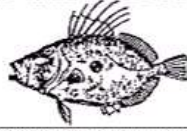


WELLINGTON
RECREATIONAL MARINE FISHERS'
ASSOCIATION (Inc)



WE RECOGNISE MANAGED FISHERIES

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10 March 2016

The New MPA Act
Ministry for the Environment
P O Box 10362
Wellington 6143
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E Mail mpaconsultation@mfe.govt.nz

Dear Sir

The committee of the Wellington Recreational Marine Fishers Association suggested I attend the meeting in Wellington. For over thirty years I have been on many Government and council committees and in that time we have also written many submissions to Government and councils. In the process we have increased our marine knowledge to become the expert witness to many community groups who have found it impossible to find a scientist who can describe the value of the intertidal zone to marine species. Unfortunately we find that through the resource consent process a resident New Zealand scientist will not oppose a resource consent application as his future contracting or employment chances will be put at serious risk. For example through the Trans Tasman Resource consent application to mine iron sands from the sea bed west coast communities had to bring in scientists from overseas to provide the EPA hearing with the truth about the impacts.

The purpose of the MPA Act must be widened to require councils obtain marine knowledge.

Since my experience in 1999 when the Wellington Regional Council applied to itself to dump 100,000 tonnes of dredge waste into one of the Wellington Harbour fresh water springs for ten years and called them natural holes and depressions I knew something was wrong with the system as WRC had gained the support of Victoria University. Then the then Minister of Conservation Hon Nick Smith had DOC over turned their opposition to the project at the resource consent hearing. We then asked him to declare the Wellington Harbour fresh water springs "Areas of Conservation Importance" and in his reply he described he could not as the WRC had omitted them from their Regional Coastal Management Plan.

As a result I now become involved in any process that involves the marine environment contributing our/my marine knowledge to such projects. Through the resource consent process by Meridian to construct of wind turbines at Makara West Wind Meridian accepted our marine knowledge and built a wharf where we advised to unload the wind turbine parts and to then remove

it after they had finished. We also selected the site, ramp angle, construction method and environmental lay out of the WCC boat ramp at Owhiro Bay which the WCC accepted and then built after we had consulted widely and received considerable support for.

At the first local community meeting called to discuss the extension to the Wellington airport runway I realised the Wellington Regional Council and the Mayors and councillors of all of our local councils had made a terrible mistake as they obviously had lacked the required environmental knowledge. They had all been promoting an airport runway extension to the north into Evans Bay. Their proposal was to have a tunnel constructed under the runway to take all traffic, with drawings appearing in the media showing traffic passing under the runway. I wrote to the Wellington Mayor Celia Wade Brown and her Councillors advising that dangerous goods cannot be transported in any tunnel in NZ. This would have required an extension to State Highway One as it finishes at the Airport building and the airport extension which would have gone half way down Burnham Wharf. This would have prevented the shipping tankers transporting the jet fuel from berthing. This in turn would have prevented jet planes from using the airport. We advised the Mayor that we would support a runway to the south and within a week the Dominion Post produced an article advising the proposed extension would be to the south.

Evaluating the material in consultation documents or resource consent applications

Since 1999 I have read and evaluated many consultation documents from Government and those presenting information in support of their resource consent application. I was most concerned that the MPA Act consultation document did not provide the necessary information to allow the questions in the document to be answered correctly. Yet the document asked for input based on the information in the document. It became obvious the document has been put together with little consultation with those with practical marine knowledge. The document failed to mention how the marine environment is managed today through other Acts of Parliament.

I attended the MPA meeting in Wellington to evaluate if those involved in writing the consultation document had the required marine knowledge to understand the issues and write another Act of Parliament to manage the marine environment this time through a Marine Protected Area Act.

As written this consultation document is well below the standard produced by DOC and MfE in the past. We have gone backwards and is an example of the lack of marine knowledge Mfish put on display when attempting to manage the blue cod fishery in the Marlborough Sounds. In 2003 we wrote a detailed submission suggesting a better way to manage the blue cod fishery in the Marlborough Sounds only to find years later those involved in evaluating the submissions had no practical marine knowledge and were new to the job. It's a small world as I was later to discover he had written rude remarks all over our submission and others as he did not understand the practical side of marine management. Time will tell if those involved in constructing this new MPA Act can accept and understand the information we are providing and introduce a management system that is acceptable to those who know and have experienced the problems of the end user.

Recreational involvement has changed waste water management guidelines.

Our organisation has represented the Wellington regions recreational marine fishers for over thirty years on Mfish advisory forums, DOC NGO forums, MfE advisory forums. We have used our

marine knowledge to help the Hutt City Council avoid a costly public resource consent hearing while taking part in their waste water resource consent submitter forum. In 2003 in our submission to the WCC resource consents to discharge waste water into Lyall Bay and along the Wellington South Coast we identified major errors in the information provided by the Cawthron Institute Ltd and the proposed water sampling method by the WCC. Our concerns were also supported by the DOC scientist but we were both taken back when two of the commissioners ex WRC Chair Bruce Buchanan and the Minister of Conservation representative Ian Stewart stood up and abused us for describing the coastal waters had value to marine life and if we did not like it to put our concerns into a story.

The errors in the WCC resource consent application were identified in our submission to the NZ Environment Court and the Judge agreed but there was nothing we could do about it now. Time moves on and now I am on the Moa Point Wastewater Community Consultation Group which has seen Wellington Water Ltd ask the past resource consent submitters to sign off an amendment to the past resource consent so they do not have to build a UV treatment plant as required by the 2009 resource consent. The lack of marine knowledge by Cawthron Institute Ltd and WCC has proven the concerns we made to the NZ Environment Court were correct as the WCC has failed to obtain any waste water history at any of their test points as we had predicted would happen to the NZ Environment Court. Now in 2016 without any history no one knows if it is the waste water out fall or WCC cross connections into storm water pipes that is polluting the Wellington South Coast beaches when it rains.

This has made it very difficult for WCC or Wellington Water Ltd to set aside money to carry out their obligation under the 2009 resource consent conditions.

Wellington Water Ltd has acknowledged the concerns we made at the resource consent hearing and at the NZ Environment Court were correct. We are now working with Wellington Water Ltd, WCC and WRC managers to identify the correct location for waste water samples to be taken. Added to that is samples will now be taken from surface waters as described by Hon Amy Adams managers after we wrote to her informing the MfE waste water guidelines were incorrect. It turned out WRC, HCC and WCC had been using the wrong guidelines since 1999 and were collecting waste water samples half a metre below sea level which could only be sea water.

We have now been invited to become involved in writing resource consent to correctly manage Wellington waste water outfall issues. The regions errors in collecting samples was identified when attending the Hutt City resource consent submitter meetings to discharge waste water into Wellington Harbour while their pipe went under repair. In both process we have brought the Hutt City Council and the Wellington Water waste water scientists together to determine how best waste water samples should be evaluated now that they will be collected from the sea surface and not half a meter below the surface. This error in sampling was caused by Cawthron Institute Ltd called as the expert waste water expert by WCC. However we know the water samples from the Timaru Harbour taken by their regional council are also taken half a metre below the surface as they also are using the wrong guidelines. There by providing proof that regional councils have not scientists that know fresh water floats millimetres thin on the sea surface.

What is missing from the Consultation Document MPA Act

I have included this as an example of how our councils have used our practical marine knowledge to set in place a process to measure water pollution levels both in Wellington Harbour and the Wellington South Coast. The consultation document describing how and why a Marine Protected Area Act shall be set up lacks any practical marine knowledge in quite a number of areas.

This Act must create the regulation to turn around the present destruction of marine ecosystems in our coastal waters caused by the lack of identification and knowledge by both Government and councils.

This new Act will do nothing to address the failure of the Fisheries Act 1996 which clearly states the principle of the Act is not to address the impacts of the environment on fisheries but the impacts of fisheries on the environment.

In 2015 we supplied another detailed submission to MPI on ways to better manage the blue cod fishery in the Marlborough Sounds which included the comment:-

“The impact of mussel farms on blue cod has not been recorded as the impact has been the subject of selective science for years. An example of how NIWA are failing to describe the environmental impact of mussel farms on the underwater environment in the Sounds was demonstrated when NIWA awarded a NIWA scholarship to N Harstein to undertake postgraduate study on *“The effects of shell accumulation below mussel farms on marine ecosystems”*. This is selective research as divers report the waste from mussel farms is smothering the marine ecosystems but this impact has been outside the scope of this and all research.

