NZ LANDCARE TRUST

Pest Fish Removal and Uses in Lake Ngaroto

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Aerial photo of Lake Ngaroto. Photo courtesy of John Greenwood

This report was prepared by Nardene Berry and Melinda Dresser of NZ Landcare Trust for Tony Roxburgh of Waipa District Council as part of the CEF Lake Ngaroto Project funded by the Ministry for the Environmnet.
Layout: Abby Davidson, NZ Landcare Trust.

Contents

Introduction

Lake Ngaroto is a recreation reserve which includes an open water area of around 89 ha, a considerable wetland margin of 60 ha, giving a total area of 149 ha. The Waipa District Council is responsible for day to day administration and management of the reserve.

Adjacent to Ngaroto lies Lake Ngarotoiti, a Department of Conservation administered Wildlife Management Reserve. Despite its small surface area (3.42 ha), Ngarotoiti has a sizeable catchment of 504 ha incorporating the township of Ohaupo. Water from Ohaupo, and drains alongside the North Island trunk railway line running to the west of the township, discharge to Lake Ngaroto. A constructed, main drain discharges water from Lake Ngarotoiti to Lake Ngaroto.

Waipa District Council have plans to divert the outflow from Ngarotoiti away from Ngaroto which will benefit Ngaroto as the amount of nutrients, as well as pest fish, entering Ngaroto will reduce.

The purpose of this report is to explore the removal of pest fish from Lake Ngaroto and what options exist to dispose of the fish once caught. Background information is provided on pest fish, including current New Zealand research and different methods of pest fish removal and exclusion. Potential uses of pest fish, including barriers and opportunities are then discussed with recommendations provided.

Coarse fishing, Lake Ngaroto. Photo: Monica Peters

Background Information on pest fish in Lake Ngaroto

Lake Ngaroto has a diverse fauna of native and introduced fish. In 1977, fish present in the lake were goldfish (probably *Carassius auratus*), common bullies, (*Gobiomorphus cotidianus*), and catfish (*Ameiurus nebulosus*). Eels and grey mullet were speculated to be present; though eels almost certainly were present, grey mullet were probably not present. (Hicks et al. 2001).

In 2001, a total of 4, 317 fish were caught in nets at seven sites around the lake. The most numerous species were brown bullhead catfish, rudd (*Scardinius erythropthalmus*), and shortfinned eels (A*nguilla australis*). Goldfish, koi and gambusia were in low densities. In 2009, 193 fish were caught via electrofishing and this time low numbers of catfish and higher numbers of goldfish, koi and gambusia were found. These differences can largely be attributed to differences in sampling methods. Fyke nets are biased towards catfish and eels whereas boat electrofishing is biased towards koi and goldfish.

Interestingly all the introduced fish species found in Lake Ngaroto in 2001 were still present in 2009. Comparisons between densities of introduced fish species in 2001 and 2009 cannot be made as different sampling methods were utilised. The high productivity of Lake Ngaroto may be reflected by the presence of introduced fish species such as goldfish, koi carp, koi/goldfish hybrid and catfish which all prefer highly productive habitats, and are very tolerant of poor water quality. The excretion and bioturbation of koi carp during feeding in bottom sediments has been shown to increase rates of nutrient cycling. (Zambrano et al. 2001). Species such as goldfish and catfish have a similar feeding mechanism to koi carp and thus could also be contributing to nutrient cycling. (Hicks 2009). [1]

Approximately 60% of the total biomass in the 2009 study was found to be koi carp. Biomass is a more accurate reflection of the potential ecological impact of koi carp than their density, and koi carp would have a deleterious impact on the aquatic habitat of the lake (Roberts & Ebner 1997). The total benthivorous fish biomass is between 50 and 150 kg ha^{-1}. (Hicks 2009).

"Koi carp have been described as the least desirable species in the New Zealand freshwater fish fauna. While prized as an ornamental fish in some countries, in New Zealand they are found to seriously damage aquatic ecosystems. They are opportunistic omnivores, feeding on invertebrates, spawn and juveniles of other fish, and plants. Vegetation is often uprooted as the fish feed on benthic invertebrates in shallow water, resulting in increased water turbidity and reduced light levels which directly affect the viability of bottom rooted plants. Impacts of koi in New Zealand are likely to be greatest in shallow wetland and lake areas, which are generally also those areas with extensive weed beds and outstanding wildlife values. These impacts have the potential to alter the fish and wildfowl communities that use the same habitat.

In 1980 the government declared koi carp (*Cyprinus carpio*) and all hybrids a noxious fish species under the Freshwater Fisheries Regulations. These regulations make it illegal to have in possession or under control, or rear, raise, hatch or consign any species classified as a noxious species. It is also illegal to catch (and keep alive) or keep fish designated as noxious, and to liberate any fish or fish ova in the waters of any lake, river or stream. Department of Conservation staff have powers to enforce the regulations under the Conservation Act 1987.

In July 2000, the species were also designated an "unwanted organism" under the Biosecurity Act 1993. This designation gives authorised staff greater powers to act on illegal holdings or releases. It is in addition to the noxious species designation.

Koi carp. Photo: NelsonMail

[1] Personal Communication, Tony Roxburgh, 2011

DOC has also created a containment area between Auckland and south of Hamilton to help stop koi carp spreading. In the containment area recreational fishing is permitted, but all koi must be killed when caught." (Hilhorst, date unknown). [2] From Karapiro Dam the boundary runs in a straight line to the Allen Road junction with SH 3 just south of Kihikihi, then along SH 3 to the Otorohanga Road Bridge.

A licence to harvest for koi carp can be applied for from DOC, (see Appendix One), although "once the fish are dead they are not considered unwanted organisms (Biosecurity Act 1993) or noxious fish (Freshwater Fisheries Regulations 1983) so no approvals are required to transport and dispose of them". [3]

Unfortunately pest fish are extremely difficult to eradicate from any water body, as reinvasion from drains is constant and there has been no successful eradication of koi in large lake systems to date in New Zealand. DOC have managed to eradicate koi from a small number of human-made lakes and dams (where there has been only one inlet/outlet drain) and where the dam or lake is of small size, for example, the Whitby lakes in Wellington and ponds in the Western Bay of Plenty. [4] In good conditions, Koi can breed three times in a season, and can lay one million eggs each time. Never-the-less, any reduction in pest fish populations of Lake Ngaroto would be of benefit, and using the fish as a resource, rather than waste to landfill, ideal.

