Painted Apple Moth
Focus Group Study

The focus group report is a component of a wider investigation led by the University of Otago's Wellington School of Medicine and Health Sciences

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Table of Contents:

Executive Summary

In June 2003 the Ministry of Health contracted the University of Otago's Wellington School of Medicine to undertake research to explore health effects from the Ministry of Agriculture and Forestry's (MAF) Painted Apple Moth aerial spray programme undertaken in Waitakere City and Auckland City.

ESR was subcontracted by the Wellington School of Medicine to conduct the focus group component of this research. This piece of research is intended to complement the Wellington Medical School's request for written submissions from Waitakere residents experiencing adverse health effects. Four focus groups were conducted. Data from Waitakere City Council's community participation and governance forums was also obtained, and informs this analysis.

Frequently reported health effects include coughing, respiratory, sinus, headaches, skin rashes and eye irritations. Those with existing allergenic conditions, such as asthma and hay fever, find these conditions aggravated following exposure to spray.

Many interviewed had concern for the young and elderly. Some expressed uncertainty about health effects for future generations. These concerns seemed compounded by lack of information from government.

Other impacts included disruptions to day to day life, exacerbated by lack of certainty about which day the spray would occur. All participants reported staying indoors and closing windows when the spraying occurred. There were frustrations over having to wash cars, windows and laundry.

Detail of the methods, validity and discussion follows.

Acknowledgements

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Thanks to Lose Moata'ane from The Wellington School of Medicine for organising and conducting the Pacific focus group for this research. Thanks also to researchers at the Wellington School of Medicine (Kevin Dew, Tim Rochford, Simon Hales, and Jennifer Martin), and ESR (David Phillips and Keriata Stuart), and to peer reviewers at the Waitakere City Council (Warahi Paki and Kerry Bodmin) for their valuable comments on this report.

Background and Rationale

Since January 2001, the Ministry of Agriculture and Forestry (MAF) have been undertaking aerial applications of Foray 48B over West Auckland in an effort to eradicate the Painted Apple Moth (PAM). The aerial spray programme was ongoing at the time of researching and writing this report. More detail on the frequency, duration and geographic area of the PAM aerial spray programme is provided in the Wellington Medical School report. [also see Appendix D for map]

Responding to public health concerns that followed the onset and expansion of the spray programme, MAF funded a health monitoring service. Whilst some data on health impacts has been obtained from this, the Ministry of Health felt that further investigation into community health and concerns would be useful.

In June 2003 the Ministry of Health contracted the University of Otago's Wellington School of Medicine and Health Sciences to research and receive written submissions from residents of Waitakere and the public on health and other concerns relating to the PAM spraying programme.

ESR was subcontracted by the Wellington School of Medicine to conduct the focus group component of this wider inquiry. The data obtained from the focus groups would complement the call for written submissions on health effects. In total, four focus group interviews were conducted with Maori, Pacific and migrant groups in the Waitakere area. Data obtained from the focus groups, and from several Waitakere City Council community and governance forum informs this report.

The Methods for Collecting the Data

The Focus Group Technique

The focus group interview is an exploratory tool that yields 'rich' qualitative data (Fern 2001; Grbich 1999; Krueger & Casey 2000; Madriz 2000; Miles & Huberman 1994; Rice & Ezzy 1999) in which key patterns or themes can be detected. An increasingly popular method for health research, "the focus group is a collectivist rather than individual research method that focuses on the multivocality of participants' attitudes, experience, and beliefs" (Madriz, 2000; 836). This method also allows the researcher to observe group dynamics and everyday interactions between the participants, adding to the richness of the data.

In context of the wider Wellington School of Medicine study, the focus group approach allows for a point of triangulation (Rice & Ezzy 1999), namely to test whether the data obtained from these fora gives similar or different results to the written submissions and other components of the wider research. It also provides a means of obtaining information arising out of the interaction of participants; information that might not otherwise be obtained.

Furthermore in this instance, the focus group method enabled something of a dual task; of research (using the focus group to explore and test existing knowledge); and consultation (in providing a forum for dialogue, and satisfying expectations amongst some locals that the voices of their community be heard by government). However, whilst those participating may have felt they were being consulted, in the sense of being listened to, the researchers were careful to point out throughout that they did not represent government, nor did they carry a mandate to convey a government

response. Essentially the focus group method is a group interviewing tool to obtain data. It is not a method for decision making or developing two way dialogue.

Targeting for the Focus Groups

Because there were not resources or a mandate in this project for full public or community consultation, the focus groups were selected carefully. There were resources available for four to five focus groups to be conducted. The following criteria helped guide the selection;

- People living in the Waitakere area within the aerial spray zone
- Voices not already heard in the process, (groups who might not voice their concerns in writing, and those whose concerns may not already be articulated by the interest groups[1] opposing the spray)

On this basis, it was decided to target the following groups within the Waitakere community;

- Mana whenua, tangata whenua, taurahere - pan-tribal (urban Maori)
- Pacific peoples
- Migrant groups

Arguably, some Pakeha and others living in the Waitakere area also may not be well represented in the written submission process. The limited resources for this project resulted in the decision to target viewpoints from the groups above.

A decision was also made not to include existing interest groups around the issue, on the basis that their view points were documented in governance processes to date. However, Ranui Action Project (RAP), a group with some involvement in forum opposing the spray campaign were invited to be part of the focus group research. This was on the basis that RAP are based within the spray zone and provide health and community services to Maori, Pacific, and others in their area. Thus, they were felt to have good local knowledge and networks, and be able to comment on health effects and other effects in their community. RAP unfortunately did not respond in time to be included in the research.

Process for Setting Up the Focus Groups

Given that people from specific groups were sought as participants, a purposive sampling approach was adopted (Rice & Ezzy; 1999). Because of the limited resources for the project, the researcher relied heavily on local knowledge for advice on which groups ought to be approached to participate in the research.

Firstly the researcher contacted local authorities, especially Waitakere City Council, and health providers such as A+ Health, and the Waitemata District Health Board to explain the project and focus group targets. Key people within these organisations advised on who they felt needed to be included in the research.

With guidance, the researcher began by contacting mana whenua for the Waitakere area, Ngati Whatua and Te Kawerau a Maki.

[1] These include CCPAM, (Painted Apple Moth Community Coalition), CAG (Community Advisory Group), STOP (Society Targeting Overuse of Pesticides), SAS (Stop Aerial Spraying), WASP (West Aucklander's Against Aerial Spraying), MASK, (Mothers Against Spraying Kids), TASK (Teachers Against Spraying Kids), PANANZ (Pesticide Action Network Aotearoa NZ), GASP (Group Against Aerial Spraying), Sprayfree Coalition, No Way Spray, and the Spray Action Group.

People within the Ngati Whatua Corporate were interested in receiving a copy of the final report but deferred involvement to Ngati Whautua o Orakei Maori Trust Board. In turn Ngati Whautua o Orakei Maori Trust Board deferred to Te Whanau o Waipareira and Hoani Waititi Marae, as those best representing Maori living in the West Auckland area[2].

Te Kawerau a Maki Trust represent the ancestral claims to the area of Te Kawerau a Maki. Ngati Whatua also claims mana whenua to this city. Both mana whenua have claims being heard before the Waitangi Tribunal. Te Kawerau a Maki Trust and Ngati Whatua were closely involved in the consultation with MAF, and are currently negotiating a Memorandum of Understanding for local Maori with MAF. In talking with local Maori about the area, it was ascertained that Te Kawerau did not have a marae inside the spray area. Based on the early conversations about the focus of this research, local capacity and timing, a decision was made not to conduct a formal focus group with Te Kawerau a Maki. Some data was instead collected from informal interviews with key people from Te Kawerau a Maki Trust.

