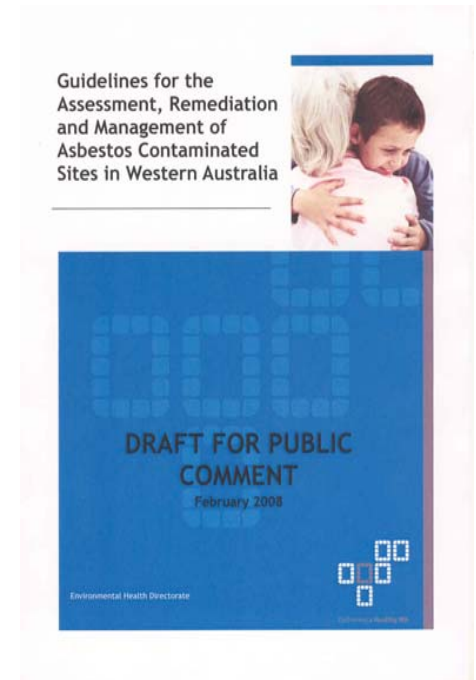


Management of Asbestos Contaminated Sites in Western Australia

John Howell - Senior Toxicologist, Environmental Health

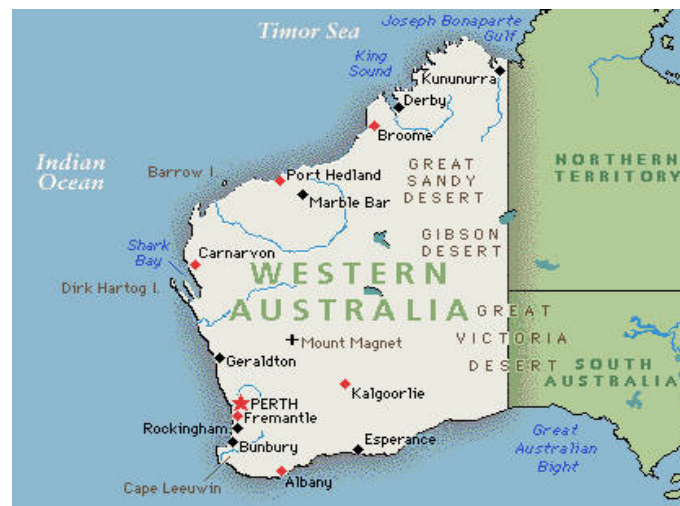
PRESENTATION OUTLINE

- Contamination Context
- Contaminated Sites Management in WA
- Asbestos in WA
- Development of Asbestos Guidelines
- Guidelines' Main Principles
- Guidelines' Contents
- 'Public' Consultation and Concerns
- The Review Process
- The Big Issues
- Questions and Contacts



Contamination Context

- 2.1 mill people, highly urbanised despite area
- Major mining and agriculture industries
- Industrial support base incl for self-sufficiency
- Recent economic boom -> land development



Contaminated Sites Management in WA

- Strong environmental laws, esp Cons sites
- *Contaminated Sites Act 2003(CSA)* - includes
 - mandatory reporting
 - classification, often with memorial on title (MOT)
 - management &
 - adjudication of responsibility
- Department of Environment & Conservation (DEC) main regulator
- DEC Contaminated Sites Management Series (CSMS) provides main guidance
- Department of Health (DOH) primarily health advice

Asbestos in WA



- Major source of crocidolite until 1966
- Other asbestos widely used in building products till 1987
- Most period buildings/fences contain asbestos
- Demolition and disposal regulated
- Problems with demolition, dumping recycling -> soil contamination
- DOH key advisor because of health effects



Development of Asbestos Guidelines - 1



- Asbestos increasingly important WA contaminant due to:
 - ubiquity; boom; CSA; rising awareness
- More than CSMS or enHealth required
- -> “Guidelines for Assessment, Remediation and Management of Asbestos CS in WA”
- Developed over the last 3-4 years

Development of Asbestos Guidelines - 2



- Primarily for consultants, auditors & regulators
- Based on enHealth & DOH policy, taking account of literature & best international practice
- Also reflect local contamination circumstances and analytical capability
- Limited external comment provided

Guidelines' Main Principles

- Practical & conservative
- Built upon key assumptions
 - Health effect equivalence of different fibre types
 - Asbestos containing material (ACM)->fibre eventually
 - Uncontrolled fill is suspect, and a positive implicates the whole fill
 - Difficult demonstrate site is "safe"
 - Remediation and management (ie MOT) are negligible risk equivalents
 - Exposure should be minimized

Guidelines' Contents

- Includes: Intro; PSI; DSI; Sampling & Analysis; Risk Assessment, Remediation & Management; and Reporting - also originally a Rationale
- Critical elements include:
 - 0.001% w/w contamination criteria
 - 0.01f/ml air quality limit
 - Double density sampling regimen
 - 3m depth contamination cut-off
 - 20cm diameter auger & test pits
 - An emphasis on ACM
 - Minimisation of public risk, sampling, soil disturbance and material to landfill



'Public' Consultation & Concerns

- Draft issued Feb08 for 3mth 'public' comment
- Included Apr08 workshop that captured issues
- Primarily from Regulators, Industry, then Consultants
- Generally supported but concerns about:
 - Length, language and legal status
 - Tailoring of action to risk, with justification
 - Usability
 - Technical completeness and emphasis
 - Financial/time impacts, and phasing
 - Rationalisation in relation to CSMS

The Review Process

- Comments substantial & often justified
- Now tabulated and internal review occurring
- Major changes likely within current framework
- DOH cannot afford dramatic changes/rethink
- Progress highly situation dependent and fragile
- Advisory released re Guidelines status & timeline
- Aim to complete by end 2008

The Big Issues - 1



- The 0.001% w/w soil limit:
 - Is it "safe"?
 - Should it apply for different uses?
 - Should it vary with condition/form of asbestos?
 - Compatible with analytical methods?
 - Is it major financial/time impost?

The Big Issues - 2



- Management tailored to risk
 - What risk assessment model to use?
 - Level of transparency and justification
 - Land uses and exposure scenarios to cater for
 - Correlation with investigation, remediation and validation requirements
 - Exclusions and trigger points
 - Role of consultant risk assessments

The Big Issues - 3



- The 0.01 f/ml air quality limit:
 - Is it "safe"?
 - Application in different community settings?
 - Should it vary with condition/form of asbestos?
 - Triggered by what activities and asbestos concentrations?
 - Compatible with analytical methods?

Questions



CONTACT US



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Draft Asbestos Guidelines available at:

<http://www.health.wa.gov.au/envirohealth/hazards/asbestos.cfm>