

**Review of**

**NSW Environment Protection Authority's**

**Contaminated Land**

**Management Act 1997**

**Procedural Guide for EPA**

**Officers**



**Emeritus Professor Chris Fell AM**  
**Principal**  
**Fell Consulting Pty Ltd**



**Emeritus Professor Stephen Leeder AO**  
**Menzies Centre for Health Policy**  
**University of Sydney and**  
**Western Sydney Local Health District**

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## **1. Executive Summary and Recommendations**

This review has examined at a high level the Contaminated Land Management Act 1997 Procedural Guide for EPA Officers in regard to its appropriately reflecting the objectives of the EPA as prescribed in the relevant Acts. It has been conducted with the aim of advising the Minister whether the Guide in its present form is both appropriate and what, if any, changes are needed.

The Procedural Guide in current use was developed in 2015. In responses to changes in management policy and the development of a new data base, a revised draft of the Guide appeared in 2017 and it is this version that the Panel has reviewed.

It is the Panel's view that the Guide, although containing a lot of useful information, does not have a clear purpose at present and could profitably be replaced by a series of shorter guides covering specific areas of the contaminated site management process. In excess of 100 pages, the present Guide is confronting in its volume.

EPA's approach to managing contaminated sites is broadly consonant with that in other jurisdictions and is informed by publications of the National Environment Protection Council. This feature should be explicit in the Guide as should reference to NEPM measures when deciding whether a notified site is 'significantly contaminated' and subsequently satisfactorily remediated. Information released to the public via the notification register should reflect numerical estimates of risk. The Guide should provide officers with guidance in making decisions while simultaneously ensuring that requirements in the legislation are met.

The Review Panel has made a series of recommendation that are listed below. Some are designed to clarify the Guide and its procedures, others (e.g. an examination of time frames for decisions) are designed to improve the service provided by EPA to the community and owners of legacy and newly discovered contaminated sites. Still others relate to the information provided to the wider community about contaminated sites. The intention, above all, is to develop a set of administrative policies that can be embodied in an updated Guide that serves to support EPA's administrative actions and to further develop its positive relationships with the NSW community.

The Review Panel thanks the EPA officers interviewed for their willingness to respond to questions and to provide information.

### **Recommendations**

1. Include in the Procedural Guide a clear statement on how sites are to be considered 'significantly contaminated' and placed under EPA jurisdiction and how their remediation will be required to conform to international best practice.

2. Consider whether the Procedural Guide would be more effective as a group of internal publications that provided specific instructions on different aspects of the mission of the Contaminated Lands Management Unit.
3. That the Procedural Guide or Guides contain a section in which the technical aspects of making an assessment on contaminated land are discussed. This to include a consideration of the nationally mandated NEPM approach.
4. That the Procedural Guide makes reference to the importance of decision-making being based on state-of-art international scientific and technological knowledge about contamination and its remediation.
5. That the EPA examines whether a very fast response mechanism is necessary in declaring a site 'significantly contaminated' and in taking site management action where contamination is high and the immediate risk to surrounding properties is also high.
6. The Review Panel considers that the directive on page 28 of the 2017 Draft Procedural Guide strikes the correct balance for managing residential properties potentially contaminated by neighbouring contaminated sites.
7. That the information provided to the public in the list of notified sites be expanded to include an indication of the risk they present. This might include the classification given by EPA on receipt of the notification as low, medium or high risk, as is used in determining the timeliness with which a notification is to be processed.
8. That a study be made of the effectiveness of the PALMS, EPACS and TRIM data bases in terms of the administrative load they place on regulatory staff.
9. That making EPA data bases relational should be moved forward, given the advantages that this would offer.
10. That the effectiveness of the approach to stakeholder advice used by NSW EPA be evaluated at several high profile sites, and in particular its effectiveness in communicating risk.
11. That the desirability of greater use of site auditors in the contaminated site management decision-making process be investigated.
12. That the time frames given in the Procedural Guide be critically evaluated to see if tighter time frames can be established.

## 2. Terms of Reference

The Terms of Reference for the Review were provided by the Hon Gabrielle Upton MP, Minister for the Environment, and Minister for Local Government and Minister for Heritage on 30 May, 2017

“The Terms of Reference is to review the current Procedural Guide (NSW Environment Protection Authority Contaminated Land Management Act 1997 Procedural Guide for EPA Officers) and provide recommendations to ensure the Procedural Guide:

“1. Appropriately reflects the objectives of the NSW EPA as stated in the *Protection of the Environment Administration Act 1991*, specifically:

- a. to protect, restore and enhance the quality of the environment in New South Wales
- b. to reduce the risk to human health and prevent the degradation of the environment

“The review should take into consideration approaches taken in other jurisdictions in Australia for declaring contaminated land.”

“The report is to contain recommendations to ensure that the Procedural Guide can be updated and put into effect as a matter of priority.”