For West Auckland, Ngati Whatua and Te Kawerau a Maki are tangata whenua with mana whenua, the responsibility for protocol for the area. Waitakere is unique in that alongside Te Kawerau o Maki and Ngati Whatua, Te Whanau o Waipareira are also recognised as tangata whenua and have an important presence in the area. Aspects of this relationship are detailed in the Te Whanau o Waipareira Report (Waitangi Tribunal Report 1998). Te Whanau o Waipareira Trust act for the health and wellbeing of urban or pan-tribal Maori in the West Auckland area and are the key provider of a range of health and other services for Maori, and the wider Waitakere community. There is an intimate connection between Te Whanau Waipareira and Hoani Waititi marae, with this being an important physical space for pan-tribal Maori living in Waitakere.

A colleague used a similar process of local networking and referral to bring together a group of Pacific health providers in the Waitakere area.

For the migrant focus group, the researcher firstly contacted the Auckland Refugee and Migrant Services and was referred to coordinators within the Waitemata District Health Board who organised the group. The group who attended were not appointed spokespeople from different refugee and migrant communities as expected, but a group of Chinese and Korean hospital volunteers. Whilst sometimes these arrangements were not exactly what the researcher had in mind, the data gained in this focus group nonetheless gave valuable insights.

Local knowledge and networks were key to the utility of the focus group approach for this research. Given that the lead research organisations were Wellington based, the local knowledge and advice was especially necessary, and a huge strength. In response to local advice, the research mandate began to broaden slightly into consultation. Mainly this was about keeping those representing Maori and Pacific interests in key governance forum informed of the research. Thus, as well as the four focus groups, the report looks also at the data obtained from various governance forum associated with the Waitakere City Council.

After negotiating access to each organisation, a time and date was arranged for people to attend a group interview. An information sheet was emailed to a contact

[2] Waitakere demographics typify many urban settlements, where taurahere or pan-tribal Maori have a significantly larger population base in the area than the mana whenua.

person within each of the organisations approached (see Appendix A). These people were asked if they could invite others they thought might be interested from their organisation. Refreshments were provided for those attending. Limits were made by the researchers on the number of people attending, with 6-10 being the optimum number for each group. This was so that the group dynamics and data could be managed effectively.

Data Collection

At the meeting, each person attending was given an information sheet outlining the purpose of the research and what would be done with the data (see Appendix B). The researcher talked through these agreements with the group. There was opportunity for the group to ask questions before giving verbal consent for the interview to be recorded electronically. Where possible this data was later transcribed.

The focus groups were mostly facilitated by the author, with the questions on the information sheets used to guide the conversation. For the Wai Health interview two researchers were available to facilitate. The Pacific focus group was arranged and facilitated by a Pacific researcher from the Wellington School of Medicine. Notes were taken at this group, with a summary provided for this analysis.

In the focus groups and other forum the researchers were identified as the 'painted apple moth ladies" or the "people from MAF". Many of the people we met were upset with the government and wanted answers to their questions; "when it is going to end ?" being most commonly asked. A distancing from MAF and government was helpful in introducing the research and setting up the focus group as a comfortable talking space.

Data Analysis

Using the transcripts, a general inductive approach was used where each transcript was read individually with key patterns and themes coded by the researcher. Field notes and observations from each of the focus groups and from interactions in other governance forum also inform the analysis.

Patterns in the data between the different groups were similarly coded to inform the summary and recommendations. Rather than dissect the data from each of the group into different analytic themes for discussion, a decision was made to present the data from each group as a cohesive story or statement, with a descriptive commentary from the researcher. This technique was used to preserve the authenticity and integrity (including depth, intensity and linked concepts) of the ideas explored within each group, and to privilege the each group's collective voice, rather than the researchers interpretation. Where a transcript was obtained, an opportunity was given for a representative from each group to comment on their transcript and a draft analysis of the data for their group. This helped ensure validity or authenticity of the data (Miles & Huberman 1994). To further ensure the integrity of the local data and accuracy of interpretation (Yanow 2003), drafts of the focus group report were reviewed by key advisors from the Waitakere City Council.

Limits of the Focus Group Method

For this project, perhaps the key limitation is the ability to determine the extent (frequency or intensity) to which the issues discussed in the focus groups are experienced across the wider community. The focus group is a qualitative, not a quantitative method of inquiry. As such, it is not an appropriate method for obtaining statistical data (Rice & Ezzy 1999; Krueger & Casey 2000), or for making quasi-statistical extrapolations. For instance, whilst respiratory and sinus problems were commonly raised in each of the groups, the focus group data can not be used to measure how prevalent these conditions are within the wider community, or the extent to which the people in the focus group represent the concerns of the wider community. Knowledge of distribution in health or value patterns across the spray area population would have been best attained using a survey method.

The focus group is also not an appropriate research tool to ensure demographic representation for ethnicity, age, gender, socio-economic status or other characteristics. Whilst for some research[3], different types of representation can be structured, the scope of this project meant that any attempt to do this would have been tokenistic. While certain demographic characteristics, such as ethnicity, were sought, it would be impossible to structure attendance at the focus group to ensure fair representation of a myriad of diverse 'positions' and individual viewpoints within the different ethnic communities. Thus, this method does not guarantee reliable representation within a given community a) in the range of concerns expressed and whether the members that attend on the day represent and articulate the viewpoints of those in their wider community; or b) in how well the people at the table represent gender, age, ethnic or socio-economic distributions across their professional group or the wider community.

As in any research, the subjectivity or standpoint of the researcher can limit the effectiveness of the methods in exploring or surfacing issues (Miles & Huberman 1994; Rice & Ezzy 1999, 37). Likewise, the researchers standpoint can skew or bias the interpretation and presentation of the results. A rigorous process for peer review can help minimise this effect. Another source of potential bias is that the people most likely to attend a focus group may be those motivated by a strong interest in the topic (Krueger & Casey 2000, 80).

Constraints in time and budget were other significant limitations for the effectiveness of this component of the research as a tool to access the voices of the Waitakere community and explore health and other impacts of the PAM aerial spray programme.

In order to get the best view possible of health concerns across a community, and thus address some of these limitations, a decision was made to use the Pacific and one of the Maori focus groups to target people working within key health provider organisations. It was felt that health professionals working within these organisations would be well placed to comment on health and other effects that they saw across their client population.

[3] These would typically be focus groups associated with product or clinical research.

The Data from the Focus Groups

This section presents the data obtained from each of the focus groups. Background information on composition, and, where appropriate, the role each group plays in the Waitakere community is firstly given, with the researcher's presentation and commentary on the data following.

Hoani Waititi Marae

Background

Hoani Waititi marae is located in Glen Eden, Waitakere City. According to locals, this area is heavily sprayed. Hoani Waititi is the place of grounding and expression for the pan-tribal kaupapa for Maori living in the Waitakere area. Established in the early 1960's and named after John Waititi, a prominient Maori Educationalist , Hoani Waititi is seen as an integral part of evolution of Te Whanau o Waipareira, and in its establishment became a place for Maori coming to live in the Waitakere area "to learn from", "belong to and identify with". This was a place to ensure that Maori culture and traditions could continue in a city environment (Waitangi Tribunal Report 1998; 38). The Hoani Waititi community and infrastructure continues to grow, and includes kura and recreational facilities.