Peat Lakes in the Waikato Region

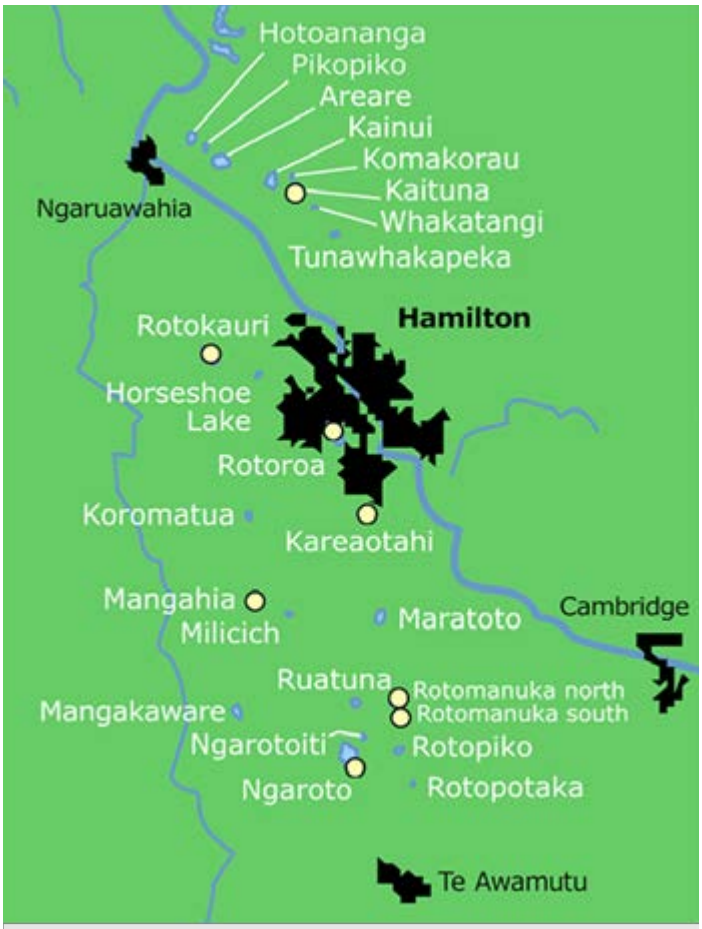


Image courtesy of Waikato Regional Council

Shortfined eel (left) and Common bully (right). Photos: Stephen Moore, Landcare Research

[2] http://www.cbd.int/doc/case-studies/ais/cs-ais-nz-koi-en.pdf

[3] Animal Pests Best Practice - Rotenone. DOC 2011, Version 1.4

[4] http://www.doc.govt.nz/about-doc/news/media-releases/doc-closing-in-on-koi-carp-menace/

Current New Zealand Research

Koi research, trapping and disposal

In 2007 and 2008 a University of Waikato PhD study was conducted to examine the movements of koi carp throughout the lower Waikato River basin. One of the primary objectives of this research was to identify key environmental variables triggering koi movement and to determine primary migration routes that could be targeted in the future for effective point source control of this species. Co-funded by DOC, Environment Waikato (EW), now known as Waikato Regional Council (WRC) and the Pest Fish Outcome Based Initiative (OBI), this study revealed that nearly three quarters of koi carp monitored, moved between the Waikato River and connected shallow riverine lakes.

In June 2010 WRC invited two Australian carp researchers from the South Australian Research and Development Institute (SARDI) to a three day think tank session and field trip to devise a programme for point source control of carp. Regional pest fish managers - including staff from WRC, DOC, the Ngā Muka Development Trust and Waikato-Tainui - attended the session. The outcome from this workshop was a decision to test an innovative koi push trap designed by SARDI at the Lake Waikare fish pass, a location known from previous university research to be an important migration route for carp. Lake Waikare is a riverine lake in the Lower Waikato Basin.

Funding to construct and install the trap was obtained by the Ngā Muka Development Trust through a grant from the Waikato District Council. The trap, based largely on the SARDI design, was constructed with minor modifications by Jackson Engineering of Te Kauwhata and installed in the Lake Waikare fish pass in August 2010.

The trap became fully operational by November 2010 and proved to be highly effective. Staff from the University of Waikato, WRC and the Ngā Muka Development Trust removed an estimated 1, 565 kg of koi carp (777 fish) from the trap over two and a half days (233 koi carp per day) with minimal by-catch of native fish.

WRC freshwater scientist Dr Bruno David, who initiated the trial project, said: "The success of the experimental trap is very encouraging and will likely lead to the development of a proposal to install a permanent automated koi trap in the Lake Waikare fish pass." [5] In 2012, the automated pest fish trap was constructed and installed.

Once the koi are taken out of the trap, they are fed into a thermophilic bacterial digester which takes five tons at a time and takes three days at temperatures of 75 degrees Celsius to reduce the koi to granules. When digested and dried, the carp granule mixture is used as a potting mix for growing native trees.

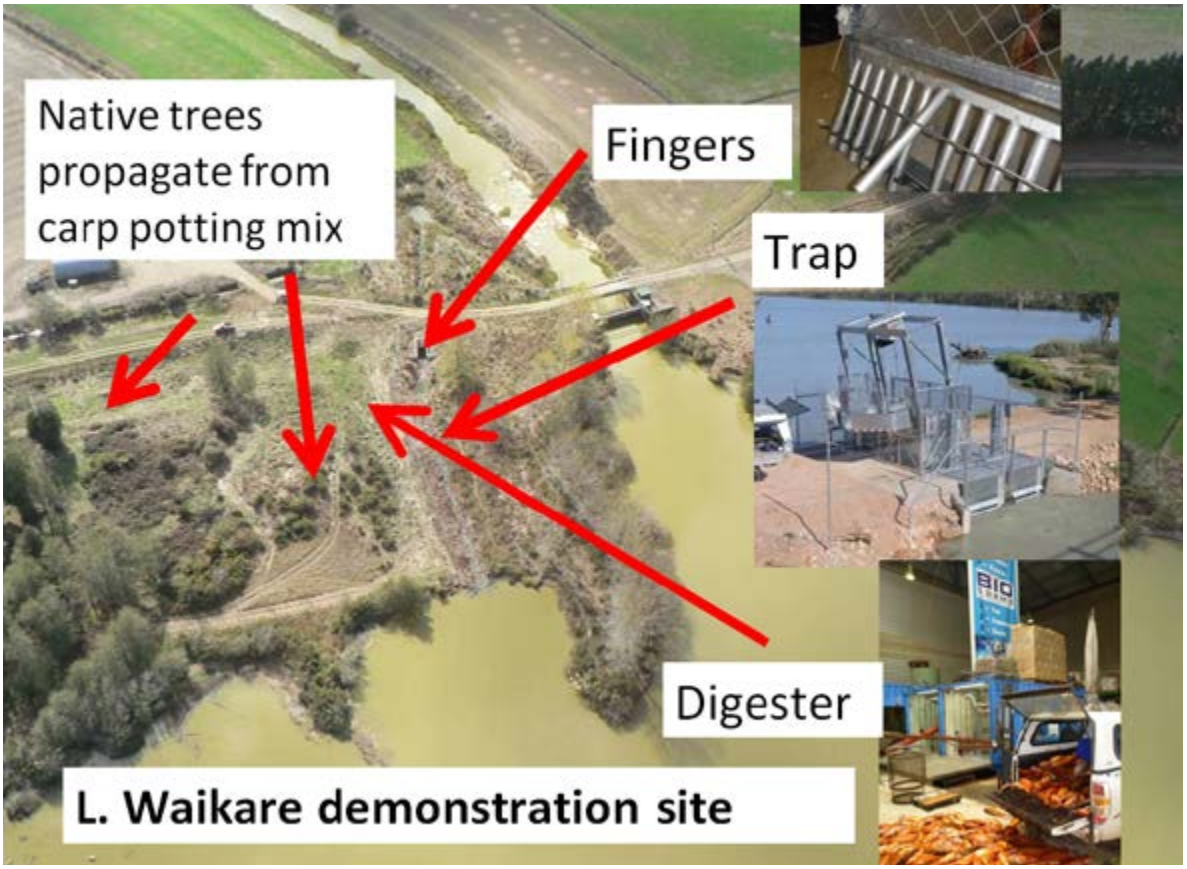
The digester which is being funded by the Waikato River Authority and Genesis Energy is installed alongside the trap, allowing a fully functioning demonstration site to operate at Lake Waikare. "The long-term objective of installing the digester is to have an operation that can supply community nurseries with plant food. The idea is to remove some of the excess nutrients diffusing into the river from farming activities and incorporate those nutrients into long term plant growth which will help to protect the river and the environment generally," says Dr David.