A period of two weeks was allowed for conduct of the review.

### 3. Background

The NSW Environment Protection Authority (EPA) is the principal environmental regulator for NSW and was established under the 1991 Protection of the Environment Administration Act.<sup>1</sup> Its structure was modified in 2012 such that it became an independent statutory authority. Amongst other duties it has responsibility for administration of the Contaminated Land Management Act 1997<sup>2</sup> (CLM). In NSW, the management of contaminated land is shared by the Environment Protection Authority (EPA), the [Department of Planning and Infrastructure](#)<sup>3</sup> and planning consent authorities (usually local councils) [extract from EPA Web site]<sup>1</sup>.

The EPA has the ability to issue clean-up notices, request site assessments, declare a site 'significantly contaminated', and enter into a Voluntary Management Proposal for rehabilitation of the land or require remediation under a Management Order. Lesser levels of contamination that do not affect surrounding properties or the environment are usually handled by Local Councils<sup>3</sup>.

In NSW, land owners or polluters who become aware of contamination on a site that may be regarded as 'significant' are required by law to report this to the EPA. The notification is placed on the publicly-accessible register<sup>4</sup> and is then dealt with by EPA officers.

Notification may follow from knowledge acquired by environmental officers learning through their professional interactions where potentially polluting industry is located. Members of the public may bring land contamination to the attention of the EPA. Where the use of land is to undergo change (for example, from industrial to residential or people-intensive activities), planning or lending authorities or purchasers may require a site audit, the results of which may come to the attention of the EPA.

The publicly-accessible register<sup>4</sup> provides an indication of the stage reached by EPA in handling each notification. Notifications in the register and their follow-up by the EPA can sometimes evoke significant public concern and media attention.

The section of the NSW EPA dealing with contaminated land currently has 34 staff, of whom 11 are regulatory officers directly involved in assessment and monitoring with eight of these staff being temporarily allocated to backlog monitoring. Once involved in a site that is declared contaminated, the staff member continues to monitor that site until remediation is complete. At present, each regulatory officer has 20-30 sites to monitor with a total of 206 sites currently under regulatory control.

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<sup>1</sup> NSW EPA Web site <http://www.epa.nsw.gov.au/whoweare/index.htm>

<sup>2</sup> Contaminated Land Management Act  
[http://www.austlii.edu.au/au/legis/nsw/consol\\_act/clma1997238/s60.html](http://www.austlii.edu.au/au/legis/nsw/consol_act/clma1997238/s60.html)

<sup>3</sup> Managing Land Contamination: Planning Guidelines, SEPP 55 – Remediation of Land  
[http://www.epa.nsw.gov.au/resources/clm/gu\\_contam.pdf](http://www.epa.nsw.gov.au/resources/clm/gu_contam.pdf)

<sup>4</sup> List of Contaminated Sites Notified to EPA, June 2017  
<http://www.epa.nsw.gov.au/resources/clm/docs/pdf/publiclist.pdf>

The Procedural Guide for EPA Officers (the focus of this review) had its origins in 2007. The one in current use is dated 2015 but we are advised by EPA that it was last amended in October, 2016. It was intended originally as an internal document to assist regulatory officers in carrying out their work. Recently, staff have suggested modifications to make the document easier to follow and particularly to inform staff about the needs for regulatory processes that meet the requirements of the Act.

The EPA is conducting a \$6 million development of its data handling processes and instituting a new and more informative data base and desirably this will facilitate the work of the regulatory staff. The Procedural Guide will need further modification to function within the new electronic environment. The updated Procedures Guide provided to the Review Panel that reflects some of these changes was dated April 2017.

A further function of the current Procedural Guide is to instruct staff in the proper completion of entries to data bases so that correct regulatory procedures are followed.

The Review Panel agreed that the content of the Procedural Guide should reflect the current administrative approach and practices of the NSW EPA. Accordingly, it examined several recent reviews of the EPA to which the EPA has responded. Review reports were provided by EPA staff or sourced on the internet. The reviews were:

(i) **State Auditor General's review (2014) of the functioning of the EPA**<sup>5</sup>. This review pointed to the large backlog of notifications yet to be assessed, occasioned by legislative amendments that put pressure on site owners to notify contamination and a flood of such notifications from industry. EPA has triaged these 834 notifications to 474 that need to be followed up. For notifications made before mid-2013, 98% had insufficient contamination to warrant regulation. Among notifications after 2013, 75% had insufficient contamination to warrant regulation. 460 backlog assessments remain to be completed. There are currently 206 regulated sites under the CLM Act, with 46% of these being in non-metropolitan areas<sup>6</sup>. These statistics reinforce the importance of having a robust Procedural Guide to assist assessors in their deliberations.

(ii) **Ombudsman's report (2017) on asbestos**<sup>7</sup>. This report documented progress in agencies including EPA in managing the disposal of asbestos. It suggested that asbestos should be included in the list of substances that would provoke site evaluation.

