

## **The Painted Apple Moth Eradication Programme (C)**

On 9 September 2002, the New Zealand Cabinet approved the expenditure of \$90 million over three years for an all-out effort to eradicate the painted apple moth (PAM). The moth, first discovered in 1999, was still eating its way through the trees of West Auckland despite the increasing use of aerial insecticide. In a reversal of its previously-held position, the Ministry of Agriculture and Forestry (MAF) now recommended a renewed and extended approach to eradication.

MAF Director-General Murray Sherwin had made the decision to change his department's stance after a series of meetings, culminating in a round-table at which he asked each of his senior managers for their individual assessment of the best way forward.

Forest Biosecurity Director Peter Thomson, only weeks into his job, watched the mood of the meeting evolve.

“The first two responses stayed with the previous recommendation, to give up eradication attempts and go with long-term management.

“Then Murray McAlonan, representing the Crown Forestry Group, told us this was MAF's last opportunity to rebuild credibility with the forestry industry. If we wouldn't tackle this for them, what use was a Forest Biosecurity group?

After this five-minute “speech” the views around the table leaned increasingly towards eradication.

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This case was developed by the Australia and New Zealand School of Government (ANZSOG) and funded by the New Zealand Ministry of Agriculture and Forestry (MAF). The case was written by Janet Tyson, with supervision by Dr Richard Norman, Victoria University of Wellington. It describes events preceding those in cases 2006-10.2 and 2006-10.3 but can be used in its own right. It has been prepared as a basis for class discussion rather than to illustrate either effective or ineffective handling of a managerial situation. The assistance of Ruth Frampton, Ian Gear, Peter Maddison, Barry O'Neil, Brett Sangster, Murray Sherwin, Max Suckling, and Peter Thomson is gratefully acknowledged.

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Summing up the general feeling, Murray Sherwin made it clear the decision must be supported MAF-wide.

“If we are going to go for the blanket spray, I want it absolutely clear within this organisation that this is not something that we are prepared to fail at. We are going to go after this with all guns blazing. Yes, we will be sensitive to community concerns, yes we will be wanting to engage with the community, but at the end of the day, we have been asked to do a job and we are going to bloody well succeed and failure is simply not an option here.”

He was now ready to sign the revised recommendation that could commit MAF to the risks, costs and workload of the PAM response for three more years.

### **All-out eradication**

When Cabinet approved all-out eradication, the PAM Project Team had spent \$5 million of the \$11 million interim allocation. They now had funding that would support fixed wing planes and helicopters for up to 32 further spray operations, bringing the total to 40. Murray Sherwin’s requirement of the team was clear, Project Director Ian Gear recalled:

“One was to kill the beast; the other was to restore the credibility of MAF; the third was to do it all within budget, and the fourth one was to prepare the populace for the next occasion we had to do something similar.”

Speaking to a 10 September media briefing about the expanded programme – 8000 ha with the option to go up to 12,000 ha (37,500 properties) if “hot spots” were found outside a planned spray zone – Ian Gear said that Agriquality, now the head contractor for all operational matters, would set up new headquarters in West Auckland.

*The Dominion* said it would cost every taxpayer \$28 to evict the “nasty, hairy little expat Aussie now resident in Auckland.<sup>1</sup>” The conservation group Forest and Bird, welcomed the news of the attack on the “Australian tree-muncher”, listing 18 native tree species, from mangrove to kauri, that the moth was now known to eat.

But anti-spray activists were outraged.

### **High level of health concern**

Concerns about the human health impact of aerial sprays had begun to emerge during the five-month campaign that successfully eradicated the white spotted tussock moth from eastern parts of Auckland City in 1997. Subsequent Ministry of Health reports confirmed that the chosen spray – the biological pesticide Btk, commercially available as Foray 48B, that had been used for 35 years – could not be linked to any major impacts on human health. However, pre-existing conditions such as asthma might be worsened.

In the intervening years, a climate of increased anxiety about potential impacts on human health had been building. News of numbers of people in Britain and Europe

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<sup>1</sup> *The Dominion*, 10-09-02, p1 g-h. ‘\$112m to evict nasty, hairy little Ocker,’ Jonathon Milne.

succumbing to “Mad Cow Disease” (Bovine Spongiform Encephalopathy) years after eating meat that, not long before, had been declared to be safe, fuelled a massive distrust of scientific advice. And the Internet became readily available as a source of alternative health information.