University of Waikato researcher Dr Adam Daniel who undertook the original carp movement research believes: "This concept could be adapted to control fish in many of the Waikato region's lakes and wetlands where koi carp have dominated the fish biomass for decades.

The ultimate goal of this multi-agency collaboration will be to reduce and evaluate the impacts of carp on water bodies in the lower Waikato basin which are under stress from a multitude of sources."

See diagrams of the operation on next page:

[5] http://www.waikatoregion.govt.nz/Templates/Public/Pages/GeneralPage.aspx?id=9701



Photos courtesy of Bruno David, Waikato Regional Council

Acoustic conditioning

A 2012 University of Waikato Masters of Science thesis on "Determining and testing the optimal pure-tone frequency for use in acoustic conditioning of free-ranging common carp (*Cyprinus carpio*)" by Brennan Andrew Mahoney found that wild feral carp can indeed be trained using sound.

A study done in Lake Kaituna, (a peat lake in Horsham Downs), where common carp were trained to associate sound with food over a five day training phase and then a period of 24 hours with no sound or food, found capture rates over a three day capture phase were 2.1 times greater at the study site than at the control site. [6]

This is a trait that could potentially be used to improve control of koi carp populations, such as those in Lake Ngaroto.

Automated bait traps

In 2011, Adam Daniels from the University of Waikato also led research into mass pest fish removal as a lake restoration measure at Lake Ohinewai (a riverine lake in the Lower Waikato). Three tonnes of pest fish were removed between January and June 2011. "Automated bait¬ed traps were used to achieve this. Various methods of capture have been tested including a one-way pest fish barrier, electro-fishing boat, fyke nets, a pod trap and a clover trap. The pod trap was found to be the most successful, but the one-way barrier was the most cost effective means of removal. Annual maintenance would be required to keep numbers down. A spin-off of the fish removal has been that Rick Muir of Carpai Products has been able to use the fish removed to make berley and liquid fertiliser. DOC, WRC and Aareka Hopkins of AM2 & Associates have supported this project." [7]

Pest Fish Removal Case Study

In April 2010 intensive fish removal was conducted by the University of Waikato, at Lake Mangahia (a 10 ha peat lake in Rukahia) in an attempt to get the biomass of pest fish down to <100kg ha^{-1}. The main pest fish at Mangahia were goldfish, catfish and rudd; although, a few koi carp were also detected. Extensive fyke netting, boat electrofishing, and gill netting was used to remove a total of 3,084 goldfish (390 kg), 2,222 catfish (253 kg), 23 rudd (1.7 kg), 472 shortfin eels (183 kg), 20 long-fin eels (28 kg) and 25 koi carp (10 kg). The capture of koi carp was surprising since they were not found during extensive preliminary work nor during the marking program. Prior to the removal event, fish were electrofished, marked (i.e., fin clipped), and then returned to the lake; by examining the proportion of marked to unmarked fish captured the University was able to make population estimates of fish species in Lake Mangahia. Mark-recapture estimates suggested that before the removal, there were 4,878 catfish (46% of population removed), 24,361 goldfish (13% of population removed), 822 shortfin eels (57% of population removed) and 47 longfin eels (43% of population removed). Final population estimates for rudd (no marked fish returns) and koi (no koi were marked) were unable to be calculated. Native fish species (shortfin and longfin eels) were held in a holding area until the removal effort was completed then returned to the lake. Bio-masses of the most abundant pest fish in Lake Mangahia were estimated to be around 3,083 kg (308 kg ha^{-1}) for goldfish and 556 kg (56 kg ha^{-1}) for catfish. This removal effort has shown that fyke netting and boat electrofishing were inadequate to take the biomass of goldfish down to <100kg ha^{-1} without considerably more effort. [8]

Integrated Fish Nutrient Load Model

The University of Waikato has a Post Doctoral student working on an integrated fish nutrient load model for two lakes. If the model works, it will show the primary driver of bad water quality: fish; nutrients; or both. [9]

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[6] http://researchcommons.waikato.ac.nz/handle/10289/6501

[7] LERNZ newsletter Issue 19. April- June 2011

[8] http://www.lernz.co.nz/publication/publicationresources/Issue%2016%20-Jul-Sept%202010.pdf

[9] Personal Communication, Adam Daniel December 2012

Overseas Research

Of the overseas research we looked into, pest fish are a problem in many countries. For example in the UK, "The topmouth gudgeon *Pseudorasbora parva* has proved to be a highly invasive pest fish species in mainland Europe following introduction from Asia, and was first recorded in the wild in the UK in 1996. Distribution has increased markedly since 2002, with recordings now from 32 sites, the majority being lakes.

In infested UK lakes, populations establish rapidly and become dominant in the fish community (often >97% by number); densities to over 60 m^{-2} have been recorded, with the majority of individuals <70 mm. The species also hosts a novel pathogen not previously recorded in the UK. It has, therefore, been identified as a significant concern to native fish communities and deserving of an appropriate response by regulatory authorities.

Where populations have been detected in lakes with connection to river catchments, actions have been taken to prevent riverine dispersal. Control measures are put in place, and eradication programmes designed and initiated. This paper (see link in footnote) details case studies on three completed eradication operations, two that utilised the pesticide rotenone, the other, de-watering and disinfection.

Each case study has, so far, been successful in eradicating the topmouth gudgeon population and has resulted in approximately 280 km of river length being protected from their dispersal. Application of rotenone was the most cost-effective eradication method at approximately £2 per m^2 of water area treated.

These case studies demonstrate that riverine dispersal of invasive fish from infested connected lakes can be prevented by eradication. Results can be used to develop a strategy to manage the increasing distribution of topmouth gudgeon—and other invasive, pest fish—in the UK" .

[10] http://onlinelibrary.wiley.com/doi/10.1002/aqc.919/abstract

Different methods of pest fish removal and exclusion

Different methods of pest fish removal from waterways will be described below followed by methods of excluding pest fish from entering areas of water such as lakes.

Removal

Baited pod traps

Pod traps are designed to sit on the bottom of a lake and the bait encourages fish to enter the trap from which they can't escape. The traps need to be checked three times a week with any native fish returned to the lake, and pest fish disposed of as required by a special permit. Fully equipped Pod traps can be purchased from Daniel Fisheries for $1,200 each. However, DOC's Waikato Area Office has five Pod traps that could be borrowed if not in use.

