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**In the High Court of New Zealand  
Rotorua Registry**

**CIV 2006 -463 -32**

**Under** the Judicature Amendment Act  
1972, Part I

**In the matter of** The Resource Management  
Act 1991, as amended, the Local  
Government Act 2002

**BETWEEN** SAWMILL WORKERS  
AGAINST POISONS INC.  
First Applicant/ Plaintiff

**AND** Mr H J Harawira  
Second Applicant/ Plaintiff

**AND** WHAKATANE DISTRICT  
COUNCIL  
First Respondent / Defendant

**AND** ENVIRONMENT BAY OF  
PLENTY REGIONAL  
COUNCIL  
Second Respondent / Defendant

**AND** Willis Bond & Co (Akl) Ltd and  
Whakatane Super Centre Ltd  
Third Respondents

**Affidavit of Charles Paul Mitchell in support of  
Plaintiffs Application For Judicial Review / Interim  
Injunction**

Dated 1 February 2006

Counsel: Mr P T Harman  
Whare Roia = Legal Chambers  
2 Mansfield Street, P O Box 505  
Wairoa

Tel: 06 838 3372  
Fax: 06 838 5073  
Solicitor: Mr G Morrell  
Solicitor

Pukekohe

**Affidavit of Charles Paul Mitchell in support of  
Plaintiffs Application For Judicial Review / Interim  
Injunction**

I, Charles Paul Mitchell., Biological Consultant specializing in freshwater fisheries issues, make oath and swear that

1. I have a Masters Degree in Zoology (with distinction) gained from Otago University in 1975. My field of expertise is fisheries biology and in particular, NZ freshwater fish. I was initially employed in the freshwater section of the Fisheries Research Division of the Ministry of Agriculture and Fisheries, as a Research Scientist, from 1975 until 1992. With the break up of Fisheries Research Division in 1992, I established my own consultancy business. I am now based at Raglan where I am investigating the potential for enhancing whitebait populations. My income comes from fisheries consultancy work, and in particular, providing advice and undertaking studies on the management of native freshwater fishes.
2. I have been asked by Sawmill Workers against Poisons (first plaintiff) and J. Harawira (second plaintiff) to make professional independent advice known to the Court on the aspect of this application in regards in particular the water permit discharge Resource Consent without notification., and its impact on receiving animal life especially eel.
3. In my evidence I will cover the following subjects:
  - The life cycle of eels and their particular propensity to accumulate fat soluble contaminants.
  - Migration of fat soluble bio-accumulating contaminants such as dioxins, through food chains.
- 3.1. Regarding EEL LIFE CYCLES I say that Longfinned eels are the top predator in Ne furthestmost inland reaches of New Zealand river systems. Shortfinned

eels grow a little more rapidly. This species tends to stay in the lowlands, seeking out productive lakes and ponds.

- 3.2 Most of our freshwater fish move to and from different habitats. It is well known that many migrate to and from the sea. Overall, eels undertake longest migrations of any of our freshwater fish. Considering that they breed in the deep Pacific somewhere near Tonga, eels can be seen as really tropical, deep-sea fishes engaged on lengthy feeding excursions into freshwater.
- 3.3 Breeding marks the end of the freshwater phase. Female longfinned eels average 34 years old before sexual maturity is initiated, males average 24 years. Shortfinned eels are 'faster' to mature. Female shortfinned eels average 22 years old and males average 14 years (Todd 1980). Such very slow growth and extraordinarily long lifespans are common features of deep-water marine fishes.
- 3.4 Eels migrate back to the sea to breed when they have attained a suitable size and probably a peak body fat level. Eels naturally accumulate very high levels of fats and oil for this long migration. The high content of lipids in eel flesh makes the eel fishery especially prized by Maori. Unfortunately, fat-soluble bioaccumulating chemicals such as Dioxins, DDT metabolites and methyl mercury can make eels risky eating in modern New Zealand. As very long-lived, high fat content, top predator fishes, eels are clearly the worst possible species to harvest from dioxin contaminated systems such as the Kopeopeo Drain.

#### **4. DIOXINS AND ECOLOGY**

- 4.1 90% of human dioxins in NZ are accumulated through dietary exposure. Fatty foods usually contain the highest levels of dioxins.

