full list of provisions

incorporated in the plan. These sites will then be shifted from the temporary variation map to the main PMEP overlay map.

Boundary Adjustments

36. Boundary adjustments are necessitated by the dynamic nature of the species found at the site. The extent of the sites can be affected by a number of factors including species growth, disturbance, environmental factors and survey techniques used to identify them.

37. The first identification of ESMSs came out of the publication of the Davidson et al report[13] ('the 2011 Report'). Since the 2011 Report, the boundaries of some sites have changed and re-inspection of sites has led to amendments being required to the boundaries in order to adequately protect the species or habitats identified there. A number of the sites have also seen category rating changes. Further information on the site changes and the reasons for these are available in the relevant survey and monitoring and the Expert Panel reports.

Establish New Sites and Subsites

38. As mentioned above, the initial ESMSs were established as an outcome from the 2011 Report. Since then, annual survey and monitoring of sites has been completed. Due to the size of the Marlborough Sounds, the Expert Panel identify sites/areas for inspection for each yearly cycle. Sites identified before the 2014/2015 survey report were included in the PMEP as part of that Schedule 1, RMA process. No additional sites have been added to the PMEP since. The proposed new sites are those identified as meeting the criteria as outlined in the relevant significant marine sites expert panel report as a result of the yearly survey and monitoring reported between 2016-2017 to 2020-2021.

39. The relevant monitoring reports and the subsequent Expert Panel reviews that have informed the sites for inclusion in the plan are listed below and are available for viewing on the Council's hearings portal under the Variation 2 link[14].

2016-2017

- Expert panel review of selected significant marine sites surveyed in 2016-2017 Research, survey and monitoring report number 867.
    - Significant marine site survey and monitoring programme (survey 3): Summary report 2016-2017 Research, survey and monitoring report number 859.
    - Benthic biological survey of central and south-eastern tory Channel, Marlborough Sounds, June 2017. Survey and monitoring report no. 857. (Prepared for New Zealand King Salmon Limited)

[13] Davidson RJ; Duffy CAJ; Baxter A; DuFresne S; Courtney S; Hamill P. (September 2011). *Ecologically significant marine sites in Marlborough, New Zealand.* Coordinated by Davidson Environmental Limited for Marlborough District Council and Department of Conservation.

[14] https://eservices.marlborough.govt.nz/programmes

2017-2018

- Expert panel review of selected significant marine sites surveyed in 2017-2018, September 2018. Survey and monitoring report no. 897.
    - Significant marine sites survey and monitoring programme (survey 4): Summary report 2017-2018, June 2018. Survey and monitoring report number 878.

2018-2019

- Expert panel review of selected significant marine sites surveyed during the summer of 2018-2019, January 2020. Research, survey and monitoring report number 1008.
    - Significant marine site survey and monitoring programme (survey 5): Summary report 2018-2019, June 2019. Survey and monitoring report number 943.

2019-2020

- Expert panel review of selected significant marine sites surveyed during the summer of 2019-2020, October 2020. Research, survey and monitoring report number 1064.
    - Significant marine site survey and monitoring programme (survey 6): Summary report 2019-2020, July 2020. Research, survey and monitoring report number 1023.

2020-2021

- Significant marine site survey number 7 and the expert panel review (2020-2021). Research, survey and monitoring report number 1089.

Buffer changes to existing sites

40. One site was identified that did not require a category change but no adjustment required to the boundary. The site was as having species more susceptible to seabed disturbance than initially considered. It is proposed that this site is upgraded to provide a more substantial buffer to the site.

Provision amendment

41. Standard 16.3.16.1 currently lists 14 ESMSs restricting the taking of coastal water within the ESMS boundary. These sites have been specifically identified in the standard as they are estuary sites that are vulnerable to this type of activity. ESMS 5.5 Hitaua Bay is an estuary and would require similar protection.

Summary of reasons for the proposed changes

42. Section 32(1)(b)(iii) requires a summary of the reasons for deciding on the changes included in the PMEP.

Identifying significant sites

43. Section 6(c) of the RMA identifies the 'protection of significant indigenous vegetation and significant habitats of indigenous fauna' as a matter of national importance. In order to achieve this, sites need to be identified as significant. The Significant Marine Site Survey and Monitoring Programme is the process through which the sites are investigated and identified. Although these sites are provided with a level of protection through Policy 11 of the NZCPS, the inclusion of ESMSs in the PMEP is the mechanism through which the plan provisions provide protection through policy direction and the imposition of rules and standards.

Improved knowledge about significant sites

44. The changes sought to the existing significant marine sites mapped in the PMEP are based on new and better quality information about the biodiversity values at those sites provided through the Marlborough District Council's significant marine site survey and monitoring programme. There are three primary reasons for boundary adjustments and the addition of new subsites:

    a) The size and/or biodiversity values at a particular site have increased or decreased over time as shown by survey data;

    b) The area of significance is shown to be greater or smaller than first thought due to better quality data obtained through surveying; and

    c) New subsites with significant biodiversity values have been identified through surveying.

    All of the sites for which boundary adjustments are being sought and the newly identified sites and subsites have been assessed by the Expert Panel as significant. At the same time they also assessed the ratings against the criteria and amended these were applicable. These were reported to the Council through the Environment Committee.

Managing the effects of use on significant sites

45. The vulnerability of an ESMS has been assessed based on a criteria defined by the Expert Panel.

46. Buffers have been applied to sites that are deemed to be more vulnerable to benthic damage and disturbance. The buffers are a tool to ensure activities that are known to disturb the seabed, such as dredging and trawling, do not adversely affect the sites. This is both through direct affect, e.g. accidentally entering the ESMS boundary and indirectly, through the maintenance of the surrounding benthic habitat.

Ongoing monitoring

47. As the species and habitats that form the basis for the ESMSs are constantly changing as a result of both anthropogenic activities and natural processes, there is a need to repeatedly collect and review information to build Council's knowledge and to monitor the sites over time to understand the potential impacts. The inclusion in the plan requires ongoing protection and enhancement of the sites through policies and methods.

Description of issues

48. Marlborough's marine environment has experienced degradation of biodiversity values from anthropogenic activities and disturbance. In the 2014/15 survey report the author states that 'Marlborough's significant marine sites are the remnants of much larger areas, however, based on the present investigation of 21 sites and sub-sites it is clear that these sites are being degraded or lost at an alarming rate'.[15]

49. One fundament issue relating to ecologically significant marine sites is either inaccurate identification of site boundaries or not identifying sites at all. There is a number of statutory obligations as well as restrictions in the management framework at a regional level that are associated with ESMS. And while there are avoidance measures for significant biodiversity and their habitat, if coastal marine users are unaware of locations there is a much higher risk of destructive activities occurring at those sites.

50. Mapping the significant sites and providing the maps as an overlay in Volume 4 of the PMEP is deemed to be the most accurate and efficient way of recording and demonstrating sites of significant status. It provides a clear visual boundary for assessing resource consent applications and decisions on use and activity, therefore ensuring the boundaries are as accurate as possible should result in better ecological outcomes

51. In a more holistic consideration of indigenous biodiversity, the PMEP identifies the issues that determine the breadth of provisions in the plan. One specific issue, Issue 8A, identifies the concerns surrounding indigenous biodiversity, these being the decline or loss of species, adverse effects of anthropogenic activities, and biosecurity threats. The vast majority of ESMSs proposed to be included in the plan are to protect indigenous species with a few which protect non-indigenous habitats which promote indigenous species.

52. The PMEP recognises that despite the original diversity and uniqueness of Marlborough's biodiversity and natural areas, human activities have had a severe impact on Marlborough's sensitive landscape and ecosystems. Issue 8A, *A reduction in the extent and condition of indigenous biodiversity in Marlborough,* draws attention to this fundamental issue. A continuation of past trends will result in further loss of or deterioration in the condition of Marlborough's indigenous biological heritage. For Marlborough's tangata whenua iwi, this will impact on the mauri of natural resources.