Baited Pod Traps (top) and securing a baited pod trap in situ (bottom). Photos courtesy of Adam Daniel, University of Waikato

Gill nets

These are flat fishnets suspended vertically in the water to entangle fish by their gills. Gill nets have been successfully used to drastically reduce the rudd, catfish and goldfish populations in the Serpentine lakes (peat lake system in the Waipa District). However, gillnets are very labour intensive and have not proven to be effective for koi carp.

Gill nets. Photos courtesy of Adam Daniel at the University of Waikato

Fyke nets

Fyke nets (hīnaki) are bag-shaped nets which are held open by hoops. These can be linked together in long chains. [11] Fyke nets are used to catch catfish, but they also catch lots of eels too. In order to release the eels, the eels need to be handled and if eels are handled above 22 degrees Celsius they may not survive. So it's best not to use this method in summer.

Fyke nets. Photos courtesy of Adam Daniel at the University of Waikato

[11] Wikipedia: http://en.wikipedia.org/wiki/Fishing_net

Electrofishing

Electrofishing uses electricity to stun fish before they are caught. Electrofishing is a common scientific survey method used to sample fish populations to determine abundance, density and species composition. When performed correctly, electrofishing results in no permanent harm to fish, which return to their natural state in as little as two minutes after being stunned. [12]

Boat electrofishing is highly efficient as it overcomes many problems of netting.

- Less size selectivity, no fouled nets to clean
- Less bias for species and habitat
- Avoids bird capture
- Less low temperature limitation
- No gear theft
- No duplicate site visits
- Reduced injury to fish – can catch and release
- Gives estimates of density and biomass
- Can fish large distances (kms in a day) [13]

The University of Waikato has developed an electrofishing boat which is useful for small, shallow lakes:

Electro Fishing boat developed by the University of Waikato. Photo courtesy of Brendan Hicks, University of Waikato

[12] Wikipedia: http://en.wikipedia.org/wiki/Electrofishing

[13] Hicks, B., Pest fish in the Waikato, University of Waikato, PowerPoint presentation, date unknown

Rotenone

In New Zealand, Rotenone has been developed into a piscicide for managing fish populations and is directly applied to waterways to control fish. However, this method has associated problems including high potential for non-target by-catch, uneven distribution of the toxin, difficulty in poisoning large or lotic water bodies and high financial cost. [14]

Bow Hunting

Bow hunting fish is a sport that has evolved in New Zealand since the mid 1980s. Hunters use bows and arrows to shoot pest fish (mainly koi) in waterways.

The Koi Carp Classic is held each year (November) near Huntly, Waikato Region, with the aim to hunt as many koi as possible during the weekend. It has been going for 23 years and in 2011 teams and individuals weighed in 1555 koi carp with a combined weight of over 3.5 tonnes and an average weight of 2.28 kg. Hunting areas included: Waikato River, Lake Waikare, Whangamarino, Lake Waahi, Lake Whangape, Lake Rotongaro, Opuatia Stream, Mangawara Stream and Waipa River.

Once the dead fish are brought back to Weavers Lake near Huntly, they are turned into burley by a custom made koi carp mulcher, named 'Stormin' Norman' (see photos).

This event is unlikely to be moved to another area, but a smaller event could be held at Lake Ngaroto for a change of location for bow hunters and to potentially raise the awareness among the public of the pest koi carp. Australian research has shown that although these events are great for community engagement, they generally remove less than 1% of the pest fish population. [15]

Koi Carp mulcher at Koi Carp Classic. Photos courtesy of Brendan Hicks, University of Waikato

[14] http://www.lernz.co.nz/publication/publicationresources/Issue%2014%20-%20Jan-Mar%202010.pdf

[15] http://feral.typepad.com/feral_thoughts/2009/02/carpathon-great-fun-but-competitions-dont-impact-the-population.html

Pest fish removal in Lake Ngaroto

What is the aim of removing pest fish? "Shallow lakes like Lake Ngaroto, which have high external loading and devegetated sediments, typically have high internal nutrient loading, which may also need to be addressed to gain immediate improvements in water quality. By contrast, reduction of external nutrients is more likely to be associated with gradual and long-lasting effects on water quality." [16]

Adam Daniel proposes a conservative estimate of the biomass of pest fish in Lake Ngaroto is 8.9 tonnes. [17] To have any chance of improving water quality in the lake, 6.6 tonnes of fish would need to be permanently removed. If fishing was the method employed to do this, 300 net nights would be required, which means one net set for 300 nights, or it could be done with one person setting 10 nets over 30 nights. The latter would require large, effective nets (baited pod nets and fyke nets - and about $20,000 worth of fishing gear), a special permit, and fishing would need to be repeated on an annual basis.

The most costly aspect of removing pest fish is labour so maximising the amount of fish removed on each trip to the lake is important. So the most cost effective removal stagey is to fish the number of nets that can be fished in a single trip and a team of two fishers can clear 20-30 traps in a day. Removing enough fish to overcome recruitment and the growth of fish remaining in the lake will depend on effectiveness of the fish barrier, fish removal and the success of preventing spawning within the lake.

If a part time fisher is to be employed, the fisher could then focus on the younger, smaller fish that can get through a fish barrier (as the barrier has 30mm bar spacings). A fish barrier could drastically reduce the amount of fishing nights required on an annual basis if fish are actively migrating in and out of the lake as seen in other Waikato lakes.

Although there is no currently a commercial koi carp fishing industry in New Zealand it is likely to emerge in the next decade. If commercial fishers were operating in the Waikato area it would be cost effective to give them an incentive ($1 kilo-1) to remove fish from targeted areas rather than employ a fisher.

Targeting koi carp spawning sites can be highly productive but the timing of spawning events is spermatic. Blocking spawning site can be also be used to reduce the recruitment of koi carp when trying to reduce carp populations.

To employ a part time fisher, a special permit is required from DOC and the Ministry of Primary Industries (MPI) (required for the management or eradication of unwanted aquatic life), as the fisher will likely be operating outside the Amateur Fishing Licence.

Under the Fisheries Act, MPI does not manage restricted fish species, however, if prohibited fishing methods to target pest fish are to be used, then a special permit is required.

Note: removing sports fish, such as perch and rudd, a permit from Fish and Game NZ is also needed. This can be obtained by contacting the Auckland/Waikato Fish and Game office with a written proposal.

Any removal of pest fish will have to be done on an on-going basis. If you start to remove fish, then stop, any gains you make will be lost through reinvasion from farm drains into the lake.

Exclusion

Fish Barriers

There are many kinds of fish barriers. One push trap, specifically developed by the University of Waikato, for koi carp has already been mentioned (see section on Current NZ Research) and can be modified for use at Lake Ngaroto. [18] The cost would depend on the height and width of the stream, but is not prohibitive. For example, the 1400mm culvert barrier developed for Lake Ohinewai was constructed for $5, 000. Installing a one way barrier at the outlet drain would stop adult koi from getting back into Lake Ngaroto. An option of lowering the lake to spur koi carp to leave the lake once a barrier is installed, could be considered.

[16] Paul, W. Ōzkundakci, D. Hamilton, H. 2008. Modelling for Restoration Scenarios for Lake Ngaroto.

[17] personal communications November 2012.

[18] personal communication with Carl Jackson, December 2012

Potential uses of pest fish once caught

There are three commercial operators in the upper North Island who could potentially use pest fish as a resource.