(iii) **Taylor and Cosenza (2016) review**<sup>8</sup>. This extensive review examined EPA's response to the NSW Auditor-General's report and suggested changes to procedures and a tightening up

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<sup>5</sup> Hehir, G, 2014 NSW Auditor-General's Report, Performance Audit, Managing Contaminated Sites <http://www.audit.nsw.gov.au/new/managing-contaminated-sites>

<sup>6</sup> Information provided by Ms Arminda Ryan, Director, Contaminated Land Management, EPA

<sup>7</sup> Ombudsman's report. Asbestos – How NSW government agencies deal with the problem – A Special Report to Parliament – April 2017 <https://www.ombo.nsw.gov.au/news-and-publications/news/ombudsmans-report-about-asbestos>

of regulatory responses. Many were adopted by EPA and had an effect on the Procedural Guide. Examples included:

- development of model procedures for public land managers for declaring land contaminated;
- ways to include in the database (EPACS) notifications that did not appear on notification forms;
- accepted times taken to address information and remediation (preferred milestones now appear in the Procedural Guide together with monitoring protocols, KPIs and the sign-off system is described);
- prioritisation of consideration of sites
- assessing and eliminating the backlog of notifications;
- the appropriateness of instances of contamination of sites being handled through the planning process rather than being under EPA control;
- the need for clear policy with respect to residential property neighbouring a contaminated site;
- classes of site management;
- publication of decision milestones and geographic identifiers of contaminated sites;
- escalation policy in relation to compliance;
- and communication with key stakeholders.

In relation to the many recommendations of the Taylor and Cosenza review the NSW EPA has responded effectively. Resource constraints within EPA may slow the speed with which new notifications and the remaining backlog can be addressed. Residual matters include the classification of residential properties surrounding a contaminated site and the most effective way to interact with surrounding communities following the declaration of a 'significantly contaminated' site. These are discussed further in Section 5 of this report.

The Review Panel set out to confirm that EPA-agreed changes reported in the Taylor and Cosenza report had, indeed, found their way into the Procedural Guide.

As well as the Procedural Guide, EPA has other advisory documents for external use. They include the *Contaminated Lands Compliance Statement*<sup>9</sup> and guides concerning different types of contamination, reference to which is made on the NSW EPA Web site.

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<sup>8</sup> Taylor and Cosenza 2016 Review of NSW EPA's Management of Contaminated Sites  
<http://www.epa.nsw.gov.au/resources/epa/contaminated-sites-review-stage-two-280416.pdf>

<sup>9</sup> 'NSW EPA Contaminated Lands Compliance Statement' 2016  
<http://www.epa.nsw.gov.au/clm/contaminated-sites-compliance-statement.htm>

#### 4. How Other Jurisdictions in Australia Declare Contaminated Land

The decision to declare a site “significantly contaminated” is currently essentially a judgement call, reflecting the requirements (in NSW at least) of the *Protection of the Environment Administration Act 1991*<sup>10</sup> and characteristics of the site. Managing the site, once declared, comes under the aegis of the *Contaminated Land Management Act 1997*<sup>11</sup>.

While there is broad international agreement on what constitutes significant contamination and its associated health risks, there is considerable discrepancy among jurisdictions in the criteria used to declare a site contaminated. The effect of this is amplified because declaration frequently carries with it the responsibility for a government authority to take prescriptive action and to recover the costs of management of subsequent processes. There is also divergence among administrations in the use of independent site auditors, who may in part take over the role of environmental protection authorities in inspecting land, indicating whether it is significantly contaminated, recommending remediation processes and monitoring.

Within Australia there has been collaboration among States, Territories and the Commonwealth to establish guidelines on which decisions on the severity of contamination can be made. Health aspects are dealt with by the National Environmental Protection Measures<sup>12</sup> (NEPM) and the Australian Drinking Water Guidelines<sup>13</sup>. Guidelines for protection the environment are covered under the ANZECC tabulations<sup>14</sup>.

The NEPM provides a comprehensive listing of health investigation levels (HILs, GILs and HSLs) for contaminants in soil, surface water and groundwater. These are levels at which further detailed site investigation is warranted. NEPM gives methods to determine, for a given site, whether the contaminant will be toxic to humans working or living on that site, based on ingestion, inhalation or dermal contact.

The investigation, often carried out by an environmental consultant, provides advice to landowners and potentially to authorities on whether the site is ‘significantly contaminated’ and should be scheduled and subject to remediation. Change of use can alter the potential of contaminants on a site to impose hazard. Drinking water standards and standards for release of contaminated water or soil to the environment provide guidance on whether there is a danger to residents using groundwater, or the environment is being affected by the release of contaminated water or soil.

