



Fisheries New Zealand

Tini a Tangaroa

Proposal to reduce recreational daily bag limits and introduce an accumulation limit in PAU 3 and PAU 7 paua fisheries

Fisheries New Zealand Discussion Paper No: 2018/05

Prepared for consultation by Fisheries New Zealand

ISBN No: 978-1-77665-925-8 (online)

ISSN No: 2624-0246 (online)

August 2018

Disclaimer

The information in this publication is not government policy. While every effort has been made to ensure the information is accurate, Fisheries New Zealand does not accept any responsibility or liability for error of fact, omission, interpretation or opinion that may be present, nor for the consequences of any decisions based on this information. Any view or opinion expressed does not necessarily represent the view of Fisheries New Zealand.

Requests for further copies should be directed to:

Publications Logistics Officer
Fisheries New Zealand
PO Box 2526
WELLINGTON 6140

Email: brand@mpi.govt.nz
Telephone: 0800 00 83 33
Facsimile: 04-894 0300

© **Crown Copyright** - Fisheries New Zealand

Contents

| | |
|---|----|
| 1. Executive Summary | 1 |
| 2. Submission Information | 3 |
| 3. Purpose | 6 |
| 4. Problem Definition | 6 |
| 5. Objective | 7 |
| 6. Background Information..... | 7 |
| 6.1 Biological Information | 7 |
| 6.2 Earthquake Closure | 7 |
| 6.3 PAU 3 and PAU 7 Fisheries | 8 |
| 7. Pre-engagement..... | 9 |
| 7.1 PAU 3..... | 10 |
| 7.2 PAU 7..... | 10 |
| 8. Proposed Options | 10 |
| 8.1 PAU 3..... | 11 |
| 8.2 PAU 7..... | 14 |
| 9. Implementation, Monitoring, and Review | 16 |
| 10. Conclusion | 17 |
| Appendix 1 | 18 |
| 11.1 Submissions from the 2017 review | 18 |
| 11.2 Submissions from the 2016 review | 18 |

PAU 3 and 7

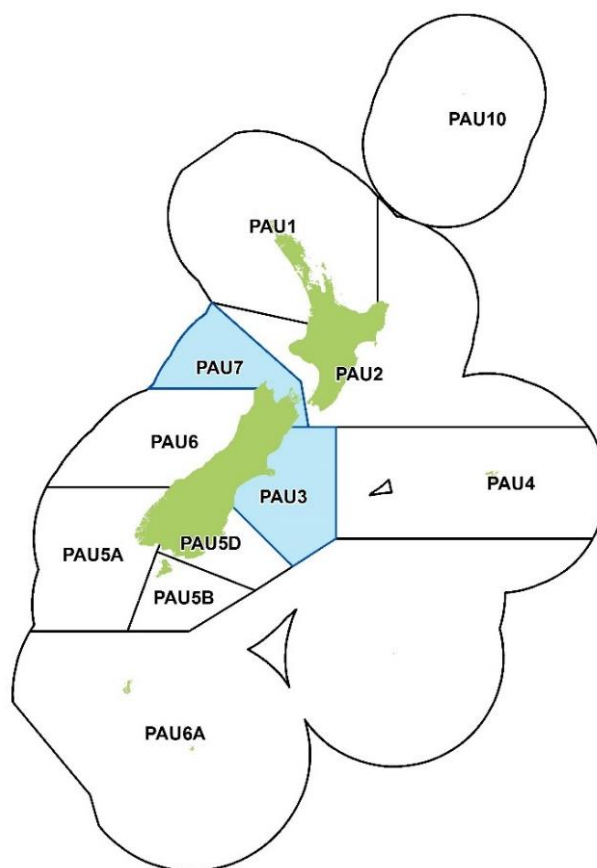


Figure 1: Map of paua Quota Management Areas (QMAs) with PAU 3 and PAU 7 highlighted in blue.

1. Executive Summary

1. Fisheries New Zealand is reviewing recreational regulations to ensure sustainability following the Kaikōura earthquakes in paua (*Haliotis iris* and *H. australis*) fisheries in:
 - PAU 3 (Canterbury/Kaikōura), and
 - PAU 7 (Marlborough) (Figure 1)

Commercial catch limits were reduced in PAU 3 and PAU 7 in 2017. Fisheries New Zealand is now considering whether the recreational daily bag limit and accumulation limit for paua in each area should also be reduced.

2. In 2016, the Kaikōura earthquakes caused an uplift of coastline in both PAU 3 and PAU 7. As a result, paua populations and other intertidal species along these sections of coastline were significantly impacted, with high levels of observed mortality.
3. In order to protect the surviving paua populations and other species along the earthquake-affected coastline, an emergency closure was introduced between Marfell's Beach and the Conway River prohibiting the take of all shellfish and seaweed (Figure 2). This closure was replaced in 2017 by a closure under section 11 of the Fisheries Act 1996 (the Act), which will remain in place until scientific evidence supports re-opening the fisheries.

4. As a result of the closure, important commercial and recreational paua harvesting areas in both PAU 3 and PAU 7 are now no longer accessible (Figure 3). The closure created a significant risk of commercial and recreational fishing effort shifting into adjacent areas outside of the closure leading to overfishing and depletion of paua populations in these areas.
5. In September 2017, the total allowable catch (TAC) and non-commercial allowances for both PAU 3 and PAU 7 were reduced.
6. For PAU 3, the Minister set a TAC of 79.3 tonnes including a recreational allowance of 8.5 tonnes. The Minister reduced the total allowable commercial catch (TACC) from 91.615 tonnes to 45.8 tonnes.
7. For PAU 7, the Minister decided to reduce the TAC from 133.6 tonnes to 121.8 tonnes in PAU 7, to reduce the recreational allowance from 15 to 12.6 tonnes, and to reduce the TACC from 93.6 tonnes to 84.2 tonnes¹. These decisions are, however, subject to judicial review proceedings and the applicants in those proceedings have obtained interim relief in the form of a court order that until these proceedings are resolved, the decisions not be put into effect.
8. No changes to daily bag limits or other recreational regulations have occurred as part of the above decisions.
9. Fisheries New Zealand proposes that recreational daily bag limits and accumulation limits (the total number of daily bag limits a person is allowed to accumulate over multiple days of fishing) be set for both PAU 3 and PAU 7 that account for the adverse impacts of the earthquakes. The proposals are aimed at limiting recreational harvest to within the allowances set from 1 October 2017.
10. Fisheries New Zealand is consulting on the following proposals:

Table 1: Daily bag limit and accumulation limit proposals for PAU 3 and PAU 7.

| Stock | Option | Measure | |
|--|-------------------|-----------------|---------------------------------|
| | | Daily bag limit | Accumulation limit ² |
| PAU 3 (east coast South Island) | <i>Status quo</i> | 10 | 20, or 2.5 kg* |
| | Option 1 | 5 | 10, or 1.25 kg* |
| | Option 2 | 3 | 6, or 0.75 kg* |
| PAU 7 (top of the South Island) | <i>Status quo</i> | 10 | 20, or 2.5 kg* |
| | Option 1 | 5 | 10, or 1.25 kg* |
| | Option 2 | 3 | 6, or 0.75 kg* |

* If paua are in a state that is unable to be counted.

¹ This followed earlier reductions to the PAU 7 TAC and TACC of 40% and 50% respectively that occurred immediately prior to the earthquakes in 2016, to address sustainability concerns for the stock.

² Set in regulation 16 of the Fisheries (Amateur Fishing) Regulations 2013.

11. Fisheries New Zealand considers the proposed options will aid both the PAU 3 and PAU 7 fisheries by reducing recreational pressure on localised paua populations that lie outside of the section 11 closure. Fisheries New Zealand is seeking feedback from all stakeholders and tangata whenua on whether to change the recreational regulations for PAU 3 and PAU 7.

2. Submission Information

12. Fisheries New Zealand welcomes written submissions to inform the review and the proposals contained in this Discussion Document. All written submissions must be received by Fisheries New Zealand no later than **5pm, 3 October, 2018.**
13. Written submissions should be emailed to: FMsubmissions@mpi.govt.nz

or sent to:

Inshore Fisheries Management
Fisheries New Zealand
P O Box 2526
Wellington 6011

14. All submissions are subject to the Official Information Act and can be released (along with personal details of the submitter) under the Act. If you have specific reasons for wanting to have your submission or personal details withheld, please set out your reasons in the submission. Fisheries New Zealand will consider those reasons when making any assessment for the release of submissions if requested under the Official Information Act.

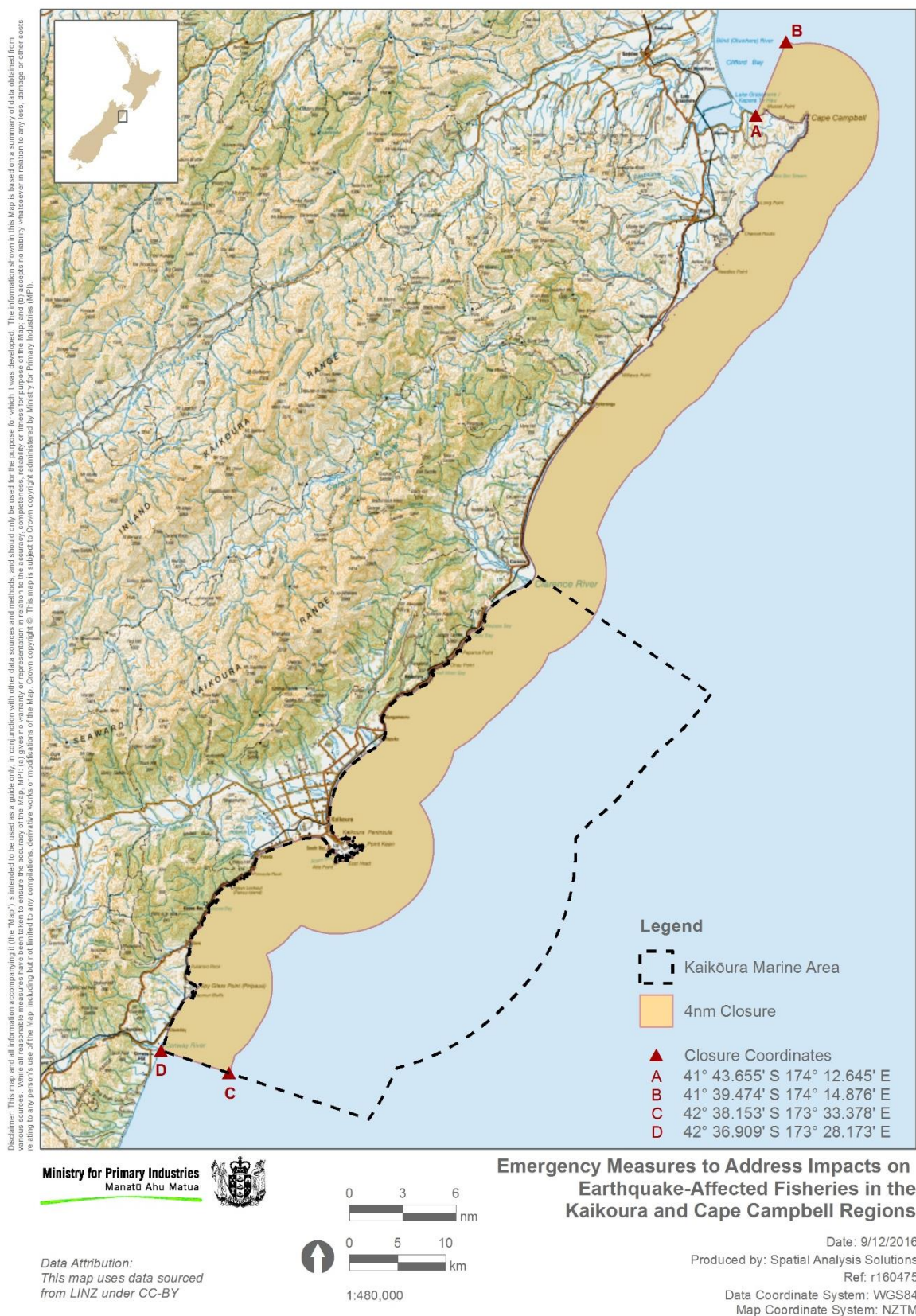


Figure 2: Map of the earthquake-affected area that is closed under section 11 of the Fisheries Act 1996.

