

Submission for Risk Assessment-Methodology for Hazardous Substances

Norm Brown
Mohaka Rafting
3408 State highway 5
RD 2 Napier
4182

Phone 021825857

With the continued and growing use of 1080 in, over, and around water I ask the EPA to Consider my submissions below:

Introduction

My guides and guests, both school students and tourists, are now using areas that Ospri has decided to aerial spread 1080. We are constantly in and around and drinking water from small streams coming out of treated areas. We are also tramping through areas that are trying to be treated aerial with 1080. To avoid issues we had to engage in a bitter debate with authorities before the drop was cancelled in the tramping areas, however the drop over areas we are in with contact with water went ahead. We will however, be facing the same issues again. I give an account of most of the issues below.

I am prepared to talk with your committee about the submission if required.

Submission:

I am asking the EPA to consider an Application for a modified reassessment of 1080 on the following grounds.

Since the ERMA (now EPA) report was commissioned there has been several changes in communication and land usage and access to treatment areas as well as the actual type of places being treated with aerial methods. Also there has been changes in law that has negated public input that the ERMA report relied on for public safety. Also it appears that "over-site of aerial 1080 application is none-existent and the public cannot access or are unaware of this over-site creating conflict and unsafe practices.

1. Communication:

The ERMA report concentrates its communication to reach "locals" using news paper adds and then notices on public accesses. Newspapers are now virtually none existent in most house holds as is the public notice system within them. This coupled with a broader based usage and the movement of aerial treatment by 1080 from remote areas to easily accessed areas has brought conflict and lack of control and safety for the public. Social media and digital communication would now be more appropriate.

2. Land use:

The public and tourism, as well as school camps and various activities related to land usage has now spread well beyond what was happening when the ERMA report on 1080 was researched and published. This has brought about a "conflict" in rural areas where high public usage and 1080 aerial treatment is being carried out. This needs to be addressed for social and safety reasons.

3. Actual areas being aerial treated:

Since the ERMA report on 1080 was researched and published the parameters of areas treated has moved.

The ERMA report indicates and implies that aerial application of 1080 would be used in inaccessible areas away from public and that this would go to some extent towards the safety of this type of application and use of 1080. However 1080 application has now been allowed to move closer and in some instances into areas regularly accessed by public including tourists schools and adventure providers and around dwellings and water supplies. This has brought about conflict creating an unsafe environment. Please see attachments.

4. Spread of activities into what was classed as inaccessible areas:

Since the ERMA report on 1080 was released domestic and international tourism and adventure activities has moved further into areas where aerial treatment by 1080 was seen as a viable alternative. However most of these areas are now tracked or access has improved making other pest control methods viable when considering the wealth generated by the activities. Initially aerial treatment was considered and discussed in the ERMA report because of its cost effectiveness. This is now being challenged, much the same as aerial 1080 treatment around farmland has been.

5. Law changes:

It appears that RMA law changes to remove notification of 1080 applications to land is now in place. This is one of the only methods by which the public could have had input into the safety of an application. Especially when the wider public accesses to an area on a regular basis such as adventure providers, tourist operators and clubs and schools and conservationists. The law changes have made the controls placed by the ERMA report outdated, unworkable and building conflict, and a nonsense. This needs to be addressed.

6. Over-site:

I have now faced 2 years of conflict described above and face more years of growing conflict. It has become clear that the pest controlling authorities and applicators are treating the use of 1080 and the public usage of areas with contempt and have pushed the safety considerations to the limit at a time when safety has been eroded by law change and increase usage. It appears but I am not sure yet that the poison applicators are not licensed or audited. This needs to change. The conflict that has developed, shows that the control of the application of a deadly poison on a wide spread basis has not kept up with the increase spread of public into wilderness areas and conversely the spread of aerial applied 1080 into easily accessed areas. Conflict between applicators and the public has increased and will increase further unless there is a more transparent and accessible over-site of 1080 use. There needs to be better licensing or more licensing, which ever is the case and there needs to be more stringent auditing or establish an auditing system, as the case may be. The auditing needs to be transparent and have teeth.

7. Conclusion:

The combination of the aspects above is leading not only to conflict and unsafe practices and situations, but if continued will lead to certain deaths and in the worse case multiple deaths or multiple accumulation of health issues. All of which will require exhaustive and soul destroying investigation and recrimination and in all probability civil recourse.

