



Guidelines for Notification and Risk Management after Detection of a Clandestine Drug Laboratory (Clan Lab)

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USER GUIDE

Local Government – Engages with owner and approves the dwelling’s remediation – See Figure 1 (p4); Initiation, Assessment and Management (p5); Attachment 5 (p20).

Owner – Arranges remediation and validation – See Figure 1 (p4); Initiation, Assessment and Management (p5).

Forensic Contractor – Plans and conducts assessment, remediation and validation – See Figure 1 (p4); Initiation, Assessment and Management (p5); Attachments 2, 4, 6 and 7.

IF IN DOUBT CONTACT WA HEALTH ON 93884999 OR clanlab@health.wa.gov.au

FOR THE LATEST INFORMATION ON CLAN LAB REMEDIATION IN WESTERN AUSTRALIA AND SUPPORTING DOCUMENTATION AND TRAINING MATERIAL SEE

http://www.public.health.wa.gov.au/3/1653/2/clandestine_drug_laboratories.pm

PURPOSE

These Guidelines outline how a relevant Local Government (L/G) or other agency will be notified (**Notification Pathway**) by the Western Australian Police (WAPOL) of a clandestine drug laboratory (clan lab) and provide procedures (**Assessment and Management**) to address any associated public health and/or environmental risks.

The Assessment and Management section are also relevant to other stakeholders, such as site owners, managers and occupiers, as well as service providers.

They are not intended for occupational settings but it is worth noting that: clan labs can be found in workplaces or land/water areas associated with them, and that a clan lab site may be a workplace during any required professional assessment, remediation and validation.

CONTEXT

This document was prepared by the Western Australian Department of Health (WA Health) and the Department of Environment Regulation (DER). DER has a regulatory role where contamination of the environment occurs, and WA Health with L/G have responsibilities for dwellings under the *Health Act 1911* (see Attachment 5).

The incidence of clan lab detections is increasing in WA. Although bulk materials and equipment are removed during routine police activities, potentially toxic residues may remain in or around the clan lab site, commonly in a domestic residence including on surfaces and furnishings. Residues can consist of: drug products such as methamphetamine, other chemicals, raw materials and wastes. These residues and their associated risks can persist in affected areas for long periods, as demonstrated in *enHealth Position Statement: Clandestine Drug Laboratories and Public Health Risks*. See Reference section.

The potential for contamination should be notified, assessed and managed to prevent possible risks to existing and future occupants, especially children, and the environment.

NOTIFICATION PATHWAY

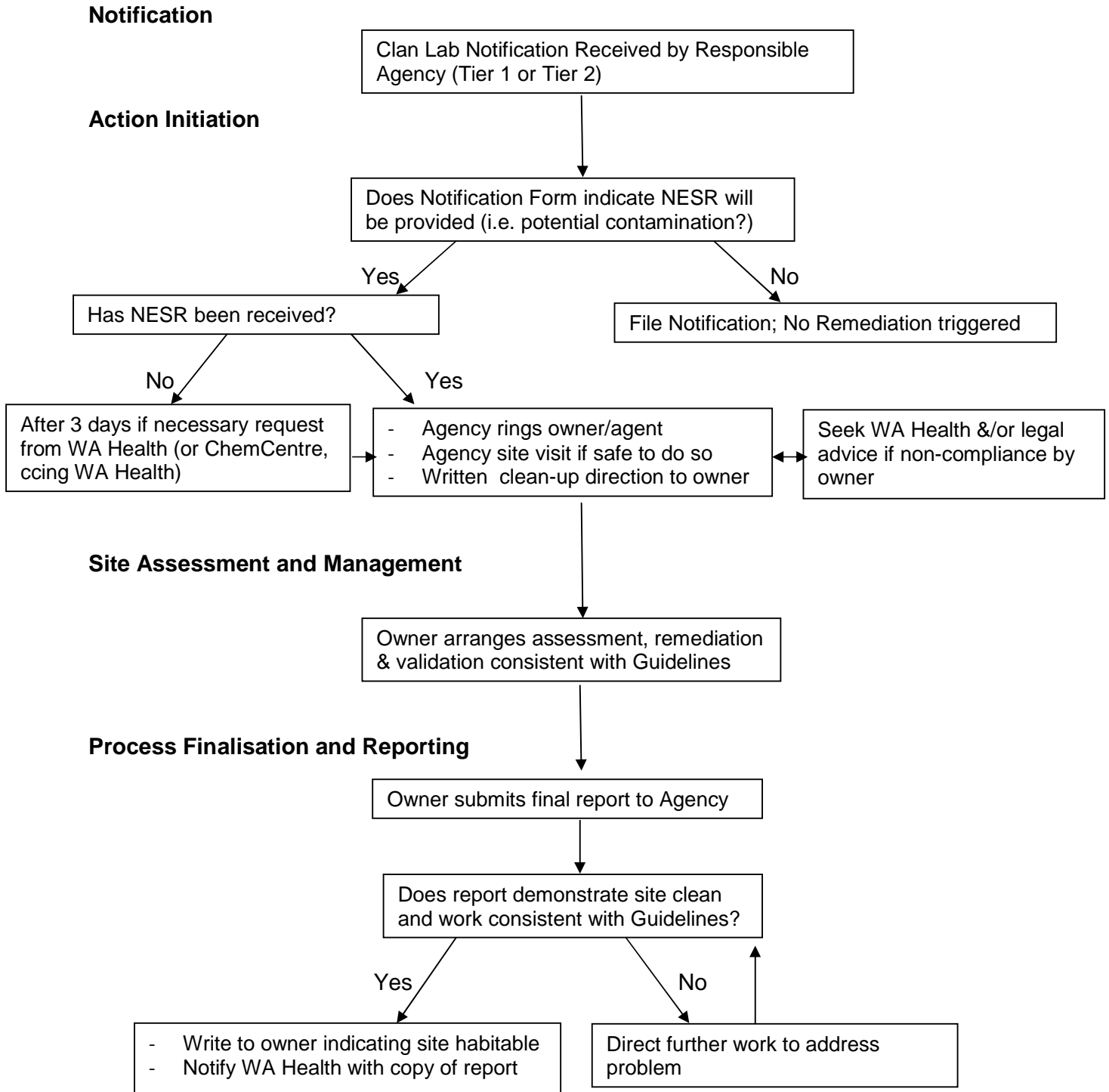
The notification pathway for **all** clan labs is from WAPOL through the WA Health 24 hour On Call Duty Officer system and Environmental Health Directorate to the L/G Principal Environmental Health Officer or other responsible agency. This is outlined in the Notification Flowchart in Attachment 1.

The 'Clan Lab Notification Information Checklist' (Attachment 2) will help ensure that important initial information is conveyed, including location and contact details, and the type of clan lab i.e. Tier 1 or 2. How the Tier type is determined and the risks associated with each are detailed in Attachment 3. This information is provided by WAPOL together with the ChemCentre which attends all clan labs for safety and forensic purposes.

Although all clan labs will be notified to the responsible agency, sometimes other relevant agencies will also be advised for their information.

WAPOL routinely leaves a warning sign at a potentially contaminated dwelling indicating that a clan lab had been present and there may be health risks from entering that property.

**FIGURE 1
CLAN LAB ASSESSMENT, REMEDIATION AND REPORTING PROCESS
FOR A DWELLING***



* Based on WA Health Guidelines. Process may be slightly different for external contamination

INITIATION, ASSESSMENT AND MANAGEMENT

After receiving a clan lab notification the responsible agency should determine whether any action is required, and if so then implement it. This process is outlined in Figure 1, and described in detail in subsequent sections of these Guidelines.

Action is normally only necessary if the Notification received indicates a Non-Evidentiary Site Report (NESR) will be provided, since there is possible or likely contamination of a dwelling. Contamination is unlikely from chemical or equipment storage only.

Any NESR is prepared by the ChemCentre and includes more detailed contamination-related information such as the type of process, chemicals involved, likely areas of contamination, and locations for sampling. An example of this appears as Attachment 4. NESRs are not normally provided for bush or vacant land sites, and any further action is at the discretion of the Department of Environment Regulation (DER) for these sites.

The assessment and approach to management will depend on information made available through: the notification process; the NESR; the advice in these Guidelines; and sometimes other sources as specified. As will be discussed later, a Tier 2 clan lab will more commonly, but not always, require further action as the risks may be higher or more uncertain than for a Tier 1.