CARPai Products is a company that aims to cover its costs by fishing koi and turning it into a product – either burley or fertiliser. CARPai Products could mince the fish on site to make a fertiliser (by mixing it with blood and bone) for which farmers in the catchment could potentially use on their farms. [19]

Another commercial operator, VHS buys pest fish and they either go for human consumption or the big ones go for bait. VHS pay $1 per kilo of fish and say this can almost make the removal of fish self funding. [20]

The third option is Wallace Corporation Ltd who would use the pest fish for blood and bone in their Rendering Division. Wallace Corporation Limited operates the largest service rendering plant in New Zealand with a raw material catchment area covering the Waikato, South Auckland, King Country, Bay of Plenty and Northland. The Rendering Plant situated at Waitoa, in the Waikato Region of the North Island, processes approximately 12% of the North Island's renderable material. [21]

Wallace Corporation would supply as many empty 240 litre wheelie bins as required by the fisher to fill with pest fish, at no cost, and come and collect the fish, at least twice a week, at no cost either. [22]

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[19] personal communication with Rick Muir, November 2012

[20] personal communication Robert Green, VHS, November 2012

[21] http://www.wallace.co.nz/Rendering.html

[22] personal communication Gordon Henderson, Wallace Corp, December 2012

Barriers to pest fish removal and use

In the trials at Lake Waikare, the thermophilic bacterial digester needs five tons of fish each time it is used. Currently it takes a week to catch a ton, so the fish need to be stored in the meantime. A retardant to stop fish rotting is being trialled at the moment which is similar to the way Māori used to put fat into the top of the container in which they were storing muttonbirds, but the storage of pest fish could be a barrier if there was a minimum amount required for either a processor to come and collect, or for someone to take to a processing site.

There are three commercial operators in the upper North Island who could potentially use pest fish as a resource (mentioned above). One, CARPai Products is such a small scale operation that it wouldn't be viable for them to drive to Lake Ngaroto to collect the fish and drive back to Pukekohe. The constraint with CARPai Products is that it doesn't have a Commercial Fishing Permit, therefore has to fish using an Amateur Fishing Permit, which means the company is limited to one 60 metre net. No traps or baits are allowed to be used.

However, CARPai Products has an application with the Ministry of Primary Industries for a Special Permit to allow them to use more nets, baits and traps and this application is being considered by Waikato-Tainui as this report goes to publication.

The other commercial operator, VHS, is only able to buy pest fish caught in Lake Ngaroto if the permit from the Ministry of Primary Industries states that the disposal method of the fish is to VHS pest fish processors. This would be the same with Wallace Corporation, but both of these barriers could potentially be overcome.

Any attempt to eradicate pest fish is very unlikely to succeed. Current methods of dealing with pest fish include nets, traps, fishing with rods and bow hunting, plus electric fishing and poisoning. None of which deal with the problem of reinvasion or preventing spawning. Catching fish in traps is expensive and time consuming. Netting can trap native fish and birds, as well, nets can get fouled or stolen. Fishing with rods or bow hunting is time consuming and electric fishing very expensive. Poisoning is expensive and non selective, although University of Waikato are researching ways of potentially overcoming this, but there is no magic bullet when it comes to pest fish in general and koi in particular.

Other barriers include people deliberately releasing koi into waterways for coarse fishing (a traditional British pastime involving the catch and release of certain species including koi carp, rudd, perch and tench) and for ornamental purposes in amenity ponds.

Perhaps too, there is a lack of knowledge among the general population that pest fish, and koi carp in particular, are harmful to our native biodiversity; koi are generally considered ornamental and benign. Although in saying that, a report on Close Up in September 2011 highlighted the problem of koi carp in our Waikato lowland lakes, see:

http://tvnz.co.nz/close-up/curse-koi-carp-9-06-video-4232144

Opportunities for pest fish removal and use

An opportunity to create a local system at Lake Ngaroto which didn't require processing or storing of pest fish - similar to dealing with the koi carp during the Koi Carp Classic where fish are mulched on-site and given away as burley - exists. Although, in saying that, live caught fish from Fyke nets or pod traps can be stored in fish cages or storage ponds. The University of Waikato use a net cage that floats in the lake and is lifted out when they have finished fishing. Although this would require more gear and may be open to intervention from the public. Perhaps a better option to consider would be if fish were able to be collected on the day they are fished from the lake.

A starting point could be to talk to local fishers from the area - Pirongia and Te Awamutu being the closest towns, to come and collect the fish themselves to turn into burley once the fish had been fished from the lake. If contacts were set up beforehand and collection of fish organised at certain times and days, this would cut out the need for processing and/or storing the fish in the first place. This idea would require some degree of coordination to set up and maintain, but costs would be minimal and could be organised through a central contact at Waipa District Council.

If pest fish were to be processed on the day of being caught, there would most likely be a person in the community already who owns a mulcher that could be lent out for this purpose. A tree mulcher would work as well as the custom made one used in the Koi Carp Classic- one that could chip four inch branches ideally. Or, further down the track, if this worked well, Waipa District Council could purchase a store-bought semi-commercial mulcher. The mulcher wouldn't have to work hard to chop up a fish, conversely, the problem would more likely be having the fish go through too quickly and not getting cut up well enough.

Another option to consider would be providing the pest fish to a commercial operation in the Waikato as previously mentioned.

In summary, once pest fish have been caught, there could be a community decentralised collection - either the fish were provided whole to local fishers who would then need to mulch the fish themselves, or fish could be mulched on site for burley and then given away to local fishers. Or pest fish could be collected by a commercial operation, such as Wallace Corporation Limited, CARPai, or VHS.

Recommendations

Hiring a local person to fish the lake on a part time basis will not make any difference to the water quality in the lake unless a multifaceted approach is taken. Nothing short of total eradication of pest fish, koi in particular will do anything to improve water quality. Unfortunately there will still be the problem of the internal nutrient load sediment resuspending, plus the lack of aquatic vegetation in the lake. However, in saying that, there are options for reducing pest fish that may be worth considering.

We suggest going through the process of installing koi carp barriers. There will be a need to apply to DOC for a consent and consult with Fish and Game regarding the barriers. By installing a koi carp barrier, adult koi can leave Lake Ngaroto, but not come back in. These barriers would need to be placed at all inlet and outlet drains. Consider installing a trap at the end of the barrier at the outlet drain so more koi can be removed.

Also explore the options surrounding the catching of pest fish. This will require applying to DOC for a licence to harvest koi carp and applying to MPI for a special permit (Appendix Two) to catch pest fish. If coarse fish are likely to be caught. i.e. rudd, perch, also contact Fish and Game for a permit.

Waikato-Tainui will need to be contacted to discuss any pest fish removal proposal. MPI has Accords with Waikato iwi and under the Waikato-Tainui Accord, applicants are required to consult with Waikato-Tainui prior to lodging an application for a special permit where fishing is likely to take place in the Waikato River and its catchments.

A part time fisher will need to be employed. Pest fish caught could either be given away to the local community for use as burley; or contact one of the commercial operators to organise collection of pest fish.

An event aimed at raising the public awareness about the issue of pest fish (koi in particular) could be worth considering also. Perhaps liaise with the Bow Hunting Society to hold a Bow Hunting event at Lake Ngaroto.