The ERMA report needs to be revisited to catch up with what is happening on the ground.

I am only a simple person that pushes rubber down a river to give guests a great and safe experience, and who tries to educate youth on how to survive in an emergency

My expertise in initiating change in respect of the above is severely limited.

Below is my initial contact with the EPA trying to get some action before conflict escalates and the response to that. Also as a sort of case study of my interactions with Ospri and other agencies that drove this submission. I have attached some files in support.

- 1) I submitted the below (section 4 on) to Authorities (Ospri, Tbfree, and MoH) on 27th January 2017.
- 2) I was extremely concerned about 1080 contamination of tracks and water ways in areas we frequent and the public frequent in Hawkes Bay it explains some of my anguish. I realise that the likelihood of absorbing a lethal dose of 1080 is relatively low but the possibility can not be ruled out. My biggest concern is sub-lethal dosage.
- 3) I was concerned about the lack of information and notification of drops in and around tracks, water ways and camp sites we use. Also the total lack of water and ground testing to ensure safety.

4) Submission on 1080 use

By Norm Brown dated 27th January 2017

- a) I, as an operator in and around the Mohaka catchment have grave humanitarian safety concerns for guests, both domestic and international, as well as pupils on school camps in the region, who are based on a school outdoor campus. These safety concerns have never been addressed by Ospri.
- b) There is further concern about the rhetoric on by kill, or effects down the food chain that seem contradictory and unsupported by fact.
- c) Furthermore, non-lethal effects on humans does not appear to be analyzed or documented in genuine peer reviewed data.
- d) No deadly chemical should be indiscriminately spread where humans have access without appropriate and honest notification, and any operation outside the regulations honestly and independently investigated.
- e) It is a total disgrace to use the phrase “there is no evidence available that indicates”. This is a total cop-out that means the subject has not been researched.
- f) The preface mentions that 1080 is cost effective. As the TB program is New Zealand wide affecting many areas, this is a somewhat dubious use of the term “cost effective”. I acknowledge the Commissioner for the environment is also being quoted by Ospri as a great supporter of 1080 deadly poison because of its cost effectiveness in terms of pest control.
- g) I wish to submit that there is a far wider cost involved than just the cost of the Environmental destruction of a targeted species.
- h) If cost effectiveness is to have any credence or be even believable, the “Cost” needs to be reflected in terms of cost to all New Zealanders, and not just to the cost involved in the actual pest destruction. One of the biggest detriments to New Zealand now is the cost of lost earnings from the tourism downturn, especially in the adventure activities because of the bad publicity of 1080 aerial drops.
- i) The total lack of oversight on 1080 drops and the Poisoning Program as a whole is extraordinary. This includes;
 - i) the rate of “reinfection” of areas, the perception that it appears Ospri are “farming opossums” so they can reinfest treated areas,
 - ii) incorrect drop zones sent to interested parties,
 - iii) over runs on drop zones,
 - iv) control methods not advertised or mis-advertised
 - v) arrogance when dealing with the public, and refusal to give information.

- vi) inadequate notification, the perception generated that the drops are for opossums, stoats, and rats, and yet they are using the same techniques and rates.
- vii) inadequate information. The world of communication has moved on from the time when the regulations were drawn up. Newspapers are no longer a common sight in households, and radios are no longer a common item listened to. Government has allowed the degrading of infrastructure, this now means many rural households and businesses get little to know access to mail or internet access, which means limited access to information. How announcements of deadly poison drops are made needs to be seriously looked at.
- viii) Access to drop zones are varied, and not just through public access tracks, so a rethink of notification is required

