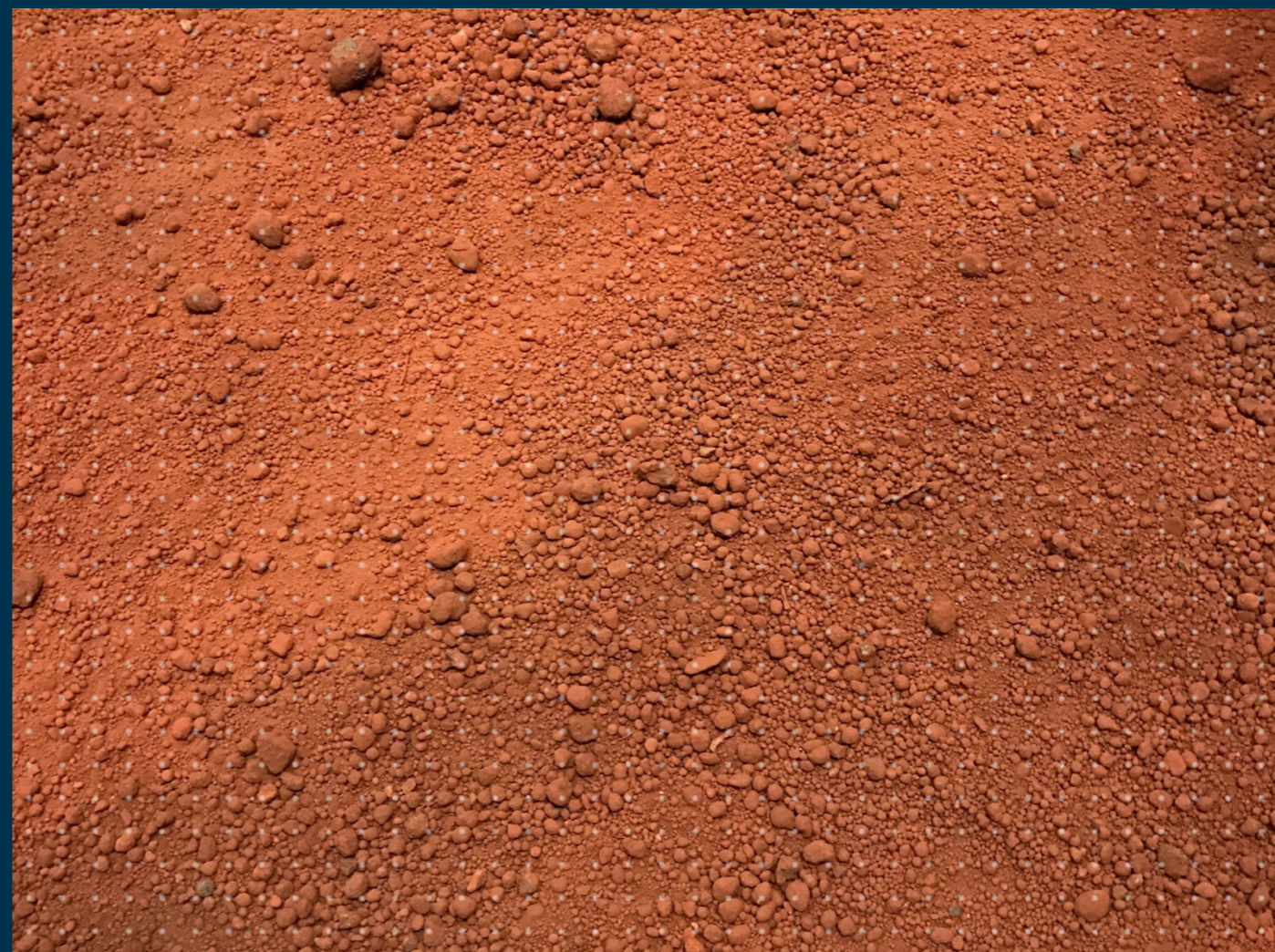


Environment Protection Authority

Contaminated Land Advice and Audit Team Update

Jo Graham

21 October 2022



Direct Accreditation Round 2022

- New Accreditation Panel – appointed June 2022 for 3 years
- Application deadline was 1 August 2022
- Applications assessed by the panel and successful applicants invited to take exam
- Exam held on 20 September 2022
- Interviews to be held with Panel on 24 / 25 October 2022

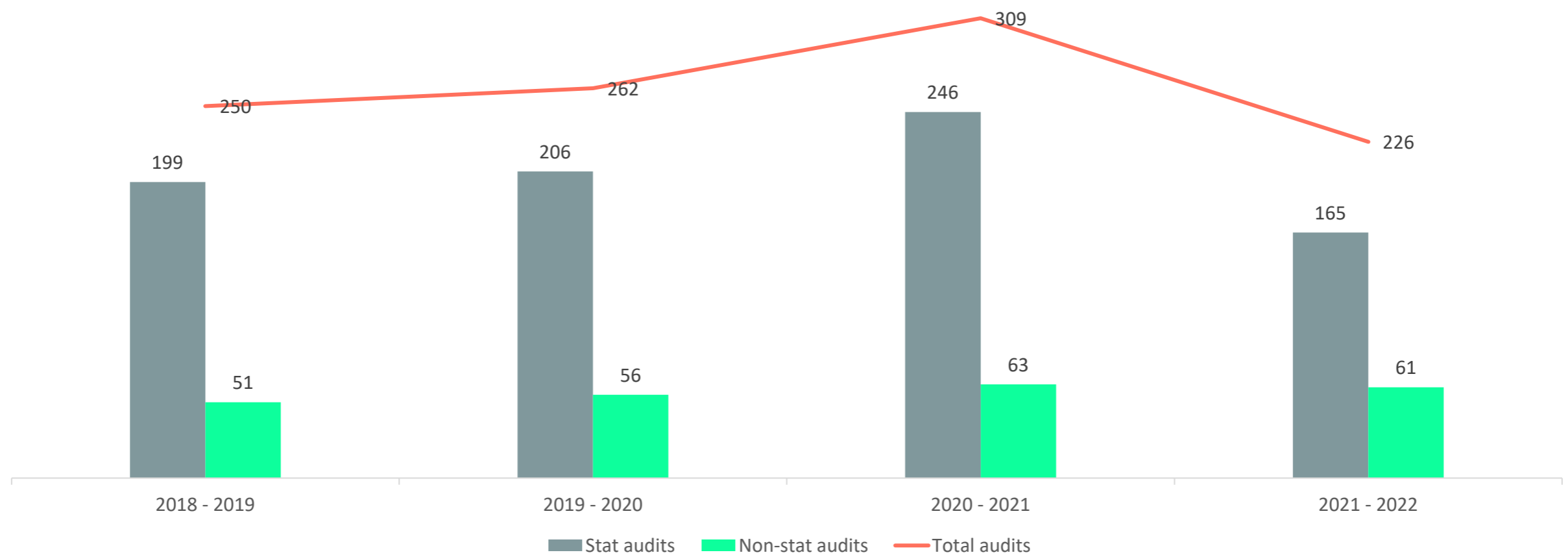
Annual Returns 2021 - 2022

- 226 audits completed (2020/21 – 309)
- 38 audits terminated (202/21 – 45)
- 798 audits ongoing (2020/21 – 707)
- 243 stat audits commenced (2020/21 – 300)

Of the audits completed:

- 28 auditors < 5 audits (27 – 2020/21 ; 31 – 2019/20 ; 28 - 2018/19 ; 32 – 2017/18)
- 6 auditors 5-10 audits (6 – 2020/21; 5 – 2019/20 ; 4 – 2018-19 ; 5 – 2017/18)
- 9 auditors 10-20 audits (8 – 2020/21; 6 – 2019/20 ; 11 – 2018-19 ; 5 – 2017-18)
- 1 auditor >20 audits (5 – 2020/21; 4 – 2019/20 ; 1 - 2018-19 ; 2 – 2017/18)

Completed Audits 2018 to 2022



SLIDO feedback – expansion of auditor scheme to include auditing of Landfills

- 97% of auditors have expertise required or can access expertise internally
- additional technical support in landfill engineering/design particularly with QA/QC on lining, capping and landfill gas systems.
- 64% of auditors would like landfill auditing under the existing scheme; 22% don't mind; 14% prefer landfill auditing is covered by a separate scheme.
- concerns raised around the different expertise required for landfill auditing, particularly engineering aspects and also that landfills are covered under the POEO Act rather than CLM Act.
- To address concerns it could be an opt in/opt out accreditation but legislation would need to be amended.

Next steps

- EPA reviewing the Environmental Guidelines for Solid Waste Landfills to ensure that the key areas are auditable.
- Given the interest in auditing landfills we are examining the best approach to implement a scheme, noting the legislative and auditor scheme requirements.
- The key is ensuring the scheme will be fit for purpose.