Composition

Six kuia and kaumatua in the middle-aged to older age group attended the meeting. Gender was evenly balanced. All were very warm and welcoming of the researcher and were grateful to have their concerns heard. All were angry about the impacts of the spray programme on their health and community. Unfortunately the data was not recorded electronically and is based on the interviewers notes. The notes were returned to Hoani Waititi for amendment.

Data

The dominant theme from the interview data is that spray has impacted negatively on the health and wellbeing of the community. The negative impacts on health have been intensified by lack of information.

A key finding is that the information distributed by MAF about the PAM aerial spray campaign did not reach those living at Hoani Waititi marae. For kaumatua and others staying on the marae grounds, there is no mailbox on the street.

> *We have a post office box yes, .. we don't have a mailbox on the main road, the postie doesn't come down to our houses, so we don't get any information that way"*

For those attending the focus group, this meant that the first knowledge they had of the spray campaign starting, was when the plane flew overhead.

> *"when the plane sprayed on top of me that's when I first knew … now I know when I hear it, I run inside"*

Others had seen news items on the television, but remember it becoming a news item only after the public complained.

"there was some stuff on TV at the start, but this was only after the spraying started and the community reacted", .. "and the health effects were never mentioned"

At this point the researcher asked to what extent Hoani Waititi or the Waitakere City Council's Te Taumata Runanga group were included in decision making. The views from the group were as follows;

"MAF made this decision, the council was anti this. This was a decision from the government in Wellington, it was not a local decision"

"it was very top down"

"the community was not consulted, and ways of approaching this, other than the aerial spraying, were not considered"

The fact that those attending the group did not have prior knowledge of the date of the first spray, or what to expect when the spray programme commenced, may account for some of the anger in the group. Also, there was strong feeling that this was not a decision that they had been involved in. Had the decision been made locally, the approach for eradication may have been very different;

"Its costing millions, I get really angry when I think that money could go into paying the community, PD gangs, unemployed or others to do this from the ground"

"yes, why do they have to do it from the planes, it would be better from the ground, the sprayers can get underneath the trees from the ground "

The group question both the efficiency and equity of MAF's chosen approach. The money could be used for more effective eradication programmes and could benefit the community.

As well as anger, a further consequence of the lack of information and lack of ownership or involvement in the decision, is a high degree of uncertainty. Of all the groups, Hoani Waititi expressed the strongest concern about uncertainties and the safety of the spray for future generations. These concerns might also be stronger because of the age of the people attending this focus group, and their status and role as kaitiaki or guardians for their community. Acknowledging this, the frustration at their lack of knowledge seems to underpin the ways that these concerns are articulated;

"This goes further than today. We don't know if it's going to be one of those things like DDT or Agent Orange. There's a lot we don't know here"

"What about our children in 10 or 20 years time, what about them?"

"Yes I have a lot of questions – we haven't even been told what's in the stuff !"

The conversation moves to what the spray looks and feels like.

"I see that stuff on my car, this sticky yellow gunge and I know its not good for me"

"it tastes bad, a metallic taste" … "my eyes sting"

The group continues, describing impacts on everyday life and disruptions to routine. These include the extra cost and labour involved in washing windows, washing cars, and rewashing all the laundry on the line during the spray.

"I get sick of cleaning the car, its really difficult to get the stuff off, its really sticky, that's what gets me … "we don't need this extra work on top of what we already do"

"For me, I don't like the way it turns the curtains yellow – who's going to pay for that ?"

"we shut the windows but it still gets in, its sits outside for days, we get exposed when we go outside" … "and we bring it inside on our clothes, it gets everywhere"

The last comment reveals how people take precautions, but cannot avoid contact with the spray. The person making these comments is frustrated by the lack of control they have over the exposure.

Noise is also an issue with the low flying application method being invasive and discomforting. One person was talking on the telephone and could not continue the conversation whilst the plane flew overhead.

"The planes fly really low too, I feel I could almost touch them with my hand if I stood on the roof"

"and its not just one spray, each time it's a spray day, its up and down, up and down, they fly over five or six times" … "and the noise … "

Most profound for this group are the health effects;

"the asthma and respiratory problems are the worst, for all of us in this room, our health has gotten worse since the spray programme started"

"I never used a puffer until last year"

"I've been in hospital with respiratory problems four times this year – I've been really sick, pneumonia, .. we now have a nebuliser at home for me, I never used to need that".

"it affects my liver, my kidneys, I can feel it"

For this group of elders the effects of the spray in aggravating existing conditions are serious, and for one have resulted in repeated hospitalisation. The researcher asks if they have considered leaving the area on the spray days.

"we go inside and shut the windows, we don't go out of the area, we don't get notified when it is happening so we don't know to make plans to leave the area or anything"

"It's not knowing when the spraying will occur. There has been no information for us".

The people are deeply frustrated by the lack of information. They explain that this makes it difficult for themselves and other families to make decisions to protect their health.

Further questioning revealed that there are numbers of people in the community who are sick but are not seeking medical advice. All the people in the focus group suffered respiratory affects, but most did not go to their doctor and only some went to the pharmacy for medication. No one in the group knew the MAF helpline number, nor did they see any point in going to the MAF doctors who were felt to be a waste of time and there only "to tell you that you were not sick".

There is also worry about the effects of the spray on the young ones, and those who are pregnant. Again precautions are taken.

"we keep them in doors when the spraying happens, but it is still outside the next day, and the next"

"we worry about the ones that are pregnant too, we tell them to stay inside"

Other less immediate impacts on health and nutrition may result from a decline in the consumption of locally grown and home garden produce. Some in the group are reluctant to purchase fruit and vegetables that have been locally grown. Lack of choice is noted.

"even the fruit and veges we buy from the local shops have probably been sprayed so we can't avoid it"

Children are not encouraged to eat fruit or play outdoors after spraying, but the elders can not control this totally. Depending on the frequency of the spray, the decisions for children to play indoors could impact on lifestyle and physical activity patterns, and have health implications.

"we need to tell the young ones to wash the fruit, but they don't always do this, they are used to seeing an apple in the tree and eating it – so that is something we try to change"

"we are concerned about the elders and the mokopuna, some of our children and grandchildren get rashes when the spray happens"

"its in the rivers, the streams and the kids play in that"

"we know of quite a few families who have stopped growing their own vegetables since the spray started"

As well as impinging on mahinga kai, and the rights of the tangata whenua to live off the land, there are detrimental economic impacts from decision not to grow vegetables, and to purchase produce grown away from the area.

Near the end of the interview, the people in the group continue to feel angry.

"we don't know when it is going to end"

"we have had enough and would like to stop" … "yes when's it going to stop?"

"I'll tell you too, this wouldn't happen if we lived in Howick, I think its happening here because we are poor !".

The researcher asks if there are any benefits. The viewpoints are unanimous and forthcoming.

"I haven't seen any benefits"

"there are no benefits whatsoever"

"this is what we hear from our community, there is nothing positive for us here"

"yes, we listen to what our community says, there are no good reports from them"

Wai Health (Te Whanau o Waipareira)

Background

Wai Health is the health provider services for the community of Waitakere. It is a key structure in the umbrella of the Te Whanau o Waipareira Trust.