Any NESR that is prepared will be sent by email to the WA Health email address (clanlab@health.wa.gov.au) at the time or shortly after the ChemCentre on-site assessment. WA Health will then email the report to the relevant agency. If the Notification Checklist indicates an NESR will be provided, WA Health will request the NESR if not received after 3 days. There are two distinct areas of possible contamination which may require remediation: contamination of the dwelling or contamination of the external environment, as outlined below. Sometimes both may be contaminated. The dwelling should be considered to also include other site buildings and external hard cover surfaces. External 'environment' usually means site soil, groundwater or surface water pursuant to the definition of 'environment' under the *Environment Protection Act 1986*.

The remediation standards discussed below for the different chemical/exposure situations are drawn from the *Clandestine Drug Laboratory Remediation Guidelines – 2011* (the National Guidelines) listed under Reference Material. These standards are in fact Investigation Levels (Health and Environmental) (ILs) which can also be used as remediation/validation goals, in particular the 0.5ug/100cm² Health Investigation Level (HIL) for methamphetamine on residential surfaces. Exceedance of these ILs does not necessarily mean a risk exists but indicates the need for further investigation or action. Remediation to meet these goals may be necessary or meeting other acceptable levels that are based on site-specific risk circumstances. The ILs are conservative and protective and are primarily for a forensic testing officer or contractor to apply. **WA Health can provide further advice on their application as required.**

Dwelling Contamination (*Health Act 1911* and its Regulations apply)

The process detailed below enables the L/G EHO or other agency officers (where appropriate) to determine what management steps are necessary for Tier 1 and Tier 2 clan labs to ensure that any public health risks are reduced to acceptable levels. The owner

should be directed to have the work undertaken professionally as specified and to demonstrate its effectiveness.

The objective is for the dwelling to be fit for human habitation. Attachment 5 outlines the L/G legal basis to direct related work. In principle, a dwelling or part of a dwelling may be rendered unfit for human habitation due to contamination inside the dwelling and/or in the vicinity of manufacture, storage or disposal activities. If only part of a dwelling is to be declared unfit, the continued operation of the rest of the dwelling will depend on critical infrastructure remaining usable e.g. toilets, or ablution facilities. Contamination of kitchen areas is of considerable concern in relation to occupant exposure.

The nature of the direction given to the owner will be the decision of the relevant agency taking account of the site specific perceived risks and the agency's general policy in this regard. It is worth noting that some of the people at risk have already voluntarily been in the residence during the more dangerous operational phase of the clan lab and that WAPOL should have placed a warning sign outside the premises. Any chemical residues would typically present a medium to longer term exposure risk. Children present at the time of the clan lab discovery will normally be relocated by the Department of Child Protection and Family Support. Other risk groups include pregnant women, the elderly and the ill.

An unfit for human habitation notice (*Health Act 1911*, S 135) may, but is not necessarily served in the first instance for Tier 1 clan labs. In the absence of any testing results at this stage, a graduated approach can be used which may indicate intent to serve the S 135 if action does not occur, or the serving of a cleanup notice (S 139) as an initial step. Tier 2 clan labs are likely to require stronger and more formal direction of work. A formal notice may be more likely to trigger an insurance policy response which could facilitate the remediation and management process. Examples of notice letters are provided in the Resources section of the WA Health clan lab webpage.

In some cases it may be necessary for the responsible managing agency to consider commissioning the remediation work and then seeking remuneration (see process outlined in Attachment 5). Local Government may be able to do this under S 181 and there is also possible repayment by the clan lab offender occurring under the *Sentencing Act 1995*.

If it is necessary to serve an S 135 notice, it is highly undesirable for people to remain in affected parts of the dwelling. If they do, the need for any consequential action should take account of the risk factors already mentioned and as necessary, advice from WA Health.

Although contamination is normally highest in operational clan lab areas, residues may spread elsewhere in a building through aerosolisation or tracking. So residue management should also be considered in adjacent or other rooms particularly on horizontal surfaces where there is potential for extended exposure of children such as in bedrooms.

Any contamination will be confined to the dwelling or in some cases to the immediate vicinity of an associated external area or roof space. So any contamination concerns from neighbours can be addressed by advising that they are not at any risk.

If unknown environmental contamination becomes apparent during investigations or management then this should be reported to the DER.

The recommended series of assessment and management steps are listed below, with useful additional examples of L/G procedures to address them on the WA Health website, under Relevant Resources. In the case of Tier 1 clan labs, only some will have presumed contamination and thus have an NESR provided and be in need of management. For Tier 2 clan labs, management will more often be necessary and important.

Tier 1 Clan Lab

For a Tier 1 clan lab (most common in WA), contamination when indicated (together with an NESR) will normally be both limited and low risk, and therefore manageable through assessment and remediation procedures outlined in this document. **Simpler site specific procedures may be possible based on advice if sought from WA Health:**

1. The L/G EHO should contact the owner preferably by telephone. For Department of Housing properties, the L/G EHO should just notify the Department of Housing and advise WA Health of that agency's involvement;
2. The L/G EHO or relevant regulator may wish to visit the site if safe to do so. However, the value of site familiarisation needs to be weighed against risks posed by any drug residues and the possibility of encountering clan lab-related people. The investigating officer should take necessary general and chemical safety precautions. These should be based on NESR information and ChemCentre advice, and take account of the entry and safety guidance as provided in Attachment 6. The WAPOL contact should be able to advise on risks from persons at the site, and arrange a site visit escort if appropriate including through local police. Screening sampling is possible for confirmatory and evidentiary purposes after consultation with WA Health;
3. The L/G should write to the owner with directions about necessary work with copies of the Notification, NESR and these Guidelines (or web address). The directions should include guidance for appointing a forensic tester, specifically one of those on the accredited provider list at WA Health's webpage under Remediation Service Providers - http://www.public.health.wa.gov.au/3/1653/2/clandestine_drug_laboratories.pm Sample letters are included in the Resources section of the WA Health Clan Lab web page;
4. The owner should engage the forensic testing contractor, and an industrial cleaner as available in the "Yellow Pages". In some cases, such as in remote areas, forensic contractors may not be available. After training by WA Health, it is possible that L/G EHOs may undertake the testing associated with Tier 1 clan labs;
5. The forensic contractor should have copies of any written guidance to the owner, the Notification and NESR, and base the assessment and management on these Guidelines;
6. The forensic testing contractor should develop and implement an assessment, remediation and validation plan, including safety guidance, based on Attachment 6, with the remediation being done by the industrial cleaning contractor. Any post-remediation elevated validation test results (i.e. at or above the HIL of 0.5ug/100cm² for a methamphetamine swab sample in a dwelling) should necessitate additional rounds of professional cleaning of the particular area until test results are below the HIL (see point 6(a) under Tier 2 schedule for immunoassay requirements);

7. The forensic testing contractor must provide a written report as per Attachment 8, acceptable to the regulator, stating the work undertaken, its effectiveness and its compliance with these Guidelines; and
8. If the report is acceptable and no further work required, the regulator should write to the owner indicating this and that the dwelling is fit for human habitation. **WA Health should be copied into this correspondence at clanlab@health.wa.gov.au.** The forensic testing contractor also needs to provide a copy of the final approved report to WA Health at the above email address.

Tier 2 Clan Lab

A Tier 2 clan lab should be given a **priority** when indicated as possibly or likely to be contaminated and an NESR is provided. Such laboratories will require specialised assessment, and if necessary management, due to possible greater risks and more extensive or complicated chemical processes involved. **Simpler site-specific procedures may be possible based on advice if sought from WA Health.**

1. The L/G EHO should contact the owner preferably by telephone. For Department of Housing properties, the L/G EHO should just notify the Department of Housing and advise WA Health of that agency's involvement;
2. The L/G EHO or relevant regulator may wish to visit the site if safe to do so. However, the value of site familiarisation needs to be weighed against risks posed by any drug residues and the possibility of encountering clan lab-related people. The investigating officer should take necessary general and chemical safety precautions, noting that a Tier 2 clan lab may be less predictable and more risky than a Tier 1. These precautions should be based on NESR information and ChemCentre advice, and take account of safety guidance in Attachment 7, and the entry guidance and safety checklist in Attachment 6. The WAPOL contact can advise on risks from persons at the site, and arrange a local police escort for a site visit if necessary. Screening sampling is possible for confirmatory or evidentiary purposes after consultation with WA Health;
3. The L/G should write to the owner with directions about necessary work with copies of the Notification, NESR and these Guidelines (or web address). The directions should include appointing a forensic tester and suitable industrial cleaner, as per the accredited provider list at WA Health's webpage under Remediation Service Providers - http://www.public.health.wa.gov.au/3/1653/2/clandestine_drug_laboratories.pm Sample letters are included in the Resources section of the WA Health Clan Lab web page;
4. The owner should engage the forensic testing contractor to plan and undertake forensic testing of the premises to identify areas requiring decontamination;
5. The testing should be based on the Notification, NESR, safe practices, a site visit, these Guidelines and also the detailed sampling guidance in the National Guidelines;
6. The forensic testing contractor should carry out the initial forensic testing to inform the remediation plan, Note that:
 - a. Immuno assay swabbing is suitable as a screening method only (T2), and must have a stated level of sensitivity consistent with the prescribed minimum Health Investigation Level for methylamphetamine of 0.5ug/100cm² (in a dwelling).