NEMP 3.0 Consultation

- PFAS NEMP version 3.0 is now out for consultation - <https://haveyoursay.agriculture.gov.au/nemp-on-pfas>
- Online consultation session with NSW Auditors – mid November

CLM Regulation 2022

- Minor amendments to the requirements for annual returns
- enable the EPA to waive or refund the accreditation fee payable by a site auditor in certain circumstances (for example parental leave)
- Minor amendments required to the Guidelines for the NSW Site Auditor Scheme

Updates / reminders / admin

- Automatic Mutual Recognition – EPA received a 1 year exemption from AMR – ends 1 July 2023
- Auditors are independent and do not work on behalf of EPA
- Reminder to terminate audits where no involvement/activity for some time – termination notices (EPA / consent authority)
- Reminder to attach EMPs / RAPs to SASs when required
- Proof read SASs for errors and remember to sign

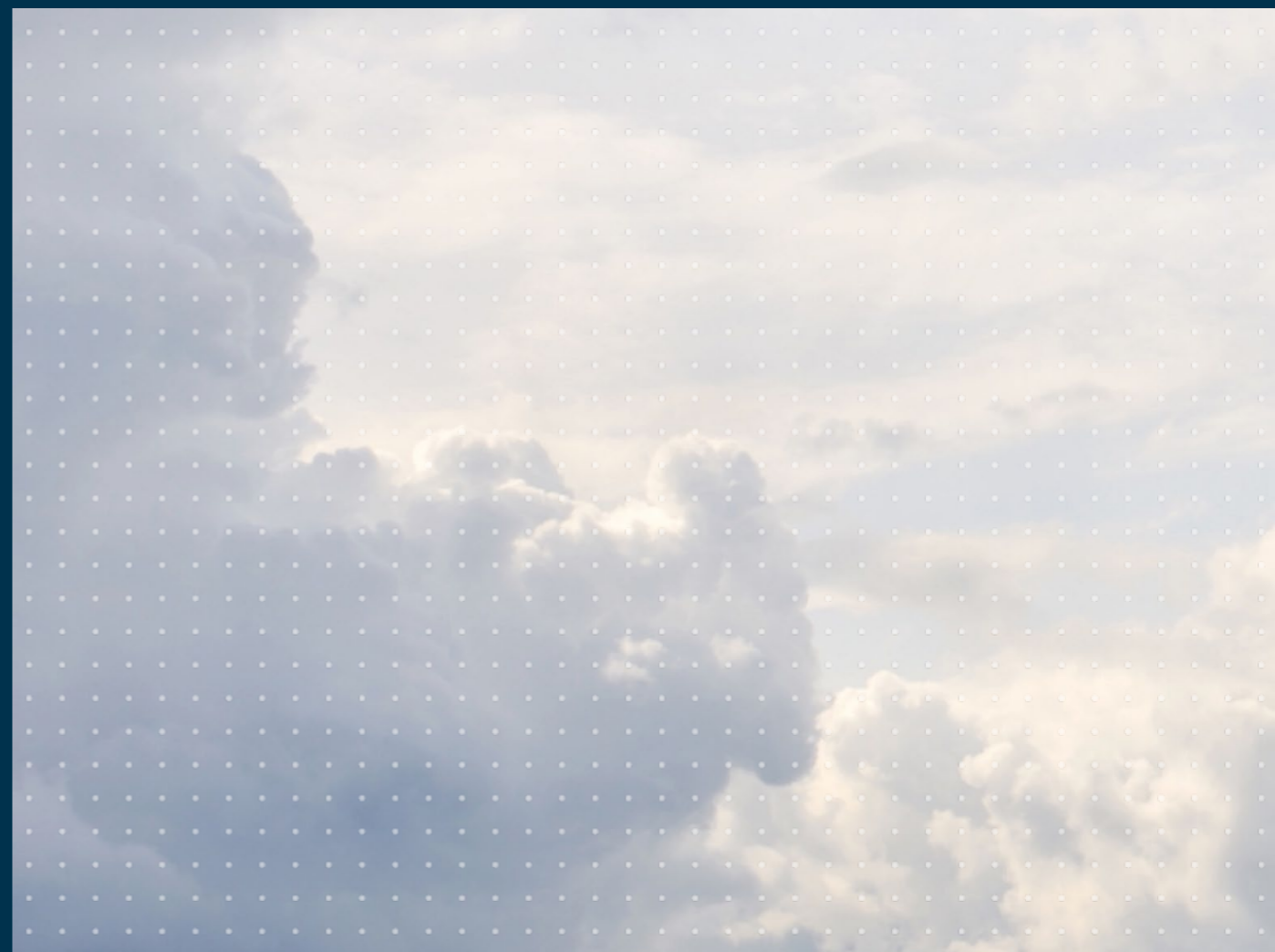
Environment Protection Authority

LAND AND RESOURCES POLICY

UPDATE

Joanne Stuart

October 2022



CONTENTS

1. Draft Climate Change Policy and Action Plan
2. NSW Position on WA Guidelines
3. Review of the Resource Recovery Order & Exemption Framework
4. Miscellaneous updates

Environment Protection Authority

Draft EPA Climate Change Policy and Action Plan 2022-2025



October 2022

Our draft Climate Change Policy and Action Plan 2022 - 2025

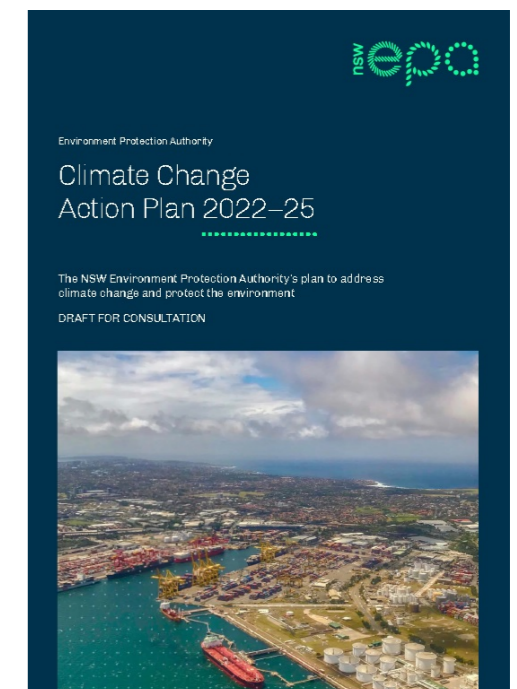
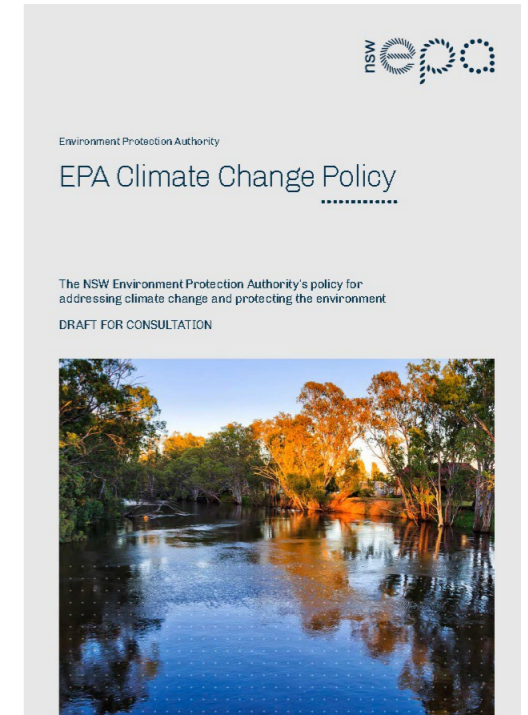


Our draft policy

- Describes the causes and consequences of climate change in NSW.
- Outlines our commitment to deliver on our statutory objectives and duty to address climate change and our Strategic Plan 2021–24 commitments.
- Adopts, supports and builds on the NSW Government’s overarching climate change objectives to:
 - Achieve a 50% reduction in emissions by 2030 and net zero emissions by 2050
 - make NSW more resilient and adapted to a changing climate
- Gives our stakeholders certainty on our evolving climate change regulatory approach.

Our draft action plan

- Describes how we’ll deliver on the objectives of the policy.
- Outlines the specific actions we’ll take over the next three years, as part of our evolving regulatory response to climate change.
- Signals the stronger regulatory action we intend to take over the medium- to longer-term, if required.



Our climate change actions

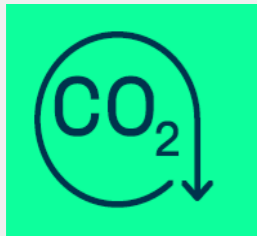


Our draft action plan describes new and continuing actions under three pillars



Inform & plan:

Working with industry, government and experts to improve the evidence base, decision making and regulatory response to climate change



Mitigate:

Establishing cost-effective approaches to support further emissions reductions in key industry sectors, or part sectors



Adapt: Developing and implementing programs and regulatory approaches to ensure EPA and its regulated industries are more prepared for, and resilient to climate change impacts

Have your say



Submissions can be made up until 3 November 2022

Have your say – EPA consultation portal

<https://yoursay.epa.nsw.gov.au>

- Draft documents
- Frequently asked questions
- Fact sheets

Make a submission

- Feedback survey at <https://yoursay.epa.nsw.gov.au>
- Email us your submission:
ClimateChange.review@epa.nsw.gov.au



More information

- Our website: epa.nsw.gov.au/your-environment/climate-change
- Email us: ClimateChange.review@epa.nsw.gov.au

NSW Position on WA Guidelines on asbestos contaminated soils



Update on NSW position on WA Guidelines

- We are very aware of the auditors' concerns, and there's a lot of work going on behind the scenes to address these
- The implications around an acceptable threshold and allowing processing/reuse extend beyond the CLM industry – need to ensure we have risk based but pragmatic policy in place going forward
- We're co-ordinating with other agencies and other work being done in this space, including the review of the RRF and the work of the NACC
- An interim approach is being finalised and will be provided shortly – will provide guidance on what to do until the policy position on reuse is finalised (as previously updated, continue with BAU for the time being)
- We will undertake targeted consultation on any amendments to the Position Paper