The same period saw a dramatic rise in support for the Green Party in New Zealand. One of the largest memberships of the party was in Waitakere City – centre of the PAM infestation. Several members of the Green Party had stood for Council in 1998, as part of “Team West”. Campaigning on a platform of a GE Free New Zealand, the Party also made its presence felt in parliament. It pushed successfully for a Royal Commission into Genetic Modification that would receive over 11,000 submissions when it sat in 2000.

Waitakere City, led by Mayor (and former Labour Party President) Bob Harvey, had declared itself New Zealand’s first eco-city in 1997, taking a number of actions to maintain environmental sustainability and quality. Other innovations included mechanisms for ensuring that local Māori were consulted on issues of concern to them.

### **Eco-City at the Centre**

Although ground-spraying and other control measures had succeeded in eliminating the PAM in some of the affected areas of Auckland City, Waitakere City posed a greater challenge. Some of its features, like the winding Whau River, and the Waikumete Cemetery, with trees and thick undergrowth, defied ground-level access.

Waitakere City residents, according to Councillor Penny Hulse, chair of the council’s Environmental Management Committee, had had a shock when, in August 2001, MAF had invited them to a meeting to talk about possible aerial spraying of the PAM.

From MAF’s perspective, there had been a continuing flow of information about the PAM response, then being managed by the small Forest Biosecurity team. Although no media releases had been issued between October 1999 and June 2001, Chief Forestry Officer Ruth Frampton felt she made herself readily available to the media; an email list giving interested parties advance information was growing rapidly.

But as Penny Hulse saw it, during the period when the extent of the moth infestation was being assessed, “no information was given to the community, and after a year or so everyone thought that the problem had gone away.”<sup>2</sup>

As a councillor, trying to balance obligations to citizens, regulations and the environment, she would feel, over the coming months “the meat in the sandwich”.

### **The anti-spray campaign**

News of the spray proposal revived the anti-spray campaign that had been dormant since the white spotted tussock moth was sprayed in (and eradicated from)

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<sup>2</sup> *Biosecurity New Zealand*, Issue 57, page 5-7 ‘Let’s Talk; Communication Lessons from the Painted Apple Moth Programme’ by Penny Hulse, adapted from her presentation *Community Impacts of Pest Management Activities*, to the November 2004 Biosecurity Summit.

Auckland's Eastern suburbs in 1997. Others turned to the internet to do their own research. Anti-spray information was spread widely.

As a result, Penny Hulse recalled, people were already hostile and suspicious as they arrived at the 23 August meeting. It was chaired by Auckland Regional Councillor and former TV newsreader Philip Sherry, who had chaired the Community Advisory Group for the successful tussock moth campaign. MAF's representatives – Biosecurity Director Barry O'Neil, and Ruth Frampton and Davor Brejakovich from Forest Biosecurity – outlined attempts to eliminate the moth and explained that the next option would be aerial spraying, on a strictly targeted basis by helicopter, not the "blanket" delivery from a fixed-wing plane that had been used against the tussock moth.

MAF also tabled the Auckland District Health Board report showing "no significant health effects" from the spray as used for the tussock moth. But for intellectual property reasons, MAF couldn't give the information those attending most wanted; the chemical makeup of the proposed spray.

Penny Hulse summed up: "People expected to be consulted and were barely informed." She felt there should have been earlier attempts to involve and advise the community about its role in the project, and the meeting have a local chairman.<sup>3</sup> At the end of the evening MAF called for nominations to form a Community Advisory Group for the PAM. Eighteen names were put on the whiteboard, among them independent entomologist (and Green Party member) Dr Peter Maddison – and at least three very vocal protesters not resident in West Auckland, such as the Green Party candidate for Tamaki.

Telephone surveys were telling MAF there was a high level of awareness and support for an aerial spray programme, if it should be needed. But the community group, expected by MAF to reflect community opinion, saw itself as a source of alternative scientific and technical advice. At the Community Advisory Group's first meeting, on 14 September, it put forward a ten-point advisory plan for eradication, based on ground-spraying alone. On 14 December, the group supported a proposal to trial biodynamic "peppering"<sup>4</sup> as an alternative means to control the moth.

Waitakere City Councillor Penny Hulse recalled<sup>5</sup>:

"As the time for the start of the spraying drew near, the community became increasingly tense. People rightly or wrongly felt that no information was available other than the stock reply from MAF to say that 'there was no danger to health from the spray.' They turned to the internet and to trusted community experts for information.

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<sup>3</sup> "Let's Talk" p 5.

