

# Management of Asbestos Contaminated Sites in Western Australia

John Howell - Senior Toxicologist, Environmental Health



# Presentation Outline

- Contextual Information
- Concerns and Changes
- The Soil Criteria
- The Air Criteria
- Risk-Based Management
- Other Key Elements
- Future Plans



# Contextual Information

- Extensive asbestos use in uncontrolled fill & building products up to late 1980s
- Major issue due to redevelopment & *Contaminated Sites Act 2003* of Dept Environment and Conservation (DEC)
- DEC depends on Department of Health (DOH) for asbestos advice, which derives from enHealth 2005 & unpublished DOH policies
- Need for more detailed guidance which has resulted in Guidelines for Assessment, Remediation & Management of Asbestos-Contaminated Sites in WA
- Feb 2008 Draft extensively revised based on public comment, DOH workshop, discussion papers, interim experience, selective comment & 2008 CRC workshop
- Promulgation is imminent



# Concerns and Changes

- Legal - language, authority, reconciliation & enforcement
- Editorial - length, repetition, clarity & usability
- Resource impacts - cost/time imposts, phasing & regulatory servicing
- Technical issues - risk basis especially soil/air criteria & management processes, including justification, the “big issues”



# The Soil Criteria (0.001% w/w)

- Based on ca  $10^{-6}$  life risk, work by Swartjes & Tromp, NEPM
- **NEW SOIL ASBESTOS SCREENING/CLEANUP CRITERIA**
- 0.001 % w/w asbestos for FA and AF – All site uses
- 0.01 % w/w asbestos for ACM – Residential use
- 0.04 % w/w asbestos for ACM - Residential, min soil access
- 0.02 % w/w asbestos for ACM – Parks, POS, etc.
- 0.05 % w/w asbestos for ACM - Commercial/Industrial
- Free of ACM in top 10cm of soil
- Provision for site-specific target levels
- ACM = asbestos containing material, FA = Fibrous asbestos, AF = Asbestos fines



# The Air Criteria (0.1 f/ml)

- Based on enHealth 2005 & ca  $10^{-6}$  exposure risk
- DOH to retain 0.01f/ml by membrane filter method
- Also emphasis on Dust Management Plan
- For asbestos fibre contamination <0.1% w/w, adherence to NEPM PM10 provides surrogate asbestos control measure



# Risk-Based Management

- Tiered Risk Assessment Process
- Soil criteria reflect land use
- Simplified investigation and management regime for small low risk contaminated residential sites
- Sampling densities based on contamination risk
- Depth of clean-fill cover depends on land use
- Purchaser brochure



# Other Key Elements

- Sampling minimisation, simplification, effectiveness
- Use of ACM if possible as contamination measure
- Guidance on analysis reporting
- Remediation should minimise public risk, soil disturbance & off site disposal
- Promotion of contamination management *in situ*
- Guidelines Summary is available



# Future Plans

- Dissemination & Gazettal in next few weeks
- Development & circulation of transition guidance
- Embark on program of asbestos presentations
- Preparation of a Asbestos Factsheet for public
- Review of DOH *Health Asbestos Regulations* & harmonise with OHS Asbestos Demolition Regs



# CONTACT US

- John Howell – asbestos & contaminated sites health issues
  - [john.howell@health.wa.gov.au](mailto:john.howell@health.wa.gov.au) – 08 93884984
- Martin Matisons – Manager - all chemical pollution health issues
  - [Martin.matisons@health.wa.gov.au](mailto:Martin.matisons@health.wa.gov.au) – 08 93884946

Asbestos Guidelines will be available at:

<http://www.public.health.wa.gov.au/2/867/2/asbestos.pm>

