WEST COAST
WHITEBAITERS ASSOCIATION

Consultation on Improving Whitebait Management

C/- Secretary, Trish Roney
44 Stuart and Chapman Drive, Karoro, Greymouth
Ph 03 768 7103
Cell 027 768 7103
westcoastwhitebaiters@gmail.com

Whitebait Management Consultation
Department of Conservation
PO Box 10420
Wellington 6143

Dear Sir/Madam

Re: Submission on Improving Whitebait Management

This submission represents the interests of 441 members of the West Coast Whitebaiters Association and their families, in relation to the proposed new regulations outlined in the document "Improving Whitebait Management- Te Whakapai ake i tewhakahaere inanga, and has extensive support of the wider community of the West Coast including the support of the Westland, Grey, Buller and West Coast Regional Councils.
The two local West Coast Iwi, Te Runanga o Makaawhio and Te Runanga o Ngati Wae Wae both support this West Coast Whitebaiters Association submission.

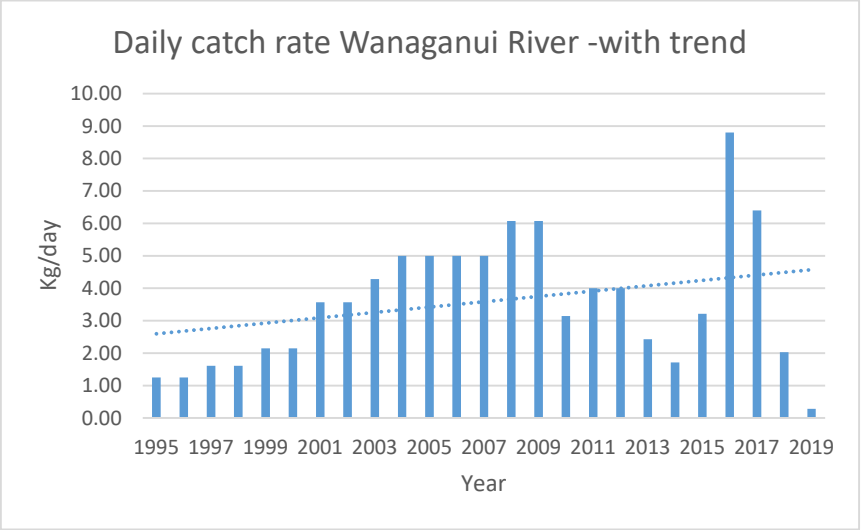
Interest:
Our membership consists of both registered stand owners and casual whitebaiters. As principally West Coast residents, we are aware of the importance of whitebaiting to our community. Whitebait fishing is part of the fabric of our culture, history, and identity. As a result of mining and forestry restrictions, whitebaiting and more importantly, visiting whitebaiters, are a significant component of local economies. For those of us who are stand owners, we have considerable and ongoing investment in the whitebait fishery, including equipment, batches and payment of local body rates and stand fees.
Several of the proposed changes to whitebaiting regulations have the potential to severely restrict, or even end our whitebaiting. Two obvious examples are the closure of rivers and the banning of screens which would make whitebaiting from stands impossible, and fishing in many sections of our rivers extremely difficult.

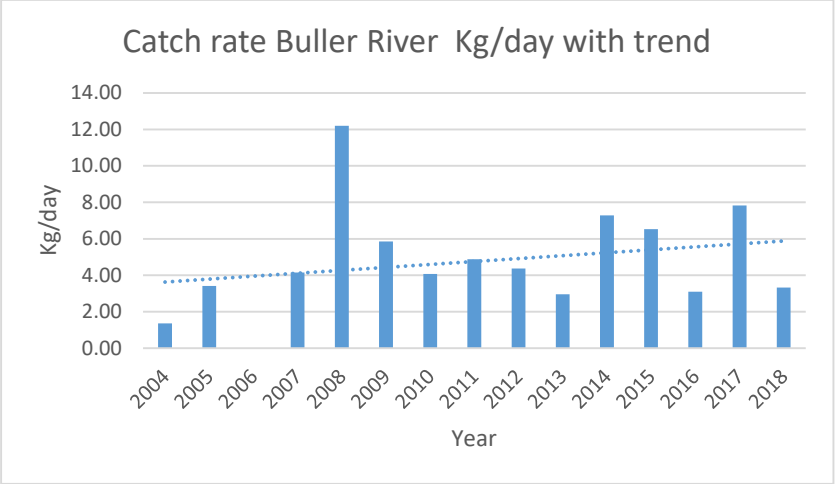
Overview:

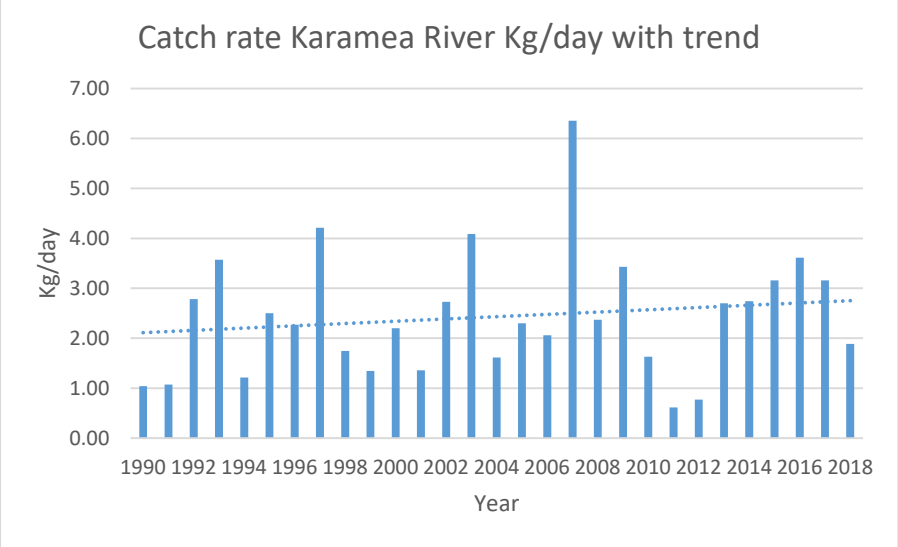
The 'Improving whitebait management' consultation discussion document proposes many changes to the regulations which we agree with, and can be viewed as sensible and practical ways to contribute to the sustainability of whitebait (Galaxias sp) populations nationally.

However we have a major criticism of the entire process in that it is based on the dogma that all whitebait populations in all parts of the country are at risk or in decline. In our region this is simply not the case. The Department of Conservation have stated in a response to an Official Information Request (2018) that they have no evidence of a decline in whitebait numbers on the West Coast or Fiordland, together the largest contiguous area of whitebait habitat in New Zealand. (Ref. 18-E-0614 and DOC – 5588499).

A further illustration of this are the graphs below for three major whitebaiting rivers on the West Coast. (This data given in good faith, was supplied by individual whitebaiters on the basis of anonymity).
As expected there is considerable variation between years depending on a combination of factors, including the weather during each season. For example in 2019 spring saw most West Coast rivers in almost continuous flood. The important statistic however is the trend in the data, which shows no decline in whitebait numbers over the periods recorded. In fact, the reverse could be argued.


Daily catch rate Wanaganui River -with trend
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Kg/day
1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2015 2017 2019
Year


Catch rate Buller River Kg/day with trend
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
Kg/day
2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018
Year


Catch rate Karamea River Kg/day with trend
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
Kg/day
1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018
Year

Data:
The 'New Zealand Freshwater fish Database' and associated 'New Zealand Threat classification System' are the major references upon which the consultation document is based. While pointing out that four of the five species of whitebait are either threatened or in decline, they admit that some species are 'data poor' with estimations of some species being extremely wide (eg Giant Kokopu (20,000 – 100,000).
The Inanga (Galaxias maculatus) which is 90% of the whitebait catch in New Zealand, while being described as 'at risk', is further described as 'secure overseas', being found in many Southern Hemisphere countries. Similarly, Koaro (Galaxias brevipinnis) described as 'at risk' has a similar southern distribution. Yet some conservationists and even politicians describe eating a whitebait the same as eating a kiwi.
(Labour MP Duncan Webb stated in Parliament that "eating Whitebait is akin to eating a kiwi".)
Sadly, such 'misinformation' is widely accepted by many New Zealanders who take such statements at face value and perpetuate the myth.

The reliability of the New Zealand Freshwater Fisheries Database has been questioned by Crow et al 2016 in a NIWA report.