As discussed earlier, and elaborated in the Te Whanau o Waipareira Report, Te Whanau o Waipareira does not claim to represent tangata whenua, but rather "exercises a mandate in respect of a community of Maori who have come together for the purpose of maintaining cultural integrity in an urban environment". A "pan-tribal" organisation that deals with "cultural, social, educational, and health issues" (Waitangi Tribunal Report 1998; 37), it is also "largest service provider in West Auckland" (Waitangi Tribunal Report 1998; 14). Having momentum long before this, Te Whanau o Waipareira officially came into being in 1981, with a charitable trust structure adopted in 1984. It's growth is described in the Treaty Report as an evolution of the whanau support structures that emerged in response to rapid urbanisation of Maori, and the growth of West Auckland as major settlement (Waitangi Tribunal Report 1998; 34).

Composition

Approximately ten people were at the focus group, with some movement in and out throughout the korero. Those attending were predominantly Maori and predominantly women, with only one man present. All were health providers, promoters or educators working for Wai Health. All were lively and vocal, and felt strongly that the spray programme had impacted negatively on the health of the community. Whilst they were very welcoming of the two researchers, they made it clear they were angry with government. As in other forum, it was emphasised that the researchers role was to help ensure that the voices of the community were heard by government.

Data

In this group the lack of information was a point of frustration which became a dominant theme.

> *Just sprayed. It wasn't until later that people started to be getting crook, or whatever, and then you got the protests happening. Then a bit more information.*
>
> *And all right if you're reading Healthy Options or Organic NZ - they had a lot in it right from day one.*
>
> *Ha! How many Maori's and PI's read those?*
> *Or how many people understand their language? Yeah, that's right!*

In absence of information from the government, people begin investigating the issue themselves. The point was made also that this alternative information is not accessible to Pacific or Maori audiences, suggesting that many are particularly reliant on information from government. The group was however concerned at the quality of the government information.

> *I think it's just been total propaganda. We've been fed lies – it's all lies, about that it's not going to harm us. It's crap.*
>
> *You didn't get a lot of information in terms of what actually was in spray. We still don't really know that !*
>
> *It's interesting, the longer it's gone on, the more advertising of spray dates in our local paper … So they've put it in our local paper so it's suddenly gone from a really small ad to the whole of the back page* [see Appendix C]. *Now to pay for the whole of the back page, even in the local rag, is reasonable money, you know, but it's got bigger. And it's got a map, and colour.*
>
> *They send you a magnet, you know, for the fridge? – "Spray the Apple Moth".*
>
> *Where did you put that? … In the rubbish!*

Whilst the point is made that the advertising and information has increased as the campaign has continued, the absence of quality information at the start has impacted in deeply ingrained feelings of suspicion, distrust and hostility - the placing of the fridge magnet in the rubbish being symbolic of this. There is recognition in the practical risk communication literature that once established, feelings of distrust are difficult to undo (see Chess & Hance 1989; Jaeger et al 2001; Sandman, 1993).

Issues of fairness and equity also feature from the Wai Health group, with questions about the costs of the advertising, and the unfair distribution of risk that they feel stigmatises poorer communities. Another person suggests alternative ways to spraying which might benefit and involve the community.

> *What about Herne Bay and Ponsonby – there's a direct correlation on how the advertising got bigger and more expensive once it went to the rich parts of town.*

We're the pilot, we're the test group. We're the guineapigs. "Let's try it on that low socio-economic, you know, those Westies - those Maoris and Islanders –

Why didn't they take everybody out from the West that's actually unemployed and get them to spray on the ground – provide employment for people. Because you see there'd be millions of dollars actually going into this which is just going from one government coffer to the other. But actually we could have employed people in our community and it could have been a community project – given back to the community to actually carry out and take some responsibility for. But no-no-no, this gets driven from Wellington – "let's just spray the whole lot of them". I just think it's outrageous.

The conversation in the group turns to consultation and decision making.

Well probably just really the whole concept of consultation, not only terms of being Treaty partners, but also as providers of health. You can give us information, you can do that without even consulting. So we can actually understand, so that when people actually come to see us we're able to explain to them what's happening.

But there's just none of that, been no education programme at all. And I know on one hand it would defeat their purpose of saying there's nothing wrong but even so, you can't just up and spray everybody and then not actually talk about what it is you are attempting to do, or how you are attempting to do that. And we have consultation on every other thing you can name. But something like this – no consultation at all.

Where's the treaty partnership now? There is none.

Good point. Just makes a mockery …

There was also concern that the lack of consultation and meaningful information had impacted on the quality of information that Wai Health providers were able to pass on to their clients, and that this compromised their ability to deliver health advice.

a bit more consultation at ground level and not just through their offices and other organisations. As health providers we have to be seen like, more so, <u>preventing</u> health issues and if MAF come more so towards their sort of organisations we'd understand a bit more and so would our clients.

All in the group agreed that minor adverse health effects were being felt widely by people in the community.

Respiratory – and a lot of the kids find it hard to breathe when that plane's been over, they come up in rashes, headaches, runny noses, sore eyes. Yeah, all that stuff.

There were also more serious effects;

… Breathing – for babies. And the eczema is really bad, eh … My boy … he gets that around the spraying, look how bad it eats into his skin.

My partner couldn't go to work the days they were spraying because of the effect it was having. Massive nose bleeds. Like, three a night. And copious amounts of

snot, and watery eyes and coughing and respiratory problems to the point where he couldn't even breathe properly.

Many who had existing health or allergy conditions found these were aggravated by exposure to the spray.

My sister has to hole up in bed for the day because she gets quite bad hay fever and asthma and eczema – and that just irritates it. The eczema starts to swell and she can't breathe. … She gets nauseous, ends up vomiting, that kind of thing, and it goes round in cycles.

That's what the doctors have said --- they wouldn't say it was a direct result of the spray, but what they're actually saying … is that a precondition is exacerbated by the spraying. That's what they're saying. And where you've got someone with asthma or something, it's worse, it gets worse.

Another person tells of her friend, a solo parent whose son is highly allergic to soy, an ingredient in the spray.

They pay for the room [at a motel] and have given her a phone. They don't pay for gas, food, anything else. …She's had to take him to specialists which she's all had to pay for herself to get confirmation that this is an existing condition that he has. … Her water rates bill was $600 for the last six months because when she comes home she has to spray her whole house !

Waitakere is water metered, and for those seriously affected by the spray the clean up costs are significant and are not met by MAF. This burden of cost is felt to be unfair and unjust.

In this forum, the MAF doctors were also poorly perceived.

They try to fob you off. I had to take my whanau to the MAF doctor that they send you to because I thought why the hell should we have to pay for this. And you go to their doctor, and he was .. um .. trying to put it on other things. Like blame it on past health problems. And say it was not related. And I thought, we are wasting our time here – you're just going to tell us the MAF story – and that's who you work for, that's who's paying you. So forget it, and stick it.

You tried their helpline too eh – and they were really rude? You know, I mean, "Help"??

The impacts on lifestyle were also a source of frustration.