Review of Resource Recovery Order and Exemption Framework



Resource Recovery Framework – An independent review

- Dr Cathy Wilkinson delivered her review findings on 30 September – published on the EPA website
- Made a number of recommendations (22 in total) including:
 - The EPA should consider changes to resource recovery orders and exemptions such as making the application, assessment and decision making process clearer and more transparent,
 - The EPA should seek the advice of independent technical experts through establishing an expert panel/s and publishing a clear protocol for constituting such group/s
 - The EPA should investigate options for an internal review process for certain decisions on resource recovery orders and exemptions

Further recommendations

- The EPA should investigate a pathway to enable an “end-of-waste” outcome for suitable common, low risk recovered materials to better enable reuse
- The EPA should develop and implement regulatory plans targeting specific waste industry sectors and use a wider range of regulatory tools
- The EPA should implement a program to proactively investigate emerging contaminants and better engage with stakeholders regarding emerging contaminants
- A scientific expert external to the EPA should review and provide advice on the NSW approach to management of asbestos contaminants in waste and recovered materials. The review should include, but not necessarily be limited to protection of human health and the environment and consideration of opportunities and constraints of beneficial reuse.
- We are currently reviewing and considering our formal response – will be made publicly available

Miscellaneous Updates



Review of contaminated land information on planning certificates

- We conducted a review to better understand how local councils present contaminated land information on planning certificates required under section 59(2) of the CLM Act
- Councils varied significantly on how information was provided
- Prepared a report which makes recommendations about how to address the identified issues and provide guidance for councils
- Councils given an opportunity to review and provide comment prior to report being published on EPA website

Review of contaminated land consultant certification policy

- Reviewed policy in 2021
- Completed review report and report of submissions in May 2022 – now published on the EPA website
- Certification schemes provided with feedback regarding administration of schemes and asked to respond
- No significant changes to policy

Environment Protection Authority

EPA Litigation – Waste Prosecution of Fayed Afram

A short summary of EPA v Fayed
Afram

Jim Marshman

October 2022



EPA Prosecutions – An emerging trend



- The EPA Waste Crime Taskforce has noticed an emerging trend in the waste industry over the last 5 years in relation to the creation and provision of falsified weighbridge disposal dockets
- Section 144AA of the *Protection of the Environment Operations Act 1997* provides it is an offence to supply information about waste, in the course of dealing with that waste, that is false or misleading in a material respect
- Penalties can be up to 18 months imprisonment for an individual if the person knew the information was false or misleading, and up to \$1,000,000 for a corporation in the same circumstances.
- The EPA has run a number of matters under this provision, including the case of *Environment Protection Authority v Fayed Afram* [2022] NSWLEC 38
- <https://www.caselaw.nsw.gov.au/decision/17fd414a78f6a719195c6bf0>

The Green Square Site

- In 2017, Ertech Pty Ltd entered into a contract with SSADCO Contractors Pty Ltd to cart and dispose of asbestos and restricted solid waste from the Green Square development site
- At the time, Mr Fayed Afram was a director of SSADCO
- As part of the works completed at the Green Square development site, the owner of the property, City of Sydney Council, engaged AECOM to complete an audit to ensure waste removed from the site had been disposed of directly
- Between July 2016 and September 2017, approximately 600 truckloads of waste was taken from the Green Square development site

EPA v Fayed Afram



The Creation of Dockets

- Between 26 October 2016 and 28 August 2017, Mr Afram sent a number of emails to a representative of Ertech Pty Ltd purporting to be weighbridge disposal tipping dockets and weighbridge waste disposal transaction reports from the landfill run by Suez Recycling & Recovery Pty Ltd at which the waste had purportedly been disposed
- The weighbridge disposal dockets and weighbridge reports had in fact been created by an IT/data entry person by the name of Mr Eddie Issa, after he was supplied the details from Mr Afram
- Mr Issa would then enter those details into a preformatted template which generated weighbridge disposal tipping dockets and weighbridge waste disposal transaction reports and provide those documents to SSADCO's office administration assistant, Ms Naha Haklane

Client Deliveries by Contract and Product

for period: 17/01/2017 12:00:00AM to 17/01/2017 11:59:59PM

Ticket No.	Date - Time Out	Vehicle	Vehicle	Product	Net (Tonnes)	Quantity
Site: Elizabeth Drive Waste Management Centre						
Client: 700286 - SSADCO CONTRACTORS						
Contract: 700286 EDL (119744) 1/8/16 - 30/12/2017						
ED310341421.0	17/01/2017 08:30:00 AM	CH40WF		Asbestos Contaminated Material - 8032	11.8	
ED310341425.0	17/01/2017 08:40:00 AM	CF78XU		Asbestos Contaminated Material - 8032	11.3	
ED310341427.0	17/01/2017 08:45:00 AM	CJ58MF		Asbestos Contaminated Material - 8032	11.8	
ED310341432.0	17/01/2017 11:10:00 AM	CJ58MF		Asbestos Contaminated Material - 8032	10.7	
ED310341461.0	17/01/2017 11:55:00 AM	CJ58MF		Asbestos Contaminated Material - 8032	11.2	
ED310341463.0	17/01/2017 11:58:00 AM	CF78XU		Asbestos Contaminated Material - 8032	10.9	
ED310341465.0	17/01/2017 12:00:00 PM	CH40WF		Asbestos Contaminated Material - 8032	11.8	
ED310341473.0	17/01/2017 12:15:00 PM	CK33JD		Asbestos Contaminated Material - 8032	10.9	
ED310341498.0	17/01/2017 12:40:00 PM	CK33ZS		Asbestos Contaminated Material - 8032	11.8	
ED310341510.0	17/01/2017 02:10:00 PM	CJ58MF		Asbestos Contaminated Material - 8032	11.8	
ED310341520.0	17/01/2017 03:00:00 PM	CK33JD		Asbestos Contaminated Material - 8034	11.5	
ED310341533.0	17/01/2017 03:55:00 PM	CH40WF		Asbestos Contaminated Material - 8035	10.8	
ED310341549.0	17/01/2017 04:30:00 PM	CJ58MF		Asbestos Contaminated Material - 8036	11.7	
Product Totals:					147.8	
Contract Totals:						

report printed: 17/01/2017 5:00PM Client Deliveries by Contract

Head Office Mandalay



Elizabeth Drive Wastewater Management Centre
1725 Elizabeth Drive
Kemps Creek NSW 2178
Phone: 1300 651 116
ABN: 70 002 902 650

Ticket No: ED310341427.0
Time In: 17/01/2017 08:45:00 AM
Time Out: 17/01/2017 08:59:00 AM
Vehicle Rego: CJ58MF

700286 - SSADCO CONTRACTORS
Cust Ref:

Asbestos Contaminated Material - 8032
11.800t
Source: External
Dest: Elizabeth Drive Asbestos Waste
GROSS 27.30t
TARE 15.50t
NET Weight 11.80t
Chargeable Weight: 11.80t
Each Item Weight: 0.00t

Total (ex GST):
GST :

Total Price:

Payment Details:

Temporary Acc:

Total Price:

Total Amount Tendered:

Change Given

Operator: W032W



Elizabeth Drive Wastewater Management Centre
1725 Elizabeth Drive
Kemps Creek NSW 2178
Phone: 1300 651 116
ABN: 70 002 902 650

Ticket No: ED310341452.0
Time In: 17/01/2017 11:20:00 AM
Time Out: 17/01/2017 11:28:00 AM
Vehicle Rego: CJ58MF

700286 - SSADCO CONTRACTORS
Cust Ref:

Asbestos Contaminated Material - 8032
10.700t
Source: External
Dest: Elizabeth Drive Asbestos Waste
GROSS 26.80t
TARE 16.10t
NET Weight 10.70t
Chargeable Weight: 10.70t
Each Item Weight: 0.00t

Total (ex GST):
GST :

Total Price:

Payment Details:

Temporary Acc:

Total Price:

Total Amount Tendered:

Change Given

Operator: W032W



Elizabeth Drive Wastewater Management Centre
1725 Elizabeth Drive
Kemps Creek NSW 2178
Phone: 1300 651 116
ABN: 70 002 902 650

Ticket No: ED310341488.0
Time In: 17/01/2017 12:40:00 PM
Time Out: 17/01/2017 12:51:00 PM
Vehicle Rego: CJ43ZS

700286 - SSADCO CONTRACTORS
Cust Ref:

Asbestos Contaminated Material - 8032
11.600t
Source: External
Dest: Elizabeth Drive Asbestos Waste
GROSS 26.60t
TARE 15.00t
NET Weight: 11.60t
Chargeable Weight: 11.60t
Each Item Weight: 0.00t

Total (ex GST):
GST :

Total Price:

Payment Details:

Temporary Acc:

Total Price:

Total Amount Tendered:

Change Given

Operator: W032W

Investigation

- As part of their audit of the works, AECOM were provided with the waste disposal information that had been supplied by SSADCO, including the weighbridge disposal dockets and the invoices
- As part of this audit, AECOM discovered inconsistencies with the supplied dockets and invoices, including spelling errors, duplication of docket reference numbers, inconsistent waste type information within the dockets and tipping times that were outside of the landfill operating hours
- AECOM supplied this information to City of Sydney Council, who in turn advised Ertech Pty Ltd and the NSW EPA. Ertech then presented this information to the NSW Police.
- As a result, the NSW EPA and NSW Police commenced an investigation into the supply of the dockets and the disposal of the waste material from the Green Square development site