- b. Where a positive detection is obtained for an immuno assay swab, an analytical swab sample must be collected from an immediately adjacent area for quantitative analysis by an accredited laboratory as indicated below;
7. Any laboratory analysis for potential illicit drug samples will need to be sent to and be undertaken by a laboratory accredited for this purpose. The forensic testing contractor should arrange this. Accredited analytical laboratories for this purpose are in a list at the WA Health clan lab webpage under Remediation Service Providers;
http://www.public.health.wa.gov.au/3/1653/2/clandestine_drug_laboratories.pm
8. The owner with advice from the forensic testing contractor should engage a suitable cleaning contractor. Tier 2 clan labs require more specialised remediation skills and a list of suitable cleaning contractors is also included at the WA Health website under Remediation Service Providers;
http://www.public.health.wa.gov.au/3/1653/2/clandestine_drug_laboratories.pm
9. The forensic testing contractor should develop and implement a remediation and validation plan, incorporating safety requirements, based primarily on the National Guidelines. In the cases of fires or explosions, the areas to be remediated would consist only of those structures to be retained in the building that may be contaminated;
10. The remediation and validation should be undertaken. Note: Immuno assay swabbing is not a suitable validation method for Tier 2 clan lab sites. Analytical swab samples must be collected for quantitative analysis by an accredited laboratory, using a systematic grid based sampling approach across areas identified as impacted by initial testing;
11. Any elevated test results will necessitate additional rounds of professional cleaning of the particular area until acceptable results are obtained;
12. The forensic testing contractor must provide a written report as per Attachment 8, acceptable to the regulator, stating the work undertaken, its effectiveness and its compliance with these Guidelines and/or National Guidelines; and
13. If the report is acceptable and no further work is required the regulator should write to the owner indicating this and that the dwelling is fit for human habitation. **WA Health should be copied into this correspondence at clanlab@health.wa.gov.au.** The forensic testing contractor also needs to provide a copy of the final approved report to WA Health at the above email address.

Note: Although every effort should be made to remediate the site, it is not possible to state that all areas within a residence are totally free of chemical residues associated with a clan lab. Analysis by swabbing high risk areas, even after remediation, may still indicate traces of chemical residues, but at levels that pose a negligible risk to human health (that is below the HILs).

External Contamination (*Environmental Protection Act 1986, Contaminated Sites Act 2003* and associated Regulations apply)

Chemicals and wastes from illicit drug manufacture are often dumped on the site (outside a building) or nearby. Chemicals and wastes may also be stored in unsealed areas of a site, potentially posing a risk to the environment and public. Where contamination outside a

dwelling (i.e. contamination of the environment) is identified at a site, the notification process described in this document requires that Department of Environment Regulation (DER) is advised. The notification would not normally be followed by an NESR in cases of bush sites or vacant land.

Protection of the environment is normally managed by DER, although L/G or other regulators may have some involvement especially if: buildings on the site are also contaminated; it is L/G land; or they can facilitate a simple environmental remediation. Where practical other relevant regulators should be kept informed.

Evidence of wastes being dumped may include, but is not be limited to:

- white/caustic residues on the soil
- oil type staining on the soil
- pits with evidence of chemical wastes being deposited
- areas of dead grass/vegetation or disturbed earth
- discarded gas cylinders or chemical containers
- batteries or remains of batteries

The recommended assessment and management steps for contamination of the environment are listed below:

1. DER will contact the owner by telephone, or in writing as appropriate;
2. Depending on the level of risk posed, DER may visit the site, taking safety precautions especially for Tier 2 clan labs based on information contained in any NESR or ChemCentre advice, and taking account of safety guidance in Attachment 8;
3. DER will liaise with the L/G EHO etc and determine if an Environmental Field Notice should be necessary, or whether another course of action be taken such as the site's statutory reporting under the *Contaminated Sites Act 2003* (DER Form 1 report);
4. DER will provide the owner with advice and directions about necessary work and enclose copies of the non-evidentiary report and of these Guidelines. **In simple cases DER may only provide remediation and disposal directions for the work but if necessary the following process may apply;**
5. The owner should engage a suitable environmental contractor. Such consultants are available in the "Yellow Pages" and from the Australian Contaminated Land Consultants Association listed. For limited contamination a forensic tester may be adequate.
6. Environmental contractor should develop an investigation and remediation plan taking account of available information and guidance including the NESR, these Guidelines, the National Guidelines and if necessary the DER 'Contaminated Sites Management Series' (CSMS) of guidelines. Note that:
 - a. Limited ammonium sulfate/caustic waste can be treated on-site by intensive irrigation to dilute the residue;

- b. Large quantities of ammonium sulfate/caustic waste should be excavated, only a limited quantity of soil beneath the material is required to be excavated;
 - c. All other waste or residues should be excavated and disposed to a suitable landfill facility in accordance with DER's *Landfill Waste Classification and Waste Definitions 1996* guidelines (As amended December 2009);
7. Where contamination is found to be present the remediation should be conducted to less than the residue levels outlined in the National Guidelines;
8. The environmental contractor will carry out validation testing for any remediation and provide a report to DER in accordance with the CSMS of guidelines. Note that:
 - a. Validation of ammonium sulfate/caustic waste impacted areas may be by disposable pH soil strips, which should be photographed (along with excavation activities) and provided in the validation report;
 - b. All other waste including hydrocarbon waste which may be impacting the site should be excavated and/or bagged and disposed of at a suitable landfill, based on DER's *Landfill Waste Classification and Waste Definitions 1996* guidelines;
 - c. Validation of other waste impacted areas should include analytical testing of soil samples by a NATA accredited laboratory for, TPH, BTEX and PAH;
9. The environmental contractor will complete an 'Investigation, Remediation and Validation report' in accordance with the DER Contaminated Sites Management Series of guidelines for the works (or Attachment 8), and with reference to the National Guidelines, and submit this report to the DER Contaminated Site Branch as follows;

The Manager, Contaminated Sites Branch
Locked Bag 33, Cloisters Square, WA 6850

10. If the report is acceptable and no further work is required DER will write to the owner indicating this and **also provide an information copy to WA Health at clanlab@health.wa.gov.au**.

AGENCY CONTACT DETAILS

The main contact details for key agencies and the services they provide are listed below:

Department of Environment Regulation (DER)

In the first instance contact should be made with the Pollution Response Unit, and as necessary the Contaminated Sites Branch may become involved.

Pollution Response Unit - T: 1300 784 782 E: <mailto:pollutionwatch@der.wa.gov.au>

Contaminated Sites Branch - T: 1300 762 982 E: <mailto:contaminated.sites@der.wa.gov.au>

Department of Health (WA Health)

WA Health On-Call Officer (24/7 paging system) – T: 08 9328 0553 – WA Health primary contact for all clan lab notifications.

EHDERT Officer - T: 1300 555 555 (Quote pager 5011291 and provide a short message)

NESRs should be sent to the following address, as should also the regulator's correspondence when a clan lab remediation is completed: clanlab@health.wa.gov.au

Clan lab advice can be obtained from the Environmental Hazards Unit on 08 9388 4999.

Department of Housing (DoH)

Duty Officer – T: 08 9222 2575 or 08 9222 4712 or during office hours, or <mailto:clientservices@housing.wa.gov.au>.