"Crowe et al. (2016) discuss the biases present in the data contained in the NZFFD; for example, differences in habitats surveyed, methods used and environmental conditions. The variability generated by these differences require standardisation of data to be undertaken. Crow et al. (2017) found insufficient accurate data to generate standardised trends for any of the whitebait species, except for kōaro. Once data was standardised, kōaro were predicted to be declining by 0.05% (+/– 0.02%; CI 95%) per year (Crowe et al. 2017). A comprehensive New Zealand-wide network of monitoring sites is required to gather accurate, long-term information about population trends for the five migratory galaxias species"

Clearly, this critical analysis relegates Database figures for four of the five whitebait species as worthless, and for Koraro (Galaxias brevipinnis) reduces the rate of decline from an estimated 10% to70%, itself a very wide range, to just a 0.05% (or one 20th of 1 %)decline. Hardly significant in anyone's terms.
A further consideration in the management of whitebait is the fact that all five species of whitebait can now be successfully bred through aquaculture, to the extent that at time of writing Paul Decker of Manaki Whitebait, Warkworth (guest speaker at an association meeting 20.1.2020) has 120,000 Giant Kokopu living in his tanks. He has also supplied short-jawed kokopu to Auckland Regional Council for restocking rivers. The potential of the conservation benefits of aquaculture and emerging technologies appear not to be considered as a conservation measure in this document. It should also be noted that this latter figure is greater than the total number of wild Giant Kokopu estimated by the NZ Threat Classification System.

Another major concern is that the proposals appear in isolation of other more generally accepted and more critical conservation requirements such as habitat enhancement and facilitation of migration to adult habitat and spawning areas.

Indeed, to quote Minister Sage in 2018:

*"For many threatened native fish, being caught on a line or net is not the threat. Restoration of habitat and preventing further habitat loss is essential to ensure our native freshwater fish thrive". (*Stuff – Charlie Mitchell feb. 14th 2018)

Furthermore "A guide to restoring Whitebait habitat" NIWA Research carried out by J. Richardson; M. J. Taylor. Science Communication is germane:

"Our research has indicated that whitebaiters catch only a small proportion of the whitebait run in medium to large rivers (Mora 1992, Allibone et al. 1999), so further restrictions on the fishery are unlikely to have much impact on inanga populations. In contrast, studies of freshwater growth and egg development showed mortality during these stages was very high (Mitchell 1991, Richardson et al. 2000), so management strategies that improve inanga adult and spawning habitat and increase survival could substantially benefit the fishery."
(https://niwa.co.nz/sites/niwa.co.nz/files/a_guide_to_restoring_inanga_habitat.pdf)

This suggests that the closure of large to medium rivers, at least their main flow, is pointless and would simply achieve ongoing resentment among whitebaiters and the local community.

Management Strategies:

Clearly, all whitebait conservation strategies need to be integrated and holistic and it is staggering to learn from DOC Director General Lou Sanson that the department has no dedicated budget for managing whitebait!
(Reference: Greymouth Star 12 Oct 2019).

Establishing a dedicated budget for whitebait management should be an obvious first step. The second step should be to immediately begin gathering reliable and valid scientific data on whitebait population dynamics throughout New Zealand and then base management strategies upon this to achieve the sustainability outcomes desired by all.

It is significant that the DOC whitebait working group (publicised minutes meeting 1 2018) cited a lack of data and scientific knowledge as a major issue for whitebait fisheries management nationally, specifically citing the following critical areas:

- On populations
- On population structure ("stocks")
- On species
- dispersal and recruitment around different parts of the country
- amount of redundancy in the population?
- different population trends in different parts of the country?
- unknown predation by introduced species
- how much habitat do species (populations) need throughout their life cycle?
- composition of catch (varies year to year)

Obviously, such a wide ranging lack of data and scientific knowledge in such critical parameters makes the majority of management proposals in the consultation document extremely arbitrary, and suggests they reside in the context of a knowledge vacuum.

By gathering reliable population and catch data, whitebait fishery managers would have a sound basis upon which to develop management strategies. Such management strategies must be adaptive and link to population trends, taken over time, for individual catchments. This kind of management regime, referred to as an "international approach to Galaxiid management", was in fact recommended to DOC by NIWA.

"*we recommend implementing a licencing system where provision of a catch diary is required to renew a licence. This will provide a baseline of catch per unit effort for whitebait across New Zealand that can be used to monitor the response of the fishery to future management initiatives. This also allows for an adaptive management strategy where regulations can be changed/modified as scientific knowledge of the whitebait species advances*".
(NIWA Potential options for regulation changes to the NZ whitebait fishery 2018)

Inherent in such a management system is the requirement for localisation for at least some of the regulations. Such a view is further supported by whitebait researchers Professor David Schiel and Dr Mike Hickford who lead the whitebait project at the University of Canterbury.