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<sup>10</sup> Op cit

<sup>11</sup> Op cit

<sup>12</sup> National Environment Protection (Assessment of Site Contaminants) Measures, 2013 (amendments) <http://nepc.gov.au/nepms/assessment-site-contamination>

<sup>13</sup> Australian Drinking Water Guidelines – Updated November 2016, <https://www.nhmrc.gov.au/guidelines-publications/eh52>

<sup>14</sup> Australian and New Zealand Guidelines for Fresh and Marine Quality Water, ANZECC 2000 <https://www.environment.gov.au/system/files/resources/53cda9ea-7ec2-49d4-af29-d1dde09e96ef/files/nwqms-guidelines-4-vol1.pdf>

As earlier indicated, a principal role of an EPA is to determine whether a site is sufficiently contaminated for it to cause a health or environmental threat to those on the site and the surrounding community. The ways that different jurisdictions in Australia approach the problem of deciding whether a site is ‘significantly contaminated’ vary, though principally in detail. A study by CRC Care (primarily by the environmental consultant GHD)<sup>15</sup> reports the approaches used to declare site contamination in many Australian States and Territories ((NSW, ACT, Victoria, Queensland, Western Australia, South Australia) and how these vary. Findings can be summarised:

Type of Empowerment	States Where Applied
Power to require further information	All
Power to declare land to be <u>significantly</u> contaminated and put on register	NSW, Qld, WA, SA
Power to declare land <u>potentially</u> contaminated based on land use	Vic, Qld, WA
Public access to register	All – but most allow only single property access, unlike NSW which gives the full list
Use EPA-qualified independent auditors as first-step decision makers	ACT, Vic, Qld, WA, SA
EPA Review and approval process at EPA before entry onto register	All
Direct link to planning/title system and carry suitable annotation on planning certificates issued.	ACT, Vic, Qld, WA, SA

In NSW, s59 of the Contaminated Land Management Act requires a notation on s149 certificates if land is regulated under the CLM Act - declared / VMPs / MOs etc. There is, however, no direct link to the planning/title system.

Perusal of the information provided in Table E1 of the CRC Care report reveals that there is a wide variation in the ratio of sites notified to those designated as requiring regulation (corresponding to ‘Regulation under CLM Act’ in NSW) across Australia. Queensland has many notifications (23,000) but few (10) sites under regulation whilst Western Australia lists 3,500 sites notified with 2,000 under regulation. This raises definitional questions about interstate comparisons and variations.

In its report<sup>15</sup> the CRC Care has summarised its impression of the NSW protocols:

“When a site has been notified, NSW has a **clear system and statutory obligation** to consider whether the site contamination is sufficiently significant to be regulated under the *Contaminated Land Management Act*. Other jurisdictions have similar responsibilities to

<sup>15</sup> ‘Benchmarking Review: Contaminated Land Regulatory Framework’ CRC Care 2014 (This report is confidential to the NSW EPA. A copy was provided to the Review team.)

assess whether further action is required; however the clarity of the process (as defined in the relevant legislation) varies, from 'clear' in the ACT, to no clearly defined process in other jurisdictions. ... All jurisdictions, including NSW, appear to have some discretion in determining whether site contamination requires regulation, and the course of action to be taken - thus avoiding the rigidities associated with a lack of discretion which could result in ineffective use of resources. NSW is **one of only two** jurisdictions to have specific Acts for managing contaminated land, whereas the other jurisdictions have management provisions for contaminated land incorporated into their respective environmental protection Acts.

“The benchmarking review indicates that there are **no significant shortcomings apparent in the capabilities of the NSW regulatory system** for managing contaminated sites for existing or approved land use via the *Contaminated Land Management Act*, and that the system is effective.”

This Review Panel's appraisal of the Web sites for interstate EPAs suggests that the CRC Care's comments above are appropriate and that the approach taken by legislation and the NSW EPA to declaration of 'significantly contaminated' sites in NSW is sound.

It is on this basis that the Review Panel examined the Procedural Guide to determine if it is an appropriate guide to enactment of the NSW EPA approach.

It is, however, noted that two States have recently conducted reviews of their handling of contaminated land. Victoria<sup>16</sup> has announced that it intends to update its legislation surrounding contaminated land particularly making the notification of contaminated land more prescriptive. In South Australia<sup>17,18</sup> the new focus is to be on a community engagement framework, greater transparency in decision-making and the consequences of contamination discovered during urban renewal. The changes proposed mirror thinking already in place in the NSW EPA.