53. The commentary from Issue 8A states:

> *The condition and state of marine biodiversity can be affected by land or water based activities. Adverse impacts can arise from sedimentation, contamination and habitat disturbance. Effects can be temporary, but in particular circumstances can result in permanent loss or damage. Long term or cumulative smaller scale, localised effects from impacts such as contamination and physical disturbance can also have significant effects on the functioning of marine systems. Many activities, such as recreational swimming,*

[15] Davidson RJ, Richards LA. 2015. Significant marine site survey and monitoring programme: summary 2014-2015. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 819.

do not affect or have an impact on marine biodiversity; however, other activities, including shipping (especially large and/or fast ships), reclamations or other coastal structures, marine farming and physical disturbance from certain fishing techniques can affect marine biodiversity.

There are also a variety of marine organisms that can be introduced by transport into our marine environment by ships (including the discharge of ballast water), oil rigs, barges and other boat. Regardless of whether or not these pest organisms are exotic, there is the potential for displacement of native species if the introduced organisms are not kept to a minimum. This could otherwise have a significant impact on Marlborough's indigenous biodiversity[16].

54. Despite the extensive length and physical size of Marlborough's coastline, many marine habitats and species are fragile and vulnerable to impact. The increasing use of the coastal environment for recreational, cultural and commercial activities leads to a corresponding increase in the potential for adverse effects on marine biodiversity. Unfortunately, it is difficult to determine all of the significant marine values due to the size of the area and difficulties associated with surveying subtidal marine areas, although techniques for assessing marine biodiversity are constantly improving and evolving.

55. The inclusion of ESMSs also provide for the maintenance and enhancement of the natural character in the Marlborough Sounds.

56. Natural character describes the degree of naturalness in an area, and includes the natural elements, patterns, processes and experiential attributes of an environment:

Issue 6A – Resource use and changes in resource use can result in the modification of the natural character of the coastal environment, and of lakes, rivers and their margins.

Preservation of natural character is a matter of national importance and there is a real risk that further human-induced modification within coastal or freshwater environments will have adverse effects. This risk is greatest in unmodified environments, as it is more likely that subdivision, use and development will change the existing natural elements, patterns, processes and experiential attributes. As the degree of existing human-induced modification in the coastal or freshwater environment increases, so too does the ability of the environment to assimilate change into the components that contribute to natural character.

57. Issue 8A, the explanatory text under Marine Environments and Issue 6A were under appeal at the time of writing this Section 32 report. However, these provisions give effect to the policies in the NZCPS and although consideration in full cannot be provided to these provisions the intentions are clearly in line with the overarching policy statement.

Statutory obligations

58. The purpose of the Resource Management Act 1991 (RMA) is stated at Section 5 and reads:

[16] Explanatory text under Marine Environments, pg 8-3 Appeals Version of the PMEP

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

(2) In this Act, sustainable management *means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—*

(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

[underlining added for emphasis]

59. The underlined words unmistakeably identify that safeguarding of the life-supporting capacity of ecosystems as a primary purpose of the RMA. While (a) and (c) also relevant to ESMSs they relate more to management rather than protection. The inclusion of ecologically significant marine sites is the mechanism in the PMEP to help give effect to the purpose of the RMA.

60. The maintenance and enhancement of indigenous biodiversity also helps people and communities to provide for their social, economic, and cultural well-being, although the manner in which ESMSs are able to achieve these s5(2) requirements is less obvious or direct. However, its importance should not be underestimated and there is a growing amount of strategic direction driving this concept. For instance, Te Mana o Te Taiao – Aotearoa New Zealand Biodiversity Strategy 2020 at 2.1.1 states:

> *Nature is essential for our livelihoods, health, economic wellbeing and food security. Clean air and water, the food we farm, catch or hunt, and our tourism- and primary industry-based economy all depend on nature. We are also connected with nature through our many different cultures and the places where we live and spend our time, and nature is part of our identity.*

61. Section 6 RMA provides the matters of national importance which are to be recognised and provided for.

> *6(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:*

62. Natural character protection is required both above and below the high tide mark.

> *6(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:*

63. Unlike some of the other matters listed in Section 6, the Section 6(c) wording is without any qualifiers. Its protection is greater than simply managing activities.

64. Other matters listed in Section 7 also have relevance particularly in regard to kaitiakitanga, the ethic of stewardship, the efficient use and development of natural and physical resources, the maintenance and

enhancement of both amenity and the quality of the environment and any finite characteristics of natural and physical resources.

65. Section 8 of the RMA is also relevant and requires the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) to be taken into account.

66. Sections 30 and 31 of the RMA set out a range of statutory functions for the Council that enable it to establish a management framework (Marlborough District Council being a unitary authority) in response to the identified issues.

National Direction

National Policy Statements

67. The National Policy Statement for Indigenous Biodiversity is currently being drafted, has not been finalised and does not have effect.

68. The New Zealand Coastal Policy Statement 2010 (NZCPS) is directly relevant to the inclusion and maintenance of ESMS. While several of the objectives are applicable to ESMS inclusion and site boundary maintenance, Objective 1 has the most relevance.

> ***Objective 1***
> *To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land, by:*
>
> - *maintaining or enhancing natural biological and physical processes in the coastal environment and recognising their dynamic, complex and interdependent nature;*
> - *protecting representative or significant natural ecosystems and sites of biological importance and maintaining the diversity of New Zealand's indigenous coastal flora and fauna; and*
> - *maintaining coastal water quality, and enhancing it where it has deteriorated from what would otherwise be its natural condition, with significant adverse effects on ecology and habitat, because of discharges associated with human activity.*

69. Policy 11 sets out direction on avoidance, remediation or mitigation of adverse effects on specific species and habitats. The complete policy is set out below as the direction provides the statutory backbone to the ESMS programme.

> *a. avoid adverse effects of activities on:*
>
> *i. indigenous taxa that are listed as threatened5 or at risk in the New Zealand Threat Classification System lists;*
>
> *ii. taxa that are listed by the International Union for Conservation of Nature and Natural Resources as threatened;*

iii. *indigenous ecosystems and vegetation types that are threatened in the coastal environment, or are naturally rare;*

iv. *habitats of indigenous species where the species are at the limit of their natural range, or are naturally rare;*

v. *areas containing nationally significant examples of indigenous community types; and*

vi. *areas set aside for full or partial protection of indigenous biological diversity under other legislation; and*

b. *avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on:*

i. *areas of predominantly indigenous vegetation in the coastal environment;*

ii. *habitats in the coastal environment that are important during the vulnerable life stages of indigenous species;*

iii. *indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable*
to modification, including estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass and saltmarsh;

iv. *habitats of indigenous species in the coastal environment that are important for recreational, commercial, traditional or cultural purposes;*

v. *habitats, including areas and routes, important to migratory species; and*

vi. *ecological corridors, and areas important for linking or maintaining biological values identified under this policy.*

70. Policy 6 which provides direction for activities in the coastal environment and Policy 4 which provides for the integrated management of natural and physical resources in the coastal environment, and activities that affect the coastal environment are also relevant.

71. Policy 8: Aquaculture was given regard where there was an overlap between marine farms and proposed ESMS, noting that Policy 11 is worded in such a way to take a higher priority (i.e. avoidance) compared with the recognition of significance for aquaculture in Policy 8.