Kulnura

- The EPA and NSW Police investigation also uncovered that waste material from the Green Square development site had been taken to a residential property located at Kulnura
- At the Kulnura property, an estimated total weight of 11530 tonnes of waste was taken to Kulnura under the direction of Mr Afram, with approximately 4050 tonnes of this originating from the Green Square development site
- Due to the presence of asbestos throughout the material, all of the imported fill material at the Kulnura property was classified as asbestos waste, with a portion also classified as restricted solid waste

Result

- Convicted for four offences, 1x land pollution under section 142A of the POEO Act and 3x false or misleading offences under section 144AA(1) of the POEO Act
- Fined a total of \$240,000 (comprising \$127,500 for land pollution and \$112,500 for false or misleading)
- Ordered to publicise the details of the offence, EPA's investigation costs of \$125,000 and legal costs \$95,000

The role of the auditor

- This case helps demonstrate the important role that site auditors can play in relation to verifying the transportation and disposal of waste material
- Close examination of the waste disposal information by AECOM, helped ensure that the offending conduct was brought to the attention of the relevant authorities, and appropriate regulatory steps could be taken
- Weighbridge disposal dockets might not always be as they seem, for example as shown in the recent case of *Environment Protection Authority v Munaf Al-Sarray* -
<https://www.caselaw.nsw.gov.au/decision/17fd414a78f6a719195c6bf0>
- *Questions?*



Contaminants in Uncontrolled Fill. What is Really There? Are We Over-analysing?

Paul Moritz

Dave Walker

Observation and Hypothesis

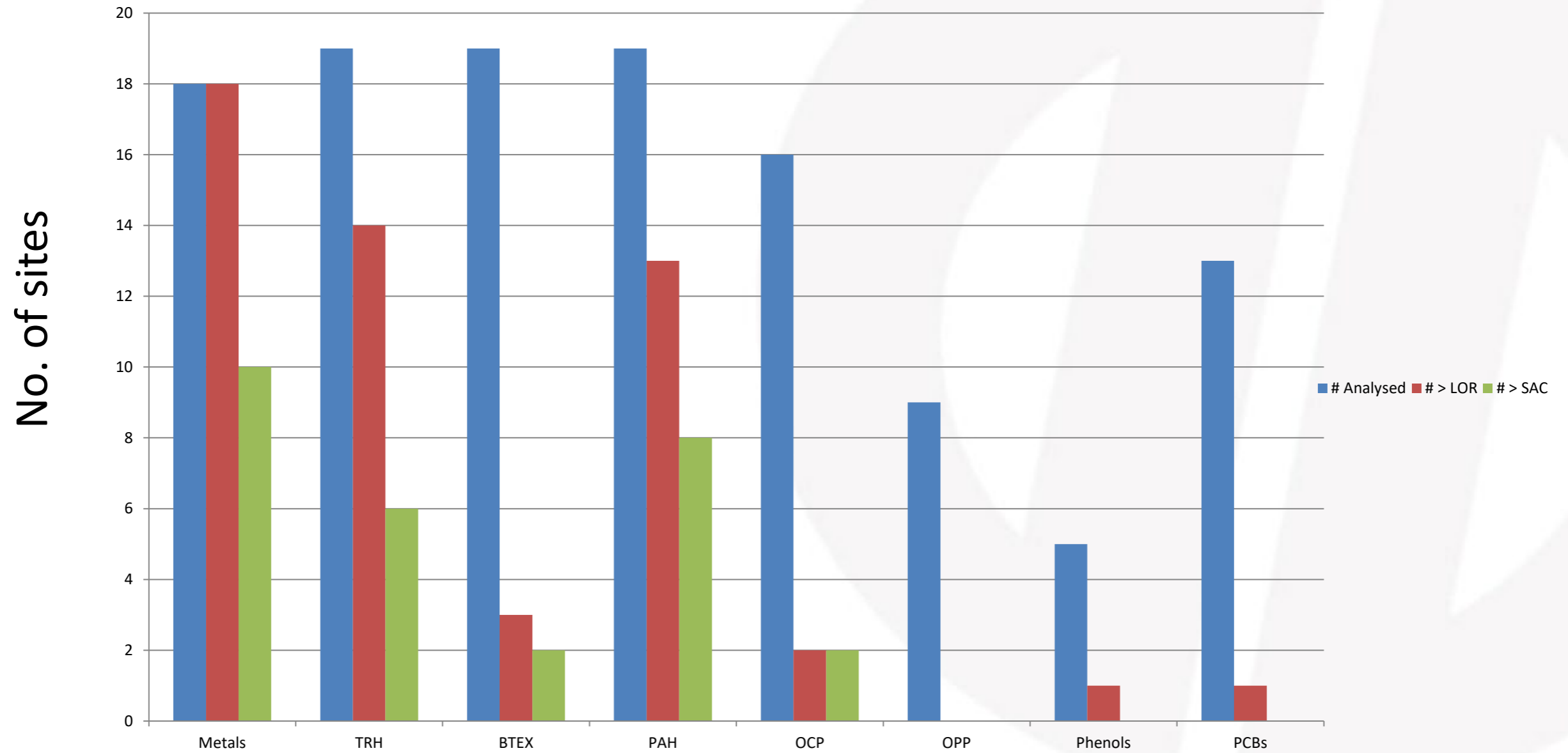
- Observation:
 - Filling of unknown origin, CoPCs identified as:
 - **Metal**
 - **Phenols**
 - **S**
 - **OCP**
 - **PAH**
 - **OPP**
 - **TRH**
 - **PCB**
(the mystery four)
 - **BTEX**
- Hypothesis:
 - Phenols, OCP, OPP and PCB are unlikely to be found in uncontrolled filling