5) Human issues

- a) I have grave humanitarian safety concerns for guests and my workforce, both domestic and international, as well as school camps in the region based on a school outdoor campus. These safety concerns have never been addressed by Ospri.
- b) The handouts and fact sheet (Appendix 1) (<https://www.ospri.co.nz/Portals/1/Documents/Factsheets/AERIAL%20FACTSHEET%20-%20Kaweka%20East.pdf>) do not fit the requirements of the Worksafe Outdoor Activities regulations introduced over the last couple of years. Now providers are required to supply their clients with information on the risks and perceived risks. This information has never been sent out by Ospri.
- c) Anecdotal evidence which Worksafe classed as possible perceived risk has never been circulated. There is massive argument over the validity of anecdotal evidence of adverse effects of 1080. So far there has been no peer reviewed scientific papers published discussing most of the anecdotal evidence. It is brushed aside for industry convenience. This is not correct procedure for a deadly chemical application.
- d) Previous New Zealand, and in some cases worldwide experiences, which have happened in my life time, where authorities have failed to take correct procedural action and research before use are:
 - i) Asbestos,
 - ii) cigarettes,
 - iii) DDT insecticide and residues in meat and milk,
 - iv) agent orange constituents 245T and 24D,
 - v) arsenical sheep dips, and meat residues, and affects on the rural work force
 - vi) thalidomide.
 - vii) This names a few, where human suffering has been huge and costly to people and governments, and a total lack of compensation received. All were touted as safe by the manufacturers and government agencies before public ground swell brought about their disuse. Anecdotal evidence is now pointing out that 1080 may come into the same list. Those allowing this need to be accountable and traceable for future compensation. This includes government, primary industries and directors, MoH, and Regional and district Councils that allow none label use
- e) So far the only evidence I have managed to find indicates there could be adverse effects on male reproduction and heart muscle issues at sublethal doses. However it appears that no structured investigation of this has been carried out. Yet the authorities are allowing the use of 1080 around areas frequented by humans. Furthermore, the authorities have surrounded themselves with a quasi-government company that can disappear if and when any adverse health issues develop, leaving people without recourse. This is an abominable action by government agencies and health professionals to allow. With this submission those authorities and the people involved individually such as Ospri

personnel and Directors, and the Commissioner for the environment are now named and can be held accountable for their decisions if litigation starts. They have a voice and ability to stop the current processes until adverse effects on humans is researched properly.

- f) This would include not only direct contact non-deadly absorption, but also soil and water residual effects and long term issues as they manifest.
- g) Recent studies (in the last few years) have centered on the fate of 1080 in soil and potential impacts on water quality, and the effects of mast for a number of ecosystems (EPA annual Report on 1080 2014 page 21) Appendix 2. This should have been done before the wide spread use of 1080.
- h) New Zealand is leaving itself wide open to class actions and compensations. I doubt that ACC will class any poisoning as an accident.

6) Chemical and Issues

- a) To compound the above human issues is the confusion that I believe is deliberate over the terms “breaks down” “biodegradable” and “dissolves”. In the Kaweka fact sheet (page 4 appendix 1) it states “Biodegradable 1080 is highly soluble and does not persist in water or soil”.
- b) This appears incompatible to the statement “recent studies have centered on the fate of 1080 in soil and potential impacts on water quality, and the effects of mast for a number of ecosystems” (EPA annual Report on 1080 2014 Appendix 2 page 21).
- c) It is also totally incompatible to “The active ingredient 1080 decomposes at 200 degrees Celsius and becomes unstable at 110 degrees Celsius.” (appendix 3 MSD sheet)
- d) “However, it is very soluble in water” (appendix 3 MSD sheet)
- e) Nowhere does the MSD sheet (Appendix 3) say that 1080 is biodegradable, as it is intended to purvey in the “Fact Sheet (appendix 1). The MSD sheet tells us “Use only for the purpose indicated and in the manner prescribed by the label. Sodium fluoroacetate may be present for many months in the carcasses of poisoned animals; thus presenting a secondary poisoning danger to carnivorous birds and mammals. Take steps to mitigate any potential non-target exposure by wildlife or domestic animals. Studies have shown that 1080 concentrations will decline within rotting carcasses through the microbial degradation of 1080.”
- f) Further, “Biodegradable” is mentioned 3 times in the Kaweka Fact sheet (appendix 1) as a descriptive version of 1080. This is a gross misrepresentation of a deadly poison and the author and company needs to be sanctioned.
- g) The MSD (appendix 3) goes further and states “this product is toxic to wildlife. Birds and mammals feeding on carcasses of contaminated animals may be fatally poisoned. Take measures to minimize the chance of the solution or baits accidentally entering any body of water. Apply the product only as specified by label directions.” That is quite unequivocal – do not discharge 1080 into any body of water. So any jurisdiction required to administer permissions is required to ensure this does not happen. There are no but’s there are no maybe’s. However, we see aerial application maps showing grids spreading across streams and beside rivers. They are not showing aerial grids following ridges and avoiding streams. Why, and who is allowing the flouting of the regulations to go ahead?