You have to reschedule your whole lifestyle to when they're going to fly around in the planes

And don't put your washing out. You can't take your kids out to play… your whole lifestyle. It's sticky, sticky

Yeah, even your washing, and your vege gardens. I wonder about the swimming pools, and the kids are getting ready to go swimming at the schools – they're not covered. So all that shit goes in the pools

They are saying we're making an effort to do it while the kids are in class but the reality is they do it when they can, when the wind's right

This last comment reveals how people in the group have the impression that MAF is primarily concerned with measures to eradicate a threat to biosecurity and the environment. Their experience has led to an understanding that the impacts on human health are a secondary priority for MAF.

The smell and feel of the spray also creates strong reactions.

If you see how it looks on your car – mmm, the residue - yeah, mmmm – I just wonder what it must do! And it smells like somebody's peed all over the place. I was saying to my son in the caravan "You been doing the mimi inside?" - 'cos it stinks. It smells of pee.

Bloody horrible anyway. It is, it's yukky horrible, sticky, smelly.

It makes food taste funny. It's like the tastebuds just went totally off and nothing tasted right.

you piece it together. From the gunk I see on the cars I wonder what it must be when it lands on the kids when they're playing outside. That gunk on the car is shocking.

What can be drawn from the data is that the embodied experience - the physical feeling of exposure; the smell, touch, sight, taste and hearing - is important. In the 'piecing together', the participant refers to a process of 'sensemaking' (Weick 1995) that occurs in the absence of 'sensemaking support systems' (Weick 1995;179), such as meaningful information, that might guide experience. In this context the adverse physical impressions such as smell and stickiness may be seen as 'cues' (Weick 1995; 49) or 'signals' (Sandman 1995; 25) that, in this instance, create greater anxiety about the toxicity of the substance.

The group also noted the extra labour, costs and inconvenience of redoing laundry, and cleaning cars and windows. There was also mention of the effects on the environment and waterways, although, perhaps reflecting the professions of those at the table, the human health issues were of greater concern.

Pacific Island Focus Group

Background

One of the focus groups carried out in West Auckland was hosted by West Fono. West Auckland Pacific Island Health Fono Inc. is a primary and secondary health care organisation dedicated to improving the health of Pacific communities. Set up in 1989, it became an incorporated society in 1990 with a key objective to provide health care to all Pacific people that is affordable, accessible and culturally appropriate. West Fono also has strong ties with Waipareira Trust.

Composition

The focus group was attended by 13 West Auckland Pacific health workers, the majority of whom work at West Fono. Gender was evenly divided. This focus group was organised and facilitated by a Pacific researcher from the Wellington Medical School. The meeting lasted for approx one hour. Notes taken by a staff member from West Fono, and a summary of these notes was forwarded to the ESR researcher.

Data

Health effects observed by the health workers in their family and client population included rashes, itchiness, head aches, and tiredness. These effects were mostly noted in children and some adults. The rashes and itchiness seemed to follow the spraying time. Some people reported being emotional and moody during spraying time.

The impacts on community and day to day life included mothers being more concerned about their kids during spraying time, especially when the children are at school or travelling to and from school. Others reported that cars and clothes got dirty during the spraying, creating more work cleaning.

The cost of having to relocate to another place and seeing doctors was mentioned.
One person in the focus group had been to see one of the free doctors, and felt that the doctor was trying to say there is nothing wrong with the spraying.
The health workers felt that people would talk about the spray amongst themselves, but would not tell their doctor or nurse. A receptionist noted that patients would talk to them about the effect of spraying, but then don't report it to their doctor.

Generally it was felt that there was not enough consultation with the Pacific community. Lack of information was also an issue with some in the group wanting to know more about the program and also wanting information about the purpose of the spray programme. The members of the Pacific focus group felt it would be good to have the information from MAF available in different languages to inform people.

Migrant Group

Background

It was hoped that the migrant focus group could comprise of spokespeople from different refugee or recent immigrant communities. The focus group was however attended by a group of Asian women who gave a valuable insight into the attitudes and experiences from their community.

Composition

This focus group was held at an interview room in Waitakere hospital. Six women attended, 5 Chinese, one Korean. Two women seemed younger in age whilst others were middle aged. The women in the group were from a pool of volunteers providing translator and support services to the Waitakere Hospital. Whilst the group perhaps did not provide the diversity expected, the data obtained gives valuable insight into

the experiences of a group of women who do not have active interests or involvement in the PAM decision making process.

Data

Only one person in the group had experienced health problems following exposure to the spray. They had strong concerns about the spray programme. The others in the group seemed resigned to the spray programme going ahead, but did note that they could have been given more information about possible side effects. It was noted by all the group members that Chinese tend not to complain about what the government does, and that this is a cultural thing. The researcher also noticed in the discussion that the older women were more outspoken, and the younger women in the group tended to defer to the older women. The younger ones in the group were very quiet, but did get more vocal near the end of the interview.

The narrative from the one person who had experienced ill health following exposure is interesting;

> *I was in the car arriving at the hospital. The plane was flying quite low and then I looked "Oh, they're spraying!" and I thought I'd better stay in the car until after it's gone. . So after it's gone -- hospital from the carpark to the hospital - it came back I was actually caught under those thing, on my way back finish my walk from the car. The spray was horrible.*
>
> *I was very sick for four days. I can't talk, I was just coughing and coughing. My husband kept saying, "Go and see the doctor". I'm not going to see the doctor – you have to pay forty dollars so the doctor can say take a couple of panadol – that's what the GP say. So I didn't go, so in the end I just got something from the chemist, can't remember what. I was coughing for two weeks.*

The person was unexpectedly caught under the spray and had a strong adverse reaction. The reluctance to go to the doctor points to patterns of self management and underreporting that perhaps follows on from the groups observation that Chinese people tend not to complain.

In this persons account a theme becomes apparent of disjuncture between an individual physical or grounded experience, and the 'removed' statements from government about what to expect. Equally significant is the way that this disjuncture gives rise to uncertainty, and then to doubt and distrust in government.

> *they say it is water-based but how come its staying on my windscreen like glue. I don't understand that – the Ministry not telling the truth - I think they are lying - a lot.*

The effects on day to day life are apparent for others in the group.

> *Normally if I know they are going to spray, I make sure all my windows are closed. My house has a lot of glass around, so it was pretty hot in the summer when they're spraying. Unbearable, if you are in the house.*
>
> *It's very hard cleaning*
>
> *One morning about five o'clock I heard they were flying over probably -- that was obviously in my area, so "Oh! they're spraying today". So I thought, "Oh, I better*

not put my washing out." But sometimes I put my washing out the night before – and so I have to wash it again.

It was noted that the optimum times for spraying coincide with the best weather for getting laundry dry.

I get agitated. I think "I can't do this – I can't do that". So frustrating. "Oh, it's my day off, I could do this, I could do that". So restricted me from doing a lot of things.

Yes, some people are scared. I am scared, the first time. They very low, and they big noise

As well as staying inside, members of the group take other precautions. In this instance the exercising of consumer choice may have adverse effects on the local growers economy.

I used to, but not any more now, get my vegetable from those market places. I don't know whether they are exposed to spray or not, so I stopped buying them.

Whilst only one person in the group experienced an adverse reaction to the spray and only two people in the group knew immediate family members or neighbours who had health concerns, they had heard of some people getting sick.

I think that if people normally do not enjoy good health, probably it affects them more than the ordinary healthy person.

Whilst stating that the spray programme was positive for New Zealand's environment and the economy, later in the interview all felt that the government should have given more information about possible health effects. Most in the group did however feel that they were well informed about the purpose of the spraying, and had gained information from the radio, the newspaper or from leaflets in their mailbox.