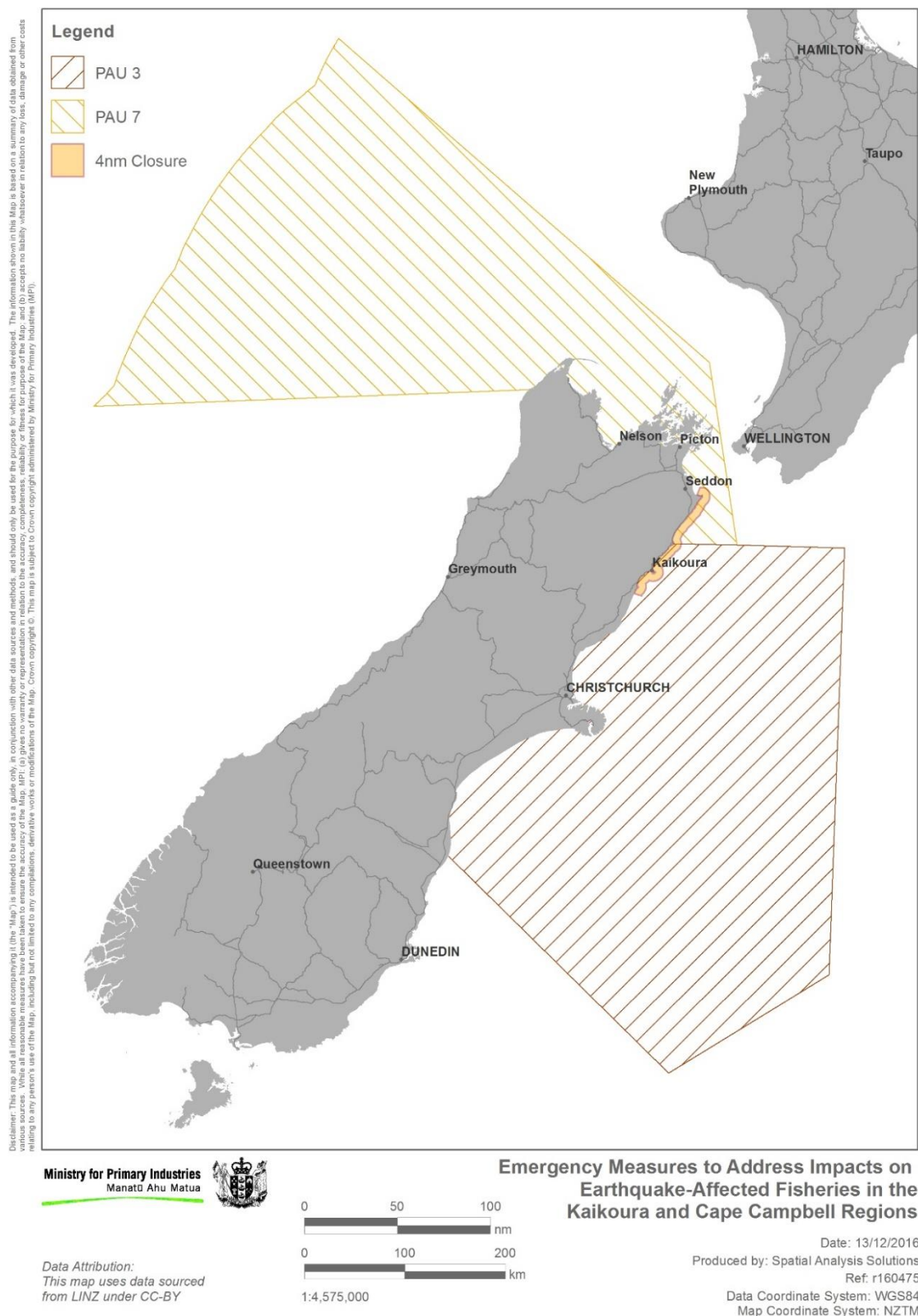


Figure 3: PAU 3 (Canterbury/Kaikōura) and PAU 7 (Marlborough) QMAs showing overlap with the area currently closed to all shellfish and seaweed harvesting under section 11 of the Fisheries Act 1996.

3. Purpose

15. The purpose of this document is to initiate consultation on behalf of the Minister of Fisheries (the Minister) on whether the recreational daily bag limit and accumulation limit for paua in PAU 3 and PAU 7 should be reduced. The reductions would mitigate potential overfishing and localised depletion by reducing recreational fishing effort and pressure on localised paua populations that lie outside the earthquake-affected area currently closed to shellfish and seaweed gathering.
16. Fisheries New Zealand is consulting and seeking submissions on the following options for PAU 3 and PAU 7:

Table 2: Daily bag limit and accumulation limit proposals for PAU 3 and PAU 7.

| Stock | Option | Measure | |
|------------------------------------|-------------------|-----------------|---------------------------------|
| | | Daily bag limit | Accumulation limit ³ |
| PAU 3 (east coast South Island) | <i>Status quo</i> | 10 | 20, or 2.5 kg* |
| | Option 1 | 5 | 10, or 1.25 kg* |
| | Option 2 | 3 | 6, or 0.75 kg* |
| PAU 7 (top of the South Island) | <i>Status quo</i> | 10 | 20, or 2.5 kg* |
| | Option 1 | 5 | 10, or 1.25 kg* |
| | Option 2 | 3 | 6, or 0.75 kg* |

* If paua are in a state that is unable to be counted.

17. Tangata whenua, the recreational sector, and other stakeholders are encouraged to provide their views and any additional information relevant to the review. Submitters' views will be included in the final advice provided to the Minister.