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<sup>16</sup> Government response to the independent enquiry into the EPA, 2017, <http://www.epa.vic.gov.au/about-us/response-to-epa-inquiry>

<sup>17</sup> South Australian Review Committee, EPA South Australia, 2015 [http://www.epa.sa.gov.au/files/7543\\_sc\\_review\\_com.pdf](http://www.epa.sa.gov.au/files/7543_sc_review_com.pdf)

<sup>18</sup> Guidelines for Site Contamination and Audit System, EPA South Australia, 2015 [http://www.epa.sa.gov.au/our\\_work\\_have\\_your\\_say/review\\_of\\_epa\\_site\\_contamination\\_publications](http://www.epa.sa.gov.au/our_work_have_your_say/review_of_epa_site_contamination_publications)

## 5. Procedural Guide for EPA Officers

**Contaminated Land Management Act 1997: Procedural guide for EPA officers, December 2015**<sup>19</sup> is an electronic document available to NSW EPA officers for use as a guide in their assessment, directive and monitoring work. It is designed for internal use only and has been cast in terms that are meant to be readily understandable to all staff employed in the Contaminated Lands Unit of the NSW EPA.

In response to reviews of the EPA and senior management input, it was changed in 2016 and 2017. The Review Panel was provided with two versions, the first the December, 2015 version (103 pages), currently used by staff, and an updated draft version dated 25 April, 2017 (158 pages).

We examined the differences between the two versions in Section 5.3. To meet the Terms of Reference of this review, we concentrated on the April, 2017 version, assuming that suggested changes between the two versions (that are generally unexceptional in terms of the coverage of the document and many are editorial) are accepted.

### 5.1 Regulatory and Operating Environment Underpinning Guide

The activities of EPA must closely reflect its administrative obligations under the governing legislation outlined in Section 1. At the same time, it has to strike delicately a balance between effectively managing contaminated sites and satisfying government, the wider community and those regulated.

New contaminated sites appear continually as a result of uncovering legacy contamination and also from new incidents of pollution. With the advent of highly improved analytical techniques and better information on toxicology, acceptable levels of contaminants in the air, dust, soil and water are falling. Community concern about contaminants from contaminated land entering residential properties is rising. A major challenge emerges in increased conversion of former industrial sites into residential complexes. The provision of a helpful procedural guide to assist officers in their work is essential.

It did not prove possible in the short time for this Review to get a full understanding of whether such guides existed in other jurisdictions in Australia. But at a recent meeting of State Managers of Contaminated Land Management<sup>20</sup> it was learned that South Australia is composing a manual entitled “Regulation and Orphan Sites Management Framework” that will appear on its Web site. Similarly, Tasmania has a handbook providing support to its EPA officers.

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<sup>19</sup> The EPA has advised that the version provided to the Review Panel should be entitled the October, 2016 version as it was last saved on that date. However, the December, 2015 date appears on the page giving publication details and assignment of an EPA publication number. For this reason the Review Panel has chosen to use the December, 2015 date as the version’s identifier..

<sup>20</sup> Information provided by Ms Arminda Ryan, Director, Contaminated Land Management, NSW EPA

The work patterns and skills required of NSW EPA Contaminated Lands Management staff are reflected in the status of entries in the register of notifications<sup>4</sup> of contaminated sites in NSW as listed on a publicly-accessible Web site by the NSW EPA. The following table provides the status of the **1,600+** sites listed.

**Table 1 Status of Sites Listed on NSW EPA Public Data Base - June, 2017**

<b>Status of Site</b>	<b>Percentage of Total Sites</b>
Listed as Under Assessment	39
Listed as not of interest to CLM	41
Listed as under EPA CLM management	20

There is a backlog of sites to be assessed. These sites have been prioritised according to potential severity and the list is being worked through. Making timely decisions is obviously critical for many reasons including maintaining public confidence.

## **5.2 Existing Guide (December, 2015)**

The Procedural Guide in current use was developed in 2015, concurrently with a move to a comprehensive data base that recorded decisions taken and the progress of notifications through the system of assessment. It notes the steps that officers must take in order to meet the requirements of the various Acts and provides guidance via templates and milestones about return of information and decision-taking. It covers the whole gamut of regulation, from notification, through preliminary investigation to a decision on ‘significant contamination’ and on to remediation, including voluntary management, management orders, to site maintenance and eventual site sign-off. It is a very detailed document, strongly featuring compliance.

The Review Panel judged it to be comprehensive, but poorly structured and too focused on the legal aspects of compliance. The scientific and technological aspects of the appraisal process used to declare a site ‘significantly contaminated’ were far from clear. This initial declaration ensures that a quality remediation protocol is put in place.

We have reserved our detailed comments for the 2017 Draft Upgraded Guide that is shortly to be completed and implemented.

## **5.3 Draft Upgraded Guide (April, 2017)**

In the Review Panel’s opinion, the 2017 Draft is an improvement in that it more closely aligns the steps to be taken to those required by the various Acts and Regulations and aims to ensure that the decision-making process is properly recorded in the new data base and that contact with those associated with the contaminated site and other stakeholders meets

requirements. It is a very detailed document and didactic in style. Further comments are made below.

As a first step the Review Panel compared the coverage of the 2017 draft to the 2015 document. The text has been substantially re-arranged but the principal features of the 2015 document have been retained. Table 2 provides the comparison.