There is also a commercial mussel industry selecting locations for their mussel farms over blue cod habitats but everyone in MPI and the commercial mussel industry management are aware of the problem but are neglecting to ensure the very purpose of *“The Fisheries Act 1996 Part 2 Purpose and Principles Section 8”* are adhered to. Quoting this Act the purpose is stated “as to provide for the utilisation of fisheries resources while ensuring sustainability. **Ensuring sustainability** means—(a) maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations; and (b) avoiding, remedying, or mitigating any adverse effects of fishing on the aquatic environment. While **utilisation** means conserving, using, enhancing, and developing fisheries resources to enable people to provide for their social, economic, and cultural well-being.” Clearly Mfish and now MPI are not complying with the Act and this failure or lack of action is impacting on blue cod habitat and this needs to be corrected immediately. There is obviously a need to write a section in the new Act to introduce stronger wording as MPI are failing in their legal requirement to ensure mitigating any adverse effects of fishing on the aquatic environment.

The MPA Act must require regulations to better manage the impacts on near shore waters by commercial harvesting

The Fisheries Act’s Purpose requires that fisheries must not impact on the environment yet mussel farms are impacting on blue cod habitat and scallop beds. It is unacceptable for MPI to support science studies that have been designed to misreport the environmental impact of mussel farms. For years those involved with mussel farm management have been allowing the discarding of mussel

waste over productive shallow water thereby smothering sea grass beds, blue cod habitat and scallop spat areas. The impact of dumping one tonne cube bags of mussel operation waste in one hit may be good for those fishing for snapper but the habitat for all other marine species has been destroyed in the process. This includes sea grass beds and baby scallops which nearly all marine species live in or eat throughout their lives.

The introduction of salmon farms has caused further trouble for blue cod as salmon produce fish oil similar to that of pilchards, which through evolution, blue cod had been attracted to. Unfortunately the method of feeding the fish is creating a feeding frenzy. This in turn attracts blue cod and barracuda which then thrive on the small blue cod. This feeding practice also gives seals and pied shags an opportunity to feed on the fish while they were focused on feeding. It would not be hard for MPI to require a different management practice to be adopted at these farms to ensure the 1996 Fisheries Act "Principles and Purpose" was complied with.

The MPA Act must require DOC to introduce a management plan to manage all other impacts on fish stocks in the Marlborough Sounds instead of shutting their eyes to the problems.

Currently Government has not researched or identified that seals and pied shags are a threat to blue cod, however, this is another one of the major causes of this fishery collapsing so dramatically in a few years. One seal eats between ten and twenty kilos of fish a day so even if one ate 10 kilos a day (which would have to be a bad day) for 300 days a year that is 3000 kilos of fish per year. There would have to be at least 5000 seals now around the Sounds, if not more, because on the North Island that is the number on the South East and South West coasts alone before they stopped counting. So 3000 kilos of fish is eaten by every one of the 5000 seals a year and that equates to 15,000,000 kilos or 15,000 tonnes per year. The TAC for blue cod is just 70 tonne per year with other causes hardly mentioned. In Canada, when after some green opposition they decided to hold seals at manageable levels, the fishing improved. Some years back B Dix a DOC scientist informed Government that seals do not eat fish and no one believed him so after further study his view was proven to be incorrect."

There is serious reluctance by both DOC and MPI to manage of pied shags in the Marlborough Sounds as if their numbers had no reflection on the blue cod sustainability in the Sounds. If the management of returning under sized fish to the sea continues with the same lack of understanding of the impacts then the outcomes proposed by MPI in 2015 will be never be achieved and the blue cod numbers will continue to decline. If Government wants the MPA for the Marlborough Sounds to work then DOC will have to come up with a management plan to manage both pied shags and seals. Creating a MPA in the Marlborough Sounds should not be seen as way to feed shags or seals. In my experience it has been easy to sell the way small fish are protected from shags as I tell my crews we all go to sea to catch fish and not birds and if they want to feed birds go and feed the ducks at a park.

The reasons for this view is hidden within Appendix One of the MPI blue cod consultation document as for every fish a recreational fisher keeps there were 3.9 fish returned to the sea. We can see who is feeding the shags at sea as once one is fed the shags communication abilities almost immediately brings more shags. This practice of feeding shags must stop through an education

system that even a child can understand. Every fish fed to pied shag is destroying a highly valued fishery whether it is a sea perch, tarakihi or blue cod as all of these fish are also the food source of blue cod. The MPI must take immediate steps to make everyone aware of the impact pied shags are having on the blue cod availability in the future.

Charter boats and recreational boats can have twenty or more shags waiting for the crew or deck hand to release the under sized fish. We have found that if the under sized fish are retained on board in live bait tanks the shags will fly away and the small fish can be safely released. Graham in his 1937 research stated "*that a blue cod of two and half pounds contains more than a million eggs*". If we were to take one charter boat (and there are reported in the MPI Appendix One as being 128 charter boats in Statistical Area 017) and ten fishers on a boat can retain two fish each, then they may have returned 7.8 fish each or 78 fish released by the ten anglers on each trip. Now extend that to 128 charter boats for the day and that is almost 10,000 fish released on one day. One shag eats over five blue cod in a day.

If only ten blue cod were to survive from the million eggs that one fish produced the figures make interesting reading. To carry these figures further the 10,000 released fish x each fish produced 10 fish that survived and that will = 100,000 fish that could have been added to the blue cod stock in one day. Now add in at least 100 charter boat fishing days and that is a million fish now added to the stock in one year all due to a combined plan to stop feeding the shags. Now if all recreational, commercial and scientists all combined to stop feeding the shags we would not require a special fishery bag limit.

The value of the intertidal zone to marine species must be included in the MPA Act

We have become most concerned that MfE, MPI and DOC have continued to display a complete ignorance of the value and function of the intertidal zone to marine species. At the Wellington meeting senior management described MfE were carrying out a study of the water in the intertidal zone in which he described the waters to be brackish. The waters in the intertidal zone are not brackish but a layer of fresh water travelling over the heavier salt laden sea water which comes and goes with the tide. This is basic marine knowledge and I would expect all managers and staff at MPI, DOC and MfE to have acquired a far better understanding of the value and function of the intertidal zone before writing any part of this proposed Marine Protected Area Act.

With this consultation document there has been put on display a basic lack of marine knowledge and there is quoted sections from books or papers without really knowing what they are talking about. The new Act must allow for some areas in a MPA to be closed through the early spring months to protect blue cod from cod pots and snapper at their spawning grounds. The blue cod spawning areas has been described in a master's paper by Ransom on blue cod but any commercial fisher will know where it is. It is obvious why NIWA refused to acknowledge Ransoms work as he proved blue cod move many miles to gather in large schools prior to spawning. The greatest distance he recorded a blue cod will travel was one hundred and fifty miles. However whenever the Wanganui River floods there is an increase in blue cod numbers off the Wellington coasts. Blue cod or any marine specie will not stay in mud filled inshore waters

It is not a reasonable reason to declare an area closed because someone saw a seal or bird or because of a commercial fisher to create a MPA. Describing the value of the waters within a Marine Protected Area must take into account the 2010 New Zealand Coastal Policy Statement that requires Government and all council to acquire the knowledge to manage the intertidal zone. Those involved in producing this discussion document have all failed to acknowledge the specific Policies within the NZCPS that relate to the water quality within a proposed MPA. The MPA Act must describe the value of the intertidal zone as DOC, NIWA, MPI and MfE have all communicated they know very little.

Some years back DOC produced a big document describing the estuaries in the Wellington region and named the fish they saw as anchovies but lacking in marine knowledge they did not know anchovies do not enter fresh water and had failed to capture one to have them identified correctly. This was example of the lack of resources at DOC when trying to describe anything in the marine environment as there have been a number of errors made by DOC in the past. The little fish they would have seen would have been five centimetres long baby yellow eyed mullet which I have captured while carrying out a study of the food sources of yellow eyed mullet. But unlike DOC we did not guess its specie and had them identified at Te Papa by Andrew Stewart.

We have a concern with DOC involved in creating an MPA Act as they have a history of not carrying out any scientific research before jumping to conclusions. The current level of marine knowledge at DOC is shocking and those with no marine knowledge are making major errors. When the chief lawyer at DOC Head Office decided that beach cast sea weed had no value to marine species in a marine reserve he advised the Minister of Conservation Hon Kate Sheppard to issue an Order In Council to allow the WCC to groom the Island Bay beach of beach cast seaweed a number of times in summer. This is the most critical time of the year as it only grows through absorbing the sun light in summer. DOC's ignorance of our coastal bladder kelp forests when it grows and what is the function of the seaweed mats both as they drift then arrive on shore to form of beach cast seaweed is completely unacceptable as they proposed the marine reserve and should have know. DOC's failure to protect the life in the beach cast seaweed is environmental madness as the beach cast seaweed provides the protein for the successful spawning of many fish species that arrive to eat that life.