Data Sources

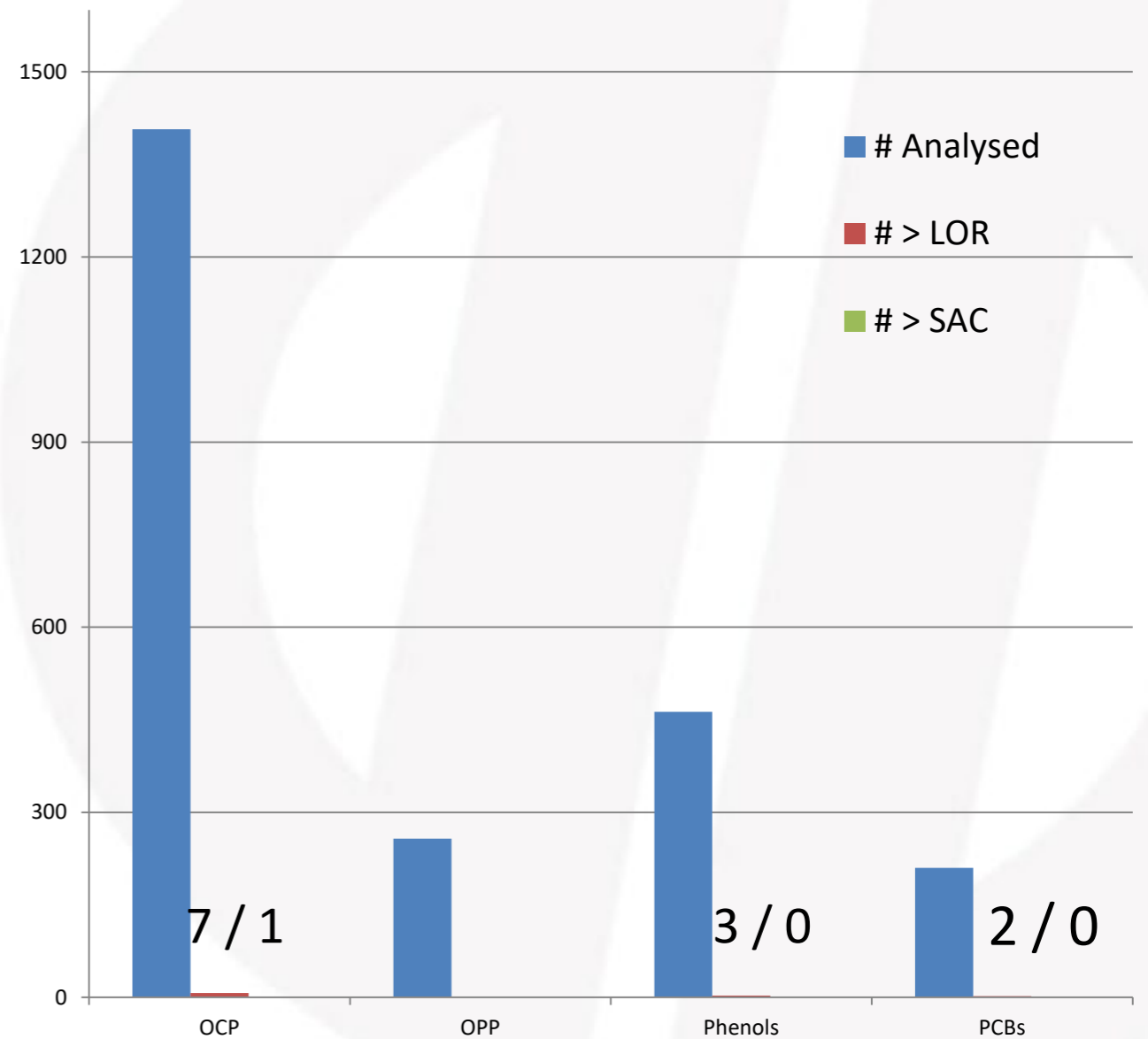
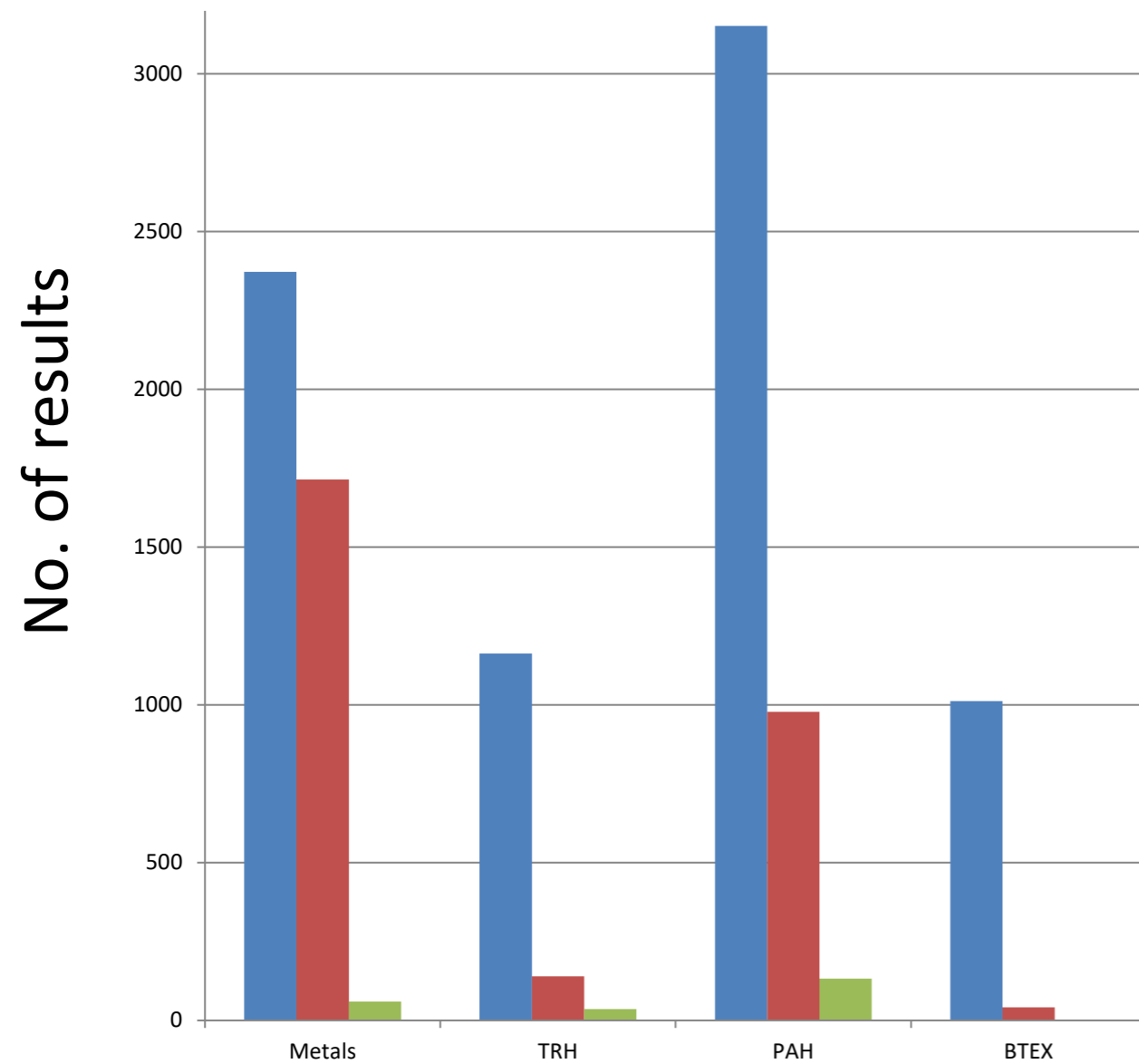
- Examine analytical data from a range of sites
 - uncontrolled filling noted in PSI
 - seek out the mystery four

	MEL	SYD	BNE	WOL	TVL	DWN
Investigation	-	1	2	4	3	1
Audit	3	5	-	-	-	-

Testing results (I)



Testing results (II)



Limitations on data

- Small sample size
 - 19 sites only
- Selection bias
 - Sites selected by one person based on reviews
- Data presentation
 - “total” results vs individual analytes - inconsistent
 - “> LOR”
- Descriptions of lithologies
 - filling identified vs sample depth

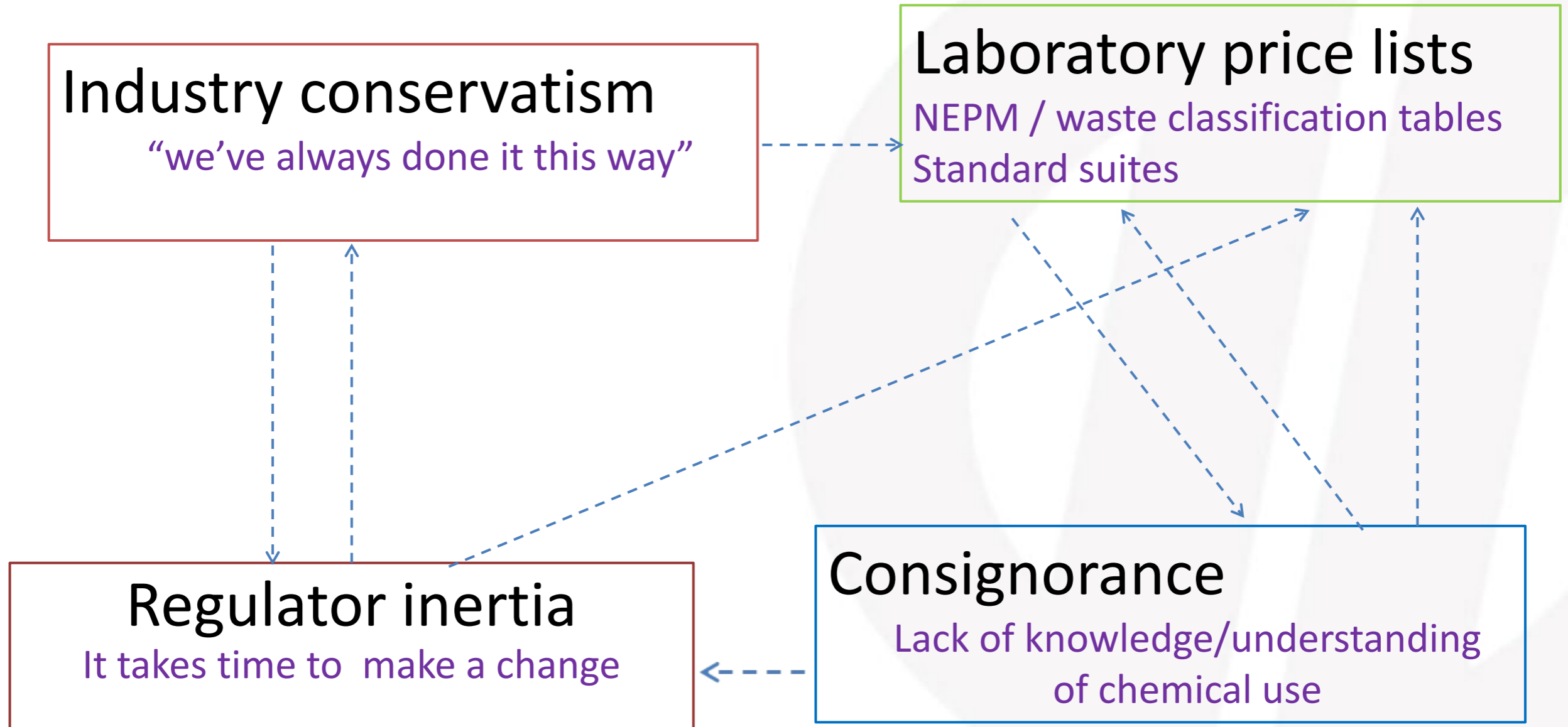
PCBs in Recycled Products (a special case)

- Recycled Dense Graded Base imported for use as fill (2 sites)
 1. Aroclor 1254 (0.2 to 1.2 mg/kg)
 2. Aroclor 1254 <0.1 – 5.9 mg/kg)
- Aquatic Centre *in situ* fill
 - Aroclor 1254 0.2 – 6.4 mg/kg
 - Confirmed in subsequent excavated stockpiles
- Caulking / waterproofing the source

Are We Over-analysing Fill?