"We are accumulating enough evidence to indicate that more area-specific regulations may assist this fishery, for example by taking account of the clear differences in size and age of Bay of Plenty and Westland whitebait."

If it is shown that populations in any particular river are significantly declining over a period of time, then measures should be taken to at least halt that decline, by mitigating obvious limiting factors. This could be done by any combination of regulation change, improving migration passage, and enhancing habitat, preferably in an integrated manner.

The collection of valid data is central to effective fisheries management, and the West Coast Whitebaiters Association would be willing to assist the Department in the collection of data.

The need for at least some localised regulations, tailored to species data from each river or catchment is also supported by several other New Zealand whitebait researchers:
"Significant evidence has emerged of stock structure in koaro and inanga – i.e., the existence of spatially distinct sub-populations, which have some genetic mixing, but overall have limited dispersal and tend to return to rivers within the same region where they were spawned" (Hickford & Schiel2016; Augspurger 2017; Egan 2017).
"This suggests that within regions, the way the whitebait fishery is managed and regulated could directly affect the sustainability of that region's whitebait fishery into the future. This is an important finding that supports regionalised regulation and management."
(NIWA, Potential options for regulation changes to the NZ whitebait fishery 2018)

The strategy of establishing reserves by closing rivers or tributaries appears to have precedence over other forms of regulation control in the proposed options, although no scientific basis for this is given. In 1999 DOC initiated a workshop to discuss closed fishing areas on the West Coast.

McDowall, R.M., 1999 West Coast whitebait fishing closed areas workshop. Conservation Advisory Science Notes No. 238, Department of Conservation

The group which consisted of specialist whitebait researchers and from both NIWA and DOC discussed the many and various 'pro's and con's' of reserves but the Department ultimately decided not to progress with the idea of establishing more reserves or carrying out specific research into the value of reserves on the West Coast.

Some of the principal areas of doubt against the establishment of reserves, particularly in absence of supporting research data, are just as valid today. Sadly, if that research had been done as suggested, we may not be on the shakey ground we are today.

Some of these doubts expressed in McDowell's paper were:

The extent of pre and post season whitebait migration:

"Nor is it known whether and to what extent there is invasion of areas within or beyond the limits of the reserves before the beginning of the fishing season, or a major increase in fish numbers in the catchments after the whitebait fishing season has closed. This would tend to reduce the ultimate value of the reserves. Thus, all of

these factors have the potential to substantially alter (both positively and negatively) the significance assigned to reserves as contributing to sustainability of the fishery."

Regarding the potential value of reserves in promoting spawning:

"Making a link from this finding to arguing for a role of reserves in sustaining the whitebait fishery involves a whole series of assumptions related to presently unquantified numerical connections between the number of eggs produced and the number of whitebait that migrate back into rivers from the sea about six months later. Insofar as life at sea of whitebait is virtually unknown, is presently inaccessible and is likely to remain so, making that linkage is something of a necessary 'act of faith'.

As mentioned previously, a further and often reported influence is the role of our notorious West Coast spring weather on whitebait population dynamics.

"Natural perturbations such as floods and droughts may vary widely within habitats and between years. Therefore differences in annual run size or differences in perturbation may be the critical elements in determining differences in 'population dimensions' between years rather than differences due to reservation or not." "However, sometimes (or perhaps often, or even usually), perturbations (stochastic effects) are the proximate population controllers. With a climate like that of the West Coast, it seems intuitive that perturbation will profoundly affect whitebait populations."

Clearly, the options of establishing further reserves by the closure of rivers to fishing must be accompanied by robust research, specific to that river, To do otherwise relegates closing rivers to 'feel good' stab in the dark.

"A possible outcome from this research could be that there is so much escapement from fishing, either during the season or after fishing has ceased, that reserves have no biological/fisheries justification."

Economic, Social and Recreational

The whitebait fishery is a vital component of the economy of many small West Coast communities, who, in many cases have been severely impacted by closures of extractive industries by government policies. In some cases, tourism has filled the gap, but remains a relatively low wage alternative. The influx of whitebaiters, following winter, provides an important income gap filler before the tourist season and other industries come onto line.

While monetary values can be calculated for the fishery, at around $14 M (200,000 kg X $70/Kg), per annum, the recreational value is more difficult to estimate.