Also worth considering is investigating an integrated fish nutrient load model through the University of Waikato.

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Appendix One:

Freshwater Fisheries Regulations Permit Guidelines, taken from the Department of Conservation guidelines for processing applications under regulations 65 and 67A of the Freshwater Fisheries Regulations 1983.

Applications for the possession of noxious fish under regulation 65(2) of FFR 1983 need to include:

- Full name and contact details of applicant.
- Full name of the organisation and others involved in keeping the fish.
- Location where fish are to be held including;
  - Reference to the present distribution and presence/absence of the species in waterways near to the proposed facility;
  - In the case of koi with reference to the containment area.
- Detailed explanation of the purpose for which fish would be held including;
  - the number of fish;
  - the timeframe of the operation;
  - the affect of the proposed activity on management and control of the noxious fish
  - the level of public access to the fish and potential effect on public opinion.
- Description of techniques, including;
  - Catching technique;
  - Areas to be fished;
  - Net cleaning and treatment protocols;
  - Containment during transport;
  - Disposal of fish.
- Description of the housing facilities, including;
  - Security;
  - Plans for the containment of the fish including any eggs and juveniles;
  - Signage and notification.
- The risks of any breach of security or containment protocols and contingency plans to minimise that risk.
- The results of any consultation carried out in preparation of the application.

Applications for harvest of koi under regulation 67A of FFR 1983 need to include:

- Full name and contact details of applicant.
- Full name of the company and others involved in the operation.
- Registration and description of any vehicles and vessels associated with the operation.
- Location of processing plant with reference to the containment area.
- Description of techniques, including;
  - Methods of catching;
  - Areas to be fished;
  - How fish are to be processed;
  - Net cleaning and treatment protocols.
- Outline of market to be supplied (business plan);
  - Numbers of fish;
  - Sustainability of operation;
  - In what state the fish will be supplied;
  - Contact details of customers.
- The risks of any breach of security or containment protocols and contingency plans to minimise that risk.
- The results of any consultation carried out in preparation of the application.

Appendix Two:

Special Permit Application Form

Ministry for Primary Industries
Manatū Ahu Matua

SPECIAL PERMIT APPLICATION FORM

This form is to be used when making an application for a special permit which may be granted pursuant to section 97 of the Fisheries Act 1996 for the purposes of: education; investigative research; management or eradication of unwanted aquatic life; carrying out of trials and experiments with fishing vessels or fishing gear; sport or recreation in the case of any disabled person; or for any other purpose approved by the Minister for Primary Industries. Please complete all relevant sections of this form and attach additional information as appropriate. Failure to supply full details may result in delays in the processing of the application.

I/We hereby make application for a special permit:

APPLICANT DETAILS:

Name: _____
Surname (Company or Partnership's Name) *First Name*

Street Address: _____

_____

Postal Address: _____
(if different from above)

_____

Phone Number: (____) _____ *Fax Number*: (____) _____

E-mail address: _____

Contact person: _____
(if different from above)

Does the applicant hold a Client Number as a result of holding or applying for a fisheries authority from the Ministry for Primary Industries (or its predecessor) — hereafter referred to as the Ministry — or FishServe in the past?

Yes ☐ No ☐ *(tick either box as applicable)*

If yes, state Client Number: _____
If no, please fill out a client application form, which can be downloaded from the FishServe website at http://www.fishserve.co.nz/services.

EDUCATION, INVESTIGATIVE RESEARCH, MANAGEMENT OR ERADICATION OF UNWANTED AQUATIC LIFE, OR GEAR TRIALS: SECTION 97(1)(a)

Purpose (*please indicate which purpose(s) under s 97(1)(a) you are applying for*):

Education	☐
Investigative research	☐
Management or eradication of unwanted aquatic life	☐
Trials and experiments with fishing vessels or fishing gear	☐

You must also provide a detailed proposal supporting your application.

Special permit applications for education must be accompanied by a detailed proposal listing the species, area of activity, and quantity of aquatic life proposed to be taken. Also, details of any vessel, the method of collection and personnel involved.

Special permit applications for the purpose of investigative research must be submitted in conjunction with a research proposal as outlined in the paper entitled "Ministry for Primary Industries; Research Proposal Requirements", which accompanies this form.

Special permit applications for the management or eradication of unwanted aquatic life must identify the species that is proposed to be taken, the proposed location of the activity, and the proposed methods of fishing and disposal of the unwanted aquatic life. Should the application be for koi the applicant should enclose a copy of their licence to harvest for this species in accordance with regulation 67A of the Freshwater Fisheries Regulations 1983 (if that approval is held at the time of application).

Applications for trials and experiments with fishing vessels or fishing gear should follow a similar format to the research proposal requirements.

FISHING BY DISABLED PERSONS: SECTION 97(1)(b)

Where there is a genuine hardship caused by a disability, special permits may be issued under this section to allow disabled fishers, in the pursuit of sport or recreation, to use methods that are normally not envisaged by the Fisheries (Amateur Fishing) Regulations 1986 or regional amateur fishing regulations.

Please attach a signed and dated medical certificate stating the nature and extent of the disability, and how this disability is likely to affect your ability to take aquatic life and that you, as the applicant, are disabled in terms of the Disabled Persons Community Welfare Act 1975 (see attached information sheet).

Specific details to include with application:

Area where fish are to be taken:

_____

Special methods requested

_____

_____

_____

OTHER PURPOSES: SECTION 97(1)(c)

Special permit applications should only be lodged under section 97(1)(c) where the proposed activity is not encompassed in the previous sub-sections of section 97 (on the previous page).

Applications lodged under s 97(1)(c) can be made for purposes already approved by the Minister for Primary Industries or to seek approval from the Minister for a new purpose. If unsure whether there is an approved purpose that encompasses your proposed activity, please contact the Ministry's Spatial Allocations Team (contact details on following page).

If the application is lodged for a new purpose, the Ministry may ask the Minister for Primary Industries to consider approval after consultation with such persons and organisations considered representative of persons having an interest in the granting of a special permit for such a purpose.

***Brief statement of purpose (new or existing)**:*

_____

_____

_____

_____

_____

If applying for a special permit under an existing s 97(1)(c) purpose, you must submit a detailed proposal in support of your application, stating the rational for making such an application.

If you wish to apply for a special permit for a purpose not yet approved by the Minister, you must provide a detailed submission on why this purpose should be considered. Ministerial approval of a purpose will enable an application to be considered under that purpose.

DECLARATION BY APPLICANT

I/We _____

of _____
(Please state company and/or address)

Certify:

i. that the information given in this application is true and correct;
ii. that I/we am/are aware of the provisions of the Fisheries Act 1996 and Regulations and Notices under that Act; and
iii. that I/we am/are aware that it is an offence to supply false or misleading information;
iv. that I/we have read and understand the section relating to the collection of personal information (over).

Authorised signature of/for applicant: _____

Date: / /

PLEASE SEND THE COMPLETED SPECIAL PERMIT APPLICATION FORM TO:

Ministry for Primary Industries – Spatial Allocations Team
Private Bag 14
NELSON 7042

(Telephone contact for enquiries 03 548 1069)

COLLECTION OF PERSONAL INFORMATION

As required by Principle 3 of the Privacy Act 1993, notification is hereby provided of the following matters:

1. The fact that personal information is being collected.

2. This information is being collected for purposes relating to the management and conservation of fisheries and fishery resources within New Zealand and New Zealand fisheries waters and for the administration and enforcement of the Fisheries Act 1996 and regulations made pursuant to that Act.

