Site Contamination Public Health Impacts: Effective Risk Communication and Response Approaches

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Overview

Risk response and communication - public health contamination incidents

Examples:

- Drums contamination near playground on former landfill, New Plymouth (2009)
- Asbestos roof waterblasting near kindergarten, Auckland, North Shore (2016)
- Asbestos fires, Auckland
  - Industrial fire, Takanini (Dec. 2019)
  - Ponsonby Intermediate School (Dec. 2020)
- Interagency response protocols
- Final thoughts

Marfell Park, New Plymouth
Paritutu dumped drums discovery, 2009

Marfell Park – initial discovery and response

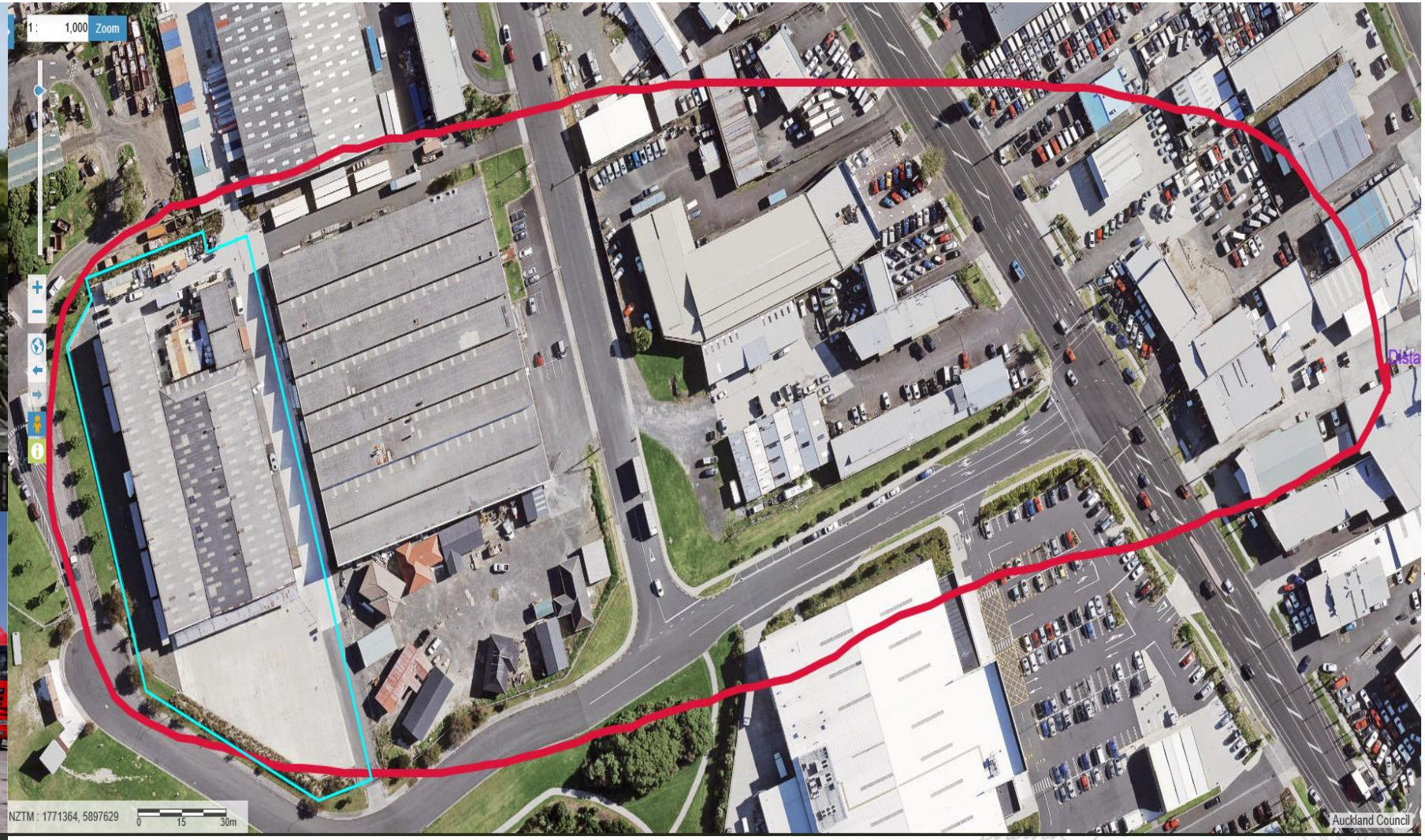
- May 2009: excavations through landfill waste for laying stormwater pipes at northern end of Marfell Park uncovered remnants of two drums amidst decomposed waste. Drum contents were tested and found to contain herbicides and elevated dioxins (tetrachlorobenzene and trichlorophenol)
- Initial response: Taranaki Regional Council undertook limited soil testing; New Plymouth District Council removed drums and 80 m^3 of waste to licensed landfill
- Early public communication and risk assessment process was lacking
- Volunteer door knock organised by local resident in June, warning about dioxin contamination and other risks from former landfill site
- TRC commissioned PDP to undertake wider surficial testing (85 soil samples) and evaluate cover depth across park
- August 2009: SQEP-assessed low level of risk was conveyed to the community

