

ACRE's position on the use of 1080 (sodium fluoroacetate) in New Zealand

1. Background

- 1.1. NZ's natural heritage and biodiversity are unique and must be protected for future generations. Doing nothing to protect them is not an option. In the last 50 years we have seen kiwi and kokako disappear from many Waikato forests, and birds such as tomtits, robins and bellbirds have become increasingly rare.
- 1.2. Introduced to NZ by our well-meaning forefathers, pests such as possums, mustelids, and rats have no legitimate place amongst NZ's unique flora and fauna and continue to cause extreme biodiversity loss. Further, at least some of these introduced pests spread tuberculosis into our farming stock.
- 1.3. No other country in the world has such a high proportion of flightless birds and no other country is completely devoid of native land mammals. Among the world's countries New Zealand's unique fauna are in a risk class of their own.
- 1.4. While no "poisoning" is popular, ACRE believes that 1080 is the most effective pest management option currently available for large areas of New Zealand's habitat. It targets our main suite of predators simultaneously with negligible by-kill over vast areas and can reduce them to very low levels, or in some setting eradicate pests completely. New Zealand is the main user of this toxin in the world, simply because we have no native mammals at risk. It has been shown to pose no significant risk when used under best practice standards as laid down by the Environmental Protection Authority (EPA).
- 1.5. While 1080 can have a temporary very localised impact on invertebrates, the science done so far does not show it affecting population levels in the longer term (see for example , "The effects of 1080 on invertebrate communities and fish in West Coast streams", NIWA Client Report: CHC2004-096 August 2004, available at http://www.1080facts.co.nz/uploads/2/9/5/8/29588301/effects_of_1080_on_invertebrates_and_fish.pdf.) It has been shown to have practically no effect on or accumulate in fish.
- 1.6. The NZ Drinking Water Standards issued by the Ministry of Health specify a maximum value for 1080 in water of 3.5ppb (parts per billion) i.e. less than 2 teaspoons in an Olympic swimming pool. The standard set for testing water in 1080 operations is 2ppb. This is half the level of 1080 that is usually present in a cup of tea. Further, as part of a precautionary principle in aerial operations, there is a 50 metre buffer area enforced around significant waterways. In over 4000 tests of drinking water around 1080 operations, none have ever detected any 1080. This issue is covered in detail in the Ministry of Health's "Guidelines for Drinking-Water Quality Management for New Zealand, available at <https://www.health.govt.nz/publication/guidelines-drinking-water-quality-management-new-zealand>.
- 1.7. ACRE acknowledges that some members of the public feel uncomfortable about any aerial applications of poisons. This concern is heightened by a significant amount of false information and scaremongering being generated by certain sections of the community. Much of this concern and the misinformation relates to early use of 1080. Refinements to methods over the last decade have seen the amount of toxin used per hectare cut by up to 90%. DOC's aerial 1080 operations cover a small portion of public conservation land in any year (currently c. 6% - in any given year it may be more or less). There is quite simply nothing else currently available that can do the job 1080 does to protect our native forests

and wildlife. Trapping and ground-fed bait stations can supplement and back up aerial operations, but are physically, logistically, and economically impossible over much of the public conservation estate.

- 1.8. ACRE believes that management of pest species by commercialisation is not a practicable method for the long term management of our vulnerable ecosystems. Bounties have proved in the past to be ineffective in reducing possum populations, and had the undesirable consequence of possum introduction to previously possum free areas, such as Northland. Similarly harvest for fur cannot achieve sufficiently low numbers because trapping is uneconomic long before that point is reached. The contribution to our economy of pest based industries is minor compared to the ongoing costs financially and environmentally involved in maintaining commercially viable pest populations for harvesting on public conservation land. The ideal situation will be to become pest and predator impact free in the future. Until the tools become available to achieve that, regular suppression with aerial 1080 will be required.
- 1.9. ACRE acknowledges that as far as NZ tourism is concerned, our scenic outdoors and unique ecologies are a huge drawcard. It needs to be made clear to visitors that the sensible and well-managed use of toxins is necessary in order to protect native forests and fauna, negative publicity and 'false facts' generated by certain sectors are again less than useful.

2. Conclusion

- 2.1. ACRE supports the use of 1080 under current strictly controlled "best practice", until such time as suitable alternatives can be found. There is considerable research continuing towards this, as well as improving and refining the way 1080 is used in the field. In the meantime, pest control is best done with a mixture of available tools of which 1080 is the currently the best if not the only tool for large areas.

Case Studies

Appendix 1: Case Study courtesy Arthur Cowan

We own 506 acres of bush covenant in the Waipa valley. Possum numbers reached a peak in the early 1960s. Native bush areas were badly affected and crop damage was considerable. TB was diagnosed in the area. We were concerned for our native birds as numbers were way down from the 1940s. A search confirmed that our two known pairs of robins had survived.