<u>Te Mana o Te Taiao – Aotearoa New Zealand Biodiversity Strategy and Implementation Plan</u>

72. Te Mana of Te Taiao provides strategic direction on the protection of Aotearoa's indigenous biodiversity. The Implementation Plan for the strategy was published in April 2022 and set out actions required to achieve the strategy's goals. Under Objective 4, *Improved systems for knowledge, science, data and innovation inform our work,* the ecologically significant marine sites of the Marlborough Sounds have been specifically identified as requiring priority action:

Development of a significant natural area framework for the marine environment in the Marlborough Sounds.

73. This action step is accomplished through the Significant Marine Site Survey and Monitoring Programme, the final step of which is plan inclusion in order to provide a restriction on activities in the ESMSs and their buffers, as well as raising public visibility of their locations.

Information and analysis

74. The identification of ecologically significant marine sites in Marlborough was previously undertaken as part of the Council's responsibilities under Section 6(a) and (c) of the RMA. In order to identify the location and composition of significant sites – biological features that have conservation, scientific or ecological value – to ensure their sustainable management and protection into the future. The work undertaken acknowledged that relatively few studies focussed on identifying, surveying and assessing subtidal marine habitats in New Zealand, including those of Marlborough. Therefore, our understanding and knowledge of the coastal marine environment is limited. The assessment of significant sites was based on existing data or known information, but was not comprehensive as many marine areas are unsurveyed or poorly documented, especially below the low tide mark. A total of 129 sites of biological significance were identified in the area, from Cape Soucis (Croisilles Harbour) through the Marlborough Sounds and down the east coast of Marlborough. A subsequent survey of selected sites in 2014/2015 saw a reduction in the overall area of significant sites. Additional sites and areas of significance were included through the PMEP process. The current variation builds on this knowledge and understanding of the benthic environment.

75. A number of investigations and monitoring activities have helped to inform the review of biodiversity values at known significant marine sites and potential significant marine sites. A timeline setting out the full list of these documents commencing from the 2011 Report is attached at Appendix E.

76. A comprehensive literature review in 2016[17] showed the Sounds has experienced a long history of benthic damage and devastation, which has resulted in an ecologically significant decline in biodiversity and ecosystem function.

77. A systematic approach is taken to review the sites and experts employed to review the information. The process for all the proposed sites comprised an initial assessment completed by Davidson Environmental and that included a recommendation for the adoption of sites. The Expert Panel then re-assesses the sites against

[17] Handley S (2016). History of benthic change in Queen Charlotte Sound/Totaranui. Prepared for Marlborough District Council. NIWA Client Report NEL2015-018. https://www.marlborough.govt.nz/environment/coastal/historical-ecosystem-change

the criteria provided in the Expert Panel report and confirms or rejects the inclusion or change to the site in the monitoring programme. The Expert Panel reports summarising the above are then put before the Environment Committee.

Consultation

78. As a part of the previous proposed Marlborough Environment Plan process, engagement was undertaken with the community on the full suite of indigenous biodiversity provisions. Due to the timescale of that process, the consultation occurred in 2006 and therefore was not considered appropriate for consideration in this variation process.

79. As required by Schedule 1, Clause 3, consultation was initiated with relevant ministers of the crown and tangata whenua iwi.

80. The Minister for Oceans and Fisheries responded seeking collaboration and integration of approach with fisheries management to ensure appropriate protections are achieved. This included an:

> *… assessment of the impacts the proposed closures might have on fishers, and how education and enforcement of any new areas might be achieved.*

81. The Minister noted that the regulation of activities causing sedimentation management issues to ESMS should be further considered. However, as the current variation is only giving effect to the existing framework rather than seeking change to provisions, this was not considered further as part of this variation, but was noted for future review.

82. Consultation with iwi authorities on variations 2, 3 and 4 were held concurrently. Iwi were invited to participate at two hui, the first held on 17 August 2022 and the second on 30 August 2022. Useful feedback and discussion for consideration in this report was provided at these hui.

Summary of Advice from Iwi

83. No formal advice was received from iwi for consideration and inclusion in this report.

Option evaluation

Option A: no action – do not incorporate amendments or additions into the PMEP.

84. Whether or not the sites are listed in the plan, the identification of the ecologically significant marine sites would still be provided a level of protection via the NZCPS. In addition, a lack of action would likely be the most cost effective method in a purely financial sense.

85. However, the requirement to identify, manage and protect ecologically significant marine sites is abundantly clear in the statutory framework. To do nothing could have a heavy cost on the environment and would be in

opposition to the Section 6 (a) and (c) RMA requirements and as a consequence would not achieve the purpose of sustainable management of the natural resource as stated in Section 5.

86. As the majority of ESMS are already identified in the plan, to not include a select few creates an inconsistent approach to management of sites.

Option B: include the sites as identified by the Expert Panel

87. Although this comes with the financial burden of a Schedule 1 process, to include the sites in the plan provides a consistency over process for all identified ESMS. It also provides the public and stakeholders with an elevated awareness of the ESMS locations and transparency and knowledge as to the site compositions. Their inclusion also creates an improved framework for the ongoing protection and maintenance of the sites as well as improved overall knowledge and awareness of the ecologically significant marine site programme and what it is attempting to achieve.

88. The inclusion of the sites is an effective method of achieving the requirements set out in sections 5, 6, 7 and 8 of the RMA (as outlined in the statutory obligations section above) as well as helping to achieve the NZCPS Objective 1 and Policy 11. It is also directly in line with the national strategy direction for indigenous biodiversity.

89. There will be ongoing costs to ratepayers associated with the ongoing monitoring of sites. There is also the potential for financial costs to be incurred by some industries, i.e. for example aquaculture, particularly where there is an overlap between ESMS and a marine farm.

90. Considering the current planning framework (in the absence of the aquaculture variations) there are eight ESMS included in this variation that are located under the consented boundary of a marine farm or finfish farm. There are also several ESMS buffer zones that will overlap with existing farms which, due to deposition from farms, will trigger the discretionary activity rule.

91. In addition, the provisions managing activity in ESMS have been through the Schedule 1 process already and while there are appeal points outstanding on these matters they seek amendment to the provisions and not the removal.

92. Finally, the maintenance and enhancement of our indigenous biodiversity is of benefit to the community and helps promote community and personal wellbeing. The statutory framework is clear in its intention to protect these significant species and habitats and although these aspects are difficult to quantify in terms of their financial benefit they outweigh the potential costs of inclusion of the ESMS in this variation.

Option C: Accept inclusion of new sites – but do not accept boundary reductions.

93. The Option B summary above is also valid in consideration of this option.

94. This option is based on the assumption that the significant flora, fauna or habitat had previously populated the additional area. Restricting the use of the seabed at the site may support the re-establishment of the flora or fauna at that location.

95. However, the reduction of site boundaries is often due to improved surveying methodology meaning protection is only necessary for the smaller site. There are other reasons for reductions in boundary (or removal of sites) including physical damage and environmental pressures (such as climate change). Management of activities has been taken into consideration through the imposition of buffers for sites deemed to be less tolerant to seabed disturbance (category A or B). This buffer would also offer some additional protection to the benthic environment immediately adjacent to the site allowing for expansion of significant species to occur. In these circumstances, ongoing monitoring of sites is important.

96. The mapping of the true extent of an ESMS ensures that activities in the coastal marine area are not unnecessarily restricted. This mechanism of management reflects s5 and its requirement for sustainable management of a resource in a way that enables people and communities use of it for their social, economic and cultural wellbeing.

Option D: only include the sites that are reflective of the criteria outlined in the PMEP (await appeal outcome)

97. This option also supports the inclusion of the ESMS as identified in Options B and C but would require all sites included in the variation to be re-assessed against a criteria which has yet to be confirmed through appeals.