In 2007 A senior technical adviser from DOC reported the following:

"The recreational value of the fishery is far greater than the monetary value that can be placed on this fishery I would estimate 2-3 times the commercial value of the fishery. Many whitebaiters spend far more on equipment, time and fuel compared to the value of the fish caught." (Submission related to Central Plains Water Application 2007) ***Keith William Briden – Senior technical adviser DOC Canterbury / Aoraki ".***

This would suggest another $30M of economic activity. Not an insignificant amount for an economically struggling community.

The importance of whitebaiting as a recreation on the West Coast cannot be underestimated. People from all ages and walks of life participate and it is a mainstream recreation for retired people.

During a 'run' on the Grey and Hokitika rivers, businesses, classrooms and streets are depleted as those who can, head to the river.

The Submission Process and Whitebait management

We are concerned that the results of this consultation will be analysed quantitatively, based on numbers of respondents for or against for each option, as stated by our DOC consultation presenters at local meetings. If this is the case then the result will be whitebait fishery management based on public opinion, rather than accepted best practice science.

The West Coast Whitebaiters Association has representation on the West Coast 'Sustainable Wild Whitebait Fishery' group established in 2017 by DOC West Coast.

This group has been working with specialist whitebait scientists from both DOC and universities focusing on habitat enhancement and facilitation of whitebait passage throughout the West Coast. If this exercise was to be repeated throughout all DOC operational regions the environmental and habitat gains would be considerable and probably negate the need to enforce unpopular, and in places like the West Coast, unnecessary regulations. The cost of doing this would be a fraction of the cost of the 'Battle for the Birds' for example and a lot less controversial.

Some of the proposals in the 'Improving Whitebait Management' document appear to have been written in the absence of knowledge of both the fishery and of unintended or consequential effects. For example, if screens cannot be used this effectively prevents fishing from any stands, which catch over 90% of whitebait sold, so this is tantamount to closing the sale of whitebait to the New Zealand public.

Similarly, the banning of whitebait for sale would very likely produce a black market with much higher prices, removing the ability of New Zealanders to have their annual meal of whitebait. Furthermore, such higher prices would encourage the 'poaching' of whitebait from existing or future, and sometimes fragile, closed waters.

In the same way, the closing of rivers rather than tributaries will simply shift the fishing pressure to a neighbouring river where the whitebait catch will increase. Again, unintended consequences with little gain for conservation.

While the general public of New Zealand are entitled to have a say on the management of whitebait, few, apart from those directly involved in the fishery or its management, have the knowledge or experience to provide valid input to the management of the fishery, other than to extol the need for sustainability, which we all want anyway.

Summary:

The proposals set out in the "Improving Whitebait Management" document are based on very dubious data and a paucity of scientific knowledge and focus on the fishing regulations at the expense of the critical issue of habitat enhancement. The intention to implement a standardised nationwide set of regulations is simplistic and steers whitebait fisheries management in New Zealand away from accepted international best practice, which is data driven, and specific to biogeographic regions as effective operational management units.
The importance of habitat is further supported by whitebait researcher Jane Goodman:
"The degradation and loss of habitat for juveniles and adults, as well as spawning habitat, is thought to be a primary factor in the decline of our whitebait species. There is very little conclusive research about the effect of harvest on the five species. Some attempts have been made to collect catch data, but these have largely been unsuccessful and/or inaccurate." (Goodman et al. 2014).

As the Department of Conservation admit, they have no data to show a decline of whitebait on the West Coast or Fiordland, together the entire west coast of the South Island of New Zealand, and by far the largest contiguous area of whitebait habitat in the country.

This view is clearly shared by whitebait researchers who have worked extensively on the West Coast.

"*Fears about their decline, and wildly unfounded claims that they may go extinct, have turned them into the poster child for all that is besetting our freshwater environments. Even if not caught by whitebaiters, the vast majority of whitebait die within several months of entering streams, as predation by birds and larger fish such as trout, and food limitation whittle down their numbers. Most īnanga die when they are between one and two years old, so to sustain our whitebait populations, constant replenishment is required."*

"There is a general belief among scientists and the public that whitebait are not as plentiful as they once were. The evidence for this, however, is piecemeal and entirely anecdotal. There are no records of whitebait catch, except for those of a few fishermen who keep diaries of their own catches."