That life that has fed off the species in the beach cast seaweed then go onto providing the food source for dolphins that swim into bays to feed on the schools of bait fish. Island Bay has the only beach of sand in the whole Island Bay marine reserve. DOC with their obvious lack of marine knowledge have become a major party in denying Hector Dolphins with their food source. Every year we see the Hector Dolphins off the Wellington South coast as they arrive when the yellow eyed mullet gather to spawn. The Hector Dolphin feeding traits were discovered by those carrying out the study called Threat Management Plan for Hector Dolphins yet not recorded in their report so we know where and when to see them.

With the help of a past DOC marine scientist Ian West and NZ expert on fly identification Allan Heath we co wrote a scientific paper describing the life in beach cast seaweed and how we had discovered this life was consumed in huge quantities by yellow eyed mullet. We supplied DOC with this information however the DOC legal division ignored this information and blocked its

publication as they had just advised the Minister that beach cast seaweed had no value to marine species. With this lack of marine knowledge and the refusal to accept others skills in acquiring marine knowledge DOC management must be required to raise the bar and accept informal marine knowledge now that Government thinks they can have a role in managing MPAs and even co writing the MPA Act.

The importance of bladder kelp forests to marine species

In Example 2 there is the broad description of the importance of bladder kelp beds yet nothing about the life they support when driven ashore to become beach cast seaweed. The description is also totally inadequate as NIWA says they have “identified large kelp off the East Cape of NZ” and “the natural history of kelp beds is not fully understood” and “kelp beds are highly productive ecosystems that create habitat for juvenile fish”. While “the researchers consider that kelp beds should be protected”. NIWA should have named the kelp forests as bladder kelp forests (*macrocystis pyrifera*). NIWA must be short of money as they have already done the research. What follows is our submission in 2009 to Mfish introduction of Bladder Kelp seaweed *Macrocystis pyrifera* into Quota Management System (QMS) on 1 October 2010 and to introduce Bladder Kelp seaweed *Macrocystis pyrifera* in Fishery Management Areas (FMA) 3 and 4 on 1 October 2010.

We described the value of bladder kelp in our submission and its value to marine life below.

To strongly oppose any Total Allowable Catch (TAC) limits being set for the seaweed *macrocystis pyrifera* now or into the future for the whole of New Zealand not just for Fishery Management Areas 3 and 4. To stress that bladder seaweed *macrocystis pyrifera* must be totally protected from any harvesting now or into the future.

In fact the WRMFA know this seaweed to be so important.

Cutting down this seaweed will conflict with Government guidelines, the Fisheries Act and place the Ministry of Fisheries in breach of the Marine Mammal Protection Act.

For example:-

The removal of bladder seaweed while knowing or not knowing its value to a large number of marine specie will place the Ministry of Fisheries in breach of the Fisheries Act 1996 Section 11 Purpose and Principles 9 Environmental principles subsection (C) “*Habitat of particular significance for fisheries management should be protected.*”

The proposal to harvest bladder kelp is also going against the advice published by the Ministry for the Environment paper titled “Preparing for coastal change” (March 2009) which was based on an extensive NIWA report. The MfE publication notes as one of four key principles for managing coastal hazards:-

"Importance of natural coastal margins. The dual role of natural coastal margins as the fundamental form of coastal defence and as an environmental, social and cultural resource must be recognised in the decision making process. Consequently, natural coastal margins should be secured and protected."

History has already recorded the impact of harvesting bladder kelp. In Tasmania they introduced bladder kelp harvesting in the 1960s and 1970s and time has proved it was not sustainable. In fact

they describe there are now plans to make macrocystis kelp forests an endangered habitat type and that these forests be listed alongside the Great Barrier Reef as Special Marine Areas by the Department of Environment, Water and Heritage of Australia. The impact from their harvesting of bladder kelp was massive as they never recovered and today they only have 30% of their original bladder kelp forests remaining. They have linked this to the decline of their paua and finfish species.

“Cutting down this seaweed will have a devastating impact on a huge number of marine species. For example warehou can be seen feeding among bladder kelp stands. Trevally and snapper are often found feeding in the forest of bladder kelp. Butterfish are well known to feed on the plant. Paua gut contents have proven they also feed heavily on the bladder kelp as the plants try and gain a foot hold on the rocks. Kina feed on the stems and this results in long plants being carried along the currents up and down the coast. These floating beds of bladder kelp then provide the shelter for the very young of a number of species and recent NIWA research found hapuku in the dense clumps of sea weed. In the northern waters kingfish also find the bait fish within the floating bladder kelp.

In 1997 we warned Government that since the introduction of the fast ferries to the Marlborough Sounds in 1993 the massive pilchard and yellow eyed mullet schools had disappeared. In 2003 Mfish failed to understand our submission to the blue cod plan which identified the bladder kelp forests had been wiped out and the native sea grass beds had been smothered in mud and silt by these ferries. The sea grass beds became smothered in mud enabling sea lettuce to establish which in turn smothered another blue cod food source. The ferries drive units easily blasted the thirty metre deep sea bed with jet units able to blast the sea bed to fifty metres. It was not until 2003 when I had driven into the wake of the fast ferry and taken a photo off my sounder of the jet unit blasting the sea bed in forty metres that the full impact was realised by Government as I sent it to Sandra Lee the then Minister of Conservation and spoke with Hugh Logan the Director General of DOC. The photo was passed around those in Parliament and a copy is in the NZ National Library.

The fast ferries were pulled from service shortly after. The Ministry of Fisheries should have used the Fisheries Act 1996 Section 11 Purpose and Principles 9 Environmental principles subsection (C) *“Habitat of particular significance for fisheries management should be protected.”*

Another impact on bladder kelp forests has been from the excessive harvesting of paua in small areas which allows kina to take over the area. Kina eat the stems of bladder kelp and have been observed climbing up the stems. A television documentary was broadcast on 25 September 2009 describing this. This will have to be seriously considered in the Marlborough Sounds MPA as there may have to be a reduction in the paua TAC before kina decimate the bladder kelp.

The Executive summary section 7 considers “that the harvest of bladder kelp has economic potential for New Zealand”. Section 7 also considers it to be important habitat-forming species”. Then makes the bold statement that “harvest will need to be carefully managed to ensure its sustainability as well as the fisheries resources it supports”, yet the Ministry lacks a history of protecting any habitat of particular significance for fisheries management.

In 2009 we responded to a proposal submitted to the Department of Conservation called Tourism Effects on Dusky Dolphins at Kaikoura New Zealand. The Fishery Management Area (FMA) 3 covers the region where Dusky Dolphins are found and a report by the Kaikoura Dusky Dolphin Tourism Research Project. There was a major failure in the report as not once did they identify what the dolphins were feeding on. In our experience their research indicated that Dusky Dolphins are no different to other dolphins as to where they find their food. From our experience and using the GPS position given tracking the dolphins it is obvious to us that they also feed on yellow eyed mullet to provide themselves with their protein for spawning. The GPS tracks identified them travelling well into the bladder kelp forests north of Haumuri Bluffs in summer and autumn, a time when we observe bait schools inside bladder kelp forests.

To remove these bladder kelp forests in FMA 3 will seriously threaten a major food source for the Dusky Dolphins along the Kaikoura Coast and easily place the Ministry of Fisheries in breach of the Marine Mammals Protection Act. Not only will these Dusky dolphins start to slowly disappear just as the Hector Dolphins have been doing since their food source was destroyed by regional and local council's coastal mismanagement, but the loss of these Dusky Dolphins will seriously impact on a major tourism industry that is attracting worldwide interest. Then just as what is happening with Hector Dolphins we will see Government and Eco groups blaming recreational and commercial fishers for these dolphins demise, only this time we have identified the cause and predicted their demise, you have been warned. Five years from the introduction of harvesting bladder kelp these dolphins will start disappearing also.

Cutting down this seaweed will have a devastating impact on a huge number of marine species as follows:

- Warehou can be seen feeding among bladder kelp stands.
- Trevally and snapper are often found feeding in the forest of bladder kelp.
- Butterfish are well known to feed on the plant.
- Paua gut contents have proven they also feed heavily on the bladder kelp.
- Kina feed on the stems of bladder kelp resulting in mats of bladder kelp being carried along with the surface currents up and down the coast.
- Drifting bladder kelp then provides the shelter for the very young finfish of a number of specie.
- Research by NIWA has found hapuku in the dense clumps of drifting bladder kelp.
- In the northern waters kingfish can also be found hunting the bait fish within the floating bladder kelp.
- In the forests of bladder kelp we often see piper, yellow eyed mullet and horse mackerel using the forests as shelter from predators.
- As these bait fish move in and out of the bladder kelp forests they in turn provide other specie a food source at change of light.
- Bladder kelp forests do not grow everywhere in the Cook Strait but are found off the headlands of beaches where a number of marine species are known to gather for spawning.
- The forests provide crayfish with shelter and the habitat where they find food has become trapped in the bladder kelp stands. Crayfish and paua exports will decrease from the waters of the FMA 3 and 4 just as they did in Tasmania when they removed bladder kelp.

