Site contamination referral decision-making framework

Guideline

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Disclaimer

This publication is a guide only and does not necessarily provide adequate information in relation to every situation. This publication seeks to explain your possible obligations in a helpful and accessible way. In doing so, however, some detail may not be captured. It is important, therefore, that you seek information from the EPA itself regarding your possible obligations and, where appropriate, that you seek your own legal advice.

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Abbreviations

ASC NEPM	*National Environment Protection (Assessment of Site Contamination) Measure 1999* (as amended in 2013)
auditor	site contamination auditor
consultant	site contamination consultant
CSM	conceptual site model
DA	development application
DSI	detailed site investigation
EPA	South Australian Environment Protection Authority
EP Act	*Environment Protection Act 1993*
GPA	groundwater prohibition area
IAA	interim audit advice
PCA	potentially contaminating activity
PDI Act	*Planning, Development and Infrastructure Act 2016*
PDI Regulations	*Planning, Development and Infrastructure (General) Regulations 2017*
PIAB	Planning and Impact Assessment Branch (EPA)
Practice Direction–14	*State Planning Commission Practice Direction 14: Site Contamination Assessment 2021*
PSI	preliminary site investigation
RFI	request for information
SAPPA	South Australian Property and Planning Atlas
SCAR	site contamination audit report
SCB	Site Contamination Branch (EPA)
SoSS	statement of site suitability
SRP	site remediation plan
SSRA	site-specific risk assessment

Summary

The Environment Protection Authority (EPA) is a referral body for site contamination assessment under the *Planning, Development and Infrastructure Act 2016* (PDI Act).

The purpose of the referral is to ensure that an appropriate and proportionate assessment of site contamination or potential site contamination occurs, and for the EPA to determine, based on risk, whether a site contamination consultant or site contamination auditor is the most appropriate practitioner to provide a statement of site suitability for the proposed land use(s).

A site contamination consultant (consultant) is defined in the *Environment Protection Act 1993* (EP Act) as a person other than a site contamination auditor (auditor) who for fee or reward, assesses the existence or nature or extent of site contamination.

Site contamination auditors are senior and experienced professionals accredited by the EPA, who undertake the independent review (site contamination audit) of assessment and/or remediation work carried out by consultants.

This framework describes how the EPA will make decisions on referred development applications and is intended to assist consultants, auditors and developers understand the EPA's preconditions for a site contamination audit.

The framework describes:

- the legislative scheme for site contamination assessment referrals under the PDI Act and EP Act
- the main steps in the EPA assessment of site contamination referrals
- the roles and responsibilities for the EPA's Planning and Impact Assessment and Site Contamination Branches
- EPA decision-making principles
- the factors that will inform the EPA's determination of the appropriate practitioner to provide a statement of site suitability (known as preconditions for audit)
- the types of information that the EPA may require through a request for information
- how the EPA will provide direction to relevant planning authorities.

The referral provides direct access to EPA scientific expertise to ensure the community is protected from historic pollution, and for the development sector to have a clear and consistent pathway to approval particularly for certain higher risk brownfield development scenarios.

1 Introduction

This framework describes how the Environment Protection Authority (EPA) will make decisions on development application (DA) referrals made for prescribed site contamination assessment purposes under the *Planning, Development and Infrastructure Act 2016* (PDI Act).

Through the referral the EPA plays a role in preventing site contamination that may be caused through a change in land use to a more sensitive use. The referral is not about regulating site contamination under the *Environment Protection Act 1993* (EP Act).

Importantly, the EPA can only 'deal with the matter or matters for which a referral was made to the extent that is relevant to the purpose of the referral' [section 122(9), PDI Act].

Schedule 9 clause 3 Items 9A and 9AB of the *Planning, Development and Infrastructure (General) Regulations 2017* (PDI Regulations) and Part 9.1 of the Planning and Design Code (Code) prescribe the circumstances in which a DA must be referred to the EPA in respect of site contamination assessment (Appendix 1).

The purpose of the referral, set-out in the Code and the State Planning Commission *Practice Direction 14: Site Contamination Assessment 2021* (Practice Direction–14), is:

> To ensure that an appropriate and proportionate assessment of site contamination or potential site contamination occurs, and to provide direction to the relevant authority on whether they must consider the advice of either a site contamination consultant or site contamination auditor regarding site suitability, including through the imposition of conditions of planning consent.