4. Problem Definition

18. In 2016, the Kaikōura earthquakes significantly impacted extensive sections of coastline in both the PAU 3 and PAU 7 fisheries. In response, a closure prohibiting the take of shellfish and seaweed in the section of coastline most affected was implemented.
19. Commercial catch limits and recreational allowances were reduced in 2017 as a result of the earthquakes' impacts and the subsequent closure (though the decisions made regarding PAU 7 are subject to judicial review proceedings). Recreational regulations are used to limit recreational harvest to the level of the allowance. Recreational regulations have not yet been reviewed in either PAU 3 or PAU 7 since the earthquakes or review of recreational allowances.
20. Displaced recreational fishing effort, and increased recreational fishing pressure on localised paua populations outside of the closed area, means that the current recreational regulations set for sustainable utilisation in PAU 3 and PAU 7 are no longer considered appropriate. The current regulations concentrate fishing effort

³ Set in regulation 16 of the Fisheries (Amateur Fishing) Regulations 2013.

intended for a broad area into a smaller area, which could threaten sustainability of the paua populations in the open areas.

21. On this basis, Fisheries New Zealand considers a review of the recreational regulations in PAU 3 and PAU 7 is required in order to ensure these fisheries remain sustainable and available for utilisation into the future.

Discussion questions:

- **Do you agree with how we have defined the problem?**
- **Is recreational effort shift into the open areas of the PAU 3 and PAU 7 fisheries a problem?**

5. Objective

22. The objective of this review is the purpose of the Fisheries Act 1996 (the Act):
“to provide for utilisation of fisheries resources while ensuring sustainability.”
23. There are fishery specific objectives for PAU 3 and PAU 7 set out under the draft National Plan for Inshore Shellfish Fisheries (the Shellfish Plan)⁴. The Shellfish Plan categorises PAU 3 and PAU 7 as Group 1 stocks, meaning they are two of New Zealand’s most valuable and sought after shellfish fisheries. Aligned with the Shellfish Plan, the objective of this review is also to ensure paua fisheries remain healthy and are managed at high levels of abundance.

6. Background Information

6.1 BIOLOGICAL INFORMATION

24. Paua inhabit reefs in shallow subtidal coastal habitats. They are considered relatively sedentary forming large, localised aggregations. They are thought to broadcast spawn on an annual basis. Habitat-related factors such as wave exposure, habitat structure, availability of food, and population density, all influence the growth, shape, and recruitment of paua.
25. Due to their sedentary nature, high levels of fishing pressure in localised areas make paua populations susceptible to overfishing and depletion. Overfishing of a localised population can affect spawning success, in turn hindering overall productivity of the fishery.

6.2 EARTHQUAKE CLOSURE

26. Earthquakes in November 2016 caused considerable uplift along the coast of Kaikōura and Cape Campbell. Due to considerable areas of the seabed being uplifted, the earthquakes caused mortality of a significant number of localised paua populations

⁴ National Fisheries Plan for Inshore Shellfish is a draft management plan for inshore shellfish. It is accessible here:
<https://www.mpi.govt.nz/growing-and-harvesting/fisheries/fisheries-management/inshore-fisheries/>

along sections of the coastline in PAU 3 and PAU 7 (Figure 3). A preliminary analysis suggested that 21% of commercially fished paua habitat in the PAU 3 Quota Management Area was lost due to uplift.⁵ No similar estimate is available for PAU 7.

27. Following the earthquakes, the then Minister for Primary Industries announced an emergency closure for earthquake-affected fisheries that included all shellfish (excluding rock lobster and scampi) and seaweed (refer Figures 2 & 3). The original emergency closure was replaced by a closure under section 11 of the Act in November 2017. It will remain in place until research supports reopening of these fisheries. Initial results from research are due in mid-2018.

6.3 PAU 3 AND PAU 7 FISHERIES

28. A total allowable catch (TAC) review for both PAU 3 and 7 was conducted in mid-2017. The allowances for each sector were reduced to levels that would continue to provide for the sustainable utilisation of the PAU 3 and PAU 7 stocks, while taking into account the large loss of important paua habitat and biomass following the Kaikōura earthquakes.⁶ The 2017 TAC review of PAU 7 was the second TAC review of this fishery in two years.
29. In 2016, the PAU 7 TAC was reviewed in response to a stock assessment that estimated the stock to be near its soft limit (the point at which a rebuild plan is required in accordance with the Harvest Strategy Standard for New Zealand Fisheries⁷). During the review, the TAC and total allowable commercial catch (TACC) were reduced by 40% and 50% respectively. At that time, the recreational harvest was thought to be exceeding its set allowance and Fisheries New Zealand had intended to review the recreational regulations to ensure recreational harvest was limited to the level of the allowance. Due to the impact of the earthquake, this review was postponed to be done alongside the review of PAU 3 recreational regulations.
30. In 2017, the recreational allowances were reviewed for both PAU 3 and PAU 7. The recreational allowance was set for the first time in PAU 3 (8.5 tonnes). The appropriate recreational allowance was assessed to be 12.6 tonnes in PAU 7 (down from 15 tonnes).
31. Recreational fishing controls, such as daily bag limits and minimum legal sizes, are tools that can be used to control recreational harvest. Recreational regulations were not changed for either PAU 3 or PAU 7 following the earthquakes. As a result, recreational harvest is likely to be exceeding sustainable levels and the appropriate allowances for PAU 3 and PAU 7.

⁵ Neubauer, Philipp (2017). Area lost to the pāua fishery from the November 2016 Kaikōura earthquake, 7 pages. Report to the Ministry for Primary Industries (MPI).

⁶ The decisions made for PAU 7 are subject to judicial review proceedings, and the applicants in those proceedings have obtained interim relief in the form of a court order that until these proceedings are resolved the TAC and TACC decision not be put into effect. As part of the process of obtaining interim relief, the applicants agreed to shelve (i.e. not fish) an amount of annual catch entitlement (ACE) slightly in excess of the TACC reduction, and the court ordered that such shelving occur. Notwithstanding the judicial review proceedings, the recreational allowance of 12.6 tonnes set for PAU 7 is still considered appropriate in order to ensure the sustainable utilisation of PAU 7.