- The loss of native seaweed plants has already been proven to deny blue cod a food source. Yet today Mfish have still not acquired the marine knowledge to comply with the Fisheries Act as senior management has allowed resource consents to pass without opposition to further destroy the bladder kelp forests in the Marlborough Sounds or prevent them from re-establishing on the rocks. The silence of Mfish in 2009 through the resource consent to allow Transrail shipping to travel at 20 knots through the Sounds proves Mfish have not acquired the resources to know how (bladder kelp) “harvest will need to be carefully managed”.
- It is obvious bladder kelp plays a major part in protecting coastal margins as not only is it found on inshore reefs but it is also found at the entrance of bays in the Cook Strait. Another function of this plant is after a storm when it breaks free to either come ashore to enhance the beach fauna or drifts out at sea held afloat by its flower pods providing habitat and protection for juvenile fish species.

If bladder kelp forests had been surveyed prior to 1970 the loss of these forests would be a national concern, just as the loss of sea grass beds are and now moves would have been made to protect them not harvest them. The impact on bladder kelp forests has come from dairy farming run off and our cities waste water becoming over loaded with chemicals. The knowledge that Mfish and Government sectors allowed the discharge of waste water into waters less than fifty metres deep describes that those involved have a serious lack of marine knowledge, as the impact has been massive. The destruction of the massive bladder kelp forests can also be attributed to the lack of marine and intertidal knowledge by Government, regional and local councils who allow silt and mud to flow into the sea from poorly designed sediment traps. Sediment traps in use today are not being cleaned out and over flow in heavy rain falls and are no better than the dams we built as children.

We find once again Mfish has failed to research the value this seaweed plays when it is washed ashore to become beach cast seaweed. The food source as the seaweed rots down comprises sand hoppers, sand flies maggots, kelp fly maggots then the flies which in turn provides the protein for the successfully spawning of yellow eyed mullet, moki, flounder and blue cod to name a few. The lack of scientific knowledge of the value of bladder kelp when it becomes beach cast seaweed is a national disgrace and Mfish, DOC and MfE have all been provided with a science paper that I co-wrote but have all failed to take its information into account with this proposal and now the MPA Act is also lacking in this information.

We responded to the draft of the Threat Management Plan for Hector Dolphins, then the final version, it has become obvious that Mfish had little understanding of the intertidal zone and now this proposal to harvest bladder kelp will have a massive impact five years from its introduction. It should have been obvious to Mfish that to restore the blue cod in the Marlborough Sounds a serious evaluation of the cod’s food source had to be made. Instead resource consent was passed allowing shipping to travel at 20 knots without a word of protest or caution from Mfish.

Now we have a proposal that will seriously threaten the food sources of the Dusky Dolphins along the Kaikoura Coast all through the ignorance of the value of bladder kelp forests and the resulting beach cast seaweed.”

We also made a submission to the DOC Dusky Dolphin Report titled “Tourism Effects on Dusky Dolphins at Kaikoura”. In Appendix A there is named the marine manual sanctuary at Akaroa and at Pohatu which is home to the Dusky Dolphin. We described the value the large bladder kelp beds in this area to the Dusky Dolphin.

“The distribution of dusty dolphins in Figure 3.15 to 3.17 is inadequate to describe impacts on them as the report makes the statement on page 22 Para 4 that they mainly feed at night. But this cannot be supported when taking into account known bait fish movements are at dawn and late evening. A report that fails to mention what they are feeding on in the morning when they have been observed close to shore can hardly be judged as accurately describing how boats are impacting on these dolphins. Failing to describe that they would be feeding on yellow eyed mullet in the morning while describing they would be feeding on unidentified life that rose from the depths at night seriously questions what these people were looking at. If they do not know what they feed on, how can the effects of tourism be measured?

The report on page 84 Para 3 reports the dolphins were found closer to shore during summer and autumn and gives the reason as calving, breeding and early calf development. Here the report should have also described why these movements into these shallow waters are important and the food source they would have been feeding on. All mammals require extra protein for successful calving and to help provide high protein milk for the young calves. The inshore experience would have also provided the older dolphins the opportunity to pass on their genetic memory of the art of hunting bait fish to the younger dolphins. These are very important times for all wild marine mammals and the failure to understand what these dolphins were doing at these important times makes the report seriously under researched”.

The problem now arrives for bladder kelp forests not only in MPA but all around NZ including the one at East Cape as the past Minister of Fisheries gave approval for an \$800 million dollar industry to harvest the live bladder kelp forests. The history of this approval was described in one of my NZ Fishing Coast stories below.

“It was becoming apparent that DOC was not the only organisation blocking our discovery being published but also the NZ Royal Society of Marine and Freshwater Research had been stopping the value of beach cast seaweed being written into any of their science publications. Such a publication would have major ramifications for the sixty marine scientists and policy advisors to the Government, who reviewed the NZCPS. They could now be identified as failing to describe the intertidal zone food chain was missing and that beach cast seaweed provided a food source to marine species.

The Society may have been also protecting those who presented 79 submissions to the National Government Primary Production Committee chaired by Eric Roy back in 1998. The committee heard 37 oral submissions and not one described the value of beach cast seaweed to marine species. This Government committee, without a scrap of scientific evidence then supported the Minister of Fisheries John Luxton deletion of Clause 22 in section 93 of the Fisheries Act, which removed the permit requirements, to harvest beach cast seaweed.

The Parliamentary debate described in Hansard had few speakers other than the then co Leader of the Alliance Party Jeanette Fitzsimons. She had raised a concern that cutting the seaweed while growing may not be sustainable and that harvesting of beach cast seaweed was being introduced into the quota management system without setting a total allowable catch.

It is spine chilling to see legislation introduced allowing the cutting of seaweed so that it can be commercially harvested without bothering first to find out its value to marine species. Blabber kelp for example is grazed upon by butterfish as it grows and our research has established that when washed ashore on a spring tide it becomes beach cast seaweed. The seaweed then provides the habitat and food source for kelp flies to lay their eggs. The kelp fly maggots then turn the cellulose in the seaweed to protein which then becomes the food source for yellow eyed mullet on the next spring tide. It is on the spring tide we see the Hector dolphins feeding on the Wellington South coast to obtain their protein. But the numbers of yellow eyed mullet have been severely reduced as WRC destroyed their spawning habitat in the Pencarrow and Fitzroy Lakes outlets and DOC allowed the grooming of the Island Bay beach. Not all councils and DOC lawyers set in place ways to kill dolphins as we described the value of beach cast seaweed to the Mayor of Hutt City John Terris and asked that grooming of the Petone Beach be reduced. The beach is now only groomed twice a year and the drift wood is used by children and the sand is beginning to build up.

Unknown to science, bladder kelp provides an important habitat for crayfish, kina, mackerel and yellow eyed mullet and produces excellent habitat for snapper, trevally and kingfish to hunt in. Years ago bladder kelp was cut back at a well known Wellington snapper and kingfish rock and instantly the bait fish lost their cover and disappeared, followed by the snapper and kingfish. Seaweed can be found in the gut of very nearly all marine species and even floating mats of it out at sea provide shelter for juvenile fish and kingfish. The impact of cutting down or harvesting beach cast seaweed will be massive on marine species. It will be just as devastating as the sewage and chemicals that the Hutt City Council dumps as waste water onto the Pencarrow Beach there all marine life has died, as seaweed does not grow in fresh water.

The Ministry of Fisheries management must have been concerned that their Minister was getting out of control by deleting sections of the Fisheries Act as they immediately applied for research money. They commissioned Kincett Mitchell Ltd to review the *Environmental impacts of harvesting beach-cast seaweeds in New Zealand*. The review was carried out by Zemke-White, Speed, McClary and published in 2002/03 entitled KBS 2002/03-KMA. In the section Summary – Objectives 1-2, they made the following comments:

When not collected beach-cast seaweed plays a role in terrestrial, beach and near shore food webs.

- Removal changes structure/density of beach fauna.
- No data on the impacts of removal on near shore food webs.

This study had stated that 43 councils groom beaches. In Wellington alone 29 beaches are groomed and all the beach-cast seaweed goes to the rubbish tip after first crushing the life in the sand with machinery.