These views are clearly supported by New Zealand Encyclopaedia Te Ara:

"In most of the country the quality of river water has declined because of agricultural and other land use. The exception is South Westland and it is no coincidence that this is where the best known and largest whitebait catches still occur. There is no evidence that the runs there have declined."

An obvious conclusion is that, for the West Coast at least, many of the proposals outlined in the Whitebait Management Document fit the description of a 'solution waiting for a problem', and sadly those proposals have the potential to take the focus off the essential requirement of habitat maintenance and enhancement.

Specific Points based on Consultation Document Headings:

- **Introduction p. 11-25**

  Do you agree with the description of the current state in the introduction?
  We do not agree with the current description of the state of whitebait species.

  Reasons:

  - *Lack of catch data (juveniles). See comments above in 'overview' and 'management strategies'.*
  - *Adult data is incomplete and largely based on presence or absence data, and is also limited geographically.*
  - *No valid population data for the entire West Coast and Fiordland. (Ref. 18-E-0614 and DOC – 5588499)*
  - *NZ threat classification system states 'data poor' for some species and the NZ Fresh water fish database has been shown to be invalid for all whitebait but Koaro. (Crow et al 2016).See comments above in 'overview'.*
  - *All whitebait species can be bred successfully through aquaculture/ fish farming and are able to be used for restocking rivers. (Paul Decker 2020)*
  - *The main species (Inanga 90% of catch) and Koaro can be found in several Southern Hemisphere countries.*

  Is there other information that should be considered?

  - *There are 120,000 farm bred Giant Kokopu currently living in whitebait farm tanks, more than estimated are in the wild.*

- **A management goal for whitebait p. 26-29**

  What (if any) changes do you think should be made to the proposed management **goal?**

- *While the overall management goal "to ensure healthy and restored whitebait populations and provide a sustainable fishery" is supported, the implication that all whitebait fisheries require restoration is simply not true in our region.*

- *The goal "The fishery is managed for the recreational enjoyment of participants" ignores the fact that many New Zealanders, most of whom do not have access to the fishery, enjoy the proceeds of fishing to the extent that the ability to purchase and consume whitebait is part of Kiwiana.*
- *The goal "The fishery is well supported by habitat management" is not at all adequately addressed in the document. "If habitat can be effectively maintained the species will look after themselves" is a basic concept in wildlife management.*

- *Management goals need to be prioritised. E.g. Collecting valid scientific population data should be number one priority, <u>then</u> planning strategies to support populations in catchments where required.*

- *While consistency of regulations are supported in terms of general fishing rules, there must be some actions specific to each river/catchment in response to species population changes.*

- *Management must be adaptive and responsive.*

Would you like to comment on the management **outcomes** proposed for the whitebait fishery.

- *While equality between fishers is important, it is unreasonable that the proposals take no account of commercial fishers and stand holders who have invested considerable amounts of money to legally catch and sell whitebait.*
- *There are many ways in which valid catch data can be obtained with cooperation of representative groups such as ourselves.*

- *Treaty partner involvement is supported, but it is also important that the historic and cultural significance of whitebaiting to all New Zealanders is not overlooked.*

- Are there other management outcomes that should be considered?

  - DOC should work with representative whitebait groups and Iwi to achieve sustainability of the resource.

- **Proposals for amendments to the whitebait fishing regulations**

  - **Timing of the whitebait season (p. 33-37)**

• 15 August – 14 October
• 1 September – 30 October
• 1 September –15 November (Current West Coast season)

Which of the 3 timing options do you consider most appropriate for the whitebait fishing season? Why?

- *Retention of the current season for the West Coast 1st September - 15th November is supported as whitebait are known to have significant runs both pre and post season and natural selection promoting this split.*

- *On the West Coast the whitebait season coincides with our spring (equinox) rains which commonly results in between one third to half of our season been unfishable.*

https://weather-and-climate.com/average-monthly-Rainfall-Temperature-Sunshine,greymouth-west-coast-nz,New-Zealand

Nationwide upstream limits on whitebait fishing (p. 37-40)
Options are:

• Introduce back pegs to mark upstream limits to whitebait fishing*
• Where back pegs are not in place, whitebait fishing occurs within tidal limits* (Both elements comprise DOC's recommended option).

Do you agree with the proposed approach to selecting rivers (outside the West Coast of the South Island) on which to place back-pegs? Why or why not?

- *A combination of these two options is supported as whitebaiting beyond (upstream) of these areas is very likely to impinge upon adult whitebait populations.*

- *This could apply to all rivers nationwide.*

Do you wish to suggest specific waterways in which back-pegs should be placed? Why do you suggest these waterways?