Section 57 of the EP Act sets out the criteria for decisions of the EPA in relation to referred DAs. Of the section 57 criteria, Object 10(1)(b)(ia) is the most relevant for this referral:

> To establish processes for carrying out assessments of known or suspected site contamination and, if appropriate, remediation of the site.

This framework describes the processes the EPA will apply in connection with section 57 (EP Act) when undertaking a technical review of relevant information and directing the relevant authority on whether a site contamination consultant (consultant) or site contamination auditor (auditor) should determine whether the site is suitable for the proposed land use.

The framework has also been developed to support the implementation of the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (as amended 2013) or ASC NEPM[1] in South Australia.

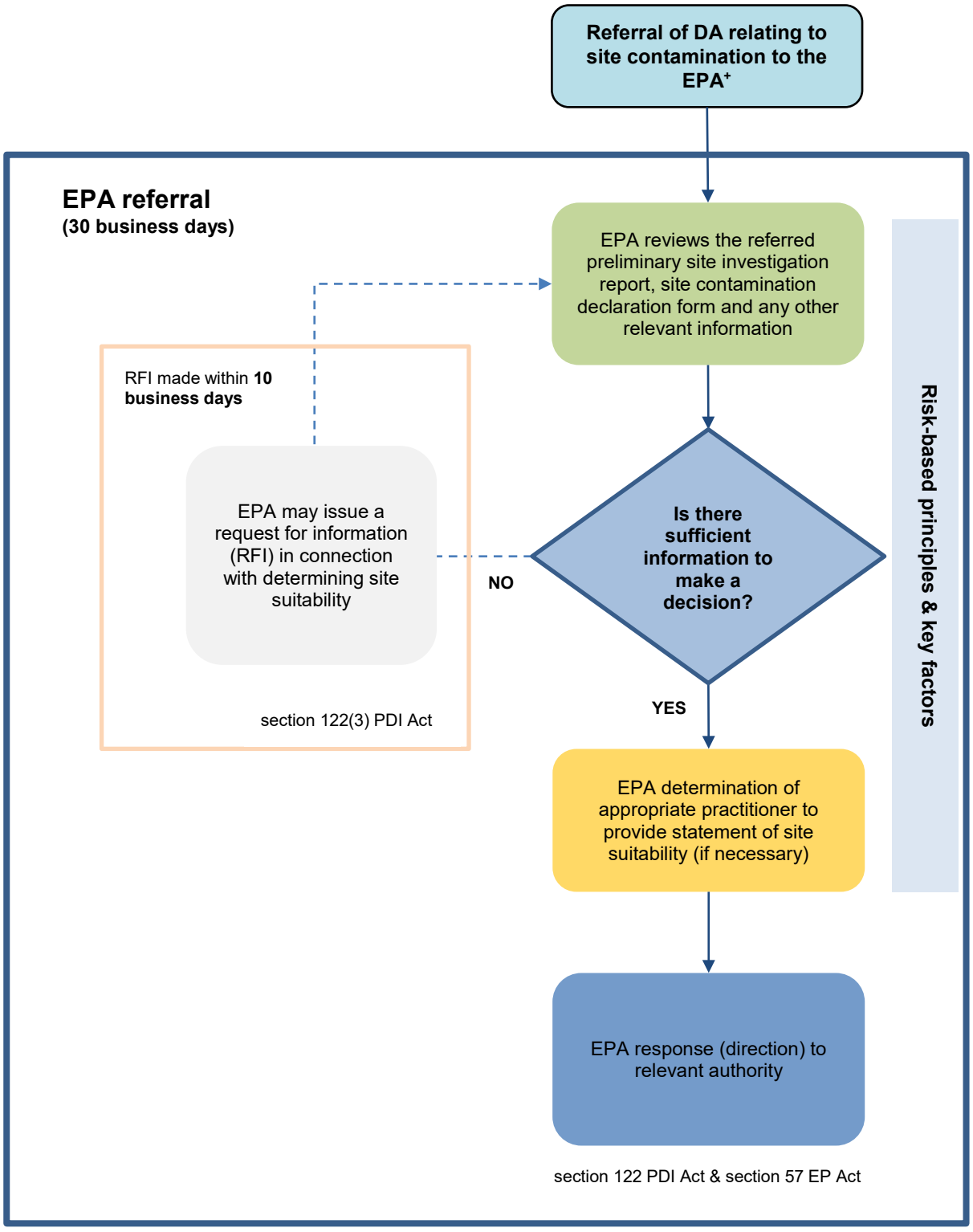
The process showing the main steps in the EPA's risk-based framework for assessing referred DAs is shown in Figure 1.