ChemCentre – Forensic Services

When making enquiries about obtaining testing services or when providing advice to an owner or agent, ChemCentre should be contacted via email at: clanlabremediation@chemcentre.wa.gov.au

Illicit Drugs Section Contacts - T: 08 9422 9800 F: 08 9422 9831

Western Australian Police – Illicit Drug Manufacture Investigations

Organised Crime Squad - T: 0438554483; 08 9223 3558, AH: 131 444

REFERENCE MATERIAL AND USEFUL LINKS

Department of Health Clandestine Drug Laboratory webpage at: http://www.public.health.wa.gov.au/3/1653/2/ clandestine_drug_laboratories.pm

Australian Government *Clandestine Drug Laboratory Remediation Guidelines (2011)*: http://www.ag.gov.au/Documents/2109%20Remediation%20Guidelines_WEB.PDF

Australian Contaminated Land Consultants Association - T: 08 9211 1111, F: 08 9211 1122 E: info@aclca-wa.org.au W: <http://www.aclca-wa.org.au>

Department of Environment Regulation, Report of a Known or Suspected Contaminated Site (Form 1) under Section 11 of the *Contaminated Sites Act 2003*, available at: <http://www.dec.wa.gov.au/content/view/2869/2062/>

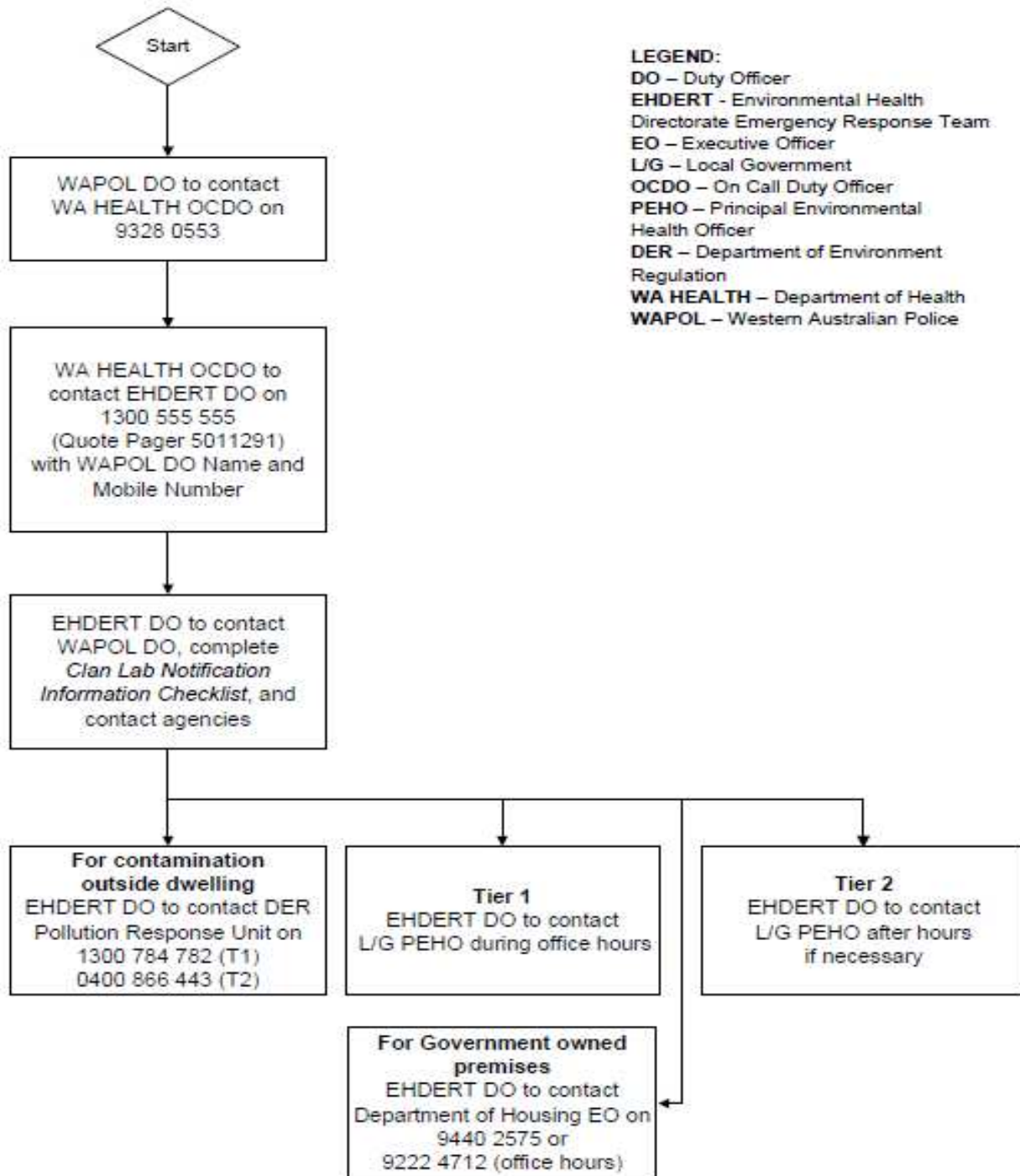
Department of Environment Regulation, 'Contaminated Sites Management Series' of guidelines, available at: <http://www.dec.wa.gov.au/content/view/2871/2063/>

enHealth Position Statement: Clandestine Drug Laboratories and Public Health Risks <http://www.health.gov.au/internet/main/publishing.nsf/Content/health-pubhlth-publicat-enviro.htm>.

U.S. Environmental Protection Agency, *Voluntary Guidelines for Methamphetamine Laboratory Cleanup – March 2013* http://www2.epa.gov/sites/production/files/documents/meth_lab_guidelines.pdf

March 2014

NOTIFICATION OF CLANDESTINE DRUG LABORATORY FLOWCHART
(ALL HOURS)



CLAN LAB NOTIFICATION INFORMATION CHECKLIST Attachment 2

THIS FORM IS FOR GOVERNMENT USE ONLY

Purpose – The EHDERT Officer relays this information to assist relevant L/G or other agency officers.

Note: If appropriate a more comprehensive non-evidentiary site report (NESR) will be provided by the ChemCentre to L/G or other agencies via the DOH's Environmental Health Directorate.

INCIDENT DETAILS/CONTACTS		WAPOL Incident No: _____	
Date: ____/____/____	Time: _____	Date of Incident: ____/____/____	
WAPOL Contact:		Telephone: (08) 9223 3558	
Mob: _____		Email: Organised.Crime.Squad@police.wa.gov.au	
ChemCentre Contact:		Telephone: (08) 9422 9800	
Mob: _____		Email: clanlabremediation@chemcentre.wa.gov.au	

LOCATION

Address: _____	Suburb: _____	Town: _____
Other data: _____	GPS (bush): _____	

PROPERTY/LOCATION DESCRIPTION

Dwelling/yard **Bush land** **Vacant Land** **Commercial** **Other:** _____

Type:	<input type="checkbox"/> Privately owned	<input type="checkbox"/> Government owned
Occupancy:	<input type="checkbox"/> Occupied	<input type="checkbox"/> Not occupied
If occupied:	<input type="checkbox"/> No. of adults <input style="width: 50px;" type="text"/>	<input type="checkbox"/> No. of children (under 16 years of age) <input style="width: 50px;" type="text"/>
Accessibility	<input type="checkbox"/> Accessible without PPE	<input type="checkbox"/> Accessible with PPE
	<input type="checkbox"/> Not accessible (eg structure, people) What?	<input type="checkbox"/> Other safety issues (eg electrical, flammables, hygiene). What?

TIER DETERMINATION CRITERIA		YES	No
Where there are any ticks in the Yes column the clan lab type becomes Tier 2			
1	Are their indications the manufacture method is not a Birch reduction		
2	Is the <u>estimated</u> production cycle capacity > than 5g		
3	Is there > 100L/kg of stored (labeled or unlabeled) chemicals on the property		
4	Is there > 50L/kg of stored waste on the property		
5	Is there visible evidence of significant staining or other surface contamination within dwelling		
6	Is there evidence or information to suggest long term manufacture		
7	Has there been a fire or explosion at the property		

Where there is any evidence of waste/chemicals being dumped on the property/site or nearby, notify DER.

Is this small (<10kg/L) medium (10-20kg/L) large (>20kg/L) unknown amount? Comment: _____

TIER RATING T1 **OR T2** Comments if Tier 2: _____

Will NESR be provided? Yes **Agency Action Necessary** Comments: _____

No **No further remediation Action** TBA

Office use only

WA Health OCDO NAME: _____ TIME: _____ PHONE: _____ ACTIONED BY EHDERO NAME: _____ Phone: _____	CONTACTED L/G OFFICER: _____ DATE: ____/____/____ Method of contact: <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> E-mail	CONTACTED DER OFFICER: _____ DATE: ____/____/____ Method of contact: <input type="checkbox"/> Phone: 1300 784 782 (T1) or 0400 866 443 (T2) <input type="checkbox"/> Fax <input type="checkbox"/> E-mail	CONTACTED HOUSING AND WORKS Y/N DATE: ____/____/____ Method of contact: <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> E-mail <input type="checkbox"/> Emailed client services?
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LG Contact email: _____ Emailed: Organised.Crime.Squad@police.wa.gov.au

CLAN LAB CHARACTERISATION METHODOLOGY

For each clan lab, WAPOL and ChemCentre forensic officers conduct an initial assessment of the site. Based on the findings, the ChemCentre will provide input to the Clan Lab Notification Information Checklist and if contamination is possibly or likely to be present in or associated with a dwelling complete a “Non-evidentiary site report” (NESR). The NESR will include information relevant to human health and environmental contamination issues. This information will be used to assist in determining the type of clan lab and to further inform the notification and management processes.