- No.

Creation of whitebait refuges in selected waterways (fishing excluded) (p. 41-46)

• Temporary short-term (2 years on, 2years off)
• Temporary medium term (5– 10 year timeframe)
• Longer term (10+ year timeframe)*

- *Entire river systems should <u>not</u> be made into refuges, but if tributaries or small water bodies are made into refuges such as the 20 on the West Coast they should be closed permanently.*

- *There is no need for further refuges on the West Coast as we have 20 already and there is no evidence of a decline in whitebait.*

Do you agree with the approach proposed for selecting waterways as refuges for the whitebait species, and for the exclusion of whitebait fishing? Why or why not?

- *No, the proposed approach bears no relationship to what is happening in the actual rivers biologically. If rivers are to be closed it must be done on evidence based data.*

- *It makes no sense to close entire rivers, such as many on the West Coast, that already have existing closed tributaries. Fishers have respected these existing 'refuges' and should not be penalised further.*

Do you have specific feedback on any of the rivers listed as potential refuges? Can you provide any more information about these sites?

- *It would be unreasonable and unfair to close the Hokitika river, for example, when it already has a major spawning and breeding tributary (Mahinapua Creek) closed.*
- *Similarly, the Wanganui river (West Coast) has Oneone river (Black creek) as a closed whitebait refuge.*

- *There is no point in closing medium to large rivers as whitebaiters only account for a very small part of* the *run and fishing pressure would be transferred to other rivers.* *https://niwa.co.nz/sites/niwa.co.nz/files/a_guide_to_restoring_inanga_habitat.pdf*

Which sites do you think should be selected for short-term or longer term fishing exclusions? Please provide information you have that informs your view.

- *None on the West Coast, as it already has applied effective conservation measures with its' 20 closed rivers. To close more would be unfair and impose considerable economic hardship to many small communities dependent on the whitebaiting influx of fishers for no significant conservation gain.*
- *Closing whole rivers would create extra fishing pressure on other rivers, some of which may be seldom fished.*

Whitebait fishing practices (p. 46-55)

What are your views on the proposed changes to whitebait fishing practices? Please tick **All** proposals that you agree with.

Please Note: reasons for proposals not supported given.

☐ Sock nets should be phased out

(helpful for elderly and infirm and can be setup by others)

☐ Traps in nets should be phased out

(would conflict with above, and fishers do return bycatch to river)

☐ Screens and diversions should be phased out

Whitebaiting would be impossible from all stands without screens, and many rivers, or parts of rivers, would be unfishable without them.

☑ Nationwide size and location restrictions on screens and diversions should be introduced

☑ Whitebait fishing should be prohibited from structures other than stands

☑ Whitebait fishing should be prohibited within 20 m of weirs, groynes and illegal diversions

☑ Nets should not be located beyond the outer edge of a stand

☑ One net should be used when fishing from a stand

☐ A nationwide maximum overall length limit for gear of 6 m should be introduced

An overall limit of 6 m would make fishing impossible for many sites especially on gently sloping river/ beaches as continual movement of gear would be required due to incoming tide. Further it is not clear whether this applies to stands which come under Regional Council rules.

☑ There should be a nationwide maximum on the incursion of gear (excluding stands) into a waterway, of 1/4 the width of that waterway.

☐ The existing drag net provisions should be applied nationwide

- *The use of dragnets would greatly interfere with other river users.*

☐ A minimum distance of 20 m between fixed fishing gears (not stands) should be introduced

- This provision would create conflict and competition for sites.

Phasing out export of the whitebait species p. 55-58

- Are there other approaches to ending export of the whitebait species that should be considered?

  - *As all species of whitebait can now be successfully bred through aquaculture, there is no valid reason whitebait cannot be exported, particularly if produced through aquaculture which is likely to increase in the future.*

For all proposed regulatory amendments p. 30-68

- Is there other information that should be considered?

    - *Many of these proposed changes have ongoing and unintended consequential effects and it appears that the writers have limited knowledge of these.*

- How do you think the options set out will contribute to achieving the management outcomes and goal proposed?

    - *Closing entire rivers is an unnecessary and simplistic management tool for managing whitebait species. If not based on valid data flies in the face of modern fisheries best practice.*

      McDowell et al 1999 (Conservation Advisory Science Notes No. 238) supported this view and seriously questions the value of reserves without accompanying river specific research.