<sup>4</sup> "Peppering is a biodynamic method of pest control, which aims to inhibit the reproductive potential of the pest being targeted... The theory holds that the specific preparation methods produce the negative "energy" of the pest's reproductive force... used in the field it enters the soil and surrounding vegetation producing an "unfriendly" and inhibiting environment." Excerpt from the submission, quoted by Dr Ruth Frampton in Peppering the Painted Apple Moth, for New Zealand Skeptics, Summer 2003.

<sup>5</sup> "Let's Talk" p 5.

“Unfortunately the web is not a place for balanced information and the level of hysteria grew. People threatened to fly balloons into the path of aircraft and there were some very nasty threats made – unhelpful to all sides of the debate.”

On 17 January, 2002, *One Network News* headlined “Residents object to blanket (sic) spraying”, while the *Herald* reported some West Auckland residents, fresh from a 300-strong meeting, were threatening to move to tents outside the spray zone.

Entomologist Dr Peter Maddison - who had made the first tentative identification of the PAM but had not been involved in subsequent scientific groups - weighed in from the Forest and Bird Society perspective, criticising the time taken to respond and failure to do “obvious” things like clear the weeds and wattles along the railway line. “This work should have been coupled with work on developing an effective pheromone. It seems common sense to suggest that MAF should have enlisted the help of scientists in Australia...”<sup>6</sup>

Vocal opposition to the spray programme continued as the first helicopter operations began. In April, when four spray operations had been carried out, an emergency meeting of the Waitakere City Council’s Environment Committee was called, to receive an urgent deputation on behalf of the Community Advisory Group, and recommend its support for an expanded version of the ten-point plan based on ground-spraying. Dr Peter Maddison was a co-author (*Exhibit 2*).

Meanwhile, the refrain from the Green Party was to criticise the delay in making available moth material for Dr John Clearwater’s alternative attempt to find a synthetic pheromone. Not mentioned was the fact that no formal research proposal had been – or would be – received from Dr Clearwater.

One of the most vocal protesters stood – unsuccessfully – as an independent candidate in the July 2002 general election.

## **Up in arms**

Anti-spray protest moved into higher gear immediately following the 9 September announcement of the Government’s support for the all-out eradication attempt, involving more extensive (blanket) aerial spraying. The general feeling, supported by Treasury’s opposition to this option, had been that MAF’s bid for \$90 million in funding would fail and a long-term management plan for the moth be introduced. They were quick to express their “dismay at the lack of consideration given to the development of alternative recommendations to eradicate [the PAM] in light of the evident health and environmental costs.”<sup>7</sup>

On 10 September *One News*, describing the eradication programme as having already cost \$90 million, said Waitakere residents were “up in arms” and calling for compensation payments, and free medical clinics. Led by Mayor Bob Harvey, they were “expressing concerns that the spray could harm their health.”

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<sup>6</sup> [www.forestandbird.org.nz/mediarelease/1997\\_2003/02JantoMar.asp](http://www.forestandbird.org.nz/mediarelease/1997_2003/02JantoMar.asp) downloaded 1.12.05

<sup>7</sup> [www.newsroom.co.nz/main.viewstory.aspx?Storyid=126876](http://www.newsroom.co.nz/main.viewstory.aspx?Storyid=126876)

Eighty protesters went to the Auckland home of Prime Minister Helen Clark in early October, to “highlight [her] responsibility for the homes being threatened by the spray. As bad weather delayed the first large-scale operation for ten days, there was criticism that MAF’s information hot line did not give enough information for vulnerable people to leave ahead of spraying. (The Ministry, by this point, had assisted 90 people on its medical register, to avoid the spray).

On 23 October, the first large scale spray operation began. Minister of Conservation, Chris Carter, the MP for the North-West Auckland electorate Te Atatu, was inundated with constituent complaints, mainly concerned about children being sprayed while walking to and from school. In Wellington, Government refused to receive a 400-signature letter from the Stop Aerial Spraying Group, which described the refusal as arrogant.

Later that month MAF had to deny a rumour of GE ingredients in the Btk spray. Activists were suggesting strong links between the spray and birth defects such as hyperthyroidism, as well as a range of respiratory problems and allergic reactions.

### **Control on Christmas trees**

In November 2002, a new population of PAM caterpillars was found in the central Auckland suburb of Pt Chevalier, and the spray zone was further extended. An Audit Office report, critical of MAF’s overall management of biosecurity, and of Forest Biosecurity’s response to the PAM in particular, was released; it came on the heels of an internal review also critical of co-ordination and surveillance. The report described poor relationships and communication, poor definition and assessment of project goals and confused governance (See *Exhibit 3*). On 30 November, 1500 people marched in West Auckland to protest the spray programme and launch a postcard petition for Parliament’s Primary Production Select committee to inquire into the eradication campaign.