98. There would be some benefit in terms of the consistency of criteria application. However, this would not be imposing the same consistency on the existing ESMS in the plan that are not part of this variation. Also, the potential for the criteria to change in the future is likely given our increase in understanding of what is required to protect these sites coming through from Council's own programmes and through national direction. As it stands now, and irrelevant of what version of criteria was applied, all sites meet the standard to be given ESMS status (i.e. they rate as either medium or high on one of more of the required identification criteria (Representativeness, Rarity and/or Diversity and Pattern). To re-assess all the variation data would not be a cost-effective method given the outcome would be the same.

Risk of acting or not acting

99. In terms of Section 32(2)(c) of the RMA, an assessment of the 'risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions' is required.

100. Based on the criteria used to identify ecologically significant marine sites, there is some risk that the determination or boundary of the site is incorrect or inaccurate.

101. The techniques used to identify sites have changed and improved over time. The criteria against which the sites are judged have also evolved over time. As the inclusions in this variation are reliant on assessments over several years, there is the potential for error or inconsistency. However there is no nationally-applied technique or criteria for identification and therefore the judgement is based on the best options available at the time. To not address the ESMS would create a substantially greater risk.

102. The outstanding appeal matters on the PMEP, specifically those pertaining to indigenous biodiversity and natural character and the upcoming decision on Variation 1: Marine Farming and Variation 1A: FinFish Farming also provide some uncertainty to the provision framework on which this variation relies. Based on the scope of the appeals and the proposed siting of Aquaculture Marine Areas the risk of these is minimal.

Preferred option

103. Option B is the preferred option. Listing the sites in the plan now is the most efficient and effective method for giving effect to the requirements set out in the RMA.

104. The list of sites proposed to be included or amended in the PMEP are provided in Appendix B.

Appendix A – Section 32 of the RMA

32 Requirements for preparing and publishing evaluation reports

(1) An evaluation report required under this Act must—

(a) examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and

(b) examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by—

(i) identifying other reasonably practicable options for achieving the objectives; and

(ii) assessing the efficiency and effectiveness of the provisions in achieving the objectives; and

(iii) summarising the reasons for deciding on the provisions; and

(c) contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.

(2) An assessment under subsection (1)(b)(ii) must—

(a) identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—

(i) economic growth that are anticipated to be provided or reduced; and

(ii) employment that are anticipated to be provided or reduced; and

(b) if practicable, quantify the benefits and costs referred to in paragraph (a); and

(c) assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.

(3) If the proposal (an **amending proposal**) will amend a standard, statement, regulation, plan, or change that is already proposed or that already exists (an **existing proposal**), the examination under subsection (1)(b) must relate to—

(a) the provisions and objectives of the amending proposal; and

(b) the objectives of the existing proposal to the extent that those objectives—

(i) are relevant to the objectives of the amending proposal; and

(ii) would remain if the amending proposal were to take effect.

(4) If the proposal will impose a greater prohibition or restriction on an activity to which a national environmental standard applies than the existing prohibitions or restrictions in that standard, the evaluation report must examine whether the prohibition or restriction is justified in the circumstances of each region or district in which the prohibition or restriction would have effect.

(5) The person who must have particular regard to the evaluation report must make the report available for public inspection—

(a) as soon as practicable after the proposal is made (in the case of a standard or regulation); or

(b) at the same time as the proposal is publicly notified.

(6) In this section,—

objectives means,—

(a) for a proposal that contains or states objectives, those objectives:

(b) for all other proposals, the purpose of the proposal

proposal means a proposed standard, statement, regulation, plan, or change for which an evaluation report must be prepared under this Act

provisions means,—

(a) for a proposed plan or change, the policies, rules, or other methods that implement, or give effect to, the objectives of the proposed plan or change:

(b) for all other proposals, the policies or provisions of the proposal that implement, or give effect to, the objectives of the proposal.

Appendix B – Proposed changes to the Ecologically Significant marine Sites identified in the Marlborough Environment Plan

Variation 2: New Sites			
Site Number	**Site Label**	**Buffer**	**Category**
2.33A	Hunia Coast	100	A
5.4E	Katoa Point	100	A
5.4F	Te Weka Bay	100	A
5.4G	Moioio Island	100	A
5.4H	Kaihinui Point	100	A
5.4I	Papatea Point	100	A
5.4J	Tio Point	100	A
5.4K	Motukina Point	100	A
5.4L	Te Rua (west)	100	A
5.4M	Tapapaweke Point	100	A
5.4N	Puhe Point	100	A
5.5	Hitaua Bay Estuary	50	B
2.37	Penguin Island Channel	50	B
2.27B	Titi Island (subtidal)	100	A
2.27C	Titi Island (subtidal)	100	A
2.5	Bonne Point	100	A
5.12A	Ngaruru Bay (west)	0	C
5.12B	Ngaruru Bay (east)	0	C
5.8G	Tipi Bay (west)	100	A
5.8H	Tipi Bay (east1)	100	A
5.8I	Tipi Bay (east2)	100	A
5.8J	Te Rua (east)	100	A
5.8K	Thoms Bay (west)	100	A
5.8L	Thoms Bay (east)	100	A
5.10A	Motukina (east)	100	A
5.10B	Te Rua (east 1)	100	A
5.10C	Te Rua (east 2)	100	A
5.10D	Te Rua (east 3)	100	A
5.10E	Te Rua (east 4)	100	A
5.10F	Te Rua (east 5)	100	A
5.10G	Te Rua (east 6)	100	A
5.10H	Tipi Bay (west)	100	A
5.10I	Tipi Bay (east 1)	100	A
5.10J	Tipi Bay (east 2)	100	A
5.10K	Tipi Bay (east 3)	100	A
5.10L	Thoms Bay (west)	100	A

5.10M	Thoms Bay (east 1)	100	A
5.10N	Thoms Bay (east 2)	100	A
3.23	Woodlands (West)	100	A
3.24	Tuhitarata Bay Reef	50	B
3.27	Matai Bay (Tubeworms)	100	A
3.26	Ouokaha Island	100	A
3.28	Penzance Bay (Elephant Fish)	50	B
3.29	Gold Reef Bay (West)	50	B
3.30A	Nikau Bay (outer coast)	50	B
3.30B	Nikau Bay (outer coast)	50	B
3.31	Rat Point Reef	50	B
5.11A	Deep Bay (south)	100	A
5.11B	Ngamahau (south)	100	A
5.11C	Ngamahau (north)	100	A
5.11D	Kotoitoi (north)	100	A
5.11E	Jacksons (south)	100	A
5.11F	Te Awaiti (south)	100	A
5.11G	Te Awaiti (north)	100	A
5.11H	Okukari Bay	100	A
7.16	Long Island (horse mussels)	50	B
7.15	Kokomohua Island	0	C
2.38	Squadron Rocks	0	N/A - Terrestrial
4.30	Bottle Rock Point	0	N/A - Terrestrial
4.31	Ruakaka Point	0	N/A - Terrestrial
3.33	Ketu Bay reef	200	A
3.34	Kaitira (East Entry Point)	200	A
3.35	Maud Island (eastern reef)	200	A
3.36	Richmond Bay (reef)	200	A

Variation 2: Boundary Adjustments			
Site No.	**Site Name**	**Category**	**Buffer**
4.16	Perano Shoal	A	100
5.1	Diffenbach Point	A (previously B)	100
5.3	Hitaua Bay	A (previously B)	100
5.9	Tory Channel Entrance	B	100
6.1	The Knobbys	A	200 (previously 100m)
7.11	The Brothers	A (previously B)	100
7.13	Awash Rock	A (previously B)	100
7.8	White Rocks	A (previously B)	100
2.10A	Trio Islands	A (previously B)	200
2.10B	Trio Islands	A (previously B)	200