Asbestos roof waterblasting adjacent to kindergarten - Auckland, North Shore, 2016

- Kindergarten immediately brought children and staff indoors
- Contacted Ministry of Education, Auckland Council, WorkSafe
- Council's Env Health and WorkSafe conducted joint site visit
- Waterblasting works stopped
- Provided advice to kindy management – parents updated
- Air monitoring and playground swabs

A narrow lane was all that separated an asbestos affected work site from Milford Baptist Kindergarten. Photo: TOM DILLANE / FAIRFAX NZ

Takanini warehouse asbestos fire, December 2019



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Interagency response: FENZ / WorkSafe / Auckland Council

- Auckland Council (EH Response Team) visually determined the extent of ACM fallout; provided advice to all affected businesses
- Collaborative approach between WorkSafe and Council – arranged voluntary closure of all affected businesses until area made safe
- Alternative would have been Prohibition Notices placed on businesses impacted by fire
- All businesses arranged to be decontaminated via WorkSafe-certified asbestos removalist firm with cooperation of site owner, through insurance company
- Arranged with AT to close roads and clean them
- Arranged for air testing of all affected areas
- Additional support from National Public Health Services (formerly ARPHS)

Ponsonby Intermediate School asbestos fire, December 2020

- Classroom electrical fault at the school caused a fire, exploding roofing and wall panel and sending asbestos debris / dust over nearby homes, roads and cars.

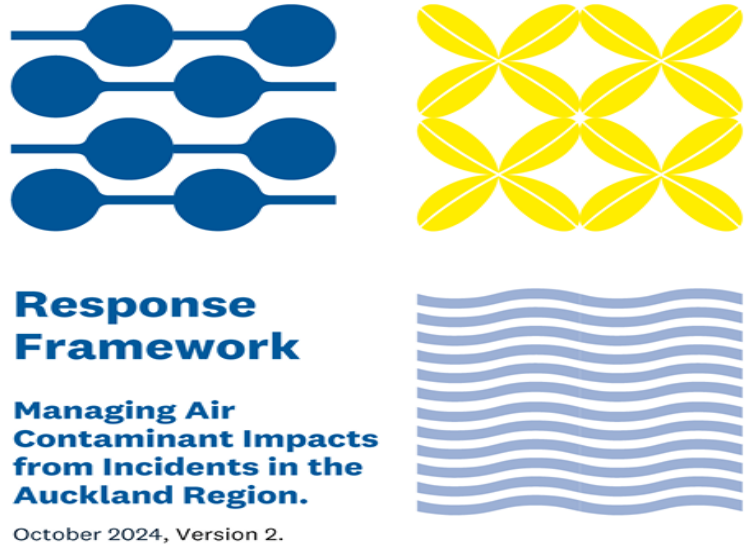
- Main issues with risk response and communication:

  - Actions / communications between key agencies (AC, ARPHS, WorkSafe) and messaging to public not well coordinated
  - School owner (MoE) unwilling to take off-site responsibility; did not coordinate its cleanup with nearby residential properties impacted by asbestos deposition
  - Multiple insurance companies involved
  - Time delays
  - Potential public health risk (actual or perceived)

- AC acknowledged initial agency coordination issues and delays – advised that all agencies involved will debrief and implement learnings for future joint responses.