Phrases like “gross violation of human rights”, “aerial child abuse” and “human guinea pigs” were used in speeches at an anti-spray march on 4 December. Civil disobedience – such as covering gardens during spray operations – was advocated.<sup>8</sup>

In December new “hot spots” were discovered six kilometres outside the enlarged spray zone, at Hobsonville. Following the new eradication plan, aerial and ground spray attacks were immediately launched.

Vegetation movement controls were introduced, publicised and enforced, establishing zones outside which “nursery crops, Christmas trees and vegetative waste” might not

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<sup>8</sup> A sample, from “Moonbase Media”: “I believe we can get the spraying stopped, but we need to keep up the pressure. We need to become MAF exterminators. We need to become a bigger pest to MAF than the Painted Apple Moth will ever be.....The time has now come for civil disobedience. We’ve tried everything else. You can start by covering your gardens with tarpaulins on spray day. This is guaranteed to get up Jim Sutton’s nose. There are yellow helium balloons for sale or donation here today. Float them high above your homes on spray day. Other direct action is planned. Put your name on the list...People’s overseas visitors are getting sick. Tell all your overseas or out of town friends to stay away from Auckland and write to Helen Clark and tell her why.” From

[www.newsroom.co.nz/main/viewstory.aspx?storyid=129709&catid=0&m=print](http://www.newsroom.co.nz/main/viewstory.aspx?storyid=129709&catid=0&m=print) downloaded 27-09-05

be moved, without a permit from the PAM operational headquarters.<sup>9</sup> Vegetable waste must be disposed of at one of two permitted transfer stations; Ian Gear warned people that “any attempt to cover gardens during aerial spraying is also an offence under the Biosecurity Act 1993.”

In Parliament, Acting Biosecurity Minister Marian Hobbs admitted “if we were doing [the PAM response] all over again, we would do it differently, and we have learned many lessons.” Asked by the Greens for an independent enquiry into health effects, Marian Hobbs said:

“Scientific evidence is that about 95 percent of people are allergic to the painted apple moth, while about 5 percent are allergic to *Bacillus thuringiensis kurstaki*.”<sup>10</sup>

### **Waitakere “war zone”**

For Waitakere City Councillor Penny Hulse, the season was anything but festive.

“Councillors’ phones rang red hot with scared people asking for our help, and berating those of us who didn’t come out on the side of the protesters. We wanted to support our community, but we also wanted to protect the environment and save our precious ranges from the moth.”<sup>11</sup>

In December, the Council appealed to the Ombudsman for disclosure of information about the spray ingredients, and its environmental management committee moved “that the council urges the Government to provide financial support to Dr John Clearwater to assist him in his painted apple moth pheromone programme.”<sup>12</sup>

The Green Party maintained its refrain of criticism of MAF “dithering” and failure to involve Dr Clearwater – now experiencing similar frustrations to the HortResearch team in establishing a stable synthetic pheromone.

Later, after receiving a delegation of groups opposing spraying, the full Council also voted \$10,000 to support the group Stop Aerial Spraying network (SAS). The group had retained leading constitutional lawyer Sir Geoffrey Palmer to give an opinion on the legality of spraying, and already had Green Party backing against “the unethical bombardment of a population group with a potentially injurious compound – the contents of which the Government refuses to reveal.” Mayor Bob Harvey said:

“It’s a bit like being in a war zone. MAF is determined to spray no matter what – so in light of the great public anguish, it is appropriate for us to obtain an opinion from the top constitutional lawyer in New Zealand.

“We’ve been told that we don’t have any choice on a number of things to do with this spray. We’ve been told we can’t stop the spray because of the Biosecurity Act. Well, we’ll see if an independent expert agrees.

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<sup>9</sup> Again attracting Green Party criticism for the delay in taking what it saw as an essential early response step.

<sup>10</sup> [www.newsroom.co.nz/main/viewstory.aspx?storyID=130892](http://www.newsroom.co.nz/main/viewstory.aspx?storyID=130892) downloaded 27-09-05

<sup>11</sup> “Let’s Talk” p6.

<sup>12</sup> Minutes of 10 December environment management committee, downloaded from Waitakere City website.