1.1 Considering site contamination in planning decisions

As site contamination is linked to land use (section 5B, EP Act), bringing about a change in land use can cause site contamination even though the person who brought about the change of use may not be the original polluter.

[1] The ASC NEPM provides a national risk-based approach for the staged or tiered assessment of site contamination in Australia. ASC NEPM Principle 5 – Planning and development states: 'Authorities of participating jurisdictions (at local and state government level) that consent to development, or changes in land use, should ensure a site that is being considered for development or a change in land use, and that the authorities ought reasonably know if it has a history of use that is indicative of potential contamination, is suitable for its intended use'.

The PDI Regulations, Code and Practice Direction–14 set out procedural requirements that apply in relation to the assessment of potential site contamination when land use changes to a more sensitive use.



+ Referral triggers are set out in Schedule 9 of the PDI Regulations and Part 9.1 of the Code (see Appendix 1)

Figure 1 Main steps in the EPA assessment of site contamination referrals

1.2 Roles of Planning and Impact Assessment and Site Contamination Branches

The Planning and Impact Assessment Branch (PIAB) is responsible for:

- coordinating pre-lodgement meetings, where relevant, with applicants and/or their consultants and relevant planning authorities
- receiving and processing DA referrals and ensuring referrals are properly made and include the appropriate prescribed form, report(s) and fees
- seeking specialist advice from the Site Contamination Branch (SCB) providing clear expectations around time remaining for a request for information (RFI), and where a RFI is not required the timeframe for advice
- coordinating any meeting requests with applicants and/or their consultants and relevant planning authorities
- drafting RFIs on the advice of SCB for review by an appropriate EPA Delegate
- granting an extension of time to an applicant to respond to the RFI
- drafting the final response and any draft directed conditions for review by an appropriate EPA Delegate
- responding to the relevant planning authority through the appropriate EPA Delegate in a manner consistent with section 122 of the PDI Act, the Code, Practice Direction–14, section 57 of the EP Act and this framework.

The Site Contamination Branch (SCB) is responsible for:

- attending pre-lodgement discussions, where relevant, with applicants and/or their consultants and relevant planning authorities where such meetings have been coordinated by PIAB in connection with a potential or actual site contamination assessment referral
- in response to a specialist advice request from PIAB:
  - reviewing site contamination reports and any prescribed form(s) submitted with the DA to determine if sufficient information is available to make a decision in accordance with section 122 of the PDI Act, the Code, Practice Direction–14, section 57 of the EP Act and this framework
  - preparing content, where relevant, for a RFI outlining what information is required to make a decision in accordance with this framework
  - providing a determination summary about the appropriate practitioner to provide a site suitability statement for inclusion in the final response to the relevant planning authority.

2 Principles

EPA decision-making on site contamination DA referrals is based on a set of five principles as shown in Figure 2 below.