Now even though they are in the paper, they announce it, they send a letter saying they are spraying on a certain day, but usually – most of the time the day they are supposed to spray it's raining so they cancel that and do it on some other day so we don't know.

There was some concern that the information about the spray times was not often accurate, making planning difficult.

One of the younger women in the group questioned the effectiveness of the programme and whether other options might not work just as well.

I wonder what is best way to kill the apple moths - because it affects people's health. Is there another way to reduce the side effects? Doesn't say anything about the other way. Just to keep spraying.

Does this programme really work, works well? How many times in one year do they spray?

Yes .. even if it takes a longer time. First the Government should consider about people's health.

In closing and asking for further comments, the woman most affected by the spray alluded to a bad experience with the MAF hotline.

> *Oh yes, that's one thing: we have a number that we can ring up. It's very hard to get through. Once I ring up, I ring up the minute I heard the plane "Are you spraying?" - " Yes" - and they hang up straight away! Didn't give me a chance to say anything!*

Others agreed that this was unsatisfactory;

> *Yes! What's the point of ringing up? Hard to get through, and you get through and that happens !*

Whilst most felt that they had been informed of the spray programme with leaflets in the mail box, they also pointed to a lack of information about the possible effects on health. Most in the group did not experience significant adverse health effects, but did question the management of the program in terms of effectiveness and responsiveness to human health concerns.

Other Data

In the process of setting up and conducting the focus groups, other data was also obtained. This is not included in the focus group discussion as the focus group method was not applied. The insights from these other forum do help build a picture of health and other effects in Waitakere and thus are incorporated to the analysis.

Waitakere City Council

Approached early on to help guide the researchers to the right people to talk with for the focus groups, the Waitakere City Council played an important role in 'opening doors'. This included an opportunity to briefly announce the focus group research, make connections and receive feedback from different advisory forum, namely Te Taumata Runanga, Te Kawerau a Maki Trust, and the Pacific Island Advisory Board. A focus group for staff and elected councillors was organised at the last minute in response to a challenge earlier in the week from the Mayor, Honourable Bob Harvey and a councillor when introducing the research to Te Taumatua Runanga forum.

Te Taumata Runanga

<u>Background</u>

Te Taumata Runanga was jointly established by the Maori community and Waitakere City Council in 1991, and became a standing committee of Council in 1993. It is a forum for regular communication to ensure Maori are given a voice and input into policy development and decision making within Waitakere City Council. There were twelve original member organisations, including Waitakere City Council. There are now ten; Te Kawerau a Maki, Te Runanga o Ngati Whatua, Te Ropu Wahine Maori Toko I Te Ora, Te Whanau o Waipareira Trust, Te Ropu Kaumatua o Waipareira, Hoani Waititi Marae, Te Piringatahi o Te Maungarongo Marae, Kakariki Marae, Te Roopu Puawai o Waitakere, and Te Atatu. At present there are ten standing members on Te Taumata Runanga.

Findings

It was observed that those in Te Taumata Runanga seemed to be well informed and have a good knowledge of the purpose of the spray programme. Several questioned "when is it going to end ?", but generally the members of the group did not react strongly to the announcement that research into health effects was being undertaken. Some members expressed concern about the impacts of the spray on the health of the young and elderly. In some side conversations others expressed annoyance at the extra work of cleaning cars and windows.

Using the networks from Te Taumata Runanga, there were opportunities to talk with some people working in the Maori consultation forum for the PAM spray programme. The consultation forum with MAF had been developed as an initiative from the Maori community, and had close links including representation from some members of Te Taumata Runanga.

Later that week, the researcher conducted a short interview with a Te Kawerau a Maki Trust member involved in MAF's consultation with iwi. This person seemed satisfied and had experienced this as 'very good'. They did say they were aware that some people in Waitakere wanted more information, particularly on exactly what ingredients were in the spray. They also mentioned that suggestions to MAF, such as having a Maori doctor, have not been followed. Whilst the consultation was generally felt to be good, they described the spray as 'not the best thing to have', and experienced some respiratory effects, namely tightness of breath. "The consultation with Maori is good, but breathing it in is a different story."

A community meeting had also provided an opportunity to ask several kaumatua associated with Te Taumata Runanga forum informal questions about whether they felt any impacts from the spray programme. Commenting on the MAF consultation, one observed, "the process was there, MAF kept Maori informed, but then did not like to listen to concerns or modify the actions".

On health effects, this person described how he had walked outside in the spray once and got a rash on his neck. His doctor was unable to help treat the rash because they could not get information from MAF about the spray ingredients. Because he did not know what was in the spray, this person felt uncomfortable eating and growing vegetables in their garden, "gardening is expensive if you can't eat the food".

Similar to the data shared by Maori and others in the focus groups, this points to a cycle where the lack of information from the government has created uncertainty and distrust. The uncertainties impact on the lifestyle decisions that people make, which in turn have detrimental economic and health effects. The kaumatua also had concerns for the health effects on children, the mess and extra work in cleaning cars and windows, and the danger of low flying planes in urban areas.

Te Taumata Runanga raised other opportunities. The Mayor of Waitakere had attended the Te Taumata Runanga forum to present on a separate issue. In the discussion following the PAM research presentation, he issued a challenge that the researchers also might consider incorporating the views of the councillors. "I am more worried on this than any other issue. There is a lot of stress on elected people from this issue. We are worried about the unknown, long term health effects". The Mayor elaborated that were adverse effects from the spray to be proven in future, it would weigh heavily on his conscience, "I would feel so guilty".

Another councillor elaborated on the burden of responsibility, describing how the elected officials bore the brunt of local reaction to what was essentially a central government decision. "The stress on us as decision makers is ongoing. For example, my carpet layer got really angry about the spray and was asking me, 'what are you guys doing to us?' "

Pacific Island Advisory Board

The Pacific Island Advisory Board has similar standing and role in relation to the Waitakere City Council, but with representation and accountability being to the Pacific, rather than Maori community. The researchers introduced the project to PIAB so they would know what was happening, and have an opportunity to comment and ask questions. The members of this group seemed agitated with, "when is it going to stop ?", being the first question asked in this forum. Another member said, "there is still a deep resentment by everyone that we're being sprayed by a chemical that we don't know the formulation for". One in the group mentioned "concern in the community that some children are getting sick", with another stating that "there is no actual evidence that the concerns relate to the spray, people are putting two and two together". Another person questioned, "if someone from the community says they do have problems about their health, what are you going to do to address this ?". There seemed a lot of confusion within the group about who to contact with health concerns, and the group felt this was an issue for the wider Pacific community. "Not a lot of the people here have been using the free health services, they might not be aware of the services". The researchers had to work hard in this forum to demark themselves from MAF.

Elected Councillors

Responding to the Mayor of Waitakere's challenge at Te Taumata Runanga earlier in the week, a focus group was set up at the council offices for interested councillors and staff to attend. The meeting was scheduled Friday midday with a free lunch offered to those attending. No one came to this. Lack of interest may have been a factor. Other likely reasons included the late notice given for the meeting, in that an announcement was circulated to elected council members and staff by email the day before. This followed approval from the council executive. Furthermore, few staff seemed to be around on Friday, and a fire drill had occurred earlier that morning, perhaps impacting on work priorities for the day. In the absence of formal focus group data, the comments of the Mayor and councillor in the Te Taumata Runanga provides the viewpoints of some of the elected members.