“We’ve warned MAF repeatedly that the public won’t stand for this and if they don’t take a much more user-friendly approach they will have a revolt on their hands. My council backed this decision unanimously, and we are very pleased to support the community. It’s good for democracy in New Zealand.”

In January 2003 the spray zone reached 10,307 ha and a billboard promoting the spray programme was defaced. During this peak time for protester outrage, the PAM team had a surprise one Friday evening. Minister Jim Sutton, stranded in Wellington by an airport closure, used the opportunity to join them, and Agriquality’s Robert Isbister, similarly stranded, for drinks and an informal chat. The visit to the group’s base in rented offices away from the main MAF building, was appreciated by all, especially Isbister, who was having to deal with aggressive callers to his home phone.

Sir Geoffrey Palmer’s eagerly-awaited opinion was delivered at the end of January. As *One News* reported it:

“Former New Zealand prime minister, constitutional lawyer Sir Geoffrey Palmer, believes there is a clear argument against MAF’s aerial spraying of the painted apple moth and is recommending a case be taken on health grounds.

“Spraying a couple of hundred thousand people with insecticide without their consent is a very serious matter. It may amount to a human experiment under the Bill of Rights Act, and that’s not a good look.”<sup>13</sup>

While MAF insists the Btk spray is safe – and the only way to wipe out the moth – others claim the spraying causes breathing difficulties, diarrhoea and flu symptoms, the bulletin continued.

Anyone consulting the MAF website would have found the final version of the Auckland District Health Board report on the tussock moth eradication. It said that Foray 48B had not been implicated in any significant health effects for 35 years. However, calls to the Health Service reached an all-time peak of 120 in one day, around the release of the Palmer opinion.

By the end of March 2003, 3058 people were on the health register.<sup>14</sup> Doctors had completed 940 assessments, and specialists 102, on 840 individuals.

MAF’s - and a special PAM site - was now being used much more extensively as part of a refocused and upgraded communications campaign.

### **MAF’s new message: exterminate the enemy**

Despite the continuing high profile of the anti-spray lobby, MAF’s new communications strategy was by early 2003 beginning to pay dividends – as was the spray programme.

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<sup>13</sup> *One News* 30-1-03 downloaded from [onenews.nzzoom.com/onenews\\_detail/0,1227,165041-1-7,00.html](http://onenews.nzzoom.com/onenews_detail/0,1227,165041-1-7,00.html) on 1.12.05

<sup>14</sup> A radio talkback caller claimed on 10 February 2003 that “Ten thousand residents have reacted, many quite severely, even hospitalised, in response to this pesticide”. [www.scoop.co.nz/stories/HL0302S0051.htm](http://www.scoop.co.nz/stories/HL0302S0051.htm). downloaded 6-12-05.

Only 50 male moths were trapped in January 2003, compared to 2433 in January 2002. With a plentiful supply of females, the grid now included 1200 traps.

The communications campaign now put the focus on the moth and the damage it could do. The spray programme might be inconvenient, but it was worth it.

“We wanted to get a mind shift to ...we’ve got an enemy to control, we will kill it and we will be doing it responsibly,” Ian Gear said.

According to Brett Sangster, recruited as MAF’s Director of Corporate Communications in July 2002, “The PAM was... a bit nebulous, a moth that eats trees. If it had been the African [killer] bee, if it stung people and killed them it would have been completely different.”

The new communications strategy moved away from public relations into “hard marketing and advertising”. It was based on a deliberate decision to “demonise” the moth, and on greatly increased information to the public and to targeted sectors of the public, greatly increased information about the mood and perceptions of the wider public. The plan emerged from a brainstorming session involving Ian Gear, Brett Sangster, AgriQuality’s Robert Isbister and John Morgan, and David Walker from Walker’s Advertising in Auckland.

Ian Gear, based in Wellington, was the only MAF spokesperson, dealing with strategic matters, while Robert Isbister, based in Auckland, was the spokesperson for operational matters. Ultimately, spray plane pilots had a direct line to Isbister so he could give real time updates on progress.

Taking advantage of Auckland’s legendary traffic jams, the Project Team turned to radio, using seven different stations to capture the interest of Aucklanders idling in a gridlock. From their car, drivers would see a billboard, either displaying the PAM caterpillar much larger than life, or advising when and where the next spray operation would be conducted, weather permitting. Newspaper advertising was bigger and more colourful. Local information was mail-dropped to people and messages sent out on fridge magnets. Hard-hitting TV advertisements, run in late 2002, proved particularly effective; experienced marketers were astounded to find the PAM enjoyed almost 100 percent brand recognition.