2.27A	Titi Island	A (was B)	100
2.30	Waitui Bay	A	200
2.6 a	Rangitoto Passage	A	100
2.6 b	Rangitoto Passage	A	100
2.6 c	Rangitoto Passage	A	100
2.6 d	Rangitoto Passage	A	100
2.11	Bob's Bay	A	100 (previously 50)
3.1	Harris Bay	B	50 (previously 100)
3.11	Tapapa Coastline	A (previously B)	100
3.12	Piripaua Reef	B	50 (previously 100)
3.15	Grant Bay Reef	B	50 (previously 100)
3.25	Kauauroa Coast	B	50 (previously 100)
3.7	Picnic Bay	A (previously B)	100
3.8	Fitzroy Bay	B	50 (previously 100)
3.9	Tennyson Inlet	C	0
4.23	Matiere Point	B	50 (previously 100)
4.24	Onauku Head	B	100
4.25	East Bay north	B (previously A)	50 (previously 100)
5.2	Tikimaeroero Point	A (previously B)	100 (previously 50)
5.4a	Tory Channel west	A (previously B)	100 (previously 50)
5.4b	Tory Channel west	A (previously B)	100 (previously 50)
5.4c	Tory Channel west	A (previously B)	100 (previously 50)
5.4d	Tory Channel west	A (previously B)	100 (previously 50)
5.4O	Ngaionui Point	A (previously B)	100 (previously 50)
5.7	Deep Bay	B	50 (previously 100)
5.8a	Tory Channel east	A (previously B)	100
5.8b	Tory Channel east	A (previously B)	100
5.8c	Tory Channel east	A (previously B)	100
5.8d	Tory Channel east	A (previously B)	100
5.8e	Tory Channel east	A (previously B)	100
5.8f	Tory Channel east	A (previously B)	100
6.3	Cutters Bay (Port Underwood south-east)	B	100
7.1	Cape Jackson and Walker Rock	A (previously B)	100
7.10	Cook Rock to Cape Koamaru	A (previously B)	100

Variation 2: Category Change			
Site No.	**Site Name**	**Category**	**Buffer**
7.4	7.4 Motuara subtidal	B (previously A)	50

Proposed inclusion of estuary ESMS 5.5: Hitaua Bay in standard 16.3.16.1:

16.3. Standards that apply to specific permitted activities

….

16.3.16. Take and use of coastal water.

16.3.16.1. Except for the ordinary operation of a ship the take of coastal water must not be from within the following Ecologically Significant Marine Sites:

(a) Whangarae Bay – No. 1.1;

(b) Greville Harbour/Whararíki – No. 1.7;

(c) Anakoha Bay Estuary – No. 2.25;

(d) Tuna, Harvey and Duncan Bay Estuaries – No. 3.10;

(e) Clova Bay – No. 3.14;

(f) Kaiuma Estuary – No. 3.19;

(g) Havelock-Mahakipawa Estuaries – No. 3.20;

(h) Kenepuru Estuary – No. 3.21;

(i) Okiwa Bay – No. 4.1;

(j) Ngakuta Bay – No. 4.5;

(k) Shakespeare Bay – No. 4.10;

(l) Whatamongo Bay – No. 4.12;

(m) Hitaua Bay – No. 5.5;

(~~m~~n) Deep Bay – No. 5.7;

(~~n~~o) Wairau Lagoon – No. 8.2.

Appendix C – Marlborough Environment Plan Rules Pertaining to Ecologically Significant Marine Sites

Rules pertaining to Ecologically Significant Marine Sites are set out in Chapter 4. Coastal Environment Zone; Chapter 7. Coastal Living Zone; Chapter 13. Port Zone; Chapter 14. Port Landing Area Zone; Chapter 15. Marina Zone; and Chapter 16. Coastal Marine Zone of Volume 2 PMEP. Rules include:

4.3.10 Indigenous vegetation clearance.

4.3.10.3. Clearance of indigenous vegetation within the coastal environment must not occur on land above mean high water springs that is within 20m of an Ecologically Significant Marine Site.

7.3.7 Indigenous vegetation clearance

7.3.7.3. Clearance of indigenous vegetation must not occur on land above mean high water springs that is within 20m of an Ecologically Significant Marine Site.

13.3.9 Replacement of a submarine or suspended cable or line.

13.3.9.1 A cable or line must not be removed except where it traverses through a Category A or B Ecologically Significant Marine Site.

13.3.20.3. Clearance of indigenous vegetation within the coastal environment must not occur on land above mean high water springs that is within 20m of an Ecologically Significant Marine Site.

13.3.22. Take and use of coastal water.

13.3.22.2. The take of coastal water must not be from within the following Ecologically Significant Marine Sites:

(a) Havelock-Mahakipawa Estuaries – No. 3.20;

(b) Shakespeare Bay – No. 4.10.

14.3.4 Replacement of a submarine or suspended cable or line.

14.3.4.1. A cable or line must not be removed except where it traverses through a Category A or B Ecologically Significant Marine Site.

15.3. Replacement of a submarine or suspended cable or line.

15.3.8.1 A cable or line must not be removed except where it traverses through a Category A or B Ecologically Significant Marine Site.

16.2.1. Disturbance of the foreshore or seabed.

16.2.1.1. Disturbance of the seabed must not occur within a Category A Ecologically Significant Marine Site.

16.3.2. Anchoring of a ship.

16.3.2.2 The ship must not be anchored within a Category A Ecologically Significant Marine Site listed in Appendix 27.

16.3.8. Replacement of a submarine or suspended cable or line.

16.3.8.1 A cable or line must not be removed except where it traverses through a Category A or B Ecologically Significant Marine Site.

16.3.9. Temporary structure for scientific monitoring purposes or temporary equipment for scientific monitoring purposes.

16.3.9.6 The structure or equipment must not be located within a Category A Ecologically Significant Marine Site.

16.3.16. Take and use of coastal water.

16.3.16.1. Except for the ordinary operation of a ship the take of coastal water must not be from within the following Ecologically Significant Marine Sites:

(a) Whangarae Bay – No. 1.1;

(b) Greville Harbour/Whararikì – No. 1.7;

(c) Anakoha Bay Estuary – No. 2.25;

(d) Tuna, Harvey and Duncan Bay Estuaries – No. 3.10;

(e) Clova Bay – No. 3.14;

(f) Kaiuma Estuary – No. 3.19;

(g) Havelock-Mahakipawa Estuaries – No. 3.20;

(h) Kenepuru Estuary – No. 3.21;

(i) Okiwa Bay – No. 4.1;

(j) Ngakuta Bay – No. 4.5;

(k) Shakespeare Bay – No. 4.10;

(l) Whatamongo Bay – No. 4.12;

(m) Deep Bay – No. 5.7;

(n) Wairau Lagoon – No. 8.2.

16.6. Discretionary Activities

Application must be made for a Discretionary Activity for the following:

16.6.6 Any dredging, bottom trawling, or deposition within the buffer for any Ecologically Significant Marine Site specified in Appendix 27.

16.7. Prohibited Activities

The following are Prohibited Activities for which no application can be made:

16.7.6. Dredging, bottom trawling, anchoring, deposition and reclamation within any Category A Ecologically Significant Marine Site listed within Appendix 27.

16.7.7 Dredging, bottom trawling, deposition and reclamation within any Category B Ecologically Significant Marine Site listed within Appendix 27.

Appendix D – Appendix 3: Ecological Significance Criteria for terrestrial, wetland, freshwater and marine environments

Appendix 3 in its entirety is currently under appeal.

The following provides explanations or guidelines for the application of ecological significance criteria in the assessment of sites.