When my copy of the September 2006 Seafood NZ magazine arrived I found another reason why the NZ Royal Society of Marine and Freshwater Research would want to hide our discovery, as money talks and they would be surrounded by those telling them to shut their mouths. There was an article describing a group calling themselves Seaweed Association of New Zealand and their web link is www.sanz.org.nz who had established an industry to strip our coastal waters of bladder kelp. They state that they have the support of seaweed harvesting business, seaweed collectors, scientists, ecologists, coastal settlements, Bay of Plenty Polytechnic, Cawthron Institute, Pacific Harvest, AgriSea and others. They believe it has the potential to become an \$800 million industry and will employ Maori groups around NZ to collect the seaweed. Their Patron is none other than Jeanette Fitzsimons the Leader of the Green Party, which perfectly illustrates the point that the PCE made when he said NZ lacks marine knowledge as harvesting seaweed to deny a food source for dolphins could hardly be described as a green thing to do”.

The discussion document has failed to include information from the NZ National Policy Statement on Freshwater Management

The importance of the life that begins in the streams, rivers and estuaries provides the food source for all fish within a Marine Protected Area. Land run off into the sea has been increasing at an alarming rate when ever hills are opened up to harvest pines or cut roads near water ways or the sea.

The Parliamentary Commissioner for the Environment (PCE) Dr J Morgan Williams in his report *Growing for good*, Section 3.4.2 “Soil” page 50 has underestimated this soil loss as he was only describing what is known from farming practices. If he was to include the soil loss from forestry, subdivision construction or dam construction and what can be seen through locked gates or threatening notices then the figures he quoted could easily be trebled. However in his report he quoted figures that predicted New Zealand losses between 200 and 300 million tonnes of soil to the oceans every year. This rate is about 10 times faster than the rest of the world, and accounts for between 1.1 and 1.7 percent of the world's total soil loss to the oceans, despite a land area of only 0.1 percent of the world's total”.

While we can introduce a MPA Act those tasked with the management of the area must be provided with the tools to make regional councils make radical changes as to how they manage rivers and construction sites in their region. The question we are asking now is how long will it take before Government requires regional councils to protect river banks with native plants such as flax and toetoe which once lined our rivers and streams. The countries regional council’s so called river management engineers have created a job creation for themselves and will rip out native plants planted by community groups and they refuse to allow native plants to grow protecting the intertidal zone of river banks. These engineers idea of planting willows along stream banks is dumb as they become gauged away when river water gets near them and the shingle that was once around them is then transported to make shingle banks downstream. The engineer then contracts machinery operator’s into the river to shift the shingle back over the other side and labour groups to plant more willows so that the whole dumb job creation industry can begin again. In the process the many marine species that require clean water to spawn and feed in are denied this clean water.

When a river runs clean water travels over the rocks in the intertidal zone allowing the algae to grow which is in turn is grazed upon by yellow eyed mullet as the tide comes in. The once deep

pools that allowed the marine species to recover after spawning have now been filled in by a council who has no marine knowledge. In Wellington we have been given an example of little regional councils know about the marine environment. They constructed an estuary at Moera on the Hutt River and failed as with the proven lack of marine knowledge in the WRC no one knew a river subjected to tidal movement moves up and down depending on the tide. This has made the estuary a death trap to marine life as no water can get into the estuary at low tide and with pipe positioned to take mud and logs floating down the river most get into the estuary. The mud then blocks off water from reaching the sea on the outlet side. Referring to question 14 and objective 5 then there is obviously a need to have two different decision making process as the night mare at Moera could have been avoided if the WRC had consulted with those who made submissions to the Hutt River realignment as they had changed what they had described was going to happen through the consultation process. The MPA Act must make it clear changes to plans by regional councils must be notified and consultation encouraged.

When I was asked by the Ohariu Valley Preservation Society to provide information as their expert witness to describe the impact of sediment in the Makara Estuary from the proposed Meridian Mill Creek Wind Turbine farm I discovered all regional councils throughout NZ had been adopting a seriously flawed sediment management plan that they had adopted from the Auckland Regional Council. The Auckland plan had been written to manage their volcanic rock not the grey wacke rock found in Wellington and the Marlborough Sounds.

I identified major errors in the sediment management plan that was currently in use in Wellington and that the chemicals recommended to be used in the flocculation of sediment traps if released into streams killed all life. We advised Meridian who changed their plan and the WRC have since changed their plan. The photos were made into a power point for our submission to describe the error and were presented at the resource consent hearing and also to the Board of Enquiry hearing to the proposed NZ National Policy Statement on Freshwater Management. The power point was used by Porirua Iwi at their marae to a combined group of WCC, PCC and WRC Mayors, councillors and management which resulted in community meetings and the formation of community management groups to manage Porirua Harbour.

In the discussion document **Section 2.1** “How marine areas are currently protected” is also a description of how this discussion document lacks any practical marine knowledge. A marine reserve was put in place on the Wellington South Coast after DOC gave support to a WCC waste water pipe being laid just 500 metres from the reserve boundaries. We took the WRC commissioners decision to the NZ Environment Court and DOC would not support us. Then years later they asked if we would support them to take issue with WCC and have the pipe repositioned such is their lack of any practical knowledge or how the resource consent system works. This whole **Section 2** needs to be rewritten as it is waffle with no practical outcome.

Section 3 suggests the Marine Reserves Act could be repealed but marine reserves should have worked if they had not been placed without regard to the life that begins in an area. For example the Minister of Fisheries Hon Jim Anderson ignored our marine knowledge which advised him the Wellington City waste water would flow through the reserve and that the boundaries were out too far. But the DOC legal division once again interfered and gave yet another Minister poor advice.

But with his strong ties with the Green Party he ignored our marine knowledge and placed the reserve in a position where every time it rains the beaches become so polluted they are closed. Others quickly took advantage of the Ministers lack of marine knowledge and obtained an old rusty warship to be sunk in the proposed marine reserve yet the Minister of Conservation and Fisheries said nothing. Now it has broken into a million pieces and is slowly moving from its original position in 30 metres of water to 23 metres to once again come ashore and be out of water. DOC failed badly as it is moving through an area I once found quite productive and is destroying the marine life DOC should have protected.

Participation through communities groups works

We have described what can be achieved by taking part in Govt and council committees and how this communication has saved Meridian and the HCC millions of dollars. However for this new MPA Act to work there must be allowed participation from others who may not live in the area but have acquired marine knowledge and are willing to help others manage their environment. An example of this was when after giving a public talk on the impacts of dredge waste in Wanganui I was contacted by local Maori and environmental groups who made sure I wrote a submissions to the Trans Tasman Resources (TTR) Iron Sands Proposal that EPA were evaluating through five appointed commissioners.

Through my contacts in the commercial fishery I asked them if they had seen a dredge waste management plan, which they had not. I then contacted EPA with the same request and found they had not thought about it. The TTR resource consent application provides an example of why Govt needs to make sure there is a condition in the Act for every MPA proposal to accept and take on board the marine knowledge of recreational fishers. The EPA were evaluating the information from every science and Govt department in NZ and appointed five commissioners to travel around NZ listening and reading their information yet no one had considered there should be a dredge waste management plan.

Here was a proposal by TTR to mine fifty million tonnes of product from the sea bed a year with a suction dredge using water cannon to blast eleven meter deep trenches up and down our west coast for twenty years. The plan was to extract five million tonnes of the pure iron a year and the dredge waste of forty five million tonnes would be discharged every year from many metres onto the sea bed all without a dredge waste management plan.

However the lack of marine knowledge being presented did not stop there as NIWA advised the commissioners that the prevailing ocean current flowed to the south. This was easily proved to be misinformation as there are number of books describing the Sub Antarctic current as it flows around NZ and provides a food source for the west coast hoki fisher before travelling to the equator to rise and replace the rising warm waters. Producing misinformation for the public and through resource consent applications by NIWA who are the Govt science providers did not end there as they produced a bathometric chart of the proposed iron sand extraction site which failed to identify one submarine fresh water spring yet fishing maps identify them. NIWA failed to describe the area has a number hot water springs in the area which are known to Maori and DOC. I was able to show where the springs were and that the NIWA bathometric chart of Wellington Harbour was of

the same poor standard as their chart failed to include the spring location that were on LINZ marine charts or displayed on Google charts.

The MPA Act must set a procedure where informal marine knowledge will be accepted

Here is an example of how difficult it will be for recreational fishers appointed to MPA management boards to have their acquired marine knowledge accepted by Government science providers. I will describe what happened to me at an MfE Environmental reporting forum some years back. I have seen others not so tough skinned walk out to be never seen again. My experience was described in one of my stories published in the NZ Fishing Coast to Coast magazine in 2011 see below.