### **New stakeholder groups**

The communications team – now six-strong and working between Wellington and Auckland – began talking with and listening to new stakeholder groups – such as schools, pre-schools and Plunket. Learning that parents were anxious that children might be wet with spray, Isbister put a stop to spray operations while children were walking to and from school, and having their lunch.

Children were seen as key to the overall Biosecurity aim of recruiting “four million pairs of eyes”<sup>15</sup> to watch for pests. Agriquality’s people called on the principals of schools in the affected region, offering curriculum-based materials, prepared by local

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<sup>15</sup> The whole population of New Zealand.

primary teachers in return for some funding for their library. Over the school holidays, 50,000 kids enrolled to play an online game offering x-boxes as prizes each week.

From the time he joined Forest Biosecurity in August 2001, Ian Gear had been concerned about relationships between the programme and local councils, and also with local Māori. Māori, he felt, had had little opportunity to express their views; he also discovered that various people claiming to make statements on behalf of Māori, “weren’t Māori and had no connection with Māori.”

As a result he opened discussions to establish formal and ongoing relationships between MAF and local iwi,<sup>16</sup> including Ngati Whatua ki Orakei and Te Kawerau a Maki. In an ongoing but low-profile process, Te Kawerau a Maki developed a Cultural Heritage Report on sites of cultural significance to the iwi within the area affected by the aerial operations. In 2003, working with the Department of Prime Minister and Cabinet, Ian Gear commenced a process that would work towards formalising the relationship with Te Kawerau a Maki through a memorandum of understanding.

### **Controlling the agenda**

By the end of 2002, the Project Team had politely advised the self-selected Community Advisory Group, which had not provided any of the expected feedback, that its services were no longer needed. Over the objections of Waitakere City Council, MAF recruited a wider representation of people to form a Community Liaison Group to work with Robert Isbister in Auckland. The Liaison Group operated to a clear charter and terms of reference – which did not include offering operational advice.

This was one of a number of deliberate moves to control the communications agenda.

While new stakeholders were being involved, one group was being deliberately cut out of the communication loop – the anti-spray lobby. Early on, Brett Sangster had discovered that many of the activists were on the priority email distribution list for MAF’s media releases. He promptly stopped this privilege:

“We treated them just like any other citizen –they had an opinion but it was no more valued than any other opinion in the community, that’s a conscious decision we made.”

In a previous role, Sangster had encountered an organisation that gained maximum national television exposure in support of a claim for a family to remain in a large state house. He had discovered that, not only was much of the argument false, but the “organisation” consisted of one man. The PAM Project Team applied this thinking to the anti-spray activists.

Behind the often impressive websites, they found that groups such as Stop Aerial Spraying (SAS); West Aucklanders Against the Spray Programme (WASP) and Painted Apple Moth – Community Concern (PAM-CC) – were very small

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<sup>16</sup> Tribal groups.

organisations with limited and often overlapping membership.<sup>17</sup> At least one of the most vocal “West Aucklanders” lived well outside West Auckland.

The decision to exclude the more extreme activists was only taken after “robust discussion” and after a number of attempts to create common ground, including taking one woman to see the moth in situ (where she declared it to be so tiny, it couldn’t possibly be the cause of wholesale devastation of adult karaka trees) Ian Gear said:

“[Their position] was not and is not representative of the community. And consequently we had to balance that against all the other views that might be there. We look at what it is we have to do and make decisions against the background of a lot of very complex considerations. We don’t go in to write them off. [The anti-spray views] are all on the table when we are having our discussions and they are pretty robust discussions.”

The strategy was to deprive them of the “oxygen of publicity”. MAF would not engage in any way, by responding to statements or attending meetings arranged by the anti-spray lobby although they would make sure the community could meet at MAF and community liaison-group arranged occasions. (At one of these Ian Gear was described as “Hitler”. He found the public abuse easier to take than the 3 am phone calls making anonymous threats to his staff members, which prompted all members of the communications team to disconnect their phones overnight.)

“On many occasions MAF chose not to respond to published stories [making provably false health claims] although it held information that could have radically changed the public’s view,” Ian Gear said. It was hard to maintain the non-response stance, witnessing some individuals “talking up the concern in more vulnerable people.”