Staff

In the course of the research, council staff also shared their views in casual conversation on the impacts of the spray programme for the council. Whilst these were not the driving focus of the research and were not explored deeply, some interesting data was nonetheless obtained.

Some felt the spray programme had impacted "dramatically". They thought that 'the city's leadership may have been caught off guard with the issue', and were now 'having to shoulder local community discontent and anger'. They cited frustration at 'not being fully informed by the key ministries about what the real issues and

consequences were, and are … '. Also, it was felt that the staff at Waitakere City Council responsible for implementing key elements of the central government strategy were "stretched", and lacked a complete picture of what was going on. This staff member also questioned potential "long-term spray effects … on human beings" as well as "the environment, eco-systems and the like".

Another staff member stated personal concerns. Experiencing persistent chest problems and coughing since the spray programme began, they noted trade-offs with positive effects for their garden, but negative effects on their health. "It seems good for my orchids, but not so good for my health"

Many of the staff spoken to at the council linked coughing and respiratory complaints with the spray days.

Summary of Findings

The study included four formal focus groups, as well as additional community data gained from various interactions within community networks around the Waitakere City Council. The data gathered in each forum builds a consistent picture; that the aerial spray programme has had multiple impacts on the health, well-being and everyday life of many Waitakere City residents.

Acknowledging the limits in scope of the study and the focus group method, (namely the ability to extrapolate statistical data or validate how representative the viewpoints expressed in the group are of the views of the wider community), some important themes can be observed. The impacts on the health and well being of the community are summarised as follows;

- Health impacts were most serious for those with existing respiratory or allergenic conditions, with some requiring hospitalisation.
- Aside from the effects on those with existing health conditions, the community was most concerned about possible health effects for the elderly, the young, and pregnant women.
- Most common health complaints amongst those affected in the general population were tight chest and coughing, itchy eye and sinus, headaches, and skin rashes. The elderly tended to experience asthma and respiratory problems, whilst young children seemed susceptible to eczema and skin rashes.
- Most residents experienced some inconvenience. All of those interviewed stayed indoors to avoid exposure during the spraying time, and some discouraged children from playing outdoors for up to three days after the spraying occurred. Depending on the duration of the spray programme, the lack of physical activity could have implications for health.
- Disruptions to everyday life included increased laundry, car, window and house cleaning; not eating herbs, fruit or vegetables from their home gardens; not purchasing locally grown produce; and leaving the area on spray days. Each of these lifestyle adjustments, involve extra health (nutrition), economic (time and money), and opportunity costs.
- In many cases the disruptions in everyday life were exacerbated by a lack of timely and meaningful information about what to expect, the spray times, and the spray ingredients.

- The lack of timely and meaningful information has also resulted in increased uncertainty and concern about the sprays toxicity, and a decreased confidence in government.
- Underreporting is prevalent, with observations made that those in the community experiencing health effects might sometimes go to the pharmacy, but tended not to seek medical advice. There was questioning of GP's ability to treat allergenic conditions, other than give panadol, with the costs of seeking medical treatment being a significant factor.
- Data from all the focus groups suggested that people are reluctant to use the MAF health services.
- Those who have contacted the MAF hotline or health services reported dissatisfactory experiences.

Recommendations

Based on the findings from the focus group data, the following recommendations are suggested;

1. It was reported in the focus groups that certain sectors of the community did not receive timely and meaningful information. For future pest eradication programmes, it is recommended that some form of evaluation be undertaken to assess the effectiveness of the information campaign; to establish that the information distributed physically reaches different sectors of the community, and is appropriate in addressing their key questions and concerns [for possible methods see Morgan et al 2002].

2. In recognition of the limitations of the focus group method in obtaining statistical data on frequency and distribution of health effects within a community, it would be useful to also conduct a survey-based study to quantify the prevalence and spatial patterns of health effects across age, gender, socio-economic, ethnic and other variables.

3. All the focus groups reported concerns over the effectiveness, impartiality and fairness of the MAF health service. For future interventions, it may be worth considering a clear funder / provider separation to ensure that such health services have value and are utilised by the community.

Appendix A

Information about the focus groups for the Painted Apple Moth study

Background

The Ministry of Agriculture and Forestry (MAF) have been undertaking aerial applications of Foray 48B over western Auckland in an effort to eradicate the Painted Apple Moth (PAM). MAF have funded a health monitoring service, but there may be some health and related concerns that we do not know about.

The Ministry of Health has contracted a university (Wellington School of Medicine and Health Sciences, University of Otago) to receive written submissions from the public regarding their health concerns related to the PAM spraying programme. Several focus group interviews are also being conducted as part of the university study.

Purpose of the Focus Groups

The focus groups are designed to supplement the written submissions and ensure that some groups who have not yet voiced their health or related concerns, are given an opportunity to do so. We would like to see if there are any health and wider impacts - environmental, economic, every day and community life.

We would like to set up focus groups for the following;

- Maori
- Pacific Island
- Recent immigrants or refugees

This is not full public consultation. Resources allow for 4 or 5 focus groups.

Ideally 6 or 7 invited people would attend each group.
(Having more people than this in a group makes it difficult for everyone to have their say, and the recording of the data gets difficult too).

There is a tight deadline; and the focus group sessions will need to be run
before mid October 2003

What will the focus group involve ?

The focus group will involve 6 or 7 people responding to some questions. The discussion will be recorded.

It will be explained that the information would be used for a written report, but that no individual would be personally identified. Those attending will be asked for written or verbal consent to this.

The focus group would be between 1 and 2 hours long. Refreshments would be provided.

What is the process for setting the focus groups up?

We need to get some good talkative people to attend. It would be easy if this were piggybacked onto an existing group that met regularly. We are hoping that a person from a local health organisation could advise on who to ask and how to best set this up.

It would also be good if a local person could help introduce the group and ask the questions. This would allow the researcher to take notes and record the group discussion.

Jinny Baker, a social scientist with the Institute for Environmental Science and Research (ESR) will sit in on the meeting to record and take notes. Her contact phone number is (04) 914 0693.

Questions for Focus Groups:

- Welcome and introductions
- Explanation of Project and use of information
- Written or verbal consent

1. How did you become aware of the Painted Apple Moth (PAM) Spray Programme ?

2. What information have you been given about the Painted Apple Moth Spray Programme ?

3. Do you have any concerns about the spray programme ?

4. Has the spray programme impacted upon your life ?

5. Has the spray programme impacted upon your health ?

6. How has the spray programme affected people that you know in their everyday lives?

7. Overall, how do you think the spray programme has impacted upon your community ?

Appendix B:

Information about the focus groups for the Painted Apple Moth study

Background

The Ministry of Agriculture and Forestry (MAF) have been undertaking aerial applications of Foray 48B over western Auckland in an effort to eradicate the Painted Apple Moth (PAM). MAF have funded a health monitoring service, but there may be some health and related concerns that we do not know about.

The Ministry of Health has contracted a university (Wellington School of Medicine and Health Sciences, University of Otago) to receive written submissions from the public regarding their health concerns related to the PAM spraying programme. Several focus group interviews are also being conducted as part of the university study.

Purpose of the Focus Groups

The focus groups are designed to supplement the written submissions and ensure that some groups who have not yet voiced their health or related concerns, are given an opportunity to do so. We would like to see if there are any health and wider impacts - environmental, economic, every day and community life.