- 4.2 Dioxins and associated furans occur in complex mixtures, as the analyses provided in the evidence before this Court presented clearly demonstrates. They are among the most hazardous chemicals known to humanity. Extremely minute doses have been shown to cause negative health effects. They are known causes of cancer in humans, are linked to reproductive problems, abnormalities in fetal development, immune system impairment, alterations and disruptions of hormone function. They are notorious for bioaccumulating through food chains and high levels of dioxins can be found in human fat and breast milk.
- 4.3 The USEPA's Dioxin risk assessment in 2000 concluded that there is "no safe level of exposure to dioxin". Aquatic organisms have been shown to concentrate dioxins attached to soil particles and sediment in the water by a factor of 10 000 times. Sampling for dioxins in aquatic environments use fish as known and highly efficient concentrators of these toxins. Dioxins have moved through food chains in a similar manner to DDT and other chlorinated hydrocarbons. They are now found in Antarctic mammal fat and in the breast milk of Eskimos.
- 4.4 It is almost certain that dioxins from the mill site have entered the Whakatane River, then Bay of Plenty food chains and have been carried by migrating eels into the wider Pacific environment. However, in context it must also be recognized that incineration of municipal waste and chlorine bleaching of pulp and pare are both recognized sources of dioxins that are also undertaken in this region.
- 4.5 Pentachlorophenols on their own are highly to very highly toxic to many species of fish. There are synergistic effects so that combinations of lead, arsenic, PCP and dioxins are considered to be 20-40 times more toxic to life than dioxins alone. Arsenic is also known to concentrate in aquatic plants in New Zealand. Clearly collection and consumption of wild plants such as water cress and puha would be unwise around the old mill site.

4.6 In my opinion, the plaintiffs have very good reasons to be extremely concerned about disturbances to and discharges from this highly contaminated industrial site.

SWORN this            day)  
of 1<sup>st</sup> February 2006    )  
at Whakatane            ).....

before me

A Solicitor of the High Court of New Zealand/ Registrar of the District Court /  
A Justice of Peace

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EXHIBIT "B"

Draft Media Release on BOPDHB letterhead

June 23, 2005

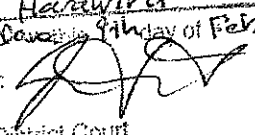
Eels May be Unsafe to Eat

The Whakatane Contaminated Sites Working Party is recommending that eels from the Orini Canal and the Kopepeo Canal between the State Highway and the Whakatane River should not be eaten. A recent report completed by Environment Bay of Plenty confirms that eels from these two waterways have higher than acceptable levels of timber treatment chemical residues in them. In particular the report found relatively high levels of Dioxins in a number of eels. The Contaminated Sites Working Party comprises representatives from Toi Te Ora-Public Health, SWAP (Sawmill Workers Against Poisons), Whakatane District Council, and Environment Bay of Plenty and was formed to identify and monitor sites in the District affected by timber treatment chemicals.

Dr Phil Shoemack, Medical Officer of Health and Chairperson of the Working Party, says "the Working Party decided that in the interests of protecting the health of local people that a clear Health Warning be issued. Signs will be erected near the relevant streams and members of the Working Party will also visit marae in the area to explain the situation and answer questions."

For further information please contact:

Dr Phil Shoemack  
Medical Officer of Health  
Ph 07 5773320

This is the exhibit marked  
mentioned and referred to in the annexed  
affidavit of Joe Harawira  
owner of Whakatane 9th day of February of  
2006 before me:   
Deputy Registrar, District Court  
~~Reside the Peace~~

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**pacific health**

# **WARNING HEALTH RISK**

This is the exhibit marked  
 mentioned and referred to in the annexed  
 affidavit of Joe Hargrave this day of  
 20 before me:  
 Deputy Registrar, District Court  
 Justice the Peace

You are advised not to eat eels taken from this area.

The eels may contain high levels of timber treatment chemicals.

For further information contact the Health Protection Officer at Pacific Health, Whakatane.

Phone : 306 0717

*To copy on to Red Sheet.*

*Joe*

*Initial draft for comment*

*Regards*

*Bruce*

July 2005