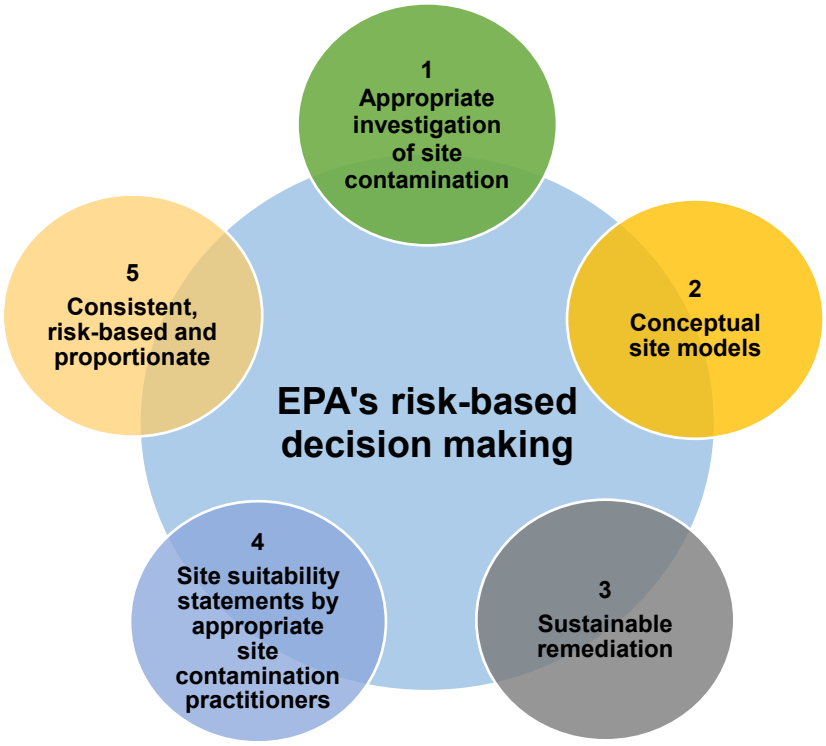


Figure 2 EPA risk-based decision-making principles for site contamination development applications

Principle 1 Appropriate investigation of site contamination

The investigation of site contamination comprising staged or tiered risk-based assessment[2] is to be carried out consistent with the processes and reporting described in the ASC NEPM and relevant EPA site contamination guidelines, **in so far as they are relevant to the referral trigger and purpose**, and address the following:

- the existence or possible existence of site contamination on or below the surface of the land
- the nature and extent of any site contamination present or remaining on or below the surface of the land
- the suitability of the land for the proposed use(s), and
- if remediation is necessary for the proposed use.

Principle 2 Conceptual site models

A well-informed site-specific conceptual site model (CSM) is a critical factor in understanding the relationship between sources of contamination (source) and potential exposure (exposure pathway) to human populations (receptor) with respect to site contamination at a site.

[2] Preliminary site investigations (PSI); detailed site investigations (DSI); site-specific risk assessment (SSRA)

Principle 3 Sustainable remediation

Where remediation[3] is necessary for the proposed use(s) to mitigate exposure risk to human health, the consideration of remediation options should inform a site remediation plan (SRP). The SRP forms part of the application, and is supported by interim audit advice (IAA) where applicable. Remediation works may be undertaken during construction to reduce costs.

Principle 4 Site suitability statements by appropriate site contamination practitioners

The determination of the appropriate site contamination practitioner will be made based on the identified level of risk to human health from site contamination, in relation to the proposed change to a more sensitive land use at a site.

Principle 5 Consistent, risk-based and proportionate decision-making

The EPA's decision-making in relation to site contamination DA referrals will be:

- fairly applied to similar scenarios to provide a consistent statewide approach to site contamination assessment through the planning system
- informed by the risk-based principles underlying this framework
- proportionate to the risk posed to human health, based on the more sensitive land use(s).

[3] Remediation is defined in section 3(1) EP Act. Refer to the *Guidelines for the assessment and remediation of site contamination*

3 Determination of appropriate practitioner to provide statement of site suitability

Appendix 2 documents how the EPA will determine the appropriate practitioner to provide a statement of site suitability.

Preconditions for an auditor to provide the site suitability statement follow two pathways:

1 where site contamination is only suspected to exist because a potentially contaminating activity (PCA), listed in Practice Direction–14, has taken place

OR

2 where site contamination is known to exist at the site

AND

where the following circumstances are identified as being present, or likely to exist:

- realistic human health exposure pathways to known chemical substances would arise from the change in land use (based on a reliable CSM)
- remediation is known, or likely, to be required to mitigate exposure risk from human health exposure pathways.

Where site contamination is only suspected to exist based on the identification of PCAs listed in Practice Direction–14, Appendix 2 lists key factors to consider which are explained in greater detail in section 3 of this decision-making framework.

3.1 Source

The *site contamination declaration form* provided with the referral will identify if site contamination exists or may exist (ie suspected) at the site as a result of:

- one or more PCAs (listed in Practice Direction–14) having been undertaken (including a class 1 PCA identified on adjacent land[4]), and
- a notification of site contamination or underground water, including on adjacent land as shown on the South Australian Property and Planning Atlas (SAPPA)

OR

- where the site is within a groundwater prohibition area as shown on the South Australian Property and Planning Atlas(SAPPA), and
- where the site is the subject of a notation under section 103P of the EP Act.

The EPA will consider:

- the risk class of each PCA identified at the site taking into account the length of time the PCA occurred on the site and any identified issues or other related information, and
- the Class 1 PCA identified on adjacent land taking into account the length of time undertaken and any identified issues or other related information.

In reviewing information on the PCAs identified, the complexity, scale and magnitude of site operations and activities will be taken into account.