**Table 2 Comparison of 2017 Draft with 2015 Original**

<b>Section in Updated Draft</b>	<b>Equivalent in Original</b>
1. Notification of contamination (s.60 and s.8)	Section 2
2. Preliminary investigation orders (s.10)	Sections 2 and 5
3. Site assessment (s.12)	Sections 6 and 7
4. Declaration of significant contamination (s.11)	Sections 3 and 8
5. Voluntary management proposals (s.17)	Sections 3 and 10
6. Management orders (s.14)	Sections 3 and 9
7. Ongoing maintenance orders (s.28 and s.29)	Sections 3,4 and 11
8. Clean-up and prevention notices (s.46)	Section 12
9. Orders and notices in general	Sections 8, 15 and 16
10. EPA's record of information (s.58)	Sections 2 and 3
11. Cost recovery	Sections 3 and 12
12. EPA requests for information (s.77 and s.78)	Section 6
13. Financial assurances	Section 4
14. Specific types of sites with special provisions	Section 4
15. Offset arrangements	Section 4
16. Escalated compliance	Sections 3 and 4
17. Powers of authorised officers	Section 4
18. Principles of ecologically sustainable development (s.9)	Section 4
19. Sharing private information	Section 17
20. Conflict of interest	Section 18
21. Delegated authority	Section 13

The Review Panel does have significant reservations about the document, not about the veracity of its content or the instructions it gives to officers or the processes that it describes, but from its intent and style.

The Guide is well over 100 pages long and hence is not a pocket book for EPA officers. As we have already noted, although it is clearly an internal document it varies between an instructional manual for new officers and an *aide memoire* for more experienced officers. It is strong on technical detail – which it is desirable to have documented somewhere – and hence can be daunting.

Paradoxically, it provides scant procedural guidance for making a decision as to whether a particular piece of land is 'significantly contaminated'. Indeed, it is our view that the use of terms such as 'significantly contaminated' diminishes the value of the empirical base – technological and health impact – that underpins such a judgement.

Much the same can be said for the use of 'serious' in relation to contamination. The term and the word in question are used extensively in the document, never with quantitative explanation. These terms give no comfort to an EPA officer, especially a novice, seeking to be rational, objective and fair.

Yet, the nationally-agreed NEPM *does* provide a basis for objective decision-making.

We understand that the EPA is developing an IT-based system for managing contaminated sites and possibly – in three years we were told – a relational data base. These developments could allow for ready access to standards and the use of contamination models into which local data can be fed, even if for nothing more than to see what EPA did in analogous assessments before. The accumulation of experiential data and simple models would reduce the hit-and-miss business of saying a site is 'significantly contaminated' and whether as an assessor one 'believes' it to be 'seriously' blighted.

Whilst the Review Panel considers that the 2017 Draft Procedural Guide provides an appropriate briefing on the regulatory duties in administering the *Protection of the Environment Administration Act 1991* and the *Contaminated Land Management Act 1997*, it provides indifferent guidance on making the technological decisions that ensure that contaminated land is appropriately categorised and remediated.

## **5.4 Matters of Concern**

The matters of concern discussed below are associated with how the Procedural Guide presents the various obligations of staff under the Acts and how the advice given is likely to be interpreted by Contaminated Lands Management Unit staff and its impact on external stakeholders. The Review Panel would invite the senior management of the NSW EPA to reflect on the matters raised and to consider whether further changes to the Procedural Guide and its application are in order in the management of contaminated lands in NSW.

### **5.4.1 Providing Support in the Decision-Making Process**

Declaring a site 'significantly contaminated' is the first step in a process that sees EPA take over management of the site and foster its remediation such that it no longer is a threat to the health of those associated with the site, those on neighbouring sites and the wider environment. The NEPM provides a rational basis for making this judgement and it should be clearly stated in the Regulatory Guide how the principles of the NEPM are to be applied in making it.

Similarly, processes for remediation that are outlined in Voluntary Management Proposals and Management Orders should reflect international best practice, with the aim of reducing the contaminant status of the site to below NEPM guidelines. The basis on which regulatory officers are to make decisions should be clearly stated.

**Recommendation 1:** Include in the Procedural Guide a clear statement on how sites are to be considered ‘significantly contaminated’ and placed under EPA jurisdiction and how their remediation will be required to conform to international best practice.

#### 5.4.2 Length and Tenor of Guide

Urgent attention should be given to converting the largely unwieldy Procedural Guide into several fit-for-purpose publications (possibly Decision-Making, Maintenance of Records, Management of Contamination) to provide specific information to EPA officers in different roles and at different points in their career. At present it is too cumbersome because it attempts to fit all sizes and defaults to guidance for experienced officers.

**Recommendation 2:** Consider whether the Procedural Guide would be more effective as a group of internal publications that provided specific instructions on different aspects of the mission of the Contaminated Lands Management Unit, including the designation of sites as ‘significantly contaminated’ and the approach to risk management.