    - *Closing specific breeding tributaries or habitat for adult species makes more sense. If back-markers are adopted as on the West Coast, nearly all adult habitat will be protected anyway, as will further upstream migration.*

Would you like to provide additional information on the alternative options?

    - *If the rest of New Zealand were to adopt the same regulations as the West Coast in terms of shorter season, back markers, and disallowing multiple nets and wings, having all screens attached to the bank together with new initiatives such as maximum intrusion into a river of ¼ stream width, then more draconian and unpopular steps such as closing entire rivers would not be required.*

- Would you like to provide other comments on the proposals in this document?

    - *Asking people to choose which rivers should be closed in the various regions is tantamount to managing indigenous species through a popularity poll. This is disgraceful for a government department charged with managing their conservation.*

Which combinations of these options do you think would contribute best to improving whitebait management? Why?

- *The greatest threats to whitebait, in order of importance, are habitat loss, barriers to upstream and downstream migration, water quality, predation and whitebait fishing. This document and its initiatives only concentrate on the least important; fishing.*

- *It is therefore critical that DOC direct more resourcing, as it does for our birds, into protecting existing habitat, creating new habitat such as the excellent work on Cobden Island at Greymouth, and identifying and removing barriers to fish passage again such is being done on the West Coast.*

- *Adjusting fishing practices without concomitant work on habitat could actually be counter-productive, as it would take the focus off more important habitat enhancement.*

Are there additional options not described in this document which should be considered?

- *Each region forming a management group such as the West Coast Sustainable Wild Whitebait Fishery group which consists of DOC staff, Whitebait scientists and whitebaiter representatives to look at improvements which could be made to each region.*

- *Specific and Increased funding for whitebait management and habitat improvement.*

- *Restocking depleted rivers with farmed adult whitebait as done by Auckland Regional council with short Jawed Kokopu. Such whitebait could be bred from the home stream to maintain genetic integrity.*

- Are there other minor changes that should be made to the whitebait fishing regulations, to improve consistency and clarity?

  - *Simplify them. An example is the dual regulations we have on the West Coast. Whitebait Stands are the responsibility of the West Coast Regional Council, whereas policing the regulations is done by DOC.*

- **Implementation p. 69-72**

  What do you see as potential challenges in implementing (any of) the options proposed in this document?

  - *Obtaining valid population data of both juveniles and adult populations required to manage the fishery effectively. DOC must be prepared to work with whitebait representative groups to obtain catch data required.*

  - *Lack of a DOC budget specific to Whitebait management and lack of funding.*

  When do you think any regulatory changes that are carried forward after this consultation should be introduced?

  - *2022 for minor gear changes etc,but for refuges and catch limits or other major changes only after valid and data is obtained for that specific river/ catchment. Following effective and ongoing communication and education.*

  What do you think about the proposed monitoring arrangements?

  - *All monitoring must be scientifically rigorous or not done at all. For example all catch data must be expressed in catch per unit effort (Kg/day) or similar, for valid comparisons to be made.*

  - *Assessing the status of whitebait species populations should not be based on the NZ Threat classification System and the NZ Freshwater fisheries database as there have been shown to be limited in validity and should not be standalone references for population analysis. (Crow et al 2016).*

  - *Robust population data must be obtained before making significant changes such as establishing refuges or introducing catch limits.*

- *DOC must be prepared to work with whitebait representative groups to obtain catch data required. A licensing system may help achieve this.*

- *In terms of compliance, DOC rangers must have effective training in relationship management as well as in depth knowledge of the fishery and fishing practices.*

- *Whitebaiting is a legal activity and DOC staff should actually assist people with their fishing, as do Fish and Game rangers. This would improve relationships greatly. A system of voluntary rangers should be considered, and /or a warden for each river.*

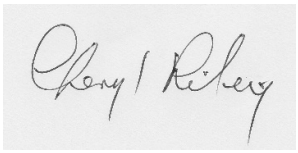
How should the results of monitoring be reported?

- *Monitoring results should be shared and discussed with users of the resource such as whitebait associations.*

- *Using public opinion to assess the efficacy of fishery management, or any other aspect of the fishery is unscientific and likely to engender bias.*

- *Every aspect of Whitebait management must be scientifically robust to ensure sustainability also the credibility of those doing the managing.*

Signed:



Cheryl Riley (President) **Rob Roney (Vice President)**

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