⁷ The Harvest Strategy Standard is a policy statement of best practice in relation to the setting of targets and limits for New Zealand fishstocks managed under the quota management system. It is accessible at: <https://www.mpi.govt.nz/growing-and-harvesting/fisheries/fisheries-management/overview/>

32. The daily bag limits of ten for each blackfoot and yellowfoot paua apply nationally except in defined areas where they have been altered; for example, the daily bag limit is 6 for each species in the Kaikōura Marine Area, although the coastline of this area is currently closed following the earthquakes (Figure 2).
33. Scientific estimates of recreational paua harvest are uncertain, have not been updated since 2011/12, and are only available at the spatial scale of the quota management area. The best available information is that 14.13 tonnes of paua were harvested in PAU 3 in 2011/12, and 16.98 tonnes were harvested in PAU 7 in 2011/12⁸. The Fisheries New Zealand Science Working Group responsible for paua assumed these values to be underestimates as shore diving and hand gathering were not well captured in the survey methodology, and paua is predominantly a shore-based fishery.
34. Best available information suggests recreational harvest has increased since 2011/12 in both paua management areas, and that recreational harvest has been displaced following the implementation of the earthquake closure. This is causing an increase in fishing pressure on localised paua populations that are readily accessible and outside of the closed area within PAU 3 and PAU 7.

7. Pre-engagement

35. MPI discussed the PAU 3 and PAU 7 recreational fisheries directly with tangata whenua, the Kaikōura Marine Guardians, Te Korowai, the paua industry and commercial fishers, and with recreational fishers and members of the public that attended public drop-in sessions during the 2017 TAC reviews for PAU 3 and PAU 7.
36. Additionally, during the 2017 TAC review, submissions from tangata whenua and a variety of stakeholders were received that provided additional information regarding recreational harvest, highlighting the need for a regulatory review in each area. Almost all submissions received during the 2016 TAC review of PAU 7 prior to the earthquake also provided feedback on recreational regulations.
37. In their submissions, tangata whenua and stakeholders suggested a variety of possibilities for new regulations. Recreational and commercial fishers indicated their support for a reduction in the daily bag limit. Other ideas include licensing, implementing fishing seasons, and considering novel measures, for example, an annual bag limit. A summary of feedback from the 2017 and 2016 TAC reviews can be found in Appendix 1.
38. Fisheries New Zealand took the opportunity to discuss PAU 3 and PAU 7 recreational fisheries with tangata whenua at regional Iwi Fisheries Forums. Fisheries New Zealand meets with forums three times a year, and assists iwi in the development of Iwi Fisheries Plans. Information provided by forums and iwi views on the management of fisheries resources and fish stocks set out in Iwi Fisheries Plans express how tangata whenua exercise kaitiakitanga.

⁸ Gray, A., Heinemann, A., Hill, L., Wynne-Jones, J. 2014. National Panel Survey of Marine Recreational Fishers 2011-12: Harvest Estimates. Accessible at: <https://www.mpi.govt.nz/travel-and-recreation/fishing/national-survey-of-recreational-fishers/>

39. The Fisheries Act (1996) defines kaitiakitanga to mean “the exercise of guardianship; and, in relation to any fisheries resources, includes the ethic of stewardship based on the nature of the resources, as exercised by the appropriate tangata whenua in accordance with tikanga Māori”, where tikanga Māori refers to Māori customary values and practices.
40. The Te Waipounamu Iwi Forum Fisheries Plan covers PAU 3 and PAU 7, and it identifies paua as a taonga species. Fisheries New Zealand considers that the options presented here will contribute towards the achievement of the management objectives outlined in the Te Waipounamu Iwi Forum Fisheries Plan in ensuring that the fisheries remain sustainable and that environmental impacts are minimised.

7.1 PAU 3

41. Fisheries New Zealand discussed the PAU 3 fishery directly with Te Rūnanga o Kaikōura and Ngāi Tahu. Fisheries New Zealand also presented initial proposals to the Te Waka a Māui me Ōna Toka forum given their focus on the whole South Island.
42. Tangata whenua have indicated their concern for the PAU 3 stock following the earthquake, and support a review of the recreational regulations and reduction to the daily bag limit to ensure that harvest is sustainable.
43. The Kaikōura Marine Guardians and Te Korowai also have a representative from Te Rūnanga o Kaikōura. The Guardians and Te Korowai support a review of recreational regulations and reduction to the daily bag limit.

7.2 PAU 7

44. Fisheries New Zealand discussed the PAU 7 fishery at a number of meetings with the Te Tau Ihu forum and the Te Waka a Māui me Ōna Toka forum. Tangata whenua support a review of the recreational regulations and a reduction in the daily bag limit.
45. Te Tau Ihu have noticed a substantial increase in recreational fishing pressure in areas of their rohe moana that remain open following the earthquakes, and have indicated particular concern for the PAU 7 fishery. They note that the TACC has been reduced substantially with no concurrent reduction of recreational harvest through regulatory review, even though anecdotal information strongly suggests that areas particularly around Port Underwood are becoming locally depleted due to increasing recreational harvest. Te Waka a Maui feel that the resource must be protected and cared for following the earthquakes.

8. Proposed Options

46. Fisheries New Zealand proposes to focus on daily bag limits and the associated accumulation limits as the primary tools for reducing recreational harvest in both PAU 3 and PAU 7. There are other recreational regulations that could be used to reduce harvest, such as the minimum legal size; however, to reduce immediate impact on utilisation by recreational fishers, Fisheries New Zealand is proposing to focus on the daily bag limit and accumulation limit at this time. A review of the minimum legal size

is relevant also to the commercial sector, and will require more time and engagement with stakeholders.