“Representing WRMFA and the NZ Angling and Casting Association at MfE Environmental Reporting Forums I had asked if the intertidal zone could be discussed and MfE people directed those interested into a corner of the big room. As a result about twenty people gathered to MfE surprise. At the second meeting those interested were given a room and a hundred people arrived and MfE asked the NIWA scientists to come back with a description of the intertidal zone. At the third meeting those interested had grown to one hundred and fifty and the NIWA scientists began presenting what they knew and then stopped and declared that their funding had be stopped and that was all the information they had. They then asked the meeting for ways to get their funding restarted.

So I asked: “what was the monitoring programme’s outcome and what could we learn from it and would it not be better to sell the value of the intertidal zone to marine species as this could be seen as an outcome”. The suggestion was not accepted and knowing my research into the intertidal zone I received the reply from hell “we cannot use your information as you are not a scientist”. This attitude I had not expected and shocked MfE staff and management who apologised for the put down and as a result MfE have not called any more environmental reporting forums.

I already knew science had no information to describe the intertidal zones function and value to marine species as I had been previously invited to take part in a research programme by the Foundation Research Science and Technology (FRST) project called “Natural Ecosystems.” I found then where the errors and omissions in the NZCPS had originated as the FRST people had asked us to look at the eight nationally important databases, so I typed some key words into them including the DOC and Land care NZ plant database and found there is not one database that named a native wetland plant, let alone describes their function to marine species. It is little wonder that wetlands have been called wastelands, contaminated with rubbish tip leachate, drained, reclaimed, roads sent through them, or the native plants poisoned out of existence for years. Inter-tidal wetlands overseas are described as twenty percent more productive than the sea and four times more productive than the land, but not in our country where they are treated as a wasteland.

At the FRST meeting I was determined to find out why Government had been endorsing the destruction of the marine intertidal ecosystems. FRST at the meeting informed us that funding would only be allocated to the intertidal zone if a commercial end user were found to contribute. I could not believe that and asked them to repeat it. I then asked, “What if the end user has no voice?” I knew from the massive errors and omissions in the Government science providers

databases that they would not have a clue as to what I was talking about. I then said, “An obvious end user is the dolphin, as they rely on the intertidal zone for a food source and their preferred food source, the yellow eyed mullet, lives there. So as they have no voice or money, is that back luck for dolphins?” It was confirmed.

The past PCE had warned Government of this smart derogatory attitude I was subjected to from NIWA marine scientists as in December 1999 he had published a document called *Setting Course for a Sustainable Future: The Management of New Zealand's Marine Environment*, in section 5, page 74, Adequacy of Environmental Information (5.2) *Different kinds of information* he had this to say: “However, in an information scarce environment like the marine environment, informal information will often be a resource that marine managers cannot afford to neglect or ignore”.

Writing this new Act called Marine Protected Areas cannot be done with the limited marine knowledge so clearly on display in the discussion document. There has to be a big shift in attitude by Government science providers to the informal marine knowledge that recreational fishers have acquired over the years. We are seeing both regional and council managers and Mayors are recognising and accepting our marine knowledge. I represent the regions recreational fishers on the MPI FMA 2 & 8 recreational advisory group and they continue to disregard our marine knowledge and the hours of research we provide. Instead we are presented with take or leave it information while our inshore fish species are plundred by bulk harvesting from commercial that have little regard for the environment in which they harvest.

In **Section 3.1** Objectives of the new Marine Protection Act this has been poorly written and requires a lot more work.

Section 3.2 also requires a lot more work. For example there is complete ignorance that there exists a policy written in 2010 describing how both regional and local councils must step up and acquire knowledge to manage our coastal waters. Obviously from what had been presented today neither MPI, DOC nor MfE management are aware of the Policies within the NZCPS. This whole section lacks research as we have not just landed and we are not reinventing the wheel. Come on you people produce a discussion document to a far higher standard as looking around the room at those who came along to the Wellington meeting some have been involved in marine management for well over thirty years through the Oceans Policy and DOCNGO forums.

Section 3.2 must include Policy 21 to 23 of the NZCPS as failure to do so will make this new Act a waste of time. Spinning out and talking about the NZEEZ without mentioning our coastal waters has failed to look at protecting our coastal waters from man generated land run off or from regional councils who continue to place waste water discharge outlets inside bays and harbours. The lack of marine knowledge by regional council scientists was only made obvious through the WCC resource consent when they produced their research describing 4000 litres of waste water a second will mix with sea water inside two hundred meters which is scientifically impossible. The WRC lack the scientists with a basic understanding of the properties of fresh water as for years they thought sea water floats on fresh water and it was until they came along to the WCC Community Stormwater meetings with their misguided beliefs that there learnt fresh water floats on sea water for over twenty miles without wind to break it up.

Within **Table 1 Section 3** Summary of categories under the proposed new Marine Protected Areas is the belief that by reducing the impact of commercial fishing in a MPA it will “enable recreational fishers to take more responsibility for the effects of **their** activities in these areas”. This will prove extremely frustrating as the impact of **their activities in these areas** will be nothing compared to the damage to their activities caused by regional councils mismanagement of rivers, land run off, chemical, and waste water discharges to marine fish spawning areas up our rivers and streams by regional councils who’s staff demonstrate they all lack marine knowledge. The reluctance by regional councils to involve recreational or any other community group in a regions management is an area that must be corrected. To only have regional councils involved in MPA management must be corrected.

The NZCPS requires regional councils to obtain their science but NIWA cannot provide it nor can the MPI as we have proved with over thirty years of being on Mfish, DOC and MPI committees. At the FMA 2 & 8 recreational advisory forum we have asked MPI managers and scientists where did they get that information from and it cannot be supplied. We have asked that the obvious errors in the MPI Plenary be corrected so that councils can manage the intertidal zone. But in response they asked can you supply the correct information which I could but it raises another issue they do not accept information unless you are a scientist. So once again MPI goes around in circles not accepting recreational information. The FMA recreational working groups have never had the information they have supplied accepted. Now the future is going to be interesting as MPI all of a sudden is going to be required to allow informal marine knowledge to be introduced to manage “the sustainability of the fishery”. This will be quite strange to MPI management and through the MPA Act as somehow they have to allow our information to be recognised in the Act? It would be nice to think we can influence MPI decisions but whoever wrote or endorsed that comment has no idea as to the number of hoops we will have to go through to be in a position to influence “the sustainability of the fishery”.

For years I represented the NZ Recreational Fishing Council on Mfish mid water stock assessment committees and reported a specie collapse five years before NIWA saw the light and informed the public. I attended the Ministers Quota Setting Meetings and prevented an attempt by Green Peace to close the blue fin tuna industry when they arrive off the South Island to think MPI can hand over management of a MPA to recreational fishers describes whoever wrote this has no idea of the MPI process.

This discussion document lacks basic marine knowledge which is hardly surprising as I proved to Hon Helen Clark when asking that the NZCPS be reviewed as the intertidal zone was missing. The photos I had taken were also sent to Hon Marion Hobbs who set in place the process for the NZ National Policy Statement for Freshwater Management. I have been credited for instigating the review of the NZCPS and the power point we presented to support the NZCPS and the freshwater plan is on the MfE web site.

NZ lack of scientific marine knowledge is extremely serious

In 2011 I described in a NZ Fishing Coast to Coast story titled *Raising the Bar to get more bait fish in the water* how little NZ science knows about the inshore waters of NZ, a section of the story follows.

“When NIWA tried to piece together information describing land based effects on coastal fisheries they uncovered how little they knew. The 2008 paper titled *A review of land based effects on coastal fisheries and supporting biodiversity in New Zealand* by Morrison, Lowe, Parsons, Usmar and McLeod says that “little is known scientifically about our inter-tidal zone or the impacts of our actions upon it”. On page 25 when trying to describe the impact of mud and silt on marine species, they said, “Most of our current knowledge concerning the effects of suspended sediments on fish is based on freshwater species”. Then they further state that “most existing information of the effects of suspended sediment is based on acute exposure laboratory experiments, with little empirical information available on chronic responses to high concentrations for extended periods, especially for marine species, or under natural field conditions”.

NIWA then fumbled their knowledge by writing a paper in 2009 called *The Living World* in which they stated “until quite recently, not a lot was known about the importance of estuarine habitats to fish in New Zealand”. They should have said NIWA has gone from “knowing little about the intertidal zone” in 2008 to “not knowing a lot” in 2009 which means the same thing. NIWA managers have to get up there as they were provided with the correct information in 2002 and failed to act or carry out research to confirm what was supplied to them.