At the same time, it was important to convey MAF as an organisation ready to listen and take advice. Brett Sangster:

“The most important thing... is to communicate frankly and openly, in a transparent manner, so you are front-footing everything the whole time. You become the pre-eminent source, the first place that people come when they are looking for information. ... There will always be somebody who had got a counter-view to what MAF does. Part of our thing is about having good process, being disciplined, so that people see we are an organisation that takes advice, and acts in a very carefully considered manner based on good sound science.”

To strengthen the quality of information being printed, Sangster and Gear spent some time building relationships with a few selected reporters. Establishing a new level of trust through frank discussions, behind-the-scenes briefings, and a trip in a spray plane, they learned that, until MAF had purged its email distribution list, the media would often receive a “counter-release” before their own information had passed the necessary checks and been sent out.

In November 2002, the monthly telephone sample showed 86 percent of the population supportive of or understanding the need for the aerial spray campaign. This level of support remained consistent or increased over the coming months. Regular sampling of public opinion also made it possible to fine-tune advertising messages.

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<sup>17</sup> Other “groups” included GASP, TASK (Teachers Against Spraying Kids), STOP (Society Targeting overuse of Pesticides), and NASA ( No Aerial Spray over Auckland).

“People were giving us back our key messages verbatim,” Ian Gear recalled.

As Director-General Murray Sherwin saw it:

“Once we had got the right teams and structures and processes in place, this thing really began to hum, and people got on with it, they did their jobs. There was ongoing noise, but it really disappeared from being all-consuming in terms of my time and effort, into something that was one of those issues that I need to be updated on weekly or whatever...which is the way it should be.

“But I never [took the risks lightly]. Running aeroplanes over 170,000 people at 45 metres off the ground is scary in itself, let alone dropping insecticide out of them on people who would really rather not have it. And I don’t think we should assume such a strategy would be acceptable in five or ten years’ time.”

## **Turning the tide**

Although its Mayor Bob Harvey maintained his stance, other members of the Waitakere City Council such as committee chair Penny Hulse were reviewing theirs:

“We tried hard to walk a middle path, but along the way got talked into supporting a legal injunction to stop the spray programme. We also funded a legal opinion from Sir Geoffrey Palmer on how to prevent the programme going ahead. We gave our community false hope and confused our role.

“It became clear we had to develop a sensible working relationship with MAF.”<sup>18</sup>

The Sir Geoffrey Palmer opinion would prove to be the peak of media interest and coverage, with a record number of calls made to the PAM hotline. Despite the legal opinion, and anti-spray reports from activists Meriel Watts and Hanafiah Blackmore released shortly afterwards, the Government stood firm in its backing for the continuing spray programme. Moth numbers were now falling fast.

## **Collapsing the residual populations**

In February 2003, for the first time in New Zealand, the sterile insect technique (SIT), long-established elsewhere, was introduced to the PAM. When male moths, rendered sterile by irradiation, mated with female moths, the resultant eggs were sterile. With moth catches dramatically down, Ian Gear said, “this, coupled with other tools, will assist in collapsing the residual populations.”<sup>19</sup>

The HortResearch team (which started in 1999) and the independent scientist Dr John Clearwater working in collaboration with colleagues in Canada continued their search to find a stable, durable, synthetic sex pheromone. The complexity of the PAM pheromone provided a number of challenges that could not completely be resolved. Meanwhile, other scientific efforts turned to trying to find a biological control for the moth – ultimately without success - in Australia, while an AgResearch team at Lincoln focused on microbial possibilities.

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<sup>18</sup> “Let’s talk” p6.

<sup>19</sup> MAF Media Release, 7-2-03: Eradication project targets moth reproduction.

In March, following four months of clear trapping results, New Lynn and Oratia became the first suburbs to be removed from the spray zone. Guided by trapping results, and a modelling tool developed by AgResearch, spray area coverage began to progressively reduce from just over 9000 ha.

### **A new intruder**

Forest Biosecurity had a new alert in March 2003. Surveillance traps in Hamilton made their first catch in ten years - an Asian Gypsy Moth. Yet another in the Lymantriid family, this moth could fly up to 80km overnight, and was on the “most wanted” forest and garden pest list. Forest Biosecurity Director Peter Thomson said ground-spraying and other control measures would begin immediately while approval was sought, using many of the PAM techniques, to attack it with aerial spray and trapping.

In May, with 20 spray operations concluded, and continuing evidence of falling PAM numbers (from a grid expanded to 1500 traps), Ian Gear featured on the TV current affairs *Sunday* programme. He told the interviewer he would have no problems if his wife and children lived in an area that was to be sprayed (a comment that would prompt accusations of child abuse). A far more unpleasant PAM experience, according to frontline workers counting and spraying the moth, was handling the prickly caterpillars. One worker had had to be removed from the job after suffering a severe allergic reaction.