The scale at which significance is to be determined depends on the type of environment:

Rankings within each criterion are: **H** = High; **M** = Medium; **L** = Low. They collectively contribute to an overall ranking, indicating the degree of significance. For a site to be considered significant, one of the first four criteria (representativeness, rarity, diversity and pattern or distinctiveness) must rank **M** or **H**.

The ecological criteria are to be applied by suitably qualified and experienced ecologists in their field of expertise.

Identification Criteria

Representativeness

Indigenous vegetation or habitat of indigenous fauna that is representative, typical or characteristic of the natural diversity of the relevant ecological district. This can include degraded examples where they are some of the best remaining examples of their type, or represent all that remains of indigenous biodiversity in some areas.

. Indigenous vegetation or habitat of indigenous fauna that is a relatively large example of its type within the relevant ecological district.

. Additionally for the coastal marine area the site is significant if it contains biological features (habitat, species, community) that represent a good example within the biogeographic area.

H: The site contains one of the best examples of the characteristic ecosystem types in the region or ecological district or biogeographic area for sites within the coastal marine area.

M: The site contains one of the better examples, but not the best, of the characteristic ecosystem types in the region or ecological district or biogeographic area for sites within the coastal marine area.

L: The site contains an example, but not one of the better or best, of the characteristic ecosystem types in the region or ecological district or biogeographic area for sites within the coastal marine area.

Rarity

Indigenous vegetation or habitat of indigenous fauna that has been reduced to less than 20% of its former extent in Marlborough, ecological district, biogeographic area or freshwater environment.

Indigenous vegetation or habitat of indigenous fauna that supports an indigenous species that is threatened, at risk, or uncommon, nationally or within the relevant ecological district or biogeographic area for sites within the coastal marine area.

The site contains indigenous vegetation or an indigenous species that is endemic to Marlborough or that are at distributional limits within Marlborough.

H: The site contains nationally threatened or rare flora, fauna or communities; or the site contains several examples of regionally or locally threatened or rare flora, fauna or communities.

M: The site contains one or a few regionally or locally (but not nationally) threatened or rare flora, fauna or communities.

L: The site is not known to contain flora, fauna or communities that are threatened or rare in the ecological district or biogeographic area, regionally or nationally.

Diversity and pattern

Indigenous vegetation or habitat of indigenous fauna that contains a high diversity of indigenous ecosystem or habitat types, indigenous taxa, or has changes in species composition reflecting the existence of diverse natural features or ecological gradients.

H: The site contains an unusually high diversity of species and ecosystem types.

M: The site contains a moderate diversity of species and ecosystem types.

L: The site contains a relatively low diversity of species and ecosystem types.

Distinctiveness

Indigenous vegetation or an association of indigenous species that is distinctive, of restricted occurrence, occurs within an originally rare ecosystem, or has developed as a result of an unusual environmental factor or combinations of factors.

H: The site contains any ecological feature that is unique nationally, in the region or in the ecological district or biogeographic area; or it contains several such features that are outstanding regionally or in the ecological district or biogeographic area.

M: The site contains ecological features that are notable or unusual but not outstanding or unique nationally, in the region or in the ecological district or biogeographic area.

L: The site contains no ecological features that are outstanding or unique nationally, in the region or in the ecological district or biogeographic area; i.e. the ecological features are typical rather than distinctive or special.

Management Criteria

Size and shape

The site is significant if it is moderate to large in size and is physically cohesive.

H: The site is large in size for the region or ecological district or biogeographic area and is cohesive.

M: The site is moderate in size for the region or ecological district or biogeographic area and is cohesive; or the site is relatively large but not very cohesive.

L: The site is small in size for the region or ecological district or biogeographic area, or the site is moderate in size but not at all cohesive.

Connectivity/ecological context

Vegetation or habitat of indigenous fauna that provides or contributes to an important ecological linkage or network, or provides an important buffering function.

A wetland which plays an important hydrological, biological or ecological role in the natural functioning of a river or coastal system.

Indigenous vegetation or habitat of indigenous fauna that provides important habitat (including refuges from predation, or key habitat for feeding, breeding, or resting) for indigenous species, either seasonally or permanently.

H: The site is close or well connected to a large natural area or several other natural areas.

M: The site is in the vicinity of other natural areas but only partially connected to them or at an appreciable distance.

L: The site is very isolated from other natural areas.

Sustainability

The site is significant if it is ecologically resilient, i.e. its natural ecological integrity and processes (functioning) are largely self-sustaining.

H: The site can maintain its ecological integrity and processes with minimal human assistance.

M: The site requires some but not much human assistance to maintain its ecological integrity and processes.

L: The site requires much human assistance to maintain its ecological integrity and processes.

Adjacent catchment modification in respect of significant sites within the coastal marine area

Catchments that drain large tracts of land can lead to high sediment loading into adjacent marine areas. A site in the coastal marine area is significant if the adjacent catchment is >400 ha and clad in relatively mature native vegetative cover resulting in a long term stable environment with markedly reduced sediment and contaminant run-off compared to developed or modified catchments.

H: The site is dominated by an adjacent land catchment area with stable and relatively mature native vegetation (>400ha) that is legally protected.

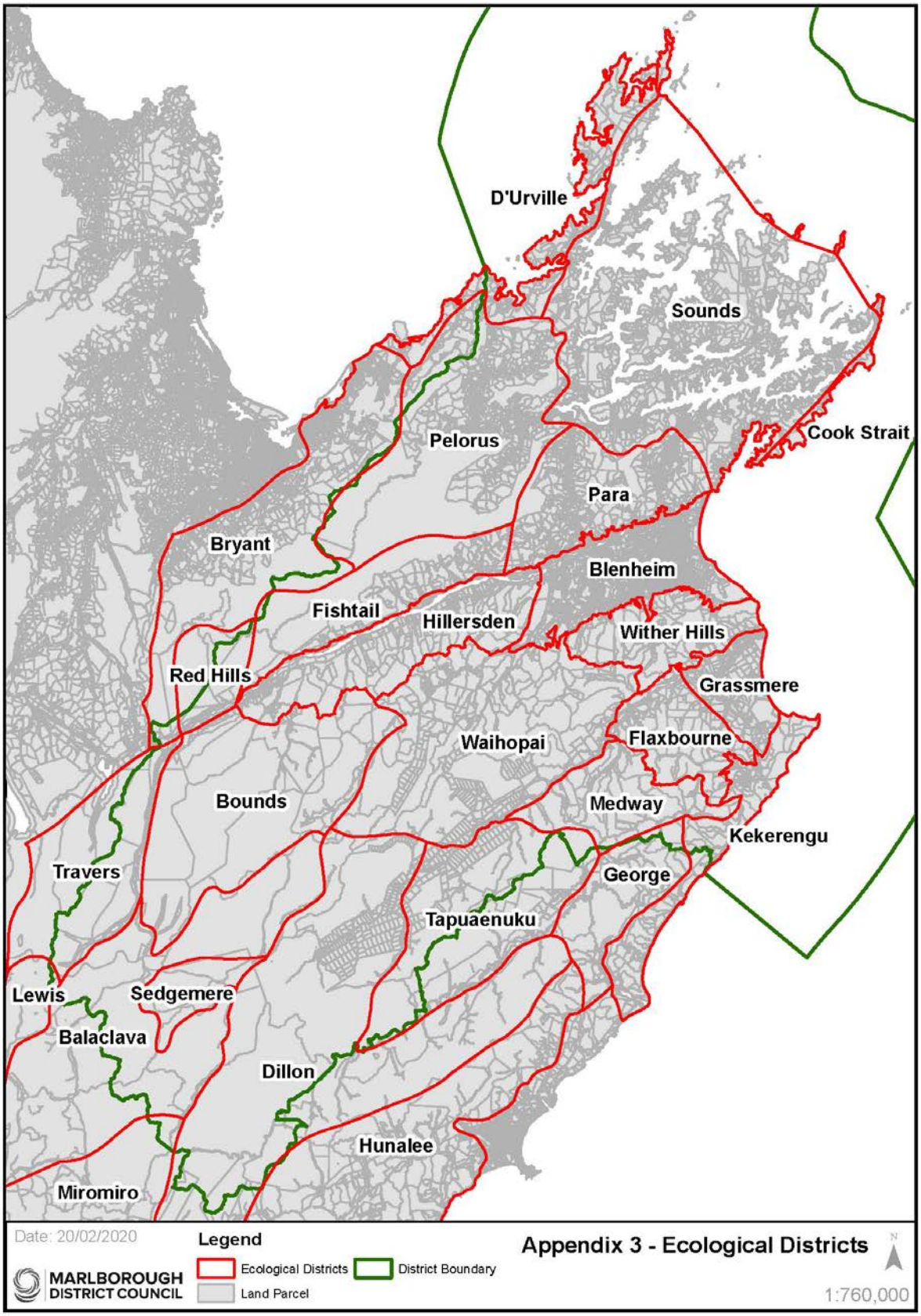
M: The site is dominated by an adjacent land catchment area with stable and relatively mature native vegetation (>400ha) with partial or no legal protection.