[4] As defined in the section 3 PDI Act

The PCAs in Practice Direction−14 are adopted from the prescribed PCAs undertaken in the course of a business identified in the EP Regulations[5] (prescribed PCAs). Each prescribed PCA has been assigned a risk class which informs the priority of a site in conjunction with information on exposure pathways based on land use.

When multiple PCAs have been undertaken at a site, the PCA associated with the highest risk class will be taken into consideration by the EPA. If there is an insufficient record of the PCAs undertaken at a site in a preliminary site investigation that has been referred, a conservative decision may be made based on any chemical substances identified at the site. Alternatively, additional information in relation to the site history may be requested by the EPA.

When Class 1 PCA(s) are identified on adjacent land, the EPA will consider all relevant information referred to it by the planning authority, in addition to any other relevant information held by the EPA in order to inform its understanding of likely exposure pathways in the context of the more sensitive land use proposed at a site.

Not all of the prescribed PCAs under the EP Regulations are a PCA for the purpose of Practice Direction–14, namely:

- fill or soil importation undertaken in the course of a business
- domestic activities identified in Schedule 3, Part 1, section 3 of the EP Regulations.

Identification of PCAs, which are not listed in Practice Direction–14, cannot trigger any requirement under the site contamination assessment scheme established under the PDI Regulations, Practice Direction–14 and the Code, including an EPA referral[6].

3.2 Exposure pathways

Exposure in relation to site contamination as defined in Practice Direction−14, means the exposure pathway that a chemical substance takes from its source to reach a human population, such as incidental ingestion of surface soil or indoor dust, indoor and outdoor inhalation of dust, or consumption of home grown produce.

The determination of whether site contamination exists in relation to human health takes into account the current or proposed land uses for a site and whether or not the harm is trivial.

The EPA will consider potential and/or known sources and receptors (human populations) to determine whether any of the following exposure pathways are realistic or exist, based on the change to a more sensitive use:

- **Soil** – risk to human health through direct contact with, or incidental ingestion or inhalation (dust) of, contaminated soils.
- **Water** – risk to human health through direct contact with, or ingestion of, contaminated groundwater or other water[7].
- **Vapour** – risk to human health through the inhalation of contaminated vapour.

Realistic exposure pathways for a specific more sensitive land use may include combinations of any of the above. When assessing whether a realistic exposure pathway may arise from the change in land use:

- evidence must exist to suggest that a potential exposure pathway is present or would be present
- uncertainties or data gaps do not necessarily equate to the existence of a potential exposure pathway, however further investigation into the existence of potential exposure pathways may be warranted.

The risk to human health is the primary consideration for DAs proposing a change to a more sensitive land use. However, in some circumstances it may be appropriate to consider risk to the environment and water where they form part of, or

5 Regulation 50 of the *Environment Protection Regulations 2009*

6 A request for information under the planning system in relation to these activities could not be made.

7 Refer to water under section 3 of the EP Act

are associated with, the proposed change to a more sensitive land use and realistic environmental exposure pathways are identified based on the specific nature of the proposed change of use. This could include, for example:

- a use which requires dewatering or excavation into groundwater which is impacted by site contamination
- waterbodies or water courses such as dams, ponds, recreational lakes or wetlands that are proposed to be constructed as part of a residential land division and they interact with contaminated soil or groundwater.

Environmental receptors will not influence the EPA's decision on the appropriate practitioner.

3.3 Receptors

The identification of, and linkages between, potential exposure between a source and a human receptor taking into account the proposed more sensitive land use, is a fundamental concept in the EPA's review and decision-making framework.

The EPA will consider the nature of the proposed more sensitive land use change in order to understand the site configuration and layout and risk of exposure to receptors from site contamination following the change of use.

The EPA will refer to the following generic land use settings identified in the ASC NEPM to inform its understanding of risk:

- sensitive use:
  - residential with garden/accessible soil (home-grown produce <10% fruit and vegetable intake and no poultry)
  - residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as units, high-rise buildings and apartments
  - childcare centres, kindergartens, preschools and primary schools.
- public open space/recreational areas
- commercial use such as shops, offices, consulting rooms, petrol stations, warehouses and any other commercial uses
- industrial use such as light, service, general or special industry.

A land use which includes or allows for a sensitive use component (for example multi-storey, mixed use developments comprising ground floor commercial premises with a childcare and/or upper level residential use) will be considered by the EPA as a sensitive use.