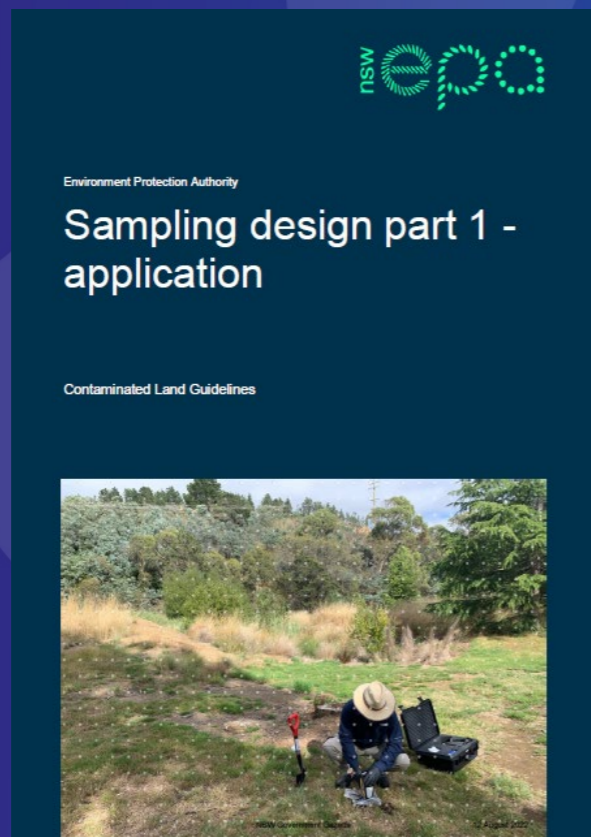
- We probably
 - Yes in the case of OPPs, phenols
 - Maybe in the case of OCPs
- PCBs
 - Need to better understand the nature of fill
 - Building rubble a possible indicator we should be looking for it

Possible Reasons Why





Sampling Design Guidelines 2nd Edn



NSW Auditors' meeting

Dr Sara Arthur
21 October 2022

Presentation Outline

- Guideline development process
- What's changed between 1st & 2nd edition
- Things you need to know
 - Table 2
 - Stockpile sampling
 - Emphasis on stratified sampling
 - Determining n
 - Non-detects
 - *Responses to questions*

Sampling Design Guideline Development Process

1. EoI for a Guideline scope
2. Deliverable – Scope for the guidelines
3. EoI for preparation of the guidelines
4. Deliverable – draft guidelines
5. **EPA and Science internal consultation**
6. **Limited external consultation**
7. Technical internal editing
8. Specialist internal editing
9. **Deliverable – Check that the intent survived editing**
10. **Public Consultation**
11. **Deliverable – External editing and response to comments**
12. Internal consultation



Final Document



What's changed 1st to 2nd edn



- **Site History** – in line with NEPM.
- **Stratified** sampling regime to bring it into line with current practice is described in more detail.
- Following the **DQO** process including the development & use of **Conceptual Site Models (CSM)**.
- Minimum number of sampling locations has gone up from 5 to 8, mainly to better enable statistical analysis (Table 2, Section 5).
- **Fill** is required to be tested on a systematic sampling regime.
- Requirement for a site walkover & description plus “confirmatory sampling” if sampling density is <Table 2.

What's changed – cont'd

- Advice to keep systematic (probabilistic) results separate from judgmental (targeted) results, BUT can calculate 95%UCLs using all results, if a discussion on the impact on the results is included.
- Stockpiles – sampling density tables – BUT can refer to Section 7.
- Asbestos in stockpiles.
- Determining n – new method and more flexibility than in the 1st edition – Section 7 and Appendices E & F.

What's changed – cont'd

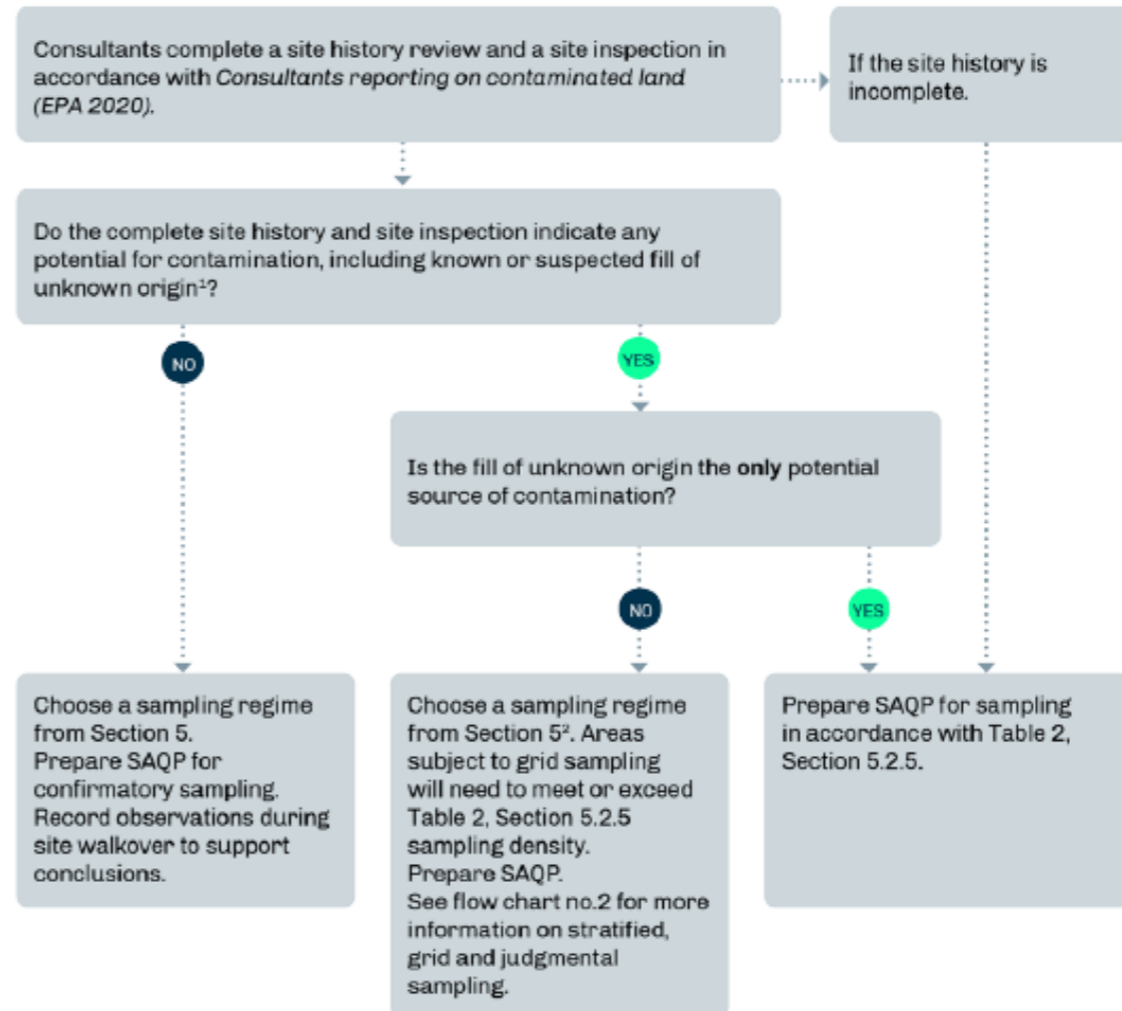
- Appendix H: Guide for non-technical assessors of sampling design in Contaminated Land reports.
- In line with NEPM 2013 for sampling depths.
- DQO framework has been brought into the Sampling Design Guidelines.

What's changed – cont'd

- Part 2 – **Interpretation** includes a lot of descriptions for statistical terminology.
- Part 2 – includes new methods - box and whisker plots, histograms and more flexibility in choosing equations.
- Part 2 – includes an example using statistical methods (e.g. ProUCL) to calculate 95%UCL if there are **non-detects**.

NEW: Appendix H: Flow chart for choosing a sampling regime

Flow Chart 1: Choosing a sampling regime



1. Fill of unknown origin can be indicated by the presence of buildings/structures, retaining walls on the site or at boundary. In addition, changes in ground levels when compared with the surrounding land and the presence of dam/pond walls also indicate the presence of fill. Fill suspected to have been sourced from site must still be investigated in accordance with Table 2, Section 5.2.5.
2. Sampling strategy will depend on site history. Site might need to be stratified with some sub-portions subjected to judgmental sampling and other areas to grid sampling.

Source: JBS&G.

Flow Chart 2: Choosing a sampling regime when there have been potentially contaminating activities

The site history has shown that potentially contaminating activities have been conducted at the site. Are there sub-portions of this site where there have been potentially contaminating activities that should be subject to judgmental (targeted) sampling? (See Section 5.1)

YES

NO

Stratify (divide) site into areas for judgmental sampling¹ and areas for systematic sampling.

Judgmental sampling
Develop SAQP in accordance with Sections 5.2.1.

Systematic sampling
Select a grid size based on the hotspot size you wish to detect. (Section 6). Then develop a systematic grid (section 5.2.2). Minimum sampling density cannot be less than that shown in Table 2 (section 5.2.5).
OR
Use minimum sampling density shown in Table 2 (Section 5.2.5). Develop SAQP.

1. Areas for judgmental sampling include pipelines, USTs, former/current structures, known leaks, identified ACM from site inspection etc.