3. The recipient of this information is the Ministry for Primary Industries.

4. The collection and holding of this information will be by and for the Ministry for Primary Industries.

5. The information is provided pursuant to section 97 of the Fisheries Act 1996. The provision of this information is voluntary, however, all sections of this form must be completed and failure to supply full details may result in delays in processing of this application.

6. It is an offence under section 230 of the Fisheries Act 1996 to make any false or misleading statement in any application for the purposes of the Fisheries Act 1996.

7. You are reminded that under Principles 6 and 7 of the Privacy Act 1993, you have the right to access to and correction of any personal information which has been provided. You may also apply to the Ministry for Primary Industries not to disclose your personal address to requesters where you consider that disclosure would be prejudicial to your personal safety or to the safety of your family.

Ministry for Primary Industries
Manatū Ahu Matua

SPECIAL PERMIT APPLICATION INFORMATION SHEET

(Client Information Sheet: Version May 2011)

Special permits may be issued for the purposes set out in section 97 of the Fisheries Act 1996. That section states the following:

97. Special Permits -

(1) The chief executive may, on application made to the chief executive in the approved form, issue to any person named in the application a special permit—

(a) For the purposes of—

(i) Education; or

(ii) Investigative research; or

(iii) Management or eradication of unwanted aquatic life; or

(iv) The carrying out of trials and experiments with fishing vessels or fishing gear or any other apparatus or technique which is capable of being used in connection with the taking of fish, aquatic life, or seaweed:

(b) For the purposes of sport or recreation in the case of any disabled person within the meaning of the Disabled Persons Employment Promotion Act 1960 who, in the opinion of the chief executive, would otherwise be unable, because of the person's disability, to fish by the methods permitted by this Act:

(c) For any other purpose approved by the Minister after consultation with such persons and organisations as he or she considers are representative of those classes of persons having an interest in the granting of a special permit for such a purpose, including Maori, environmental, commercial, and recreational interests.

(2) If the issuing of any special permit will have a significant effect on fisheries resources or any fishing interest in the stocks affected that are provided for or authorised by or under this Act, the chief executive shall, before issuing such a permit, consult with such persons and organisations as the chief executive considers are representative of those classes of persons having interests that would be affected if the special permit were issued.

(3) In considering any application for a special permit, other than for the purpose of the management or eradication of any unwanted aquatic life, the chief executive shall take into account the purpose of this Act and the environmental and information principles.

(4) Notwithstanding anything in any other section of this Act, the chief executive may authorise the holder of a special permit to take and dispose of fish, aquatic life, or seaweed subject to such terms and conditions as the chief executive may set out in the permit.

(5) The chief executive may at any time, by notice in writing to the special permit holder, amend, add, or revoke any term or condition of a special permit issued under this section, which term or condition shall take effect from a date specified in the notice.

(6) It shall be deemed to be a term of every special permit that no fish, aquatic life, or seaweed taken under the authority of the permit shall be disposed of except in the manner specified in the special permit.

(7) Notwithstanding anything in section 192 of this Act, it is lawful for any person to buy, or otherwise acquire, or be in possession of, any fish, aquatic life, or seaweed disposed of to that person by the holder of any special permit in the manner specified in that permit.

(8) The chief executive may at any time revoke any special permit by notice in writing to the holder, which revocation shall take effect from a date specified in the notice.

(9) The chief executive shall not issue a special permit in respect of any seabirds or protected species.

(10) Repealed.

(11) Every person commits an offence and is liable to the penalty set out in section 252(5) of this Act who contravenes any term or condition placed on any special permit by or under this section.

A special permit is issued for a maximum term of five years if appropriate (often less). No fishing undertaken, or catch taken or otherwise possessed pursuant to a special permit shall give rise to any right, privilege, or expectation or preference in regard to the granting of any future permit, licence, authorisations, quota, catch history, individual catch entitlement or other right whatsoever under the Fisheries Act 1996 or any statutory amendment or re-enactment of that Act.

A special permit will include a number of other conditions to ensure appropriate use, and usually stipulates reporting requirements applicable to the authorised activity.

The process for applying for a special permit is as follows:

1) Fill out a 'Special Permit Application Form'. If you do not have a Client Number (previously referred to as FIN or QRN), a 'Client Registration' form must be completed. A client registration form can be downloaded from the FishServe website at http://www.fishserve.co.nz/services.

2) A special permit application incurs processing costs regardless of whether the application is subsequently approved or declined. The recovery of these costs from the applicant is explained further in the attached 'Charging Policy' Information Sheet, as it relates to new applications or the amendment / alteration of conditions on issued special permits. Applicants can minimise costs by ensuring that all relevant information is submitted at the time of application.

3) If a special permit is sought in order to carry out 'investigative research' or 'trials and experiments with fishing vessels, or fishing gear', then a research proposal must be supplied detailing the type of work that will be carried out. A client information sheet entitled 'Research Proposal Requirements' is included as a guide to the type of information required.

4) Special permit applications are assessed by Fisheries Management staff, and are subject to input from Compliance, Science, Biosecurity, and Legal Services staff where applicable. Investigative research proposals may also be forwarded externally for review. Should this be required, the applicant will be advised accordingly.

5) For special permit applications made under s 97(1)(c), and where a Ministerial purpose approval has yet to be obtained in relation to the purpose sought, the applicant will need to await the Minister for Primary Industries' consideration of the purpose, prior to the Ministry's consideration of the application. Before approving a new purpose, the Minister must undertake consultation with persons and organisations having an interest in the possible granting of a special permit for such a purpose. The Minister's favourable consideration of a purpose does not necessarily translate to successful consideration of an application under that approved purpose.

6) If quota species are involved in a special permit application, the applicant should hold sufficient Annual Catch Entitlement (ACE) for the activity proposed and the likely quantity of fish, aquatic life, or seaweed proposed to be taken (including bycatch).

7) If the Ministry decides that a proposed research programme is inadequately designed to meet its objectives, an independent internal review of the proposal may by sought by the applicant.

8) Where the issuing of any special permit could have a significant effect on fisheries resources or any fishing interest in the stocks affected, the Ministry must undertake consultation with those classes of persons having interests that would be affected if the special permit were issued. Consultation may stall or delay the application process so applicants should factor this possibility into expected timeframes for applications.

9) Where the approval of the Minister for Primary Industries is sought for a new purpose under section 97(1)(c), the time required for application processing may be considerably extended.

10) Failure to supply full details pertaining to the application may cause delays in processing through to the decision and notification stage.

11) Should a special permit be issued for a particular applicant, and the contact details of the applicant change during the term of the special permit, the permit holder should advise the Ministry of the new contact details as soon as conveniently possible.

Ministry for Primary Industries
Manatū Ahu Matua

RESEARCH PROPOSAL REQUIREMENTS

(Client Information Sheet: Version May 2012)

A research proposal should contain the following information:

1. a. Title - the title should, as far as possible, describe the main objective of the project and the species involved.

   b. A clear and concise statement of the intentions and purpose of the research, including the specific objectives and/or questions to be answered.