The EPA will adopt a precautionary approach in situations where:

- the generic land use descriptions contained in the Practice Direction land use sensitivity hierarchy are not broadly consistent with the proposed more sensitive land use specified in the referred DA, or
- the proposed land uses are not clearly specified.

3.4 Known site contamination

Site contamination may have already been determined, or is known, to exist at a site as a result of a section 103P EP Act site contamination audit report (SCAR) notation, section 83A EP Act notification or Groundwater Prohibition Area (GPA) identified in the South Australian Property and Planning Atlas (SAPPA) or as a result of a detailed site investigation (DSI) or other SCAR that accompanies the referral.

Site contamination may also be known to exist as a result of an off-site source on adjacent land (ie Class 1 PCA) or section 83A notification identified via the SAPPA on adjacent land.

The EPA's identification of any known site contamination from either the site or an off-site source must be informed by the referral triggers in Schedule 9 clause 3 Items 9A and 9AB of the PDI Regulations and Part 9.1 of the Code.

3.5 Request for information

Site contamination referrals must be accompanied by:

(a) a site contamination declaration form

(b) a preliminary site investigation (PSI) report

(c) a copy of the certificate of title in relation to the land

(d) any site contamination audit report that has been prepared in relation to the land,

as prescribed by Schedule 8 clause 2A–Site contamination reports required for certain applications.

Additional PSI, DSI and/or a site-specific risk assessment (SSRA) may be required to determine if the preconditions for audit have been met.

When the EPA does not receive sufficient information to inform a final response to the planning authority, a RFI may be issued.

The EPA may request further information when the nature and extent of site contamination are not clearly documented, and/or where insufficient information has been provided to decide on the need for remediation.

In its review of information, the EPA will also consider other relevant information **in so far as it is relevant to the DA and the referral trigger and purpose**, such as:

- any current EPA regulatory interests/actions which may impact on the more sensitive use
- any relevant section 83A Notification records, and
- any relevant information held by the EPA on a groundwater prohibition area (GPA).

Records held by the EPA in the Public Register[8] should be identified by the consultant through the PSI. SCB staff must consult with PIAB staff when seeking to rely on reports in the Public Register that do not relate to the referral trigger.

Where a DA has been referred to the EPA based on a notation of a SCAR on the relevant certificate of title under section 103P of the EP Act, the EPA will take the outcomes, conditions and recommendations of the SCAR into its consideration when determining the need for an appropriate practitioner to provide a statement of site suitability.

[8] Refer section 109 of the EP Act

4 Statement of site suitability by appropriate practitioners

The EPA's decision on the most appropriate site contamination practitioner to determine site suitability will be informed by the key factors described in section 3.

Consultant

Where the preconditions for audit **are not met** a statement of site suitability by a consultant should be directed, including for development referrals for a sensitive use.

In this instance, the EPA cannot direct the use of a certified practitioner (ie a person who is certified by a body recognised by the EPA[9]) because in considering the development referral the EPA is not regulating site contamination under the EP Act. The referral role is performed under the PDI Act where these practitioner schemes have not been recognised.

The consultant's report should state that appropriate risk-based assessment and/or remediation have been carried out consistent with the ASC NEPM and relevant EPA guidelines and provide definitive statements (consistent with section 103ZA[10] of the EP Act) that, in regard to site contamination, the site does not pose unacceptable risks to human health taking into account the change to a more sensitive land use(s).

Requirements for a statement of site suitability (SoSS) by a consultant (under the PDI Act) are set out in the PDI Regulations 3(6), 32B, 89(2)(c), 103(3a) and Practice Direction–14.

Auditor

When the preconditions for audit are met, the need for a statement of site suitability in the form of a SCAR prepared by an auditor will be considered.

In relation to the key factors described in section 3, additional considerations before directing a SCAR include whether:

- the EPA is satisfied that site contamination exists at the site (ie the circumstances at section 103H(1)(a) of the EP Act exist), rather than the lower test that site contamination is only suspected to exist at the site because PCAs have taken place (ie the circumstances at section 103H(1)(b) of the EP Act exist)

OR

- site contamination exists as a result of an on-site source and not only as a result of an offsite source (eg groundwater prohibition area, section 83A Notification or class 1 activity of adjacent land)

OR

- the development is likely to adversely impact existing site contamination affecting sensitive receptors outside the site boundaries and remediation is required as part of the development to mitigate risk to both on- and off-site receptors.