47. Fisheries New Zealand proposes that minimum legal size, as well as other management measures such as fishing seasons or other more novel tools, be considered in the context of a wider review of New Zealand's paua fisheries. However, Fisheries New Zealand is aware that recreational regulations in both PAU 3 and PAU 7 are in need of review in the short-term to ensure they align more closely with the recreational allowances, to reduce the pressure on localised paua populations that lie outside of the closed area, and to ensure sustainable utilisation.
48. Fisheries New Zealand has not included the *status quo* as an option for either PAU 3 or PAU 7. This is because Fisheries New Zealand does not consider that the *status quo* is ensuring sustainable utilisation of fisheries resources, and therefore retaining the *status quo* will fail to achieve the purpose of the Fisheries Act 1996. Fisheries New Zealand has not identified any non-regulatory options.

8.1 PAU 3

49. The 2011/12 National Panel Survey⁹ estimated recreational harvest in PAU 3 to be 16.98 tonnes. The recently set recreational allowance for PAU 3 is 8.5 tonnes. Based on the 2011/12 estimate, recreational harvest needs to be reduced by approximately 50% to ensure the allowance is not exceeded. However, this estimate does not account for effort reduction that may have occurred as a result of the paua daily bag limit reduction from ten to six in the Kaikōura Marine Area in 2014 (Figure 2). The harvest estimate also does not include recreational harvest under section 111 of the Act, though this is considered relatively minor with a maximum reported annual weight of 334 kg occurring over the past ten years¹⁰.

8.1.1 Option 1

50. Option 1 is to set a daily bag limit of five for the PAU 3 quota management area. A daily bag limit of five is a reduction of 50% from the national daily bag limit of ten. The accumulation limit under this option would be ten paua.

Impacts and benefits

51. The impact of a daily bag limit reduction on overall recreational harvest depends on the frequency at which the daily bag limit is fully caught by recreational fishers. Analyses based on information provided by the National Panel Survey estimate that a reduction in the daily bag limit from ten to five would decrease recreational harvest by approximately 38.6%.
52. Based on these National Panel Survey results, Option 1 may not reduce recreational harvest by the amount necessary to ensure the recreational allowance is not exceeded. However, anecdotal information suggests that the earthquake closure has resulted in

⁹ Gray, A., Heinemann, A., Hill, L., Wynne-Jones, J. 2014. National Panel Survey of Marine Recreational Fishers 2011-12: Harvest Estimates. Accessible at: <http://fs.fish.govt.nz/Page.aspx?pk=113&dk=23718>

¹⁰ Calculated using an average paua weight of 280g. Hartel, B & Davey, N (2015) Mean weight estimates for recreational fisheries in 2011-12. *New Zealand Fisheries Assessment Report 2015/25*. Ministry for Primary Industries, Wellington, New Zealand. pg. 18.

some reduction in harvest overall in PAU 3, as it is difficult for recreational fishers living in the closed area to travel to areas that remain open within PAU 3.

53. Fisheries New Zealand also expects that recreational harvest had already reduced after the 2011/12 National Panel Survey data were collected, and prior to the earthquakes, as a result of new recreational regulations in the Kaikōura Marine Area, and the greater awareness around ‘fishing for a feed’ publicised by the Kaikōura Marine Guardians.
54. Fisheries New Zealand considers that as new information becomes available, there will be an opportunity to address any concerns that may arise regarding the efficacy of the proposed new regulations as part of a wider review of New Zealand’s paua fisheries.
55. The National Panel Survey estimates that recreational fishers took a daily catch of five paua or less 30% of the time during the survey. Based on these results, a reduction in the daily bag limit to five is expected to limit take in approximately 70% of fishing trips. Some fishers may consider that this reduction will unfairly restrict their ability to utilise the paua fishery. However, Fisheries New Zealand expects the number of fishers holding this view to be low, given the wide acknowledgement of the severe impact that the earthquakes have had on the PAU 3 fishery. A daily bag limit reduction in the Kaikōura Marine Area from ten to six was widely supported by stakeholders when it was introduced in 2014, and it remains widely supported. Option 1 proposes a similar reduction to the wider QMA.
56. There is a risk under any proposal to reduce a daily bag limit that fishers will be incentivised to go fishing to take their daily bag limit more often. More frequent collection of the daily bag limit will minimise the overall reduction in harvest that is intended by lowering the daily bag limit, and therefore will limit the overall efficacy of the reduced daily bag limit. Fisheries New Zealand expects this risk to be low under Option 1 given, again, the wide acknowledgment of the impact of the earthquakes, and general notion portrayed by the public that a reduction in daily bag limit is necessary.
57. Option 1 will create different bag limits between the Kaikōura Marine Area and the rest of PAU 3, which can create confusion for some fishers. Fisheries New Zealand considers this to be a relatively minor consideration as the fishery in the Kaikōura Marine Area is currently closed, and it is not clear that the daily bag limit of six for the Kaikōura Marine Area remains appropriate following the impacts of the earthquakes. Fisheries New Zealand expects that the Kaikōura Marine Guardians will engage with Fisheries New Zealand to discuss the possibility of reviewing this daily bag limit before the fishery reopens.
58. The primary benefit of Option 1 is that it will have a smaller impact on fishers compared to Option 2. Option 1 is the smallest reduction to the daily bag limit Fisheries New Zealand considers possible to achieve the objectives of this review. Fisheries New Zealand considers that Option 1 will provide the greatest utilisation opportunity, while sufficiently reducing recreational harvest to ensure sustainability of the fishery.
59. Option 1 includes setting an accumulation limit for PAU 3 that aligns with the current national accumulation limit of two daily bag limits. Under Option 1 the accumulation limit would be set at ten paua or 1.25 kg if the paua are in a state that cannot be counted e.g. mince.

8.1.2 Option 2

60. Option 2 is to set a daily bag limit of three for the PAU 3 quota management area, a reduction of 70% from the national daily bag limit of ten. The accumulation limit under this option would be six paua.