#### 5.4.3 The Role of the NEPM

Decisions made about potentially contaminated land require a high level of technological skills and should be consistent. The Guide is largely silent on this aspect.

Fortunately, through the Council of Australian Governments, the National Environment Protection Council was established and has developed nationally agreed levels (NEPM HILs)<sup>21</sup> at which the health effects of contaminants on a given site should be more closely investigated. NEPM also provides a basis for assessing the total health impact on an individual working or living near a contaminated site that can be used by environmental consultants, site auditors and EPA officers in assessing the cumulative effects of exposure. The NEPM protocols are the basis for Human Health and Environmental Risk Assessment reports on a contaminated site.

The Review Panel considered that it was most important for the Procedural Guide to contain a section bringing the NEPM and its processes to the attention of NSW EPA officers. This will ensure that those in the Unit, not necessarily at the cutting edge of assessments, are aware of the agreed national basis on which the assessment process is being conducted.

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<sup>21</sup> National Environment Protection Measures, Commonwealth of Australia  
<https://www.legislation.gov.au/Details/F2013C00288> and  
<http://www.epa.nsw.gov.au/resources/epa/150308-nepms.pdf>

**Recommendation 3:** That the Procedural Guide or Guides contain a section in which the technical aspects of making an assessment on contaminated land are discussed in detail. This to include a consideration of the nationally mandated NEPM approach.

It is critical that the decisions taken in determining the significance of the level of contamination and the most appropriate ways to remediate it and protect surrounding sites use best international practice. This has implications for the qualifications, experience and continuing education of those involved in the decision-making chain. Accordingly, it is suggested that the preamble to the Procedural Guide acknowledges this.

**Recommendation 4:** That the Procedural Guide makes reference to the importance of decision-making being based on state-of-art international scientific and technological knowledge about contamination and its remediation.

This recommendation has implications for the professional development of EPA staff in the approval chain for contaminated land management.

With this modification, the Procedural Guide could be seen to be broader in purpose in terms of delivering quality outcomes from the regulatory process.

#### 5.4.4 Timeliness and the approval Chain

The Procedural Guide casts the Unit Head, Contaminated Lands Management in a key role in triaging initial notifications using the risk-ranking tool. He/she notifies higher officers and the Regulators if the site requires immediate action and if it is likely to arouse strong community or media interest.

This step is a critical one in the timely handling of notified sites and in our view the 120 day target response time on a highly contaminated site is too long.

Clearly, enough information is needed about the site before a determination is made, but need its acquisition take so long? Since declaration as a 'significantly contaminated' site is the first step in enabling the EPA to be highly prescriptive, are the present procedures sufficiently time-responsive?

**Recommendation 5:** That the EPA examines whether a very fast response mechanism is necessary in declaring a site 'significantly contaminated' and in taking site management action where contamination is high and the immediate risk to surrounding properties very significant.

#### 5.4.5 Classification of Adjacent Residential Properties

This problem emerges where an acknowledged ‘significantly contaminated’ site is allowing contaminants to flow to adjoining properties and neighbourhoods. Notable examples include mercury and chlor-organic chemical pollution at Botany, radioactive and other pollution at Hunters Hill, PFAS pollution at Williamstown and trichloroethylene pollution in Waterloo.

If the contaminated site has instituted a regulated management plan that will prevent further contamination of neighbouring residential districts, it would appear sensible not to declare neighbouring residential sites as ‘significantly contaminated’ unless there remain on these sites levels of contamination that are health-threatening and cannot be controlled by processes such as the banning the use of groundwater.

Residents must be informed of the problem and it should be part of the interaction process with local Councils. The Review Panel considered that the directive appearing on page 28 of the 2017 Draft Regulatory Guide strikes the right balance and is appropriate for this purpose and should be carried forward into future Guide(s).

**Recommendation 6:** The Review Panel considered that the directive on page 28 of the 2017 Draft Procedural Guide strikes the correct balance for residential properties potentially contaminated by neighbouring contaminated sites.

#### 5.4.6 Contaminated Site Listings Available to Public

The Review Panel considered that the information provided to the public on the listing of notified sites<sup>4</sup> is inadequate, particularly with reference to the meaning of the term ‘under assessment’. To what extent does this imply that the site has been ranked as low priority in terms of risk? The current way of presenting information could suggest (though not actually represent) a delay in addressing potential issues of public safety.

**Recommendation 7:** That the information provided to the public in the list of notified sites be expanded to include a perception of the risk they present. This might include the classification given by EPA on receipt of the notification as low, medium or high risk, as is used in determining the timeliness with which a notification is to be processed.

#### 5.4.7 Administrative Burden on Regulatory Staff

While understanding the need to fully document decisions and their timeliness and to keep records of correspondence, the Review Panel wondered whether the burden they impose on Regulatory Officers as noted the Regulatory Guide is too heavy. The Panel questions the

extent to which these data bases are user-friendly and the extent to which training and administrative support is provided.