The past Parliamentary Commissioner for the Environment Dr John Morgan Williams must have discovered that NIWA’s, Mfish’s and DOC’s science information lacks credibility as he produced a document in 1999 called *Setting course for a sustainable future: the management of New Zealand’s marine environment* in which he said “New Zealand’s lack of marine knowledge is a serious environmental and economic risk”.

MfE, in 2010, produced a draft National Environmental Standard for Plantation Forests that also failed to mention the impact of pines on the life in the intertidal zone. MfE has produced an *ANZECC Water Quality Guideline* that also fails to have an outcome or name the marine species that enter freshwater to feed and spawn or what impacts upon them.

The discussion paper asks a number of questions.

Question

- 1 Yes.
- 2 Yes. Far too many to list but some are briefly covered in the above submission.
- 3 No. Marine protection must also include protection from pollution caused by man. Placing marine reserves to receive waste water, road run off and massive storm water discharge into a marine reserve is crazy marine management.
- 4 No. As written the objectives lack marine knowledge and therefore fail to provide an outcome.
- 5 Yes. This section must be rewritten.
- 6 No. This whole section must be rewritten commercial fishing is only one impact. The greatest impact is from pollution yet this has not been addressed.
- 7 **Table 1.** This is a waste of time there is no mention of dredge waste or beach grooming yet they have the greatest impact on marine life. Rewrite **Table 1** and provide logical marine knowledge within the table.
- 8 Poorly written. There is no example to make a judgement on. This is terribly written discussion document refer to the MfE discussion paper on proposed National Environmental Standard for Plantation Forrest as how to lay out a discussion document.

- 9 No. As a mining permit may be considered of national importance and over ride the MPA. Government has given a mining permit to mine the sea bed where orange roughy live and spawn. Setting a system up for confrontation with commercial fisher's places this fishery stock at serious risk and threat. But who is listening to commercial concerns so what chance is there for recreational concerns to be listened to.
- 10 Far too many to list. What input was there from those such as us with a history of over thirty years being involved in fishery management? Obviously none which is unacceptable.
- 11 No. Far too much has been missed. There has been no Government funding to describe the marine environment so describing what needs protection can only be done with informal marine knowledge as NIWA have already described little is known. Then there lies another problem as NIWA scientists made the statement at MfE Environmental Reporting forum that they cannot accept our marine knowledge as we are not scientists. DOC reads science papers then ignores the information. MPI receives too many submissions and cannot or will not read them all. Then there is the comment "Decisions about the environment" and another "integrated way" yet until there is clear path made in the Act where informal marine knowledge is recognised and accepted this new Act will fail through confrontation and a lack of respect for our concerns and the time we will put in at no cost.
- 12 As there is so little known by science of the value of our coastal waters due to a lack of Government funding there will have to be a group who can work together to find solutions to what is going to be a number of very complex issues. However we have already set up the challenge as we changed the way beach grooming is done on Petone Beach and the beaches of Gisborne and we have changed how both the Hutt City Council and WCC manage waste water sampling and testing through communication. We convinced Meridian there was a better way to off load wind turbine parts that would have less impact on the marine environment and they accepted our knowledge. Much can be achieved without confrontation and our communication skills.
- 13 No. As that will become too informal and you should start at the beginning by having informal discussions with user groups. I became involved with the initial Island Bay marine reserve proposal and my views were accepted and Lyall Bay was not included in the reserve. What I am getting at is you would get better results from not allowing people to grand stand. Or in the worse case appoint commissioners who are paid to say yes to whomever pays them. Most take great delight in belittling anyone who can describe the marine environment in simple terms. At the first resource consent hearing I attended in 1999 the commissioner stopped my presentation at page two of four so she could have a cup of tea. But it would have taken a lot more than that to put me off describing the value of the Wellington Harbour submarine freshwater springs to marine life as I had a huge knowledge of them and had caught many snapper in them. Another commissioner an ex WRC councillor Chris Turvey told me to sit down half way through my presentation to the Houghton Bay Marine Centre resource consent application telling all he was sick of me describing the value to the marine environment. Two other commissioners abused me and the DOC scientist for describing the value of the marine environment and then did not include our information in the final RC report. They had been advised by the WRC marine scientist she could not accept the information as she did not know fresh water floated on sea water after we had obtained information from overseas describing the water sampling method was incorrect. We had proved the Cawthron Institute Ltd dye test was incorrect as fresh water floats on sea water for miles as it is lighter than sea water.
- 14 **Referring to objective 2** you are going to have major problems here as past science has been proved incorrect even though it appears in books such as the NZ Atlas of Freshwater Species. The

work of past scientists is not being recognised by NIWA and what they are presenting is being selective to suit another agenda. For years NIWA counted blue cod in the Marlborough Sounds changed baits which made the research corrupted and ignored a master's information gathered from 10,000 fish that had described the blue cod in detail. There was also a study made on the movement of blue cod that Mfish were all set to prosecute the person as he had been gathering small blue cod proving they arrive into the sounds after spawning in the warm shallow waters of the outer Sounds. We have proved the same in Wellington Harbour as they spawn in bays with warm waters on sand. I was able to change the issue by talking the Stan Crothers Director General of Mfish and he found a scientist to work with him. Science has made it very difficult to correct the old information as that would require contradicting a scientist who may be known to the senior at the university even though it can now be easily proven incorrect. Students at Otago University under the direction of Gerry Closs have made some major discoveries into the life in the intertidal zone which has also exposed some past theories as being false.

Referring to objective 4 there is a false belief that people in Government, local communities need little or no marine knowledge to make decisions about this environment. There is a belief that Maori can contribute but young Maori have developed other skills and there is only very few of the older generation with the marine knowledge to what we have now discovered. This can be supported by seeing the different races now fishing. For example there is only who can describe why fish are in rivers and stream and what they eat there but this knowledge or some of it he was able to pass onto me over time. As another example there is an assumption that councils consult but that is not always the case. A while ago we had four councils a regional council and the Wellington Airport Authority all thinking they could make the Wellington Airport runway extension into Evans Bay until I proved they could not and produced ten more reasons why they could not in our submission to the Proposed Regional Environmental Plan.

Referring to objective 5 this is too open ended as seeing into the future is not a skill Government, councils or industry have. But what can be achieved is setting in place guidelines through acts or policy statements that in future councils are required to work to. For example when the WRC called a public meeting to inform residents of the planned realignment of the Hutt River I asked that consideration and protection be given to the area where grey mullet have for years be seen to spawn in. The WRC chair of the meeting told the meeting in no uncertain terms the WRC was not interested in my environmental views or concerns. I then set about documenting through photos how the WRC was destroying rivers and streams with poor environmental work. I sent the photos to Hon Helen Clark and Hon Marine Hobbs which resulted in the review of the NZCPS and the formation of the National Policy Statement for Freshwater Management.

- 15 Reviews are costly and are a job creation nightmare of appeals. An admission that those involved have failed to recognise the importance of an area to marine species or as the document says a MPA may be threatened by “the discovery of a valuable new resource”. No one should be going into this project with the view that they have failed to take into account all the factors and their failings can be corrected by a review. We do not believe the view presented in the example “if an MPA was established to protect a particularly long lived slow growing specie” and then carries on about timing of the review and generally pads out the topic with rubbish. Those who wrote this section have very little knowledge of the life span or how fragile the marine life is in our inshore waters. Preparation to ensure the MPA are correct should not be based on luck or rubbish from those who have little practical marine knowledge. We can see this as rubbish as writing about the marine environment takes research and experience to know where and when certain events will happen as it

is not luck to make discoveries in the marine environment. If it was luck then the intertidal zone would have been included in the old NZCPS as there was input from sixty marine scientists and policy advisors to the Government and 79 submissions to the National Government Primary Production Committee chaired by Eric Roy back in 1998. The committee heard 37 oral submissions but not one described the value of beach cast seaweed to marine species. Is it little wonder NIWA cannot accept they had failed to research the value of the intertidal zone to marine species.

I had to prove first to the Rt Hon Helen Clark there was a serious omission from the NZCPS then work with Hon Chris Carter helping to establish a way forward and then I provided to the Board of Enquiry a power point that described the value of the intertidal zone to marine species.

16 There is something missing as the statement “require that any advisory committees on MPAs include representation of Iwi/Maori”. This has been written as if this is going to be compulsory and a MPA will fail if the Maori refuse to participate. This will have to be carefully worded in the Act to prevent that outcome. In the real world I have been and are still are on many community committees for many years and although we have ask Government and councils for a Maori representative to join us this has not happened once.