Impacts and benefits

61. Analyses based on information provided by the National Panel Survey estimate that a reduction in the daily bag limit from ten to 3 would decrease recreational harvest by approximately 61.8%.
62. The primary impact of Option 2 is the effect it will have on recreational fishers. Option 2 is a substantial reduction from the current daily bag limit of ten, and will impact on a large majority of fishing trips. During the National Panel Survey, recreational fishers took a daily catch of three paua or less 7.9% of the time. Therefore, a reduction in the daily bag limit from ten to three is expected to impact approximately 92.1% of fishing trips.
63. As under Option 1, there is a possibility that a reduced daily bag limit would encourage fishers to go fishing more frequently. A change in fisher behaviour whether it be fishing more frequently or taking a full daily bag limit more frequently, will lead to a smaller reduction in harvest than estimated. Such an effect would counter the positive effect of reducing the daily bag limit, and fail to achieve the objectives of this review. The risk of this occurring is higher under Option 2 than Option 1 given the lower daily bag limit proposed.
64. The primary benefit, assuming that fisher behaviour does not shift towards fishing more frequently, is that Option 2 will significantly reduce recreational harvest to a level that will have the greatest chance of ensuring sustainable utilisation. The daily bag limit can be reviewed when the fishery has recovered from the impacts of the earthquakes.
65. Option 2 includes setting an accumulation limit for PAU 3 that aligns with the current national accumulation limit of two daily bag limits. Under this option the accumulation limit would be set at six paua or 0.75 kg if the paua are in a state that cannot be counted e.g. mince.

Discussion questions:

- **Do you agree that these are the correct options to consider? If not, why not? What options should we consider to solve the problem (either as identified in this document or as you identify the problem)?**
- **What impacts are not included in this document?**

8.2 PAU 7

66. An accurate estimate of recreational harvest in PAU 7 is not available, but it is considered to be high. The 2011/12 National Panel Survey¹¹ recreational harvest estimate in PAU 7 (14.13 tonnes) is considered to be an underestimate by the relevant Science Working Groups. Anecdotal information suggests that recreational paua fishing effort has been increasing steadily since the last recreational harvest estimate in 2011/12.
67. During the 2016 PAU 7 TAC review, prior to the earthquakes, recreational harvest in PAU 7 was presumed to be exceeding the recreational allowance, which was set at 15 tonnes. Recreational harvest at this time was believed to be having a negative effect on the sustainability of the fishery. The recreational allowance for PAU 7 is now recommended to be set at 12.6 tonnes.
68. Recreational harvest under section 111 is not captured by the 2011/12 National Panel Survey estimate. Section 111 take is considered relatively minor with a maximum reported annual take of 451 kg over the past ten years¹².
69. The recreational paua fishery around Cape Campbell was a particularly important recreational fishing ground within PAU 7, and is now closed. In addition, paua fishers from PAU 7 that used to travel to PAU 3 to fish are now limited to PAU 7 as a result of the earthquake closures. Anecdotal information suggests that fishers displaced from Cape Campbell, and areas within PAU 3, have led to a significant increase in recreational harvest in open areas of PAU 7.
70. PAU 7 is currently rebuilding after the last stock assessment estimated the stock to be close to the soft limit (the point at which a rebuild plan is required). It is particularly important for PAU 7 that recreational harvest is maintained at a sustainable level so as not to compromise the rebuild. Therefore, Fisheries New Zealand considers it appropriate to take a cautious approach to managing this fishery. Fisheries New Zealand considers it necessary that recreational harvest be reduced by 50% in PAU 7. This aligns with the reduction in the total allowable commercial catch (TACC) in the 2016 review and the additional 10% TACC reduction in the 2017 review.

8.2.1 Option 1

71. Option 1 is to set a daily bag limit of five for the PAU 7 quota management area. A daily bag limit of five is a reduction of 50% from the national daily bag limit of ten. The accumulation limit under this option would be ten paua.

Impacts and benefits

72. The impact of a daily bag limit reduction on recreational harvest depends on the frequency at which the daily bag limit is caught by recreational fishers. Analyses based on information provided by the National Panel Survey estimate that a reduction in the

¹¹ Gray, A., Heinemann, A., Hill, L., Wynne-Jones, J. 2014. National Panel Survey of Marine Recreational Fishers 2011-12: Harvest Estimates. Accessible at: <https://www.mpi.govt.nz/travel-and-recreation/fishing/national-survey-of-recreational-fishers/>

¹² Calculated using an average paua weight of 280g. Hartel, B & Davey, N (2015) Mean weight estimates for recreational fisheries in 2011-12. *New Zealand Fisheries Assessment Report 2015/25*. Ministry for Primary Industries, Wellington, New Zealand. pg. 18.

daily bag limit from ten to five would decrease recreational harvest by approximately 42.0% in PAU 7.

73. Option 1 might not reduce recreational harvest by enough to ensure sustainability; however, based on the best available information, Fisheries New Zealand considers that Option 1 would reduce harvest by a suitable amount to achieve the objectives set out in this review. Under any daily bag limit reduction, the fishery and impact of the regulatory change will continue to be monitored as new information becomes available. There will be an opportunity to address any future concerns that may arise following this review as part of the wider review of New Zealand's paua fisheries.
74. Recreational fishers may consider Option 1 to unfairly restrict their utilisation. During the National Panel Survey, recreational fishers in PAU 7 took a daily catch of five paua or less 17.8% of the time. Therefore, a reduction in the daily bag limit to five is expected to impact approximately 82.2% of fishing trips. Fisheries New Zealand acknowledges that this a considerable impact on fishing trips, but considers that a substantial reduction in harvest is necessary to ensure sustainability.
75. As with PAU 3, an additional impact of any reduction in daily bag limit is the potential to encourage fishers to fish more frequently. This would lead to a smaller reduction in harvest than expected and may counter the objectives of this review. Fisheries New Zealand considers this risk to be lower under Option 1 than under Option 2. Tangata whenua and some stakeholders have already expressed their support for a reduction to the daily bag limit (Appendix One).
76. The primary benefit of Option 1 is that it is expected to contribute positively to the rebuild of the fishery and ensure sustainable utilisation for all sectors into the future. Option 1 is the smallest reduction Fisheries New Zealand considers necessary to ensure sustainable utilisation, and it will have the least impact on recreational fishers of the two proposed options.
77. Option 1 includes setting an accumulation limit for PAU 7 that aligns with the current national accumulation limit of two daily bag limits. Under Option 1 the accumulation limit would be set at ten paua or 1.25 kg if the paua are in a state that cannot be counted e.g. mince.