For the purpose of this guidance note, clan lab types are:

Tier 1 (simple and low quantity process, generally low to medium risk)

Tier 2 (special and/or possibly high quantity process, uncertain and potentially high risk)

In WA the most common clan lab produces methamphetamine using the Birch (anhydrous ammonia) reaction method in small quantities, often for an individual or small group consumption purposes. This Tier 1 process normally results in limited, low level and easily managed contamination, with low or possibly up to medium associated health risks as a result of residues.

However, larger scale processes or ones that use other chemical reactions (Tier 2) can result in greater contamination and higher or less predictable risk that may require more careful management and professional assistance.

The primary questions that the ChemCentre will address to determine the Tier of the clan lab consist of:

1. Are there indications that the manufacture method is not a Birch reduction?
2. Is the estimated production cycle capacity greater than 5g?
3. Is there more than 100L/kg of stored (labelled) chemicals?
4. Is there more than 50L/kg of stored waste?
5. Is there any evidence of significant staining or other surface contamination within the dwelling?
6. Is there any evidence to suggest long term manufacture at the site?
7. Has there been a fire or explosion at the property?

If the answer to any of these questions is yes or there is any uncertainty (default position) then the clan lab will be classified as Tier 2. The management of Tier 1 and Tier 2 is only necessary where indicated in the notification and will also be assisted by additional information in the NESR including in relation to the nature, quantities and locations of chemicals removed or observed.

EXAMPLE

Clandestine Drug Laboratory Contamination Report

clanlabremediation@chemcentre.wa.gov.au

**INCIDENT CONTACT**

Date/ time:	19 th October 2011, 8.00 pm	Incident No: 191011 1240 9173
ChemCentre Contact:	Oliver Locos	Telephone: 08 9422 9868
WA Police Contact:	WILLIAMS PD 9173	Telephone: 08 9223 3558

SITE INFORMATION

Address/ GPS:	153 XXXXX Street, YYYYYY, WA 6255
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PROPERTY DESCRIPTION

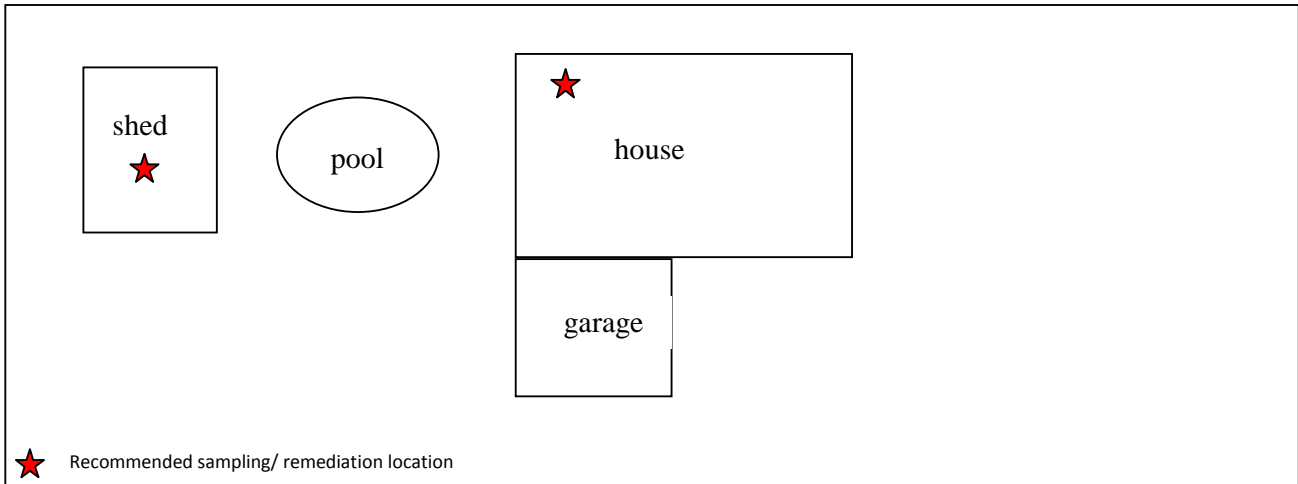
Type:	<input checked="" type="checkbox"/> Single residence	<input type="checkbox"/> Duplex	<input type="checkbox"/> Unit	<input type="checkbox"/> Hotel	<input type="checkbox"/> Other:
Status:	<input type="checkbox"/> Owner-Occupied	<input type="checkbox"/> Rental	<input type="checkbox"/> Vacant	<input type="checkbox"/> Squat	<input type="checkbox"/> Other:
Indicate link with Clan Lab: as applicable	<input checked="" type="checkbox"/> Single Storey	<input type="checkbox"/> Patio	<input checked="" type="checkbox"/> Garage	<input type="checkbox"/> Shed	<input type="checkbox"/> Other:
	<input type="checkbox"/> Multi Storey	<input checked="" type="checkbox"/> Kitchen	<input type="checkbox"/> Dining	<input type="checkbox"/> Bedroom(s)	
	<input checked="" type="checkbox"/> Bench top(s)	<input type="checkbox"/> Table	<input type="checkbox"/> Walls	<input type="checkbox"/> A/C, Exhaust fan/filters	
	<input type="checkbox"/> Soft Furnishings	<input checked="" type="checkbox"/> Floor	<input type="checkbox"/> Ceiling	<input checked="" type="checkbox"/> Outside:	

PROCESS DISCOVERED/CHEMICALS FOUND

Drug and manufacture method:
Ammonia gas being produced in shed, equipment still venting on entry.
Further related processes also appear to be taking place in shed and in kitchen of house
Consistent with methylamphetamine manufacture using lithium/ liquid ammonia (Birch type)

Substance/Chemical Found	Qty	Location (* indicates cooking location)	Condition/Hazard (residue, stain, odour, etc)
1. Acid	1	Toilet	In bottle
2. Red powder in liquid	1	Kitchen Pantry	In glass jar
3. Ammonia Generator	1	Outside Shed*	Venting a small amount of ammonia
4. Biphasic liquid	1	On bench down back of shed*	In bottle
5. Biphasic liquid	1	In kitchen under sink	In Shellite bottle
6. Tubing	Lots	Near NH ₃ gen. All through shed*	Garden hosing, clear tubing crazed
7.			
8.			
9.			
10.			

SITE PLAN – overall/ external

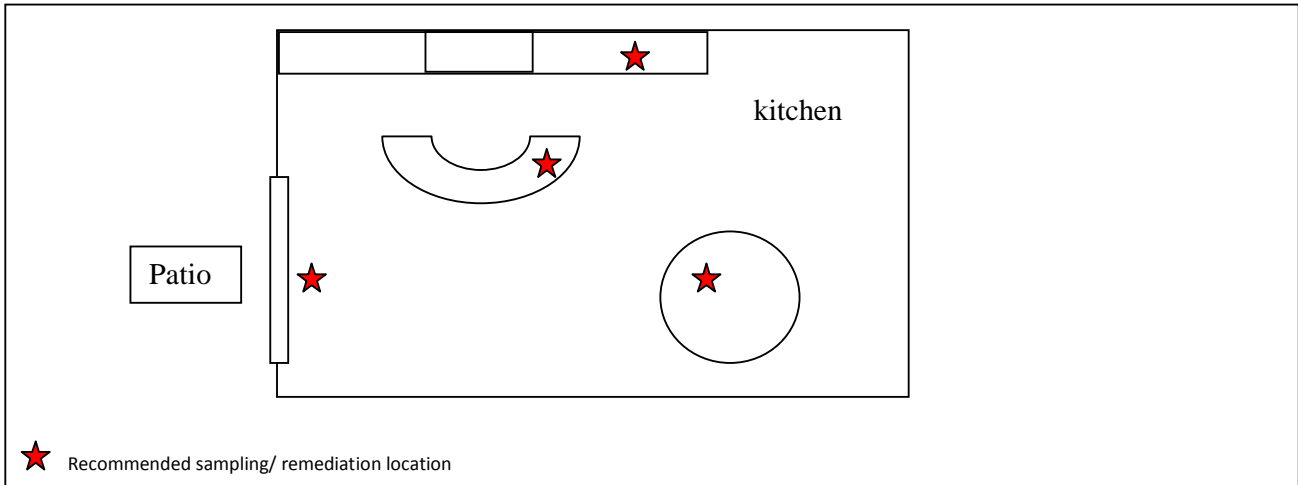


★ Recommended sampling/ remediation location

Notes

Recommend remediation, and validation sampling, is performed in kitchen, bathroom and in shed.

SITE PLAN – detailed/ internal



★ Recommended sampling/ remediation location

Notes

Recommend remediation, validation sampling, is performed in on kitchen sink, benchtops, floor and bathroom sink.

Also floor and workbench in shed.