7) Cost effective. Is it?

- a) Ospri quote the commissioner of the environment as saying that the aerial spreading is a cost effective method “The Parliamentary Commissioner for the Environment supports aerial control. The Commissioner completed an extensive review into the use of 1080, in which she strongly endorsed its continued use in New Zealand.”

- b) This was a report commissioned in 2011
 - c) It should be clear what the Commissioner was looking at. The Commissioner for the Environment report evaluating the use of 1080 stated:
 - i) This report does not cover:
 - The state and effectiveness as a whole as a national pest management system.
 - The conduct or outcomes of specific operations, except occasionally as examples.
 - Detailed analysis of community perceptions and attitudes towards the use of 1080.
 - The Animal Health Board's actions in controlling bovine tuberculosis (TB) in any detail.
 - Concerns held by some Māori regarding the physical, cultural and spiritual impact of using 1080.
 - The controls and regulations around the registration and use of 1080 in detail.
 - d) The Commissioner did not disregard the controls and regulations when saying that 1080 was cost effective, because she did not look into that aspect. The Commissioner did not condone the blatant disregard of controls and regulations as 1080 is being used today.
 - e) One of the main conclusions of the Commissioner of the Environment is that 1080 "does not endanger people, provided it is used as prescribed in regulations" (Appendix 4 page 49). The Commissioner also states that there are many regulations governing the use of 1080.
 - f) The issue and the main concern is that there is a major systemic disregard for the regulations and the importance of them to keep people safe and ecosystems as safe as possible.
 - g) This is why it is so much cheaper to control pests with aerial application of 1080. The anecdotal evidence shows 1080 applications are being applied with total disregard to the regulations. Namely, not allowing 1080 to enter waterways and keeping away from sensitive areas used by the public. All flying data announced by Ospri shows flying straight grid lines continuously and spreading across waterways, some of them significant.
 - h) In the Kaweka Zone, Ospri was trying to avoid ground treating sensitive areas as demanded by the MoH. To avoid embarrassment they cancelled the drop.
 - i) To ground treat sensitive areas that are generally well tracked is not much more expensive than forming buffer zones around farmland. Generally both methods are by walking. Furthermore trapping with lures will cover 500 meters wide, so any track can be treated and leave a huge buffer zone which helicopters should be able to negotiate if there is honesty and competence. Anecdotal evidence shows both are sadly lacking.
 - j) Furthermore, the Commissioner has stated only 3% of an area treated with 1080 by TBFree is by aerial application (EPA annual Report on 1080, 2014 Appendix 2 page 2). The overall area of spreading 1080 by aerial means is small. The cost of doing it according to regulations would not add much to the overall country wide costs.
 - k) There are various other methods of control that are effective, including ground baiting and trapping. However, the management of these alternative schemes are somewhat skewed by methodology of application. I refer to the waste caused by the change in Pest Control companies when they use a new company in every following application. New contacts have to be made, new safety data gathered, new mapping made, new people hired and trained. The cost of continual change of operators has to be horrendous. Accountability appears to be lacking in this area.
- 8) Deceptive information and bad practice:
- a) Continued reports of bad practice, incorrect information, and refusal to discuss issues

has brought about huge distrust and acrimony from the public. When Ospri, and the applicators do not adhere to the regulations, whether in minimal or major ways, and when the authorities do not take stern action, the public rightfully will never trust anyone involved.