Source: JBS&G

SLIGHTLY NEW - Section 5 – Table 2 (replaces Table A)

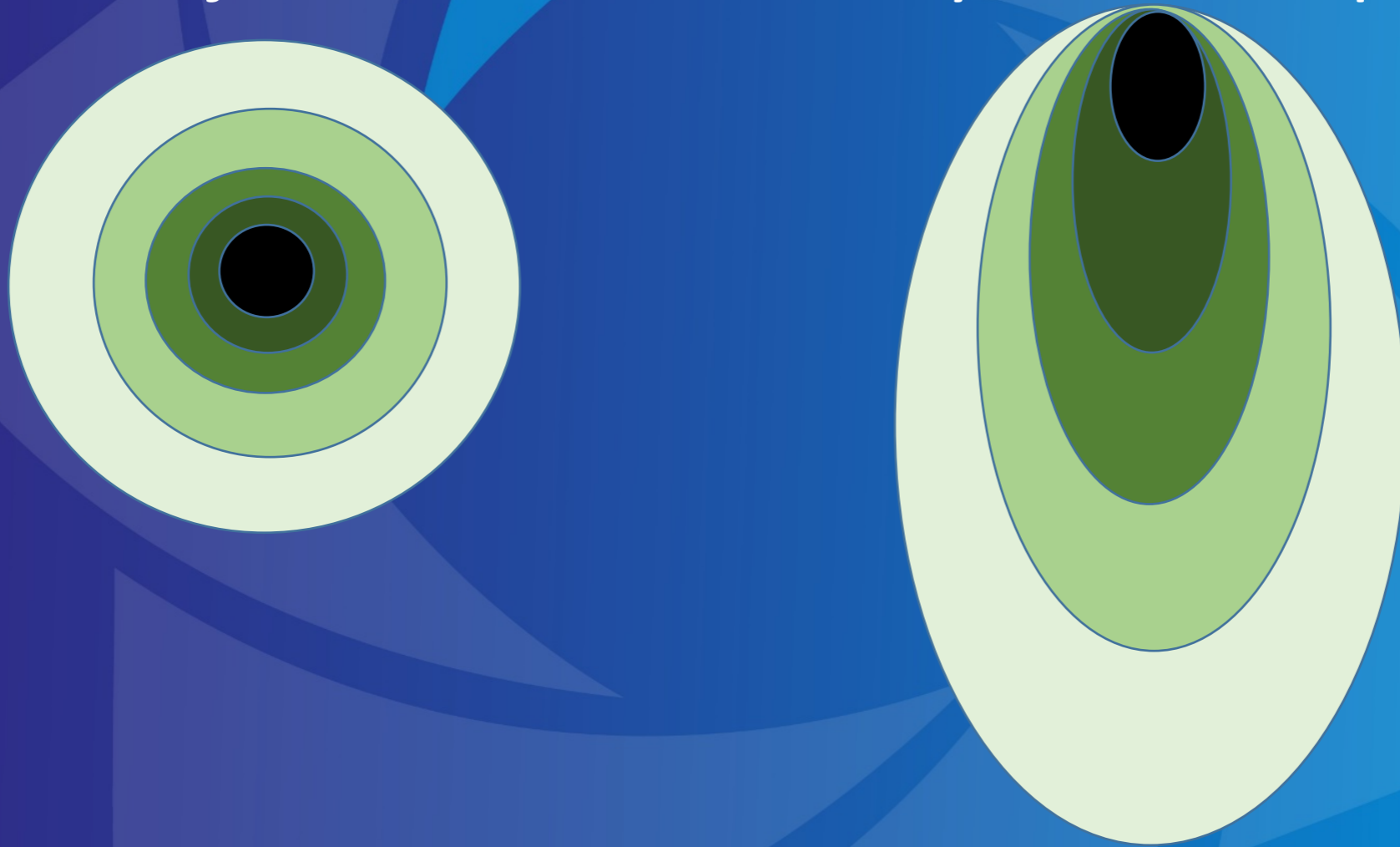
Size of Site (ha)	Minimum number of sampling locations	Grid Size (m)	Diameter of the hotspot that can be detected with 95% confidence (m)
0.05	8 (up from 5)	8	9.3
0.1	8 (up from 6)	11	13.2
0.2	8 (up from 7)	16	18.7
0.3	9	18	21.5
0.4	11	19	22.5
0.5	13	20	23.1
0.6	15	20	23.6
0.7	17	20	23.9
0.8	19	21	24.2
0.9	20	21	25.0
1.0	21	22	25.7
1.5	25	24	28.9
2.0	30	26	30.5
2.5	35	27	31.5
3.0	40	27	32.3
3.5	45	28	32.9
4.0	50	28	33.4
4.5	52	29	34.7
5.0	55	30	35.6

Section 5.2 – in situ sampling – the preferred approach

- Prepare a Complete Site History as described in *Consultants Reporting on Contaminated Land Guidelines*.
- If there is fill on site, use Table 2.
- Can use lower sampling density than Table 2 but “...*must be accompanied by sufficient justification in both the SAQP and DSI, including confirmatory samples and observations made during a site walkover*” as well as a complete site history.
- Descriptions of judgmental and systematic sampling.
- More discussion on using stratified sampling regime.

Section 6 – Looking for hotspots

- More description than first edition and more opportunity to consider different shaped hotspots etc.
- But is not the justification for the systematic approach in Table 2.



Stockpiles – Section 5.4

Table 3 Minimum number of samples recommended for initial assessment of stockpiles up to 200 m³

Stockpile volume (m ³)	No. of samples
<75	3
75 – <100	4
100 – <125	5
125 – <150	6
150 – <175	7
175 – <200	8

Table modified from NEPM (2013, B2)

Stockpiles cont'd

Table 4 Minimum samples for stockpiles over 200 m³

Stockpile volume (m ³)	No. of samples (1:25 m ³)	Minimum number of samples for 95% UCL (not for asbestos)
200 - 300	12	10
400	16	10
500	20	10
600	24	10
700	28	10
800	32	10
900	36	10
1000	40	10
1500	60	10
2000	80	10
2500	100	10
3000	120	12 (1:250)
4000	160	16 (1:250)
4500	180	18 (1:250)
5000	300	20 (1:250)
>5000	1:25	1:250

Table modified from Vic EPA, 2009

Stockpiles – three choices (when NOT suspected of containing asbestos) – Refer Appendix I

1. **On site reuse** – must demonstrate that it is suitable – *consider* using Tables 3 & 4. Can consider deriving n as described in Section 7.
2. **Off site reuse** – must comply with RRO/RRE, ENM or VENM (Tables 3 & 4 *can assist* with VENM).
3. **Offsite disposal** to LF or to a recycling facility – *must comply* with Tables 3 & 4.

For **imported** materials – might require additional sampling because the material will need to demonstrate that it is suitable for the site (potentially more than a VENM report will be needed to demonstrate it is suitable).

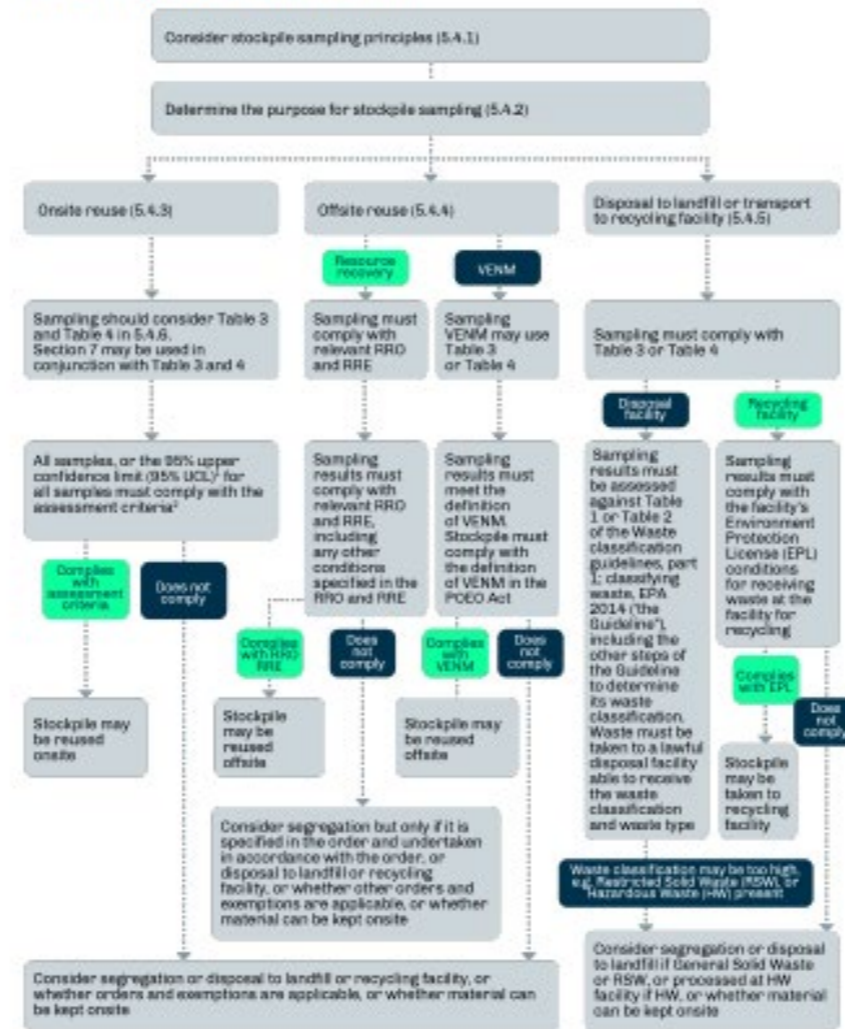
Stockpiles – ASBESTOS - Table 5

- **Landfill disposal** - three samples up to 75 m³, plus one sample for every additional 75 m³ (as well as all other contaminants).
- **Off site reuse** – use the appropriate RRO and RRE
- **Recycling facility** – must use Table 4 at 1 in 25 m³, for both 10 L and AF/FA 500 mL samples (as well as all other contaminants).
- **On site reuse** – sampling frequency in Table 4 “should be considered” (1:25 m³) so justification is required for anything else. Plus, need to demonstrate that the material is suitable with regards all other potential contaminants.