Auckland University research, published in the *New Zealand Medical Journal* in March, had found that aerial spraying to wipe out the PAM had coincided with a “sharp rise in some medical problems” particularly hay fever and throat irritations. However, two thirds of residents thought their health was not affected by the spray programme, and there was no significant increase in GP visits. “The researchers say a definite link between the spraying and the complaints has yet to be established.”<sup>20</sup>

At this point, the health service was still moving a number of people out of the zone ahead of each spray operations. Some – including some that the Project Team had reason to suspect of fraudulent symptoms – were relocated for a period of time at considerable expense. “At times it was a judgment call not to challenge people, at the time at least,” Ian Gear said.

Although demand for health support services was diminishing, Cabinet in June decided to keep offering the full range as a reduced spray programme continued in winter. It was recommended that there should be a review of the scope and range of “health” services in any future campaign.<sup>21</sup>

### **The Asian Gypsy Moth**

As approval was being gained and preparations being made for a spray attack on the Asian Gypsy Moth, West Auckland anti-spray activists were already in Hamilton

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<sup>20</sup> *One News*, 14-3-03. ‘Health problems in moth spray zone’. Downloaded from [nzoom.com/onenews\\_detail/0,1227175109-1-6,00.html](http://nzoom.com/onenews_detail/0,1227175109-1-6,00.html) on 1-12-05.

<sup>21</sup> Allen and Clarke report, CO 156.

talking up health concerns. Forest Biosecurity was alarmed to find they had names, addresses and family details of pilots and staff involved in the spray operation.

On 3 October, Peter Thomson “strongly condemned some of the tactics, particularly threats against MAF staff, used by a small group of irrational and irresponsible activists opposed to the Government’s plans to eradicate the gypsy moth in Hamilton”. The “shameful practices” included threats against the health and wellbeing of MAF employees<sup>22</sup> and contractors and their families, threats of sabotage and even death threats.

A more formal attempt to block the aerial spraying of Hamilton, a motion to the High Court asking that the programme be stopped because of health concerns, was turned down on 7 October, clearing the way for eight spray runs in the next two months.

In October Ian Gear announced that the PAM spring spray campaign would reduce to 6500 ha. However, trap evidence indicated that the moth was now confined to a few stubborn hot spots. The network of female-baited traps was approaching its peak, covering 62,000 ha with 1880 traps.

By the end of 2003, some of the contracts associated with the campaign were being wound down. One of the most vocal protestors had been banned from attending Waitakere City Council meetings.

Eradication was now a distinct possibility, despite a new find in Mount Eden in January 2004. By the end of the month, no other moths had been trapped. The vast majority of results indicated it was safe to keep reducing the spray area, down to 701 ha at the start of 2004. By February 2004, as the PAM Project Team was holding its first “lessons learnt” review, the gypsy moth traps in Hamilton were proving to be empty.

On 13 May 2004, five years after the first discovery, following 40 spray operations over 69 days (and 140 postponements), management of the PAM “transitioned to business as usual”. Research and health service contracts concluded, in anticipation that eradication could be announced in May 2006.

New Zealand’s biggest ever incursion response – one of 36 being managed in 2004 - - was almost over. The PAM hotline – which had logged 128,000 calls - at last had quiet times. Total expenditure had been \$60 million, out of the \$78 million appropriated to this point. \$11 million had been spent on the health programme; a significant proportion of the health expenditure was in relocation of people during treatment days. Nearly 38,000 phone calls had been made to the health service, which had managed 26,500 “encounters”. Some 1000 people had been assisted with relocation; 1500 had been referred to doctors for assessment and 136 to specialists.<sup>23</sup>

\$1.28 million<sup>24</sup> had been spent to this point on development of synthetic pheromones which, although now existing, were not stable enough to use in trapping. Natural processes had been more effective; 240,000 female moths had been bred and, used in

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<sup>22</sup> MAF Media Release, 3-10-03: MAF condemns activists’ tactics.

<sup>23</sup> Wellington Medical School Report, in *Biosecurity New Zealand*, issue 62, page 6.

<sup>24</sup> Biosecurity Fact Sheet, MAF.

traps, captured nearly 6000 males. Three hundred thousand male moths had been reared to be sterilised, released, and complete the eradication of the painted apple moth from New Zealand, now a world centre of information about this originally unexpected and unknown intruder.