Where an audit has been commenced, EPA direction can be made on receipt of interim audit advice (IAA). Completion of the SCAR is not required before planning consent can be issued by the planning authority.

9 Refer to the EPA *Site contamination: certification of practitioners policy*

10 Information on the determination of the existence of site contamination is provided in the *Guidelines for the assessment and remediation of site contamination*

Appendix 1 Site contamination EPA referral triggers

An EPA referral is required (subject to certain exemptions) under two parts of schedule 9, of the *Planning, Development and Infrastructure (General) Regulations 2017* (PDI Regulations):

1 Clause 3, Item 9A–Site contamination–land use (change in the use of land to a more sensitive use[11] specified by the Planning and Design Code*)

2 Clause 3, Item 9AB–Site contamination–land division (involving the division of land if the application proposes a sensitive use[12]*)

* Where site contamination exists or may exist at the land because of one or more of the following circumstances (Figure 3).

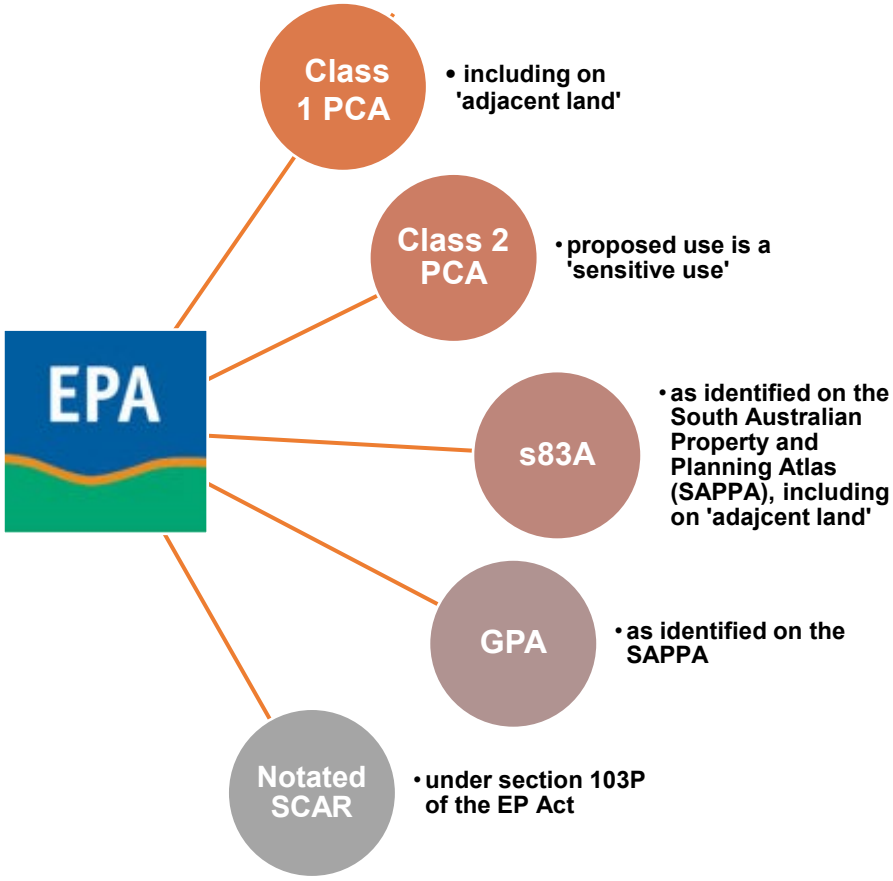
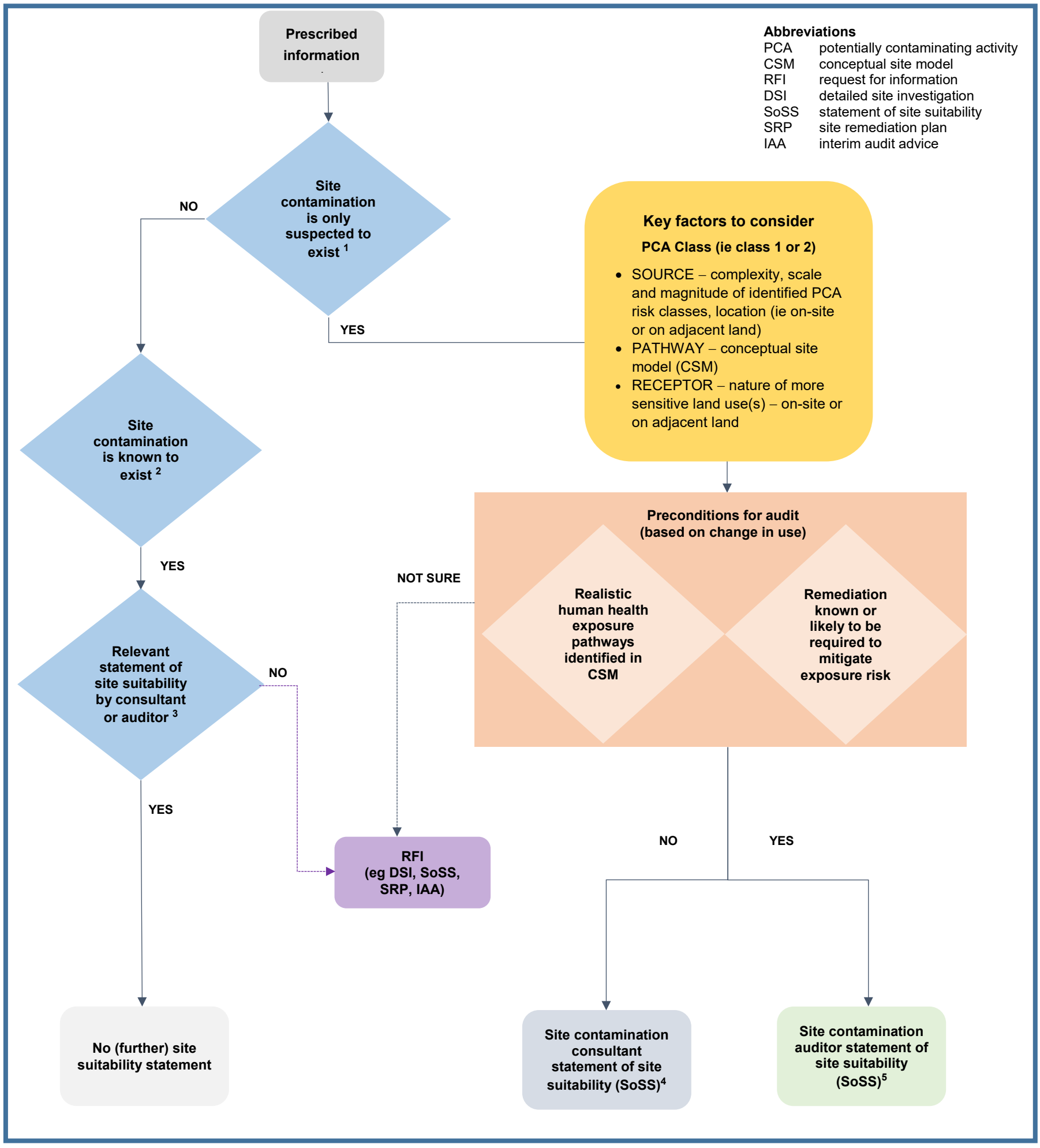