TIER RATING T1 **OR T2**

Photos taken? Other documents attached?

HEALTH ACT 1911 AND CLAN LAB MANAGEMENT

Environmental Health Officers (EHOs) have specific roles and legal powers available for inspecting dwellings or land in order to obtain evidence for a statutory purpose or in an evidentiary capacity.

EHOs have powers of entry onto any land or premises in order to determine if there has been a breach of the Act. (S 26 and 349)

Part V – Dwellings

Division 1 – Houses unfit for occupation

S 135. Dwellings unfit for human habitation

Where any part of a house or building is deemed unfit for human habitation, i.e. where illegal drugs have been manufactured, then an unfit for habitation notice may be issued by an EHO on behalf of the L/G, to the owner or occupier.

A notice may be issued where there is evidence of, or an EHO has reasonable belief that hazardous chemicals have been used in the manufacture of illegal drugs, and where there is a likelihood of them impacting on human health of existing or future occupants.

There may also be visible evidence of hazardous chemicals and/or equipment used in the manufacture of drugs and their contents in or around the premises, or part of the premises.

An inspection by an EHO may occur prior to the issuing of an Unfit for Habitation Notice (S 135) or repair notice S 182 (3), (4). This usually occurs after the WAPOL and ChemCentre Officers have left the premises removing visible remnants of illicit drugs, and/or, including Evidentiary Samples.

If the house is unoccupied or the occupants can safely remain until remediation then serve a notice under S181. If the house is unfit, direct the occupants to leave under S 135, until remediation occurs, enabling the house to be reoccupied after the L/G is satisfied with its effectiveness and the notice removed.

The inspection can be undertaken by a range of authorized or competent officers. (see other options outlined)

The usual response is to issue a Notice declaring the premises or part of the premises unfit for human habitation (not able to be lived in), until a Schedule of Works to satisfy the contents of the Notice is completed. Schedules usually relate to amending or removing contaminants to a specified standard within a specified time.

Head of Power in *Health Act 1911* for ordering Remediation

S 137 – If an S 135 Notice has been served, the L/G may also serve a S 137 Notice on the owner with time limit to amend the house and/or take down and remove. S140 - If work is not completed, the L/G may carry out the terms of the Notice recovering all expenses from the owner or - prosecute the owner. Significant penalties apply (up to \$10,000 with a daily penalty of \$25 - \$1,000).

S 139 - A Notice may be served by the L/G on the owner with a time limit to clean or repair. If the work is not done, the L/G may either take legal action or carry out the work at the owner's expense (penalty up to \$100 - \$1,000, daily penalty is \$50 - \$100).

S 145 - Served by a Medical Officer of Health on the Occupier (Owner if unoccupied) forthwith to clean the house or contents to the satisfaction of EHO. If work is not done, the local government may do the work at the defendant's expense (penalty up to \$10,000, daily penalty is \$25 - \$1,000).

S 181 - Served by EHO or other officer on the occupier (owner if unoccupied) with time limit to remove accumulation of offensive matter so that it is no longer injurious or dangerous to health. If the work is not done, L/G shall prosecute for failure to comply. The L/G shall cause the accumulation to be removed at L/G expense. L/G shall then recover these expenses from the occupier / owner (daily penalty is \$25 - \$50). See process outlined below. Demonstrating the presence of offensive matter in the form of chemical residues is best supported by testing.

S 182 (3), (4) - Served by those L/Gs which deem that a nuisance has been created on every person causing the nuisance or suffering to continue. There is no order; the L/G shall prosecute the perpetrators (penalty is \$250 - \$2,500; daily penalty is \$125 - \$250).

S 184 - Served by the L/G following a report of the EHO or other person on the owner and occupier with a time limit to abate the nuisance. The L/G shall, for failure to comply, prosecute the owner & occupier. The L/G shall cause the work to be done to abate the nuisance at the expense of owner & occupier (penalty is \$50 - \$500, daily penalty is \$25 - \$50).

Where a notice is served by L/G [Sections 135, 137, 139 & 184], there can be a delay of several weeks where L/G Councilors meet only monthly and Council officers do not have delegated authority. If the L/G has delegated authority to Council Officers using Section 26 of the Health Act 1911; there will not be a procedural delay.

Registration of Charges Against Land in Pursuant of *Health Act 1911*

(Original Advice by McLeods for City of Cockburn)

Step by Step:

- 1) Section 371 of the *Health Act 1911* (Act) provides that, where a local government carries out work under the Act, the cost of that work is recoverable from the owner of the land the subject of the work, and will constitute a charge on that land, until paid.
- 2) Section 372 of the Act provides that the abovementioned charge must be registered and administered in accordance with the *Registration, Enforcement and Discharge of Local Authority Charges on Land, Regulations* (Regulations).

A local government **cannot** serve the Notice of Intention to Register a Charge against Land and Premises before the works are completed and the costs have been paid by the local government. However the local government must always advise the owners that they intend to place the cost of the works as a charge on the land. The right of the owner to dispute the charge and the process to follow should also be advised.

Note: If the officer is not serving the documents in person, the documents must be served by registered mail (not just regular post). Regulation 1(4) of the *Registration, Enforcement and Discharge of Local Authority Charges on Land, Regulations* provides that the Notice of

Intention to Register a Charge must be served by registered post to the actual address of the owner if that address is known or, where that address is not known, to the address shown on the Certificate of Title.

Accordingly, the Notice of Intention to Register a Charge should be served by registered post to the address shown on the Certificate of Title (which should be the same as on the Notice itself).

It does not matter that the Notice may be returned to the local government. For the purposes of having the charge registered, it is important that the procedures in the Regulations are followed. Provided those procedures are followed, Landgate will register the charge.

3) Regulation 1 requires a local government to serve a Notice of Intention to Register a Charge against Land and Premises, in accordance with Form A, on the owner of the land. The Notice provides that the local government will apply to register the charge after the expiration of three days from service. The right of the owner to dispute the charge and the process to follow should also be advised. Service can be affected by prepaid registered letter, process server or in person to ensure that service is properly affected. The process server should be able to provide an affidavit, confirming that service was affected.

4) The owner, once served, can serve a Notice of Dispute, in accordance with Form B, on the local government within three days. If such a Notice of Dispute is received, the local government must refer the dispute to the Magistrates Court within 10 days. The Court will then list the matter for hearing in the next 7 days. A representative of the local government needs to attend that hearing, or the matter will be determined in its absence. If the notice under which the work was carried out is found to be invalid or the work has been carried out otherwise than in accordance with the Act, then the local government (presumably) would be unable to register the charge, and the costs would not be recoverable. The unsuccessful party to the dispute will also be liable for court costs.

5) If the owner does not serve a Notice of Dispute within three days, the local government can proceed to register completed Forms C and D at Landgate, along with:

- a statutory declaration by an authorised officer of the local government;
- a copy of the completed Form A Notice, and
- payment of the Landgate registration fee.

The charge will then be registered against the land.

6) The charge will remain on the land until the debt is satisfied, and will prevent the land from being able to be transferred until that time. The charge is removed by the registration of completed Forms H and I at Landgate, with payment of the Landgate registration fee.

7) If the charge is registered, then the local government should be able to recover its costs from the owner even if the owner does not have the ability to pay the costs, as the land should not be capable of disposal until the local government executes a completed Form H, confirming that the costs have been paid.

TIER 1 CLAN LAB – ASSESSMENT AND MANAGEMENT

A Tier 1 clan lab normally will have a low level and restricted spread of contamination, especially if any production location is known. This should only require simple but adequate site survey, remediation and validation work, often without the need for screening sampling. This work should be based on a written plan.

Site Survey

People undertaking a site survey may include officers of the responsible agency for familiarisation purposes and also contractors associated with the remediation and validation who may need to be better informed in support of the work they will undertake.

Recommended steps associated with such a visit include:

- Obtaining and becoming familiar with available information including the Notification form and NESR, and if possible a building site/floor plan;
- Undertaking an entry risk analysis and implementing precautionary actions, including ventilation. See Safety Analysis below;
- In the case of a responsible agency, checking for and possibly reinstalling if necessary the WAPOL building contamination warning notice;
- Carrying out at least a cursory whole of premises inspection including yard and outbuildings;
- Reporting or taking action as appropriate on any previously undetected hazards or suspicious areas;
- Inspecting suspect areas more closely and also potential high exposure areas such as kitchen, lounge room or rooms where young children may spend time, ;
- If appropriate and safe to do so interviewing owner or occupants;
- Taking photographs and possibly limited swab samples if trained and equipped to do so;
- In the case of a responsible agency, providing any occupants with safety advice and brochures where available. Advice may include to vacate the premises if not already done so, or to avoid entry into potentially contaminated areas; and
- Documenting the visit to assist the orchestration of the contamination management.