What will be done with the information from the Focus Group

- The information will be recorded electronically.
- Anything that you say in the focus group interview will be kept confidential. Individuals will not be mentioned by name. The report will be written so that any views come from the group as a whole, or where different views are expressed from 'some people', or 'a person in the group'.
- A written transcript will be produced and if participants would like, a copy of this can be given to the host organisation. (This is providing there are no failures with the equipment and transcribing process)
- The information will be written up in a report. A draft of this report will be given to the Wellington School of Medicine. Following approval from the Wellington Medical School, a copy of the report on the focus group research will be given to the organisations participating. The Wellington School of Medicine will use the information from the focus group report for a larger report to the Ministry of Health. Some changes may be made in this process.

Questions for Focus Groups:

- Welcome and introductions
- Explanation of Project and use of information
- Written or verbal consent

1. How did you become aware of the Painted Apple Moth (PAM) Spray Programme ?

2. What information have you been given about the Painted Apple Moth Spray Programme ?

3. Do you have any concerns about the spray programme ?

4. Has the spray programme impacted upon your life ?

5. Has the spray programme impacted upon your health ?

6. How has the spray programme affected people that you know in their everyday lives?
7. Overall, how do you think the spray programme has impacted upon your community ?

If you have any questions or concerns, please contact the researcher;

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Website: www.esr.cri.nz

Appendix C:

Tell us more about Foray 48B used in the United States, Canada, Europe and here to wipe out pests like the Painted Apple Moth.

The largest component of Foray 48B is water, and the active ingredient is Bacillus thuringiensis kurstaki (Btk), an organism occurring naturally in soil, air and water.

Btk is grown in a nutrient brew that includes common food materials such as corn, soy and fishmeal.

It's free of eggs, nuts, milk residues (lactose) and wheat.

Some inactive ingredients have been added which have been approved by New Zealand regulatory authorities and the United States Environmental Protection Agency, to help make it stable, easy to mix with water and stick to the leaves. These include trace preservatives and spreading agents commonly found in food and cosmetics, food sugars to make it sticky and stop it evaporating and products commonly used as acidity regulators in cooking.

This spray we're using to wipe out the Painted Apple Moth has successfully been used for over 30 years in cities and states around the world including Vancouver, Chicago, Denver, Ontario, Virginia, Maryland, Nice and Bordeaux.

A small number of people with pre-existing allergies, respiratory problems or skin conditions may experience symptoms. We encourage people with these conditions to contact the Health Support Service on 0800 96 96 96.

Like any brew Foray 48B does have a strong smell and can leave sticky residue. Importantly, independent studies here and overseas have found no evidence that Foray 48B causes health problems such as neurological or auto-immune effects or problems with pregnancy or birth defects.

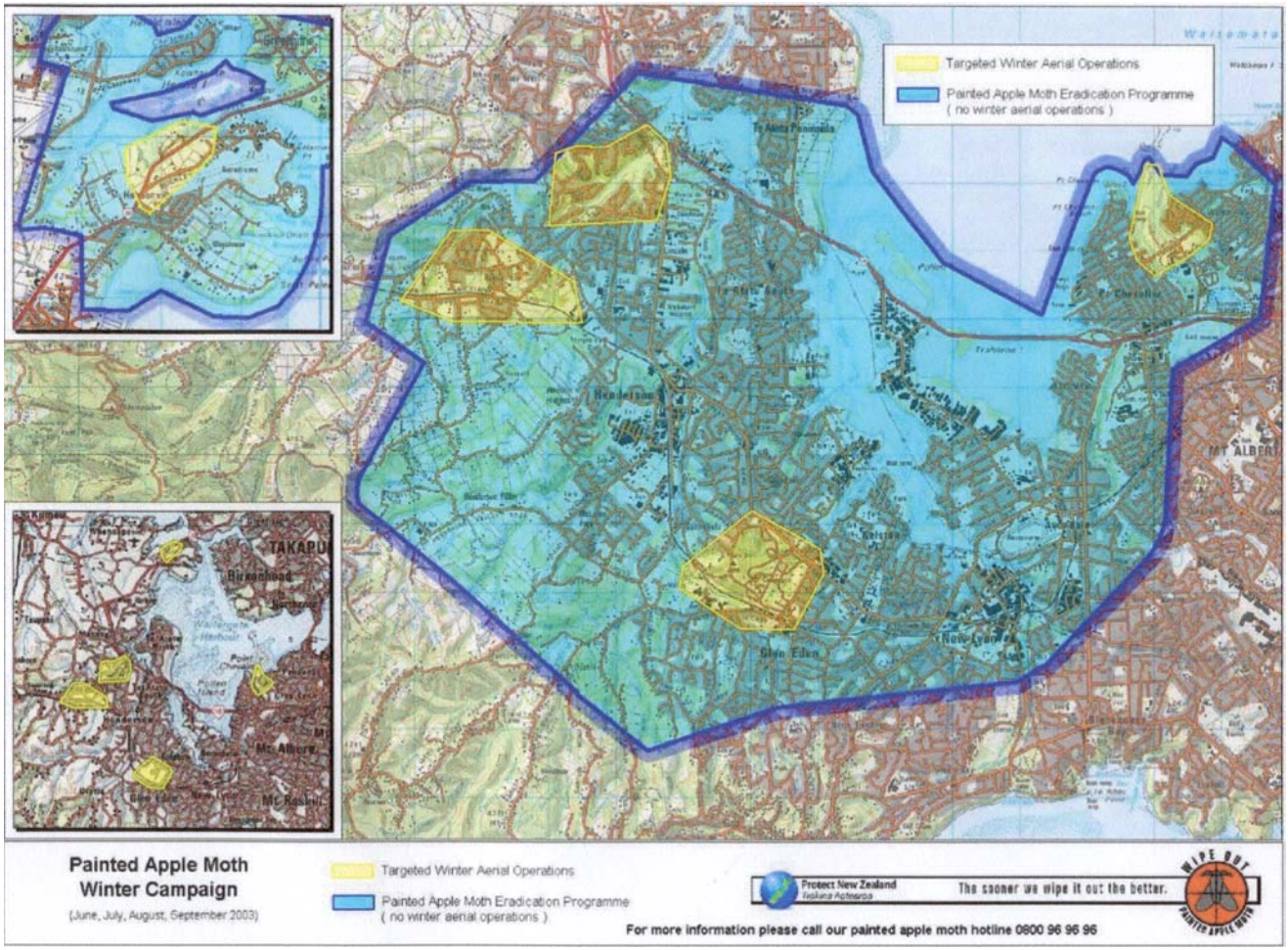
For general information call 0800 96 96 96 or visit www.maf.govt.nz/paintedapplemoth

Protect New Zealand
Tiakina Aotearoa
www.protectnz.org.nz

The sooner we wipe it out the better.

WIPE OUT
PAINTED APPLE MOTH

Appendix D:


Targeted Winter Aerial Operations
Painted Apple Moth Eradication Programme
(no winter aerial operations)
Waitemata
Henderson
Glen Eden
TAKAPUNA
Birkenhead
Mt. Albert
Painted Apple Moth
Winter Campaign
(June, July, August, September 2003)
Targeted Winter Aerial Operations
Painted Apple Moth Eradication Programme
(no winter aerial operations)
Protect New Zealand
The sooner we wipe it out the better.
WIPE OUT
PAINTED APPLE MOTH
For more information please call our painted apple moth hotline 0800 96 96 96

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