17 Yes. But a major environmental issue has been avoided on page 30 under specie relating to the Marlborough Sounds. There is no mention of the mussel or the salmon farms. There is also no mention of the waste product that these farms produce. If these farms were on land they would have been shut down years ago. The waste from their operation is not being managed and the harvesting of mussels is producing huge quantities of waste which is then dumped over the side onto fragile ecosystems. MPI know of this practice and have failed to take measures to have this practice stopped. Likewise under salmon farms the product kills all marine life just as it has at Stewart Island. This section requires correcting as this is misinformation. Following on the **Table 3** which describes the 29 tonnes of blue cod taken by cod potting annually. This figure is a distortion of the truth as the cod are potted when they gather for spawning. If the Marlborough Sounds MPA is going to get the respect from recreational fishers then there must be a season for cod potting just as there is for crayfish where those in berry or soft shells cannot be taken. In a MPA areas where blue cod spawn must be closed.

18 No comment

19 Yes. Crayfish and paua as harvesting does not damage the environment as scallop dredge does.

20 Yes. This was done in Australia.

21 There are some who have another agenda and publically speak as if they are speaking for all recreational fishers just as a person did at the Wellington meeting. I have been on many committees and there is often a person or a chair that will speak at great length but then are unwilling to put their views in writing. Long winded rants at committees, forums or consultation meetings are a waste of time as no one takes time out to listen to rubbish. Running public meetings is a skill as we do not travel from home, spend money to get there and then have a meeting taken over by selective groups. Future meetings to discuss the MPA Act need to be better managed. The balance of opinions within a group takes a special person to allow people to speak without them thinking their views are not being considered. There was one person called Andrew Bignal who ran the DOC NGO meetings who set the standard from which I have on a number of occasions suggested to other Government people that they should use the procedure he used.

22 When ever someone suggests monitoring it becomes a job creation scheme that can easily be turned into misinformation. The past waste water consultant contracted by Wellington Water produced a

document many pages thick describing the had constructed a computer model but they had never taken a water sample and they could not answer simple questions as they dreamed up the whole model. The public will let you know if it is working by being on the water. There is no need for costly research from people who do not accept informal marine knowledge and make corrupted science.

I was at DOC NGO meeting when the research they had commission for the long Island Marine Reserve was presented and they told of diving the reserve at night and there was not one blue cod to be seen. The method used to count the cod through the day was also questioned by other divers who reported the water was so dirty they could see the cod were circulating the scientists who kept on counting the same cod over and over again.

- 23 No. It must be made very clear in the marine reserves section of the MPA Act that other factors must be considered. For a Minister of Conservation to place a marine reserve within 500 metres of a major cities waste water pipe was stupid. Under pressure from Forest and Bird and a commercial diving organisation the reserve was doomed and is now an environmental disaster. The lack of consultation by DOC with those with practical marine knowledge has resulted in a marine reserve that has no life in the rock pools as the waste water chemicals flowing over them twice a day ensure there are no algae for the rock pool life to feed on. Divers report coming to the surface covered in smelling waste water. The WCC directed a large storm water flow into the reserve and as marine life does not live in fresh water the massive storm water flows kills more life. All along the road around the reserve the WCC have directed road run off to flow over the rock pools from above high tide. Once marine life has been killed this way it takes five years of clean water before marine life appears again. This can be seen at Moa Point where there has been no marine life at the out fall even though the out fall was directed into Lyall Bay. There is another problem as over the old pipe flows any Moa Point Treatment Plant untreated overflows after heavy rain which kills the marine life that was starting to recover. We had asked that the waste water out fall be placed in fifty metres of water instead the pipe broke in twenty three metres of water. Then another group appeared and Government gave them an old warship to sink in the reserve and that was also stupid as it is moving ashore from being thirty metres deep to now twenty metres deep.
- 24 That will cause a bit of debate as Maori can issue a permit to themselves and take whatever they want whenever they want.
- 25 A communication process that brings all who use the waters into a recognised user group.
- 26 This must be worded to bring in others as communities may become divided or become dominated by Forest and Bird members and then those passionate about the MPA will lose interest as their views are not being listened to or accepted. Or as I have seen at Government and council meetings a person will come along with a good idea but those who are running the meetings think it is smart to ridicule the person and we never see them again and the ideas they brought along are lost. It must also be accepted that it is not just the local community that benefits from a MPA as people can come from all around NZ to fish in a MPA so those who are willing to help manage a MPA should not be restricted by the distance they live from it. Therefore respect must be given to anyone willing to give up their time and money to help manage a MPA as I am sure Government will not fully fund participation.
- 27 No one should be forced to use their own time as managing the MPA will become a passion to those who do.
- 28 This point should be widened as you only have the tip of the iceberg. All those who make financial gain from their activities within the MPA waters should be required to be registered with a user

pays entry fee. All commercial activities must pay a fee to help fund the management groups selected to manage the MPA. This should also include game and fishing charter boat operators. There should also be introduced a reduced maximum speed limit that applies to all vessels over 500 tonnes including warships with penalties enforced. The wake of shipping washes the beach cast seaweed off the beaches and rocks before the life has a chance to breed and support marine life. Taking this point another step further all vessels within the MPA must be registered or have applied for a permit to travel in the waters without a fee applied to a recreational user. It is only logical as what is the point of having a managed MPA with a management group if there is no record of how many or who is in the MPA. This logic was used years ago when DOC asked for input into their Somes Island management plan. Their original plan allowed for people to access the Island from where ever people wanted. In our submission we reasoned how DOC would manage the Island with that plan and suggested that access be only from the wharf. This was accepted and now everyone enters the Island at the wharf and go through a quarantine shed to help keep the Island disease free.

Summary

We have identified many areas and issues that will have to be worked through as this discussion document lacks the necessary practical marine knowledge to help those with none form an opinion. We have provided a number of examples of what has happened when informal and scientific knowledge comes together and the disrespect our knowledge receives. We have also included a section of the NIWA study that identifies there is a serious lack of scientific marine knowledge in NZ. We have also brought to your attention the scientific discovery we made into the value of the intertidal zone and the negative treatment we received from the DOC legal management. We had been working on science papers to describe our other eight discoveries into the value of the intertidal zone to marine species but after the treatment we received from DOC and Minister Kate Sheppard we gave up. I then put the information into stories and photos that were then published in the NZ Fishing Coast to Coast magazine which now prevents marine scientists from gaining any credit from our discoveries. Today there is no scientific information describing the value of the intertidal zone to marine species. When I took part in the FRST programme I discovered there was not one native intertidal plant named in any Government or council plant data base however we know their function but DOC and NIWA have not scientifically discovered it.

The MPA Act must be worded so that informal marine knowledge is just as important as scientific information. Gathering scientific information has to be balanced with its value to the MPA as science can be selective in what it gathers. There is a risk that scientific studies will soak up the money allocated to manage the MPA and at the end of the day it will serve no purpose just as the \$32 million FRST gave to NIWA who then spent it on projects out of the original brief from the Government. The Act must be worded to ensure those with informal marine knowledge agree that the planned research has an outcome in line with improving the knowledge of the life in the MPA's. The scientific information gathered must be made available to the public free as NIWA are not making any of their research available to the public anymore.

Government must direct funding correctly.

When Government allocated \$32 million to FIRST to correct the lack of scientific information on our coastal waters FIRST misdirected the funding as almost the lot went to NIWA who blew it in

Antarctic studies. NZ lost the opportunity to promote science of our coastal waters and through this group we had identified many areas where there had been no scientific studies in our coastal waters. NZ then did not have the funds to promote studies at universities on the marine environment and still today there is not a degree in marine management by our universities.

This lack of marine knowledge by Government Departments is a lot more serious than Government realises and to achieve an Act that fully describes the purpose of the MPA in the Act then there will have to be introduced a system where informal marine knowledge is accepted. It would be naive for Government to introduce a new Act to bring in MPA's and then ask for our input only to see our marine knowledge openly described as being worthless by Government contracted scientists, lawyers and managers from NIWA, DOC and MPI who have not the experience, time, knowledge or the funds to have carried out the research we have done.

The document describes there will be four categories of marine protection one of which is seabed reserves yet councils are destroying the very beginning of marine life in our estuaries. The value and function of our estuaries and the function of the intertidal waters that change twice a day is a serious omission from this proposed MPA Act that must be corrected by their inclusion.

It is completely illogical to develop a new Act with a purpose to "enabling sustainable management of our marine environment" and then give no value to the intertidal zone where almost all marine species spend a long period of their lives and with many using the warm waters to spawn. There are a number of species that can be seen spawning up rivers and streams when you know when and where to look and the destruction of these waters by councils must be stopped.

We have a serious concern that those involved in processing our submission will not have the experience or marine knowledge to understand and take on board the information presented to enable a new Act to be set to manage MPA's.

Yours sincerely

Jim Mikoz
President
Wellington Recreational Marine Fishers Association