Assessment

For Tier 1 sites normally the assessment that guides the remediation depends on the Notification and NESR documentation as well as the site survey. Sampling can be undertaken if the foregoing material is not considered adequate information. This may occur if there is uncertainty about the location of clan lab's operation or if significant contamination may have arisen from prolonged methylamphetamine use in the building, for example from drug smoking.

Uncertainty about lab location may be due to the lab being in storage rather than being erected at the time of discovery. This can be common with the Nazi/Birch equipment and its portability means that operation could occur over time in more than one place in a building.

The most likely locations for a lab tend to be in kitchens and laundries but other places can be used such as common living areas and bedrooms. The latter areas may also be ones where smoking of meth can occur, as well as toilets/bathrooms. It is worth noting that walls and ceilings may become contaminated as well as floors, counters, furniture and other items.

Remediation

The remediation should be undertaken by a professional cleaner identified from the “Yellow Pages” based on a plan developed by the forensic testing contractor. This plan should incorporate safety guidance as discussed above.

The areas most likely requiring remediation are those associated with the manufacture, storage and disposal of drug-related chemicals, when they can be identified.

Warm water and detergent (slightly alkaline detergent is recommended) or drug specific cleaning solutions should be used. Cleaning should extend to all floors and work surfaces in the affected rooms (including of items), and areas of walls immediately adjacent to any reaction or storage sites. Cleaning of ceilings close to a production area may also need to be considered because although human exposure to them is likely to be very low, remobilization of the contamination may be possible over time.

Whenever in doubt, such as due to uncertainty about lab location, a potential smoking space, or spread of contamination into adjoining areas, then remediation should occur more widely because of the additional assurance it will bring for little additional cost. If it is possible that contamination may have occurred in communal areas such as kitchens, or areas frequented by children then these should also be remediated.

Any ventilation ducting, particularly ducting located in the vicinity of a reaction, such as a kitchen ceiling or range hood ducting should be thoroughly remediated, and any filters replaced. Although aerosol penetration is possible into passive ceiling air exchangers in the vicinity of drug manufacture, the contamination is likely to be limited, localised and not readily accessible.

Soft furnishings, clothing, upholstery or carpets that may be affected should be laundered or remediated with a commercial method using shampoo or steam cleaning, as the case may be. They may need to be disposed of if higher levels of contamination are possible, especially potentially contaminated children’s toys. Items for disposal should not be recycled.

For likely contaminated porous surfaces, their sealing or replacement may need to be considered.

Filters associated with air conditioners should be replaced and any sinks or drains that may contain chemical residues should be thoroughly flushed with warm water and detergent (slightly alkaline detergent is recommended).

In situations where surfaces may be porous or in a poor condition consideration should be given to replacement of these surfaces due to the risk of absorbed contamination.

Depending on the nature and extent of the potential contamination, site circumstances and future possible use, the forensic testing contractor may deem additional areas and types of remediation necessary.

Validation

Validation should be undertaken by the forensic testing contractor based on the plan.

Immuno assay swabbing by a qualified person is suitable for validation of Tier 1 clan lab sites only, and must have a stated level of sensitivity consistent with the prescribed minimum Health Investigation Level (HIL) for methylamphetamine of 0.5ug/100cm² (in a dwelling). Methylamphetamine is used as an indicator of contamination only.

The locations of the swabs should be based on where the highest contamination may have occurred, taking into account higher potential future exposure scenarios, especially for children. At least 5 such swabs in total for different primary affected areas should be used for this purpose, adjacent to locations of any screening samples if this has occurred.

Consistent with the National Guidelines, a swab should also be collected from a horizontal surface in each bedroom within a dwelling, particularly any bedroom occupied by a child.

Any elevated test results for methylamphetamine (i.e. at or above 0.5ug/100cm²) will warrant further remediation in that particular area until no further contamination is identified.

Refer to the National Guidelines for more detailed information if necessary on the validation process.

Personal Protection and Safety

Although Tier 1 clan labs (and many Tier 2) may have limited contamination, this and other possible hazards will have to be dealt with safely during site entry by responsible agency officers, e.g. during any pre-remediation inspection. This also applies to professional groups undertaking the remediation, although this will be a routine process that they are trained for.

Safety Analysis

A pre-site entry safety analysis is recommended which can be based on the following steps: Information Collection; Hazard Identification and Rating; Management Measure Selection; and Final Review and Decision. These steps are outlined below and also captured in the attached Annex in the form of a safety checklist to complete when considering site entry. The Resources section of the WA Health Clan Lab web page includes a DER Job Safety Analysis package which can also be used for this purpose.

Information Collection – The primary sources of information about a particular clan lab site are the Notification Form and the NESR, including material directly or indirectly related to safety. If in doubt or for extra information the relevant WAPOL or ChemCentre contacts can be approached for safety advice. Information based on contact with the owner may also be useful.

Hazard Identification and Rating – As well as chemical residues (including gases), a number of other hazards may be present on site including: other non-clan lab related bulk chemicals or petroleum products; occupants associated with the lab; physical dangers such as from damaged or deteriorated structures; electrical problems possibly related to clan lab improvisation arrangements; and biological hazards such as arising from unhygienic behaviour or animals.

Of relevance are the Accessibility boxes in the Notification Form which provide advice on the need for personal protective equipment (PPE) and whether there are accessibility issues “due to danger or security restrictions”. Useful NESR information includes whether all clan lab-related chemicals and equipment have been removed and also locations of the operational areas. Based on experience to date from data in these forms: PPE is normally not called for; security is rarely a concern; and clan lab-related materials nearly always have been removed.

Management Measure Selection – The preferred measures for these types of situation are procedural controls with the necessary PPE. Procedural controls can one or more of the following if the associated hazard happens to be present:

- Being accompanied by a WAPOL representative if there is a person-related risk. This may be arranged through the WAPOL specific site contact officer or the Organised Crime Squad on 0438554483;
- Being accompanied by the owner (if not the operator) or their agent;
- Movement plan designed to minimise exposure time, reduce contact with surfaces and avoid other incidental hazards; and
- Ensuring there is good ventilation to the site building/structure.

Good ventilation is recommended for entry into a clan lab building especially if it has been operating recently, closed up, and in warm weather when any volatile materials are more likely to become airborne. This can include opening doors and windows and the use of mechanical ventilation as long it is unlikely to mobilise contaminant dusts. It may be worthwhile to wait 10 minutes or so after opening up before the inspection takes place.

In the case of PPE, although it may not be called for it should be at least be available for use at the site, and its use be the default position if there is any doubt about chemical hazards.

Final Review and Decision - If the amount of information is sufficient to identify and rate the hazards and the management measures employed are such that an entry officer risk is deemed low then the inspection may proceed. It may be worth giving a basic outline of the assessment process and final decision in any documentation associated with the visit. If in doubt seek advice from managers or other agencies with site knowledge or clan lab site expertise.

Personal Protective Equipment

When used, as a minimum PPE should consist of a disposable P2 mask, disposable overalls, eye protection, disposable Nitrile gloves, and steel cap chemical resistant footwear (possibly with overshoes). On exit from any clan lab, all gloves, overalls and other disposable PPE items should be placed in a hazardous waste bag, and disposed to a suitable waste bin.

In hot conditions the wearing of disposable overalls, mask and gloves potentially poses a risk of dehydration and heat stroke. It is recommended that in temperatures above 26°C individuals not remain in the premises for more than 20 minutes without rest, and they are monitored and hydration is maintained.

CLAN LAB SITE ENTRY – SAFETY ANALYSIS CHECKLIST

Note that a site inspection may not be necessary even when safe to do so.

Information Compilation

(tick)

- Notification Form NESR WAPOL Advice ChemCentre Advice
 Owner Advice Other? Describe:.....

Is it adequate? Yes No Maybe If answer is no or maybe then additional information should be sought or a more cautionary approach taken to any site entry.

Hazard Identification and Rating

Presence of the following hazards (tick/comment):

Hazard	Likely	Unlikely	Unknown	Comment
Clan lab residues/gases				
Other dangerous chemical				
Occupants				
Physical/electrical/biological				
Other:				
Other:				

Management Measure Selection

Use of the following management measures (tick/comment):

Measure	Yes	No/NA	Unknown	Comment
Ventilation				
Owner escort				
WAPOL escort				
Movement plan, including time/contact controls				
PPE				
Other:				
Other:				

If PPE is to be used please tick the relevant equipment:

- Respirator Gloves Safety Shoes Hard hat Eye protection Overalls
 Other (describe)

Final Review and Decision

Based on the information available, hazards identified and management measures planned is the site safe to visit?

- Yes Proceed with inspection but review process as necessary
 No Seek advice from line manager and/or expert external agencies

Name:.....Signature:.....Date:.....