**Recommendation 8:** That a study be made of the PALMS, EPACS and TRIM data bases in terms of the administrative load they place on regulatory staff.

#### 5.4.8 Making Data bases Relational

During the review the Review panel was advised that there was a three-year plan to make these data bases relational. It would be highly useful also to link them with appropriate data bases in other agencies. Implementing aspects of the Procedural Guide would be easier if this could be done sooner.

**Recommendation 9:** That the timing for making EPA data bases relational should be moved forward, given the advantages that this would offer.

#### 5.4.9 Stakeholder Advice

Effective advice to stakeholders associated with a given contaminated site has emerged as a critical factor in contaminant management success in several reviews of EPAs in other jurisdictions.

According to the Procedural Guide, it is the role of the Regulatory Officer to initiate a stakeholder involvement plan. How does the NSW EPA approach compare with that in other jurisdictions? Has its effectiveness been surveyed at high profile sites? Does the approach taken need to be improved?

The EPA should give further attention to the complex matter of risk communication, reviewing the extensive literature available on this topic and if necessary consulting on the best ways forward when dealing with individual land owners, communities of concern, the media, other government departments and the community generally.

**Recommendation 10:** That the effectiveness of the approach to stakeholder advice used by NSW EPA be evaluated at several high profile sites, and in particular, its effectiveness in communicating risk.

#### 5.4.10 Greater Use of Site Auditors

NSW EPA appears to make less use of accredited site auditors than other Australian jurisdictions. This topic receives little treatment in the Procedural Guide and one is left to question whether greater use of accredited site auditors in the preliminary decision-making process could lead to a speedier process for declaration and management.

**Recommendation 11:** That the desirability of greater use of site auditors in the contaminated site management decision-making process be investigated.

#### 5.4.11 Time Frames

The Review Panel was not able, in the time available, to make a full assessment of the time frames proposed in the Procedural Guide for decisions, responses and requests. Some are dictated by the relevant Acts. In other cases they appear to be estimates based on past experience or bureaucratic convenience as a result of administrative structure and resources.

Are there mechanisms to move critical cases through as quickly as possible, while acknowledging the need for administrative fairness? It is noted that draft requirements are sent out to site owners for comment before being enacted. To what extent is this practice required and is the response time of 21 days, given modern communications, overly generous?

**Recommendation 12:** That the time frames given in the Procedural Guide be critically evaluated to see if tighter time frames can be established.

## 6. Concluding Comments

This review of the Procedural Guide for EPA Officers has been at a high level and has encompassed the purpose of the Guide, its relation to the Acts that govern management of pollution and contaminated sites in NSW and its likely utility to those EPA officers charged with making decisions and recording their actions.

As it is intended to reflect the approach taken by the NSW EPA to the management of contaminated sites, the Guide has been closely examined to ascertain whether it presents coherent policy and recommends appropriate actions. The review has been conducted in the light of the regulatory activities for the management of contaminated sites in other Australian jurisdictions.

The Review Panel has found that the 2017 Draft Procedural Guide in its present form is a complex and lengthy document that is daunting to confront. It does not provide clear guidance as to why decisions are taken in what is a relatively well-established area at the national level, informed by the publications of the National Environment Protection Council. The Guide lacks clear guidance to Regulatory Officers in using the National Environment Protection Measures in classifying a notified site as 'significantly contaminated' and in need of remediation. This, in turn, leads to public uncertainty about the level of risk associated with notified sites on the public register. Other concerns relate to time frames for responses

from officers and owners of contaminated sites and to questions as to whether responses can be fast when sites of high contamination affect neighbouring sites.

The Review Panel considers that a major review of the document is in order and has made several recommendations about concerns that should be addressed. It questions the purpose of the document as it stands – whether it is designed as a guide to new staff or an *aide memoire* for established staff – and suggests that the Guide perhaps be split into several subordinate guides covering specific topics.

The Review Panel has also made recommendations about administrative processes embodied in the Guide. In particular, it recommends a better, perhaps more numerical, explanation of the risk associated with notified sites listed as “under assessment” in the public register and the category “regulation under CLM Act not required”.

This all said, the Review Panel congratulates the EPA on the rigour and professionalism in relation to its handling of contaminated sites, noting that it compares favourably with the best Australian and international jurisdictions. Improving the Procedural Guide will add to the efficiency and ease with which its officers function, increasing public confidence in its outcomes and fulfilling the aims of the EPA to preserve the health of our citizens and the environment.

## **References**

Web sites listed in footnotes were searched in the period 30 May, 2017 to 12 June, 2017.

## **EPA Officers Interviewed**

Mr Barry Buffier, Chair and Chief Executive Officer

Mr Mark Gifford, Chief Environmental Regulator

Ms Sarah Gardner, Executive Director, Hazardous Incidents and Environmental Health

Ms Arminda Ryan, Director, Contaminated Land Management