Stockpiles

Appendix I: Assessment process for stockpiles not impacted by asbestos

Flow Chart 3: Stockpile Assessment



1. The NPM states (Schedule 61, Section 3.2.1.) "At the very least, the maximum and the 95% UCL of the arithmetic mean contaminant concentration should be compared to the relevant Tier 1 screening criteria. However, where there is sufficient data available, and it is appropriate for the exposure being evaluated, the arithmetic mean (or geometric mean in cases where the data is log normally distributed) should also be compared to the relevant Tier 1 investigation or screening level".

2. The NPM (2013) states that:

- a. The 95% UCL is compared with the assessment criteria for all contaminants, AND
- b. No single value should exceed 250% of the relevant assessment criteria, AND
- c. The standard deviation of the results should be less than 90% of the assessment criteria.

Section 7 – determining n – the number of samples required (not based on area or volume)

- **Combined Risk Value (CRV)** (procedure B in the 1st edition guidelines) Handy if you've got limited results and you need to determine if you should do additional sampling.
- **Maximum Probable Error (MPE)** (iterative process) – uses the margin of error, standard deviation and a specified confidence level and can be used to show how many samples are needed, based on the variability of the data.

Calculating n , the number of samples

- Very simple excel spreadsheet for the CRV method and practitioners can set same α & β as Procedure B in the 1st edn of the SDG (Appendix E, Part 1).

Calculating n (2nd edn SDG)		
input	n	1
30	standard deviation	
300	acceptable limit	
200	average concentration	

- MPE method is available in Appendix F, Part 1.

Other info

- Composites – only for former orchards and market gardens, and in accordance NEPM.
- Other media – references other guidance:
 - Groundwater – NEPM, DEC 2007
 - Surface Water – ANZG 2018
 - Sediment – ANZG 2018 + Simpson and Batley 2016
 - Vapour – divided in SV, Indoor and ambient air and ground gases. Reference to NEPM, CRC Care 2013 and CROCL, HGGG
- Background – soil, groundwater, surface water and sediments.

Science is a team sport

NSW EPA - Mark Hanemann, Joanne Stuart, Dylan Redman, Marina Leung, Alan Ly & many others.

JBS&G peer reviewers and collaborators:

- Seth Molinari, John De Martin
- Jade Heng, Andrew Lau
- Claudia Prosdocimo
- Justin Da Costa, Sahani Gunatunge, Rohan Hammond
- Greg Dasey, Christine Louie, Matt Parkinson

Easterly Point - Marc Salmon and his collaborators.

Limited Consultation participants: James Davies, Julie Evans, Seth Molinari, Brendan Page, Marc Salmon & Amy Valentine



Hjordi Russell | October 2022

Automatic Mutual Recognition

VIC EPA - Environmental Audit



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Mutual Recognition Act 1992 (Cth)

- Automatic Deemed Registration is set out in the Mutual Recognition Act 1992 of the Commonwealth and is implemented by state and territory governments.
- **Section 42D(1) Entitlement to automatic deemed registration:**
 - (a) a person is authorised to carry on an activity covered by an occupation in their home State
 - (b) the person is registered (the home State registration) for that occupation in their home State; and
 - (c) to carry on the activity in the second State, the person would have been registered in the second State for an occupation



Mutual Recognition Act 1992

No. 198, 1992

This future law compilation was prepared on 17 May 2021 taking into account amendments made by the Mutual Recognition Amendment Bill 2021.

The date of commencement for the incorporated amendments was unknown at the time of preparation.

Prepared by the Office of Parliamentary Counsel, Canberra

Mutual Recognition Act 1992 (Cth) - cont

42D(2) Automatic deemed registration:

For the purposes of carrying on the activity in the second State, the person is taken:

- (a) to be registered in the second State for the second State occupation; and
- (b) to have any additional registration required to carry or the activity in the second State.



Mutual Recognition Act 1992

No. 198, 1992

This future law compilation was prepared on 17 May 2021 taking into account amendments made by the Mutual Recognition Amendment Bill 2021.

The date of commencement for the incorporated amendments was unknown at the time of preparation.

Prepared by the Office of Parliamentary Counsel, Canberra

Exceptions to automatic deemed registration

The person seeking AMR is not taken to be registered in the second state, as per S42D(4) of the MR Act, if the person seeking AMR is

- the subject of criminal, civil or disciplinary proceedings in any State; or
- any registration the person is required to have to carry on the activity, or an occupation that covers the activity, in any State is cancelled or currently suspended as a result of disciplinary action; or
- the person is otherwise personally prohibited from carrying on the activity, an occupation that covers the activity, or is subject to any conditions in carrying on the activity, as a result of criminal, civil or disciplinary proceedings in any State; or
- the person is refused registration in any State for an occupation that covers the activity



Mutual Recognition Act 1992

No. 198, 1992

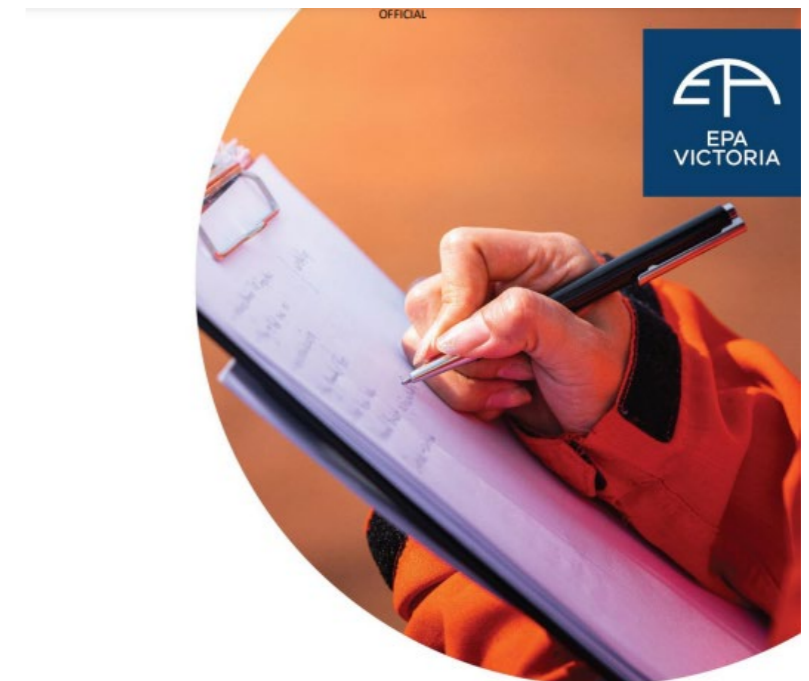
This future law compilation was prepared on 17 May 2021 taking into account amendments made by the Mutual Recognition Amendment Bill 2021.

The date of commencement for the incorporated amendments was unknown at the time of preparation.

Prepared by the Office of Parliamentary Counsel, Canberra

What is Automatic Mutual Recognition (AMR)?

- The Mutual Recognition (Victoria) Act 1998 gives effect to the requirements of the Commonwealth Act.
- AMR is a national scheme that recognises occupational registrations making it easier for tradespeople and registered professionals to work interstate on their existing occupational licence.
- Workers who hold an occupational licence will be able to work across states or territories participating in AMR
- Environmental auditors are included under the scheme.



**Environmental auditor guidelines
for appointment and conduct**

Publication 86513 March 2022



Implementation of AMR in Victoria

- AMR commenced in Victoria on 1 January 2022 after an amendment to the Mutual Recognition (Victoria) Act 1998.
- AMR means that licensed Victorian workers who hold an occupational licence will be able to work in another state or territory without applying for a new registration or licence.
- Victorian environmental auditors who wish to rely on AMR in another state or territory are advised to confirm any specific requirements with the relevant authority for that state or territory



Automatic Mutual Recognition (Victoria) (Notification Requirement—Environmental Auditors and Electrical Workers) Determination 2021

I, Lily D'Ambrosio, Minister for Energy, Environment and Climate Change (Victoria), make the following determination.

Dated

12 December 2021

Signed

Lily D'Ambrosio
Minister for Energy, Environment and Climate Change (Victoria)

AMR application to VIC environmental auditors



Environmental Auditors:

Environmental auditors appointed in a participating state, may be eligible for AMR.

Victorian environmental auditors wishing to take advantage of AMR in another state or territory will need to confirm if the state or territory they wish to work in has entered the AMR scheme.

AMR scheme:

Victorian environmental auditors who wish to rely on AMR in another state or territory, are advised to confirm if the state or territory they wish to work in has entered the AMR scheme.

Notification:

As provided for under section 42J of the MRA 1992, an environmental auditor who intends to carry on an activity in Victoria in reliance on automatic deemed registration must notify the EPA prior to beginning to carry on that **activity**.

Currently notification is via email: environmental.audit@epa.vic.gov.au a form will be provided to complete the notification process.

Questions?

Environment Protection Authority Victoria

1300 372 842

contact@epa.vic.gov.au

200 Victoria Street, Carlton VIC 3001

epa.vic.gov.au



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