Auckland: interagency contamination response and coordination initiatives

- AC: asbestos response team and laboratory
- National Hazardous Substances Coordination Committee – quarterly meetings
- Draft Multi-agency Air Contaminants Response Framework developed (2024); recent exercise to test operational readiness and coordination during an Air Contaminant Incident
- AC's Environmental Health Response Team - portable air quality meters (PM 2.5, PM10, CH4, SO2, NO2, O3)
- Gas monitoring devices - used for recent large fires (SIMS, Green Gorilla and Abilities Group, 2025): provide data to the various agencies involved when determining the risk(s) to community from smoke plume.



WorkSafe Asbestos Liaison Protocol: *To enable a co-ordinated cross-government response to asbestos related incidents and to clarify agency jurisdictions*

Asbestos Liaison Protocol Bay of Plenty/Coromandel

Liaison guidelines for Government Agencies and Councils with regulatory duties in relation to asbestos

Tauranga City · Whakatāne District Council · Thames Coromandel District Council · Toi Te Ora Public Health · Fire Emergency New Zealand · Western Bay of Plenty District Council · Bay of Plenty Regional Council Toi Moana · WorkSafe New Zealand

Effective: 02 / 10 / 2017

To be reviewed every two years—next review Date 2 October 2019

Agency	Legislation & Regulations	Regulatory roles and responsibilities in relation to asbestos
Territorial authorities	• *Local Government Act 2002* • *Building Act 2004* • *Resource Management Act 1991* • *Health Act 1956* • *Waste Minimisation 2008* • *Asbestos Regulations* • (District Plans)	**A territorial authority (TA) is a city or district council. There are 5 territorial authorities in the Tauranga, Coromandel and Whakatane area.** TAs' responsibilities include environmental safety and health, emergency management, building control, environmental health inspections, controlling the effects of land use (including hazardous substances, natural hazards and indigenous biodiversity), noise, and the effects of activities on the surface of lakes and rivers. Responsible staff: **Environmental Health Officers** and **Building Control Officers** carry out some regulatory functions, which are imposed through a range of notices, permits and resource consents that may be required in relation to asbestos. Some examples of the specific roles of the TAs in relation to asbestos include: 1. Certifying landfills to receive asbestos waste(note that many TAs also own the landfills) 2. Ensuring the listing of asbestos on Land Information documents 3. Including asbestos warnings on Building Consents for demolition and structural alteration 4. Environmental health inspections 5. Issuing Enforcement Orders requiring specific action (or prohibiting action) related to asbestos 6. Responding to nuisances (complaints) 7. Issuing Cleansing Order on owner or occupier, specifying necessary remedial work and timeframe 8. Issuing Closing Order on owner 9. Collecting and receiving asbestos waste for disposal Note that derelict or abandoned buildings are included under section 29 (*Nuisances)* of the *Health Act*; many such buildings will contain asbestos.

Final thoughts

- Sensitive public land (e.g. playgrounds in parks) - onus on councils to take prompt and effective action and communicate proactively and responsively, involving contaminated land risk assessment specialists from the outset.
- Health risk issues associated with contaminants in building materials - e.g. asbestos fires and demolition - complicated to address, especially where adjacent land has been impacted
- Expectations for public health protection agencies to work together, understand and communicate risks and the remediation strategies / accountabilities
- Regular communications and mutual trust between agencies is essential
- Asbestos / air contamination incident responses: mutual support agreements defining agency roles, operational coordination, informed decision-making and communication approaches