

Australia's national remediation framework



CRC CARE

*A safer, cleaner
environmental future*

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RemTech EU, Italy

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CRCCARE- COOPERATIVE RESEARCH CENTRE CONTAMINATION ASSESSMENT AND REMEDIATION OF THE ENVIRONMENT

Site owners/ industry



Government



Research providers



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA



Service providers



Goals include: remediation which is cost effective and sustainable

OUTLINE

What is the national remediation framework?

- Need for a national framework
- Purpose
- Underlying principles (Flowchart)



NEED FOR HARMONISATION

Why harmonisation...?

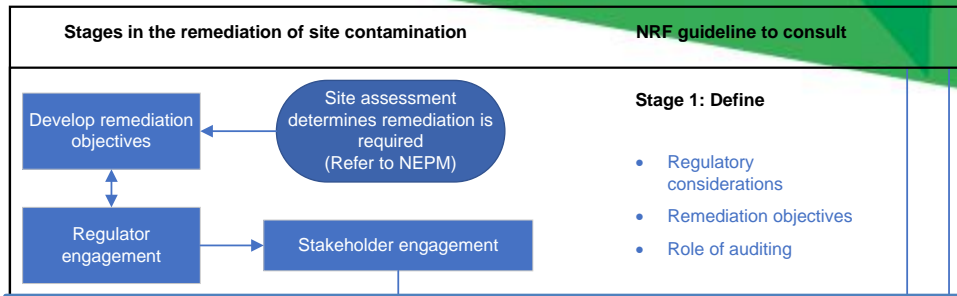
- 9 jurisdictions
 - wide array of legislation, regulations and guidelines
 - uniformity is difficult to achieve
 - Jurisdictions will still have specific requirements
- provide a **structure** for thinking through strategies
- **systematise practices** currently being applied to many sites
- provide more **rigorous approach** for considering issues
- reduce risk of adoption of poor strategic options
- provide a **sustainable approach** to remediation and management
- provide **seamless linkages with:**
 1. Assessment of Site Contamination NEPM, 1999
 2. National Remediation Framework NRF, 2019
 3. State requirements



NATIONAL REMEDIATION FRAMEWORK SCHEMATIC

PHILOSOPHY	CONTEXT				
	Background	Jurisdictional arrangements	Legislative powers	Purpose of framework	Intended audience
	PRINCIPLES				
	Precautionary	Prevention		Risk management	
	Options hierarchy	Sustainability		National / international obligations	
	Polluter pays	Inter-generational equity		Waste minimisation	
PRACTICE	GUIDANCE				

FLOWCHART & THE 24 GUIDELINES



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PRACTICE	GUIDANCE					
	Remediation (action) plan Development		Remediation (action) plan Implementation		Post-remediation	
	Regulatory considerations		Health and safety		Remediation validation and closure	
	Remediation objectives		Stakeholder engagement		Long-term monitoring	
	Remediation Options Assessment		Documentation and record-keeping		Auditing/third party review	
	Technology Guides (13)				Institutional controls	
	Cost-benefit and sustainability analysis					

Stage 1: Define



Establishing remediation objectives

ROs provide a clear indication of what remediation needs to achieve:

- in order to address unacceptable risks to human health and the environment from contamination
 - defined in terms of environmental values/beneficial uses
- for the remediation to be considered *complete*

Objectives

- usually stated in qualitative terms
- may be supported by measurable remediation end-points

When objectives have been achieved

- regulators may agree to site closure (when no further active remediation is required)

Environmental Values (also, Beneficial uses)

A particular value or use of the environment which:

- is important for a healthy ecosystem
- is conducive to public benefit, welfare, safety, health or aesthetic enjoyment which requires protection, or
- is declared in state or territory environment protection policy to be a beneficial use.