2. Details of investigation design and the methods to be used, including:

   a. Areas to be investigated (a detailed map or chart showing areas to be investigated will be required).

   b. A detailed description of how the sampling or experiments will be carried out and how they will answer the questions being asked.

   c. A description of the type of data analysis that will be carried out, if any.

   d. Time frame for the investigation.

3. Background as to why the proposed investigation is necessary, and a summary of the relevant literature and any relevant information on the fishery.

4. Evidence that previous research relating to the investigation has been considered, including that carried out under any previous special permit(s) held by the applicant.

The following details must also be provided:

   a. Key personnel, including a project leader.

   b. Where applicable vessel name and registered number, special shipboard gear requirements, e.g., compressor for SCUBA, processing facilities etc.

   c. Details of co-operative arrangements with other organisations or individuals if applicable.

   d. Details of disposal of aquatic life i.e., return to the water, sale, markets, shipments etc. Please note that if the aquatic life taken under the proposed special permit is to be sold, that the Licensed Fish Receiver(s) (LFR) to whom the aquatic life is to be sold, should be named.

A special permit may only be issued for the minimum amount of aquatic life necessary for the purpose of the project to be carried out.

If a special permit is issued, a detailed report will be required on the research findings. The information requested in the report will be tailored to the investigative research project being undertaken and the species being fished. The report format is likely to be defined in the special permit.

Ministry for Primary Industries
Manatū Ahu Matua

FISHING BY DISABLED PERSONS

(Client Information Sheet: Version May 2012)

Special permits may be considered for individuals who, due to a genuine physical or mental disability, are unable to fish using methods under the normal provisions of the recreational fishing regulations (as given in the Fisheries (Amateur Fishing) Regulations 1986, and associated area specific regulations).

These special permits are issued in accordance with s 97(1)(b) of the Fisheries Act 1996. Special permits issued under this provision may allow the use of otherwise prohibited fishing methods where they are appropriate in the case of a disabled person. For consideration under this type of special permit, a person must be disabled in terms of the Disabled Persons Community Welfare Act 1975 which states that:

> ``***Disabled person*** *means any person who suffers from physical or mental disablement to such a degree that he is seriously limited in the extent to which he can engage in the activities, pursuits, and processes of everyday life"*

Information Requirements

All applications must be made by the disabled person and be accompanied by a signed and dated medical certificate stating the nature and extent of their disability, how this disability is likely to affect their ability to take aquatic life, and certifying that the individual is disabled in terms of the Disabled Persons Community Welfare Act 1975. Applicants should specify what fishing method techniques they require to assist them in their amateur fishing activities.

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CHARGING POLICY:

i) APPLICATION FOR SPECIAL PERMIT; or
ii) AMENDMENT / ALTERATION TO SPECIAL PERMIT CONDITIONS

(Client Information Sheet, Version: May 2012)

Background

The government has determined that costs associated with the provision of fisheries services through the Ministry should be recoverable. Every year the Ministry undertakes statutory consultation on the nature and extent of the fisheries services it provides, and the contribution that the Crown provides to fund particular services.

Consultation with stakeholders in the late 1990's on the recovery of the Ministry's annual costs confirmed that the actual costs associated with processing special permit applications and amendment or alteration to conditions of issued special permits should be attributable to the applicant, and consequently charged for time expended on an hourly basis. This proposal was adopted, and the current fees applicable to the processing of special permits are set out in the Fisheries (Commercial Fishing) Regulations 2001. Further, the general principle for cost recovery for fisheries services of this nature was adopted by government in its passage of an amendment to the Fisheries Act 1996 (see s 262) in 1999, and bought into force on 1 February 2001.

Schedule 2 of the Fisheries (Commercial Fishing) Regulations 2001 stipulates the fees (including GST) that apply as follows (effective from 2 December 2004):

4 Application fees for special permits –

The fees payable in respect of an application for a special permit under section 97 of the Act are as follows:

Type of application

(a)	*for the issue of a special permit (for each hour taken to process the application)*	*$133.88*
(b)	*for the issue of a duplicate special permit*	*$15.00*
(c)	*for the amendment or alteration to conditions of a special permit at the request of the permit holder (for each hour taken to process the application)*	*$133.88*
(d)	*for the amendment ore alteration to conditions of a special permit in another case*	*$15.00*

This client information sheet has been developed to provide an awareness of the administrative processes that are used to charge fees for the special permit statutory function.

Procedure

The nature of the regulations stipulating the fees payable is such that the final cost of processing an application, or an amendment request, is unlikely to be known until processing has been completed. The Ministry may ask an applicant to forward an amount representing four hours processing time (ie, $535.52) on the basis that this minimum level of time commitment is almost always required for each application or amendment request received, regardless of whether the application is either approved or declined.

An applicant may request that the Ministry waive or partially remit the fee payable on the grounds that the application is in the public interest (as provided by regulation 83 of the Fisheries (Commercial Fishing) Regulations 2001).

The Ministry will consider any fee waiver or remit request before processing the special permit application through subsequent stages. The Ministry will advise the applicant (usually in writing) should it be determined that a waiver request has been declined, or a partial remittance is not to the level requested by the applicant. Requests for fee waivers or remissions will delay the processing time associated with a particular application. Applicants should note that few fee waivers or remissions are granted. To avoid unnecessary delays, applicants who are considering seeking a fee waiver should discuss their application with Ministry staff before lodging the request.

Ministry staff are conscious of the need to progress applications as efficiently as possible. Some applications are relatively simple and straight-forward, whereas others may be complex, of a sensitive nature, or require consultation with potentially affected parties. Applicants will be kept informed at intervals of 10 hours processing time in order that they are aware of the costs incurred in processing applications through to decision notification.

The following figures are hour fee calculations (incorporating GST) and are provided for reference purposes, when considering the charge that will normally apply to special permit applications or amendment requests. Fees are rounded up to the nearest hour.

Number of hours	*Processing fee incurred*
1	$ 133.88
2	$ 267.76
3	$ 401.64
4	$ 535.52
5	$ 669.40
10	$ 1338.80
20	$ 2677.60
40	$ 5355.20

Following completion of the processing of the application or amendment request, the Ministry will write to the applicant advising them of the fee payable, in addition to the decision reached on the application or amendment request. This advice will also make reference to the generation of a GST Tax Invoice for the fee payable that will be forwarded at a later time. Payment of a GST Tax Invoice is required by the 20th of the following month. Alternatively, the Ministry will arrange a partial refund on any deposit provided by the applicant where that amount exceeds the cost incurred in processing the application.

Statutory debt

In the event that the applicant fails to pay the fee within the timeframe indicated, debt recovery actions in accordance with normal administrative procedures will be undertaken. Prospective applicants are advised that fees required to be paid in accordance with regulatory provisions under the Fisheries Act 1996, yet which are not paid, are deemed 'statutory debts'. Penalties for late or non-payment of such statutory debts consequently apply.

The Ministry may place debtors' accounts in the hands of debt collecting agencies should payment of statutory debts not be made. Continued failure to pay statutory debts to a debt collecting agency may result in the client's credit rating being affected for a period of up to 5 years.