- b) Even if the Commissioner did a good job with the report (Appendix 4), very few that have observed indiscretions in the field will believe the commissioner is beyond reproach. Ospri, in their use of the Commissioner's report, failed to say what the Commissioner did not take into account. I believe this to be dishonest and deceptive dialogue in an official paper designed to inform about a deadly poison. There needs to be sanctions/repercussions for this type of deceit.
 - c) With scientists being "bought off" by Government and big business to produce specific results, whether they are correct or not, peer reviewed or not, turns the public into disbelievers. This stage has been reached with 1080 now. This will be hard to reverse unless major repercussions/penalties are forth coming from authorities.
 - d) Swift disciplinary action should have taken place:
 - i) When the various "over runs" happened throughout New Zealand.
 - ii) When Ospri walked out on a meeting talking to unhappy locals in Hawkes Bay and other places.
 - iii) When Ospri refused to give safety data and required information to myself so that we can place a safety plan in our Operational Plan
 - e) When Ospri refused to ground control "sensitive" areas on the East Kaweka Zone when the MoH had placed such a requirement in the permissions
 - f) When Ospri "lost letters to the Kaweka Region" and then referred us to an incorrect Zone.
 - g) When Ospri failed to inform us of aerial drops in the Ahimanawa's, which was bordering the Ripia River just upstream of a school outdoor campus.
 - h) When head staff of Ospri refuse to help in any way to make a commonly used area of forest park less dangerous by using ground control when they were already told to do so.
 - i) When the Ahimanawa Zone had one mapped area on the DoC website, and yet a further added area was also treated with 1080.
 - j) When the lies, deceit and mismanagement from throughout NZ that has hit the social media 1080 aerial drops has now reached such a backlash that recreational tourism has declined significantly. In our case, we had no expeditions in 2016 – 17 year and the year before we put through \$60,000 worth. I do not notice the economic benefits spoken of by the Commissioner.
 - k) When the economic benefits are only aimed at application and do not take into account whether the applications are lawful, makes no account of the backlash on tourism, makes no account of affected people, makes no up-to-date analysis of by kill of native species.
 - l) When I am told by Ospri (Philip Dawson) that I should wash students shoes at the end of a tramp I get some what angry. Students tend to slide down steep hills on there backsides and 1080 according to the label is absorbed through the skin.
 - m) When I have to fight tooth and nail to have a safety zone put in place over 3 camp spots and river access used by public, schools and providers. And, we are only given 12 hours notice before several trips were due to takeout and leave.
- 9) Lack of oversight
- a) The total lack of oversight for safety and diligent procedures is one of the greatest threats to the communities near aerial drop zones. Lack of oversight threatens the continued use of 1080, even on a small scale. I notice from the various audits seen that the complaints are missing, sometimes totally. All indiscretions from any source need to be recorded. Especially when Ospri tells me to wash students shoes after a tramp. How

else can improvements to safety be made it is the basis of ISO9000-03

- b) At a time where social media acts as a resource for current events, Ospri needs to be open and transparent, and not try to take short shortcuts as they did in the Kawekas. A totally new approach to internal culture is required, or they will lose the use of 1080. The ground swell against this deadly poison is building rapidly.
- c) There is bad publicity, especially on social media, caused by loose application methods, a perceived arrogance by Ospri in not ensuring that protocols were adhered to, and perceived arrogance of Ospri in not investigating bad applications openly and taking action against the bad operators.
- d) One of the main areas of contention is the lack of, or deliberate, misinformation sent out by Ospri.
- e) A case for small aerial treatment with 1080 of really rugged areas of land may be made, but anecdotal evidence seems to show that there is adversity within Ospri to using ground control wherever possible, simply because they can use 1080 wherever they like. Huge power has been given to Ospri so that money and not safety is the main driver of method of pest control selection. This needs to be addressed..
- f) In the Hawkes Bay area we had two major 1080 drop zones. Residents were badly informed and incorrectly informed about these drops, and that has caused a continual and very public out cry. The drops were East Kaweka and the Ahimawa aerial drop - a majority of this area could be ground controlled.
- g) It is now noticed that the Kaweka aerial drop zone is now known as the Tutikuri drop zone. Everyone aware of this believes it is so that people will not notice the planned drop. Whether deliberate or not, it is these actions that builds discontent and adverse reaction from the public

10) Conclusion

- a) The use of 1080 should be halted immediately and replaced by other control measures until the effects are fully researched and understood.
- b) Any areas that are impossible to control should be continually “ring fenced” by alternative control to stop the spread of pests from these areas.
- c) Research for alternative methods and systems of control should be stepped up.
- d) Inspection and testing of waterways for 1080 and/or its residues should be mandatory both the short and long term and be independently achieved. The information will be extremely important if/when we get some one or a community poisoned with a lethal or sub-lethal dosage. We do not need a M-Bovis situation with 1080.
- e) No 1080 should be aerial applied where public are able to access.
- f) Disclosure of sensitive areas (where public use) should not be an opt in procedure. Advertising of a drop should contain the sensitive areas and safety zones in the original advertising.