Tier 2 Clan Lab – Assessment and Management

Tier 2 clan labs are classified as such based on a number of criteria, relating to both potential higher risk and more complicated or uncertain processes, in comparison to Tier 1 sites (See Attachment 3). Although these are likely to be far fewer in number than Tier 1 clan labs (>80%), by their nature they require more rigorous and possibly more varied management. All work undertaken should be based on a written plan.

Management Mitigating Factors

In applying the generic sampling, and any subsequent remediation and validation outlined in this Attachment, it is possible to tailor the actions to the particular site circumstances, including local factors that may mitigate the risk. Factors that may be considered as a justification for applying a less demanding program of activities include if:

- Chemical reactions or processing activities have not occurred at the premises;
- Any production though deemed >5g or for operations over a prolonged period are believed not to be greatly so;
- The location of the clan lab activity if known is in a area that is not expected to have significant pronounced potential for human exposure, particularly of children;
- A building is to be demolished then actions should more relate to safeguards during that activity and proper disposal;
- A site has been affected by fire, it may be that at least for the burnt areas the toxic residues will relate to the event itself rather than contamination as a result of the clan lab's operation;
- A site will subject to a extensive and exacting remediation in any case then sampling for delineation and/or quantisation purposes may not be necessary;
- A methylamphetamine clan lab employed a Nazi/Birch rather than a phosphorous-related reaction then the potential contamination may be much lower, other things being equal; and
- A non-methylamphetamine method if used is such that aerosolisation and settling out of hazardous materials is not significant.

It should be noted that whenever there is any doubt about the character and degree of contamination then a precautionary approach should be taken.

Assessment

In common with a Tier 1 clan lab, a site survey is recommended for a Tier 2 prior to the commencement of further assessment and management work. The Site Survey procedure outlined for Tier 1 labs in Attachment 6 should be used, although greater care would be appropriate for a Tier 2 site.

After visiting the site a sampling plan should be developed. The sampling program applies primarily for Tier 2 sites given the uncertainty and possibly severity of contamination that may be associated with these types of clan labs. The sampling plan can be subsequently incorporated in final form into the site's management report.

The key guidance in regard to the sampling program for Tier 2 sites are the National Guidelines augmented as necessary by the U.S. EPA *Voluntary Guidelines for Methamphetamine Laboratory Cleanup – March 2013* (See Reference Section). The program should also take account of the Mitigating Factors discussed above.

If there is uncertainty about the location of any operations of the clan lab at the site or if there is the possibility of areas contaminated by use of methylamphetamine e.g. by smoking, then additional sampling may be necessary.

Management

Depending on the outcome of the sampling program, remediation and validation are likely to be required. This management work should take account of the Mitigating Factors listed above and should be based on the National Guidelines augmented as necessary by the U.S. EPA *Voluntary Guidelines for Methamphetamine Laboratory Cleanup – March 2013*. It is recommended that any identified meth smoking-related contamination be also remediated.

After the work has been undertaken it should be documented in the form of a report as outlined in Attachment 8.

Personal Protective Equipment (PPE)¹(Tier 2)

The guidance provided below is a direct extract from the National Guidelines. It takes a generic and conservative approach which will be adequate for gross contamination situations but may be excessive for lower levels of contamination. Consequently for Tier 1 clan labs, the PPE guidance provided in Attachment 6 to these Guidelines will be more appropriate. Even for many Tier 2 sites a less rigorous PPE regime may be suitable. This may be by using the Tier 1 guidance but with a full or half face respirator with minimum organic vapour cartridge for initial entry (and P2 mask after one hour's ventilation) and double gloving. If uncertain about the severity of the contamination or in more severe contamination scenarios, then use of the following guidance.

Attachment 6 should also be referred to for guidance in regard to undertaking a safety risk analysis before entering a clan lab site.

The following is provided to guide those attending clandestine laboratory sites after the police and forensic chemistry team are no longer in attendance. While the following recommendations describe PPE appropriate for the majority of cases, specific instances of gross contamination may require the use of more sophisticated PPE e.g. breathing apparatus. In this event, only persons who have undergone appropriate training in the use of the equipment are to utilise same. Safety is the responsibility of those attending the site hence consultation with emergency services personnel and/or safety equipment specialists is recommended in the selection of PPE.

Before entering the site, the police officers who processed the site for safety and evidence purposes should be contacted and any potential hazards discussed. Regardless of the level of site contamination as determined by attending police officers, as a recommended minimum, those attending a clandestine laboratory site should wear:

¹ Appendix 3 from the *Guidelines for Environment Investigation, Remediation and Validation of former Clandestine Laboratory Sites – 2011*

Respiratory/Eye Protection: A full face mask air purifying respirator (APR), equipped with broad spectrum cartridges that filter dusts, organic vapour, acid vapour, solvents and ammonia / methylamine. APR's are to be decontaminated after use. Cartridges are to be replaced dependent on contaminant burden as per manufacturer's instructions and disposed of as hazardous waste after use. Those using the APR's must be trained in their use in accordance with manufacturers' recommendations. The wearing of separate eye protection and half face APR's or dust masks is not recommended as these do not provide a comparable level of protection nor the comfort of a full face APR.

Hand Protection: 'Nitrile' disposable gloves offer adequate hand protection against chemical contamination under most circumstances arising during sample collection. Additional protection may be achieved through the donning of a second set in instances where puncture or tearing is possible. When sharp, rough or significantly contaminated surfaces are present, consideration should be given to the use of heavy duty Neoprene gloves. Gloves should be changed regularly hence access to appropriately sized gloves in quantity will be required. Gloves are not to be re-used and are to be disposed of as hazardous waste. Use of latex or vinyl gloves is not acceptable as they do not adequately protect against a range of chemical substances.

Foot Protection: Two alternative types of suitable foot protection are available:

- Boots – these may be either lace up or of a rubber or 'gum' boot design, and constructed of materials which are resistant to chemical attack. These offer protection against a range of chemical substances and may be decontaminated after each use.
- Disposable latex or plastic overshoes. These should fit properly and be disposed of as hazardous waste after single use. (While paper overshoes are available, their use is not recommended. They are generally only suited for protecting against dusts and particulates and offer little protection from liquids).

Skin and Clothing Protection: Disposable cover all suits with an integrated hood are suited for the purpose and are available in a variety of materials which offer differing levels of protection against exposure to chemical contaminants. The range from composite fabrics e.g. Tyvek® offering protection principally against dust and particulates only as many liquids will penetrate the fabric after relatively short exposure periods. A higher level of protection is offered by coverall suits or 'splash suits' manufactured from a variety of laminated chemical resistant materials e.g. Tychem®. While these offer penetration resistance to a range of chemicals, they are not 'chemical proof'. These suits cannot be effectively decontaminated and are intended for single use only, after which they are to be disposed of as hazardous waste.

The choice of suit composition, and PPE in general, should be made on a case by case basis and be based on site specific information including the degree and nature of contamination, and with reference to the maker's specifications for the PPE garment.

Air Monitoring Instrumentation: When first entering an indoor clandestine laboratory site, the site is to be checked with a properly calibrated and functioning air monitoring device. The air monitor must, as a minimum, detect oxygen and lower explosion limit levels. Before beginning sampling or inspection, the air throughout the premises must be assessed. Special attention is to be paid to floor areas as many solvent vapours are heavier than air and may accumulate in low lying sections. If an air monitor alarms at any time, people must immediately evacuate the premises and seek assistance from fire and emergency service before re-entering.

Management Report Contents

For any clan lab where post notification action is undertaken this should be documented in the form of a report. This report should provide contextual information about the site and details of the activities undertaken including their rationale. The report should not only be submitted to the client but also WA Health as per these Guidelines.

The report should be properly referenced and include photographs, diagrams and result summary tables to help communicate information about the site.

The expected contents of a clan lab management report (T1 and T2) should as a minimum include the following, depending on the nature of the management actions:

- Contents page
- Purpose
- Executive summary (if appropriate)
- Property details and description, including owner and regulatory jurisdiction
- Details of consultant and remediation contractor
- Outline of clan lab activities, and tier rating of property
- Details and results of initial site survey, including areas of potential contamination and other hazards
- Description of any sampling undertaken including methods, rationale and results
- Details of and rationale for any remediation conducted as a result of contamination
- Description of the validation undertaken with results, following any remediation
- Statement in regard to the adequacy of management work undertaken, habitability of the home, and compliance with Guidelines. Some qualifying statements may be used.
- Attachments
 - Corresponding Notification Form
 - Corresponding NESR
 - Copies of laboratory reports
 - Receipts of waste disposal (when appropriate)
 - Details of safety precautions taken, including PPE



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