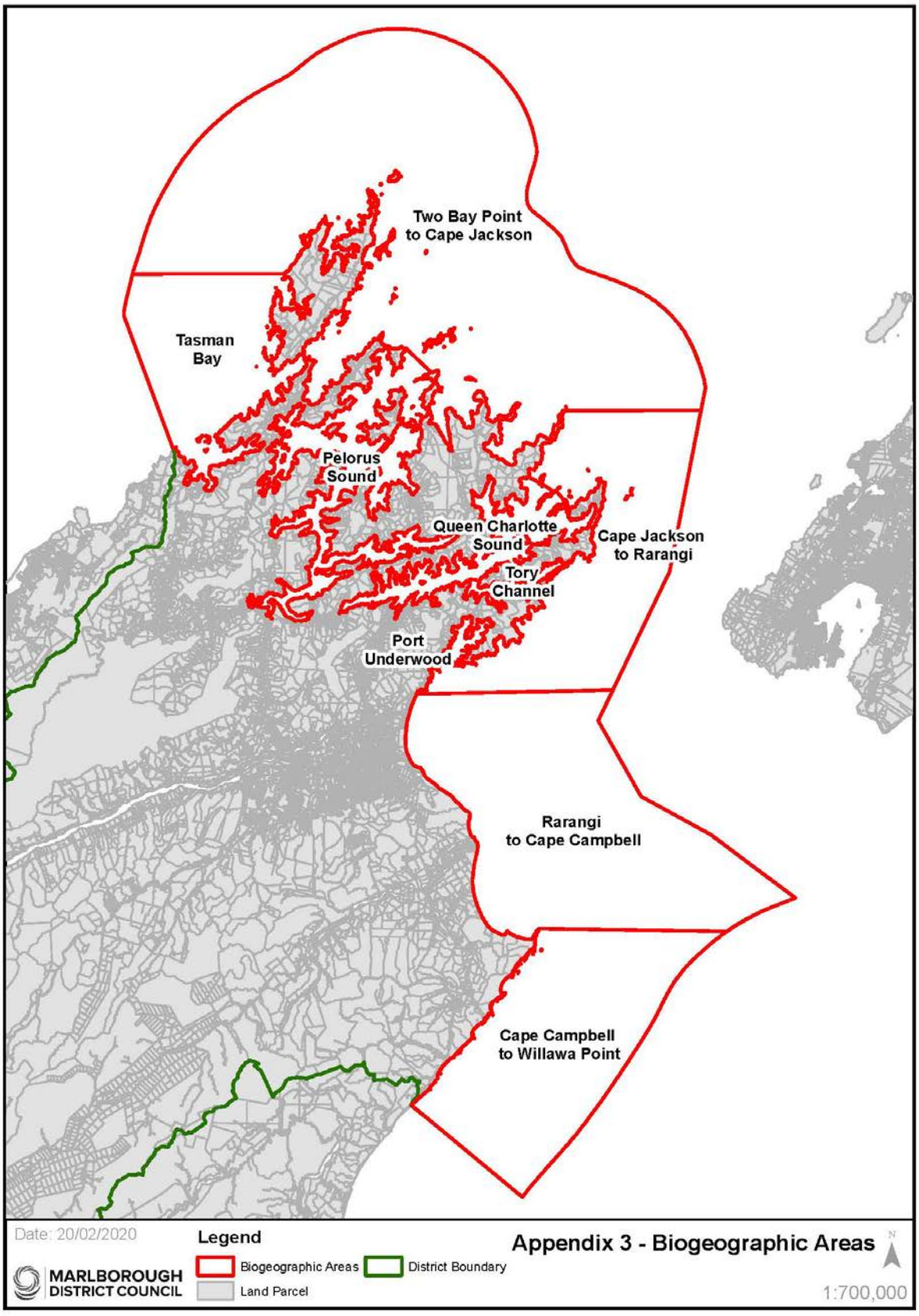
L: The site is surrounded by an adjacent land catchment area (>400ha) that is farmed, highly modified or has limited relatively mature vegetative cover.

Glossary

Ecological District: An Ecological District is defined as a local part of New Zealand where the topographical, geological, climatic, soils and biological features produce a characteristic landscape and range of biological communities (see map).

Biogeographic Area: A geographical area of similar ecology and habitats where the community structure and grouping of species is distinct (see map).


D'Urville
Sounds
Cook Strait
Pelorus
Para
Bryant
Blenheim
Fishtail
Hillersden
Wither Hills
Red Hills
Grassmere
Waihopai
Flaxbourne
Bounds
Medway
Kekerengu
Travers
George
Tapuaenuku
Lewis
Sedgemere
Balaclava
Dillon
Hunalee
Miromiro
Date: 20/02/2020
Legend
Ecological Districts
District Boundary
Land Parcel
MARLBOROUGH DISTRICT COUNCIL
Appendix 3 - Ecological Districts
N
1:760,000


Two Bay Point
to Cape Jackson
Tasman
Bay
Pelorus
Sound
Queen Charlotte
Sound
Cape Jackson
to Rarangi
Tory
Channel
Port
Underwood
Rarangi
to Cape Campbell
Cape Campbell
to Willawa Point
Date: 20/02/2020
Legend
Biogeographic Areas
District Boundary
Land Parcel
MARLBOROUGH
DISTRICT COUNCIL
Appendix 3 - Biogeographic Areas
N
1:700,000

Appendix E – ESMS monitoring and review timeline

2010 Initial surveying of coastal marine sites

Rob Davidson, Laura Richards, Clinton Duffy, Vince Kerr, Debbie Freeman, Roberta D'Archino, Geoffrey B. Read, Willie Abel. 2010. Location and biological attributes of biogenic habitats located on soft substrata in the Marlborough Sounds. Research, survey and monitoring report number 675.

2011 First identification of significant marine sites and definition of 'significant'

Davidson RJ, Duffy CAJ, Gaze P, Baxter A, DuFresne S, Courtney S, Hamill P. 2011. Ecologically significant marine sites in Marlborough, New Zealand. Co-ordinated by Davidson Environmental Limited for Marlborough District Council and Department of Conservation.

2013 Protocol for assessing and receiving new sites and re-assessing existing sites

Rob Davidson, Clinton Duffy, Peter Gaze, Andrew Baxter, Sam DuFresne, Shannel Courtney, Peter Hamill. 2013. Ecologically significant marine sites in Marlborough: protocol for receiving and assessing new sites and reassessing existing sites. Research, survey and monitoring report number 768.

2014 Devise protocols for survey and status monitoring

Davidson R, Duffy C, Gaze P, Baxter A, du Fresne S, Courtney S, Hamill P 2014. Ecologically significant marine sites in Marlborough: recommended protocols for survey and status monitoring. Prepared by Davidson Environmental Limited for Marlborough District Council and Department of Conservation.

2014-2015 Survey One

Davidson RJ, Richards LA. 2015. Significant marine site survey and monitoring programme: summary 2014-2015. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 819.

2015 Expert Panel Review

Davidson RJ, Baxter AS, Duffy C AJ, Gaze P, du Fresne S, Courtney S, Brosnan B. 2015. Reassessment of selected significant marine sites (2014-2015) and evaluation of protection requirements for significant sites with benthic values. Prepared by Davidson Environmental Limited for Marlborough District Council and Department of Conservation. Survey and monitoring report 824.

2015 PMEP Produced / List of significant sites

Refer PMEP, Volume 4, Overlay Maps, Ecologically Significant Marine Sites

2015-2016 Survey Two

Davidson RJ, Richards LA. 2016. Significant marine site survey and monitoring programme: Summary report 2015-2016. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 836.

2016 Expert Panel Review

Davidson RJ, Baxter AS, Duffy C AJ, Gaze P, du Fresne S, Courtney S, Brosnan B. 2016. Peer review of selected significant marine sites surveyed in 2015-2016. Prepared by Davidson Environmental Limited for Marlborough District Council and Department of Conservation. Survey and monitoring report no. 848.

2016/2017 Survey Three

Davidson RJ, Richards LA, Rayes C. 2017. Significant marine site survey and monitoring programme (survey 3): Summary report 2016-2017. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 859.

2016/2017 Tory Channel / King Salmon Survey

Davidson RJ, Richards LA, Rayes C. 2017. Benthic biological survey of central and south-eastern Tory Channel, Marlborough Sounds. Prepared by Davidson Environmental Limited for New Zealand King Salmon Limited. Survey and monitoring report no. 857.

2017 Expert Panel Review

Davidson RJ, Baxter AS, Duffy C AJ, Gaze P, du Fresne S, Courtney S, Brosnan B. 2017. Expert panel review of selected significant marine sites surveyed in 2016-2017. Prepared by Davidson Environmental Limited for Marlborough District Council and Department of Conservation. Survey and monitoring report no. 867.

2017/2018 Survey Four

Davidson, RJ, Richards LA, Rayes C, Scott-Simmonds T, 2018. Significant marine site survey and monitoring programme (survey f): Summary report 2017-2018. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 878.

2018 Expert Panel Review

Davidson, R. J; Baxter, A. S; Duffy, C. A. J; Handley, S; Gaze, P; du Fresne, S; Courtney, S. 2018. Expert panel review of selected significant marine sites surveyed in 2017-2018. Prepared by Davidson Environmental Limited for Marlborough District Council and Department of Conservation. Survey and monitoring report no. 897.

2018/19 Survey Five

Davidson, RJ, Richards LA, Rayes C, Scott-Simmonds T, 2018. Significant marine site survey and monitoring programme (survey 5): Summary report 2018-2019. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 943.

2019 Expert Panel Review

Davidson, R. J; Baxter, A. S; Duffy, C. A. J; Handley, S; Gaze, P; du Fresne, S; Courtney, S. 2019. Expert panel review of selected significant marine sites surveyed in 2018-2019. Prepared for Marlborough District Council and Department of Conservation. Survey and monitoring report no. 1008.

2019/20 Survey Six

Davidson, R.J.; Richards, L.A.; Rayes, C.; Scott-Simmonds, T. 2020. Significant marine site survey and monitoring programme (survey 6): Summary report 2019-2020. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 1023.

2020 Decision of the Proposed Marlborough Environment Plan Hearing Panel

Decision of the hearing panel issued in November 2020

2020/21 Survey Six and Expert Panel Review

Davidson, R.J.; Richards, L.A.; Rayes, C.; Scott-Simmonds, T; Baxter, A.; Duffy, C.; Handley, S.; Gaze, P.; du Fresne, S.; Courtney, S. 2022. Significant marine site survey number 7 and the expert panel review (2020-2021). Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 1089.

Appendix F – Bibliography

1. Rob Davidson, Laura Richards, Clinton Duffy, Vince Kerr, Debbie Freeman, Roberta D'Archino, Geoffrey B. Read, Willie Abel. 2010. Location and biological attributes of biogenic habitats located on soft substrata in the Marlborough Sounds. Research, survey and monitoring report number 675. [CM1452316]
2. Davidson RJ, Duffy CAJ, Gaze P, Baxter A, DuFresne S, Courtney S, Hamill P. 2011. Ecologically significant marine sites in Marlborough, New Zealand. Co-ordinated by Davidson Environmental Limited for Marlborough District Council and Department of Conservation.
3. Rob Davidson, Clinton Duffy, Peter Gaze, Andrew Baxter, Sam DuFresne, Shannel Courtney, Peter Hamill. 2013. Ecologically significant marine sites in Marlborough: protocol for receiving and assessing new sites and reassessing existing sites. Research, survey and monitoring report number 768.
4. Davidson R, Duffy C, Gaze P, Baxter A, du Fresne S, Courtney S, Hamill P 2014. Ecologically significant marine sites in Marlborough: recommended protocols for survey and status monitoring. Prepared by Davidson Environmental Limited for Marlborough District Council and Department of Conservation.
5. Davidson RJ, Richards LA. 2015. Significant marine site survey and monitoring programme: summary 2014-2015. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 819.
6. Davidson RJ, Baxter AS, Duffy C AJ, Gaze P, du Fresne S, Courtney S, Brosnan B. 2015. Reassessment of selected significant marine sites (2014-2015) and evaluation of protection requirements for significant sites with benthic values. Prepared by Davidson Environmental Limited for Marlborough District Council and Department of Conservation. Survey and monitoring report 824.
7. Davidson RJ, Richards LA. 2016. Significant marine site survey and monitoring programme: Summary report 2015-2016. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 836.
8. Davidson RJ, Baxter AS, Duffy C AJ, Gaze P, du Fresne S, Courtney S, Brosnan B. 2016. Peer review of selected significant marine sites surveyed in 2015-2016. Prepared by Davidson Environmental Limited for Marlborough District Council and Department of Conservation. Survey and monitoring report no. 848.
9. Davidson RJ, Richards LA, Rayes C. 2017. Significant marine site survey and monitoring programme (survey 3): Summary report 2016-2017. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 859.
10. Davidson RJ, Richards LA, Rayes C. 2017. Benthic biological survey of central and south-eastern Tory Channel, Marlborough Sounds. Prepared by Davidson Environmental Limited for New Zealand King Salmon Limited. Survey and monitoring report no. 857.

11. Davidson RJ, Baxter AS, Duffy C AJ, Gaze P, du Fresne S, Courtney S, Brosnan B. 2017. Expert panel review of selected significant marine sites surveyed in 2016-2017. Prepared by Davidson Environmental Limited for Marlborough District Council and Department of Conservation. Survey and monitoring report no. 867.

12. Davidson, RJ, Richards LA, Rayes C, Scott-Simmonds T, 2018. Significant marine site survey and monitoring programme (survey f): Summary report 2017-2018. Prepared by Davidson Environmental Limited for Marlborough District Council. Survey and monitoring report number 878.

13. Davidson, R. J; Baxter, A. S; Duffy, C. A. J; Handley, S; Gaze, P; du Fresne, S; Courtney, S. 2018. Expert panel review of selected significant marine sites surveyed in 2017-2018. Prepared by Davidson Environmental Limited for Marlborough District Council and Department of Conservation. Survey and monitoring report no. 897.