1080 drops were started some time later and continued every two years. TB was reported clear after ten years or so and yearly TB tests continue. Native birds have made a huge recovery as have the forests over the years. Robins, tomtits, bellbirds and whiteheads are now plentiful. Native pigeons are also common, with our best count 50 feeding on willow shoots. Longtailed cuckoo have returned after 50 years, no doubt after the increase in whitehead population.

Those who have the knowledge and have genuine concern for the protection of our forests and wildlife will be in favour of the continued use of 1080.

Appendix 2: Case Study courtesy Megan Balks

We own a block with over 60 acres of native bush. Though we have had bait stations there for several years it is a never-ending battle to try to keep pest numbers down due to constant re-invasion from neighbouring areas. We were part of a 1080 control programme in the winter of 2007. That led to a really noticeable increase in bird numbers with absolutely no adverse effects that we are aware of. Prior to the 1080 drop we only ever saw an occasional kereru. In the autumn after the 1080 drop, we regularly saw flocks of about 8 birds, suggesting a successful breeding season. Also that autumn we had more ruru and tui calls than ever before - both groups going at once in the pre-dawn light!

The kereru numbers further improved by the following autumn when I regularly saw flocks of 15 or 16 birds. On one occasion I counted 34 kereru all flying by together - an absolutely amazing sight and sound! This spring there are good numbers of kereru about so I hope they will still be able to keep the breeding momentum going. I know we are starting to get a few possums back, but overall I think possum numbers are still low. We have also got far more tui about than ever before. Last autumn we had the best flowering I have seen of the red rata and this spring I spotted one rare daisy plant that was thriving with a lack of possum browse. Our native fuchsia tree has more than doubled in size over the last two years and is flowering prolifically.

Appendix 3: Whenuakite Kiwi Care Group

In May 2010, an intensive listening survey for Coromandel brown kiwi (*Apteryx mantelli*) was undertaken by the Whenuakite Kiwi Care Group to provide a comparison with the baseline distribution survey completed over a similar period in 2001.

In 2001 29 kiwi were detected. In 2005, 68 and much to their delight in 2010 the number of calls recorded was 98. This is a 14.5%p.a. estimated increase over the 9 year period, and is higher than in any other known kiwi populations under any sort of management on the mainland or on predator free islands.

They also report an increase in other birds (kaka, tui and kereru in particular) and a massive increase in forest health and seedling regeneration.

The group maintains 452 traps and 120 volunteer hours per month are spent checking and resetting them. This is their main method of pest control.

Whenuakite Kiwi Care Group acknowledges aerial distribution of 1080 is a very controversial decision and whether or not to do so is a decision that individual landowners within the area they monitor, make. However, they found that it decimated the rat and possum population in the areas where it was spread and post operation monitoring found no trace of either pest and no down sides have been noted. They found that there was a decline in rat numbers after the aerial control operation for five months from October through to March. The timing of the operation and the benefit of the low predator numbers at that time was of great benefit to nesting birds and increased the chances of chick survival.

References

Evaluating the use of 1080: Predators, poisons and silent forests

Parliamentary Commissioner for the Environment, June 2011

Available at:

<https://www.pce.parliament.nz/media/1294/evaluating-the-use-of-1080.pdf>

Update Report - Evaluating the use of 1080: Predators, poisons and silent forests and

Evaluating the use of 1080: Predators, poisons and silent forests, Frequently Asked Questions

Parliamentary Commissioner for the Environment, June 2013

Available at:

<https://www.pce.parliament.nz/publications/update-report-evaluating-the-use-of-1080-predators-poisons-and-silent-forests>

Frequently Asked Questions on the Use of 1080

Forest and Bird, April 2018

Available at:

<https://www.forestandbird.org.nz/resources/frequently-asked-questions-about-1080>

Taonga of an island nation: Saving New Zealand's birds and

Taonga of an island nation: Saving New Zealand's birds, Frequently Asked Questions

Parliamentary Commissioner for the Environment, May 2017

Available at:

<https://www.pce.parliament.nz/publications/taonga-of-an-island-nation-saving-new-zealands-birds>

The effects of 1080 on invertebrate communities and fish in West Coast streams; Alastair Suren, Paul Lambert; Prepared for Animal Health Board

NIWA Client Report: CHC2004-096, August 2004

Available at

http://www.1080facts.co.nz/uploads/2/9/5/8/29588301/effects_of_1080_on_invertebrates_and_fish.pdf

Guidelines for Drinking-Water Quality Management for New Zealand, Ministry of Health

Available at:

<https://www.health.govt.nz/publication/guidelines-drinking-water-quality-management-new-zealand>

Letter from Ngahere Justice

Available at:

<https://ngaherejustice.wixsite.com/letter/english> (English)

<https://ngaherejustice.wixsite.com/letter> (Te Reo)