Figure 3 Referral triggers

11 'More sensitive use' means a change in the use of land that is determined to constitute a change to a more sensitive use of the land in accordance with the site contamination practice direction in section 3(1), PDI (General) Regulations

12 'Sensitive use' means a use described in item 1 or 2 of the land use sensitivity hierarchy table in the site contamination practice direction unless, in accordance with that practice direction, the use is not to be regarded as a sensitive use in the particular circumstances in section 3(1), PDI (General) Regulations

Appendix 2 EPA determination of appropriate practitioner to provide statement of site suitability



Notes

1 The EPA only suspects site contamination to exist at the site because potentially contaminating activities (PCAs) have taken place – ie the circumstances at section 103H(1)(b) of the *Environment Protection Act 1993* (EP Act) exist.

2 The EPA is satisfied that site contamination exists at the site – ie the circumstances at section 103H(1)(a) of the EP Act exist).

3 Subject to preconditions for audit.

4 Where remediation is not necessary – SoSS provided to the EPA prior to 'Direction' where reasonable to do so.

5 Where remediation is necessary – SRP must be submitted to EPA prior to 'Direction' (including through IAA) with SoSS provided via directed condition consistent with regulations 3(6), 89(2)(c) and 103(3a) where relevant, and Part 6 Conditions of Practice Direction 14–Site Contamination Assessment 2021.