8.2.2 Option 2

78. Option 2 is to set a daily bag limit of three for the PAU 7 quota management area, a reduction of 70% from the national daily bag limit of ten. The accumulation limit under this option would be six paua.

Impacts and benefits

79. Analyses based on information provided by the National Panel Survey estimate that a reduction in the daily bag limit from ten to three will decrease recreational harvest by approximately 63.8% in PAU 7.
80. The primary impact of Option 2 is the effect it will have on recreational fishers' utilisation opportunities. During the National Panel Survey, recreational fishers in PAU 7 took a daily catch of three paua or less, 8.3% of the time. Therefore, a reduction in the daily bag limit to three is expected to impact approximately 91.7% of fishing trips.
81. An additional impact under this option is it could encourage fishers to fish more frequently. This would lead to a smaller reduction in harvest than expected and may counter the objectives of this review. The risk of incentivising fishers to fish and take their daily bag limit more frequently is higher under Option 2 than under Option 1 given the lower daily bag limit recommended.
82. Assuming fisher behaviour does not shift towards fishing more frequently, Option 2 will have the greatest possibility of reducing recreational harvest to a level that provides for sustainable utilisation into the future.
83. Option 2 includes setting an accumulation limit for PAU 7 that aligns with the current national accumulation limit of two daily bag limits. Under this option the accumulation limit would be set at six paua or 0.75 kg if the paua are in a state that cannot be counted e.g. mince.

9. Implementation, Monitoring, and Review

84. Following consultation, Fisheries New Zealand will develop a Decision Document for the Minister, who will make a decision on the future regulations for the recreational fisheries in PAU 3 and PAU 7. Subject to approval by Cabinet, any changes to regulations would be implemented by early 2019.
85. If changes to regulations are made, new brochures including updated daily bag limit information will be published and circulated. The decisions will be posted on the Fisheries New Zealand website and social media pages, and submitters will be notified directly of the decisions. Additionally, Fishery Officers will educate recreational fishers about the new rules.
86. A National Panel Survey is currently underway and will be completed in October 2018. The survey will provide updated recreational paua harvest estimates for PAU 3 and PAU 7.
87. New information from earthquake-related research in PAU 3 and PAU 7 is expected in mid-2018. The stock assessment for PAU 7 will be updated in 2019-20, and an update to the stock assessment for PAU 3 is currently on hold pending new information from research commissioned following the earthquakes to assess impacts on the paua fishery (the commercial fishery in PAU 3 suffered greater impacts from the earthquakes than the commercial fishery in PAU 7).

88. Based on the information that becomes available, Fisheries New Zealand will consider whether a further review of the regulations is warranted in the future for both PAU 3 and PAU 7.

Discussion questions:

- **Do you agree with the proposed next steps?**
- **How should the proposals in this document best be implemented, enforced and monitored?**

10. Conclusion

89. Fisheries New Zealand is seeking tangata whenua, stakeholder, and public feedback on whether the recreational regulations in PAU 3 and PAU 7 should be amended. Specifically, Fisheries New Zealand is seeking feedback on whether the current daily bag limit of ten should be reduced to five or three in each management area, and whether accumulation limits should be set at two daily bag limits.
90. Following the Kaikōura earthquakes and the implementation of a closure along a commercially and recreationally important stretch of coastline in PAU 3 and PAU 7, recreational fishing effort has been displaced and shifted to localised paua populations that are still open to harvest in each management area. Due to paua being susceptible to overfishing and localised depletion, and due to recreational harvest likely to be exceeding recreational allowances, the current recreational daily bag limits and corresponding accumulation limits may no longer be appropriate.
91. Fisheries New Zealand's initial view is that the daily recreational daily bag limit and accumulation limits should be reduced in both PAU 3 and PAU 7, to ensure these fisheries remain sustainable and able to provide for utilisation into the future.

Appendix 1

11.1 Submissions from the 2017 review

92. Feedback on recreational harvest was provided by commercial, customary, and recreational stakeholders during the 2017 review of PAU 3 and PAU 7. Their comments are summarised here:
- There is a noticeable increase in recreational fishing effort displaced from the earthquake closure that is adding to already increasing recreational harvest.
 - There is displaced effort, but effort is expected to decrease also because of the effects of the earthquakes.
 - Port Underwood is feeling particular strain from this displaced effort and is at risk of becoming locally depleted.
 - A reduction in the daily bag limit is urgently needed.
 - A daily bag limit of 5 – 6 paua would be supported by some submitters.
 - The accumulation limit needs to be reviewed to match any reductions to the daily bag limit, and only allow for two days' accumulation as is provided by the current regulation.
 - The minimum legal size should be increased in some areas to match the commercial minimum harvest sizes.
 - Proportionality (with reference to the allocation of the TAC) must be maintained in the future.
 - Proportionality within the TAC must be restored after the 2016 review of the TAC and TACC. Submitters in favour of restoring proportionality requested a recreational allowance of 7.5 tonnes.

11.2 Submissions from the 2016 review

93. Feedback on recreational harvest was provided by commercial, customary, and recreational stakeholders during the 2016 review of PAU 7. Their comments are summarised here:
- Recreational harvest has increased and is continuing to increase.
 - Some areas of PAU 7 are under particularly strong recreational fishing pressure, and are at risk of localised depletion (specifically Port Underwood).
 - A daily bag limit of 5 – 6 paua is supported by some submitters.
 - Paua abundance is decreasing.
 - Unreasonable to expect the commercial sector alone to take responsibility for the rebuild of the PAU 7 fishery.
 - Greater compliance presence is needed.
 - Environmental factors such as sedimentation are stressing the fishery.
 - Greater information on recreational harvest is needed.
 - New Zealand Sport Fishing Council did not comment on bag limit reductions, but indicated that the recreational sector would be open to discussions on managing PAU 7 to ensure its long-term viability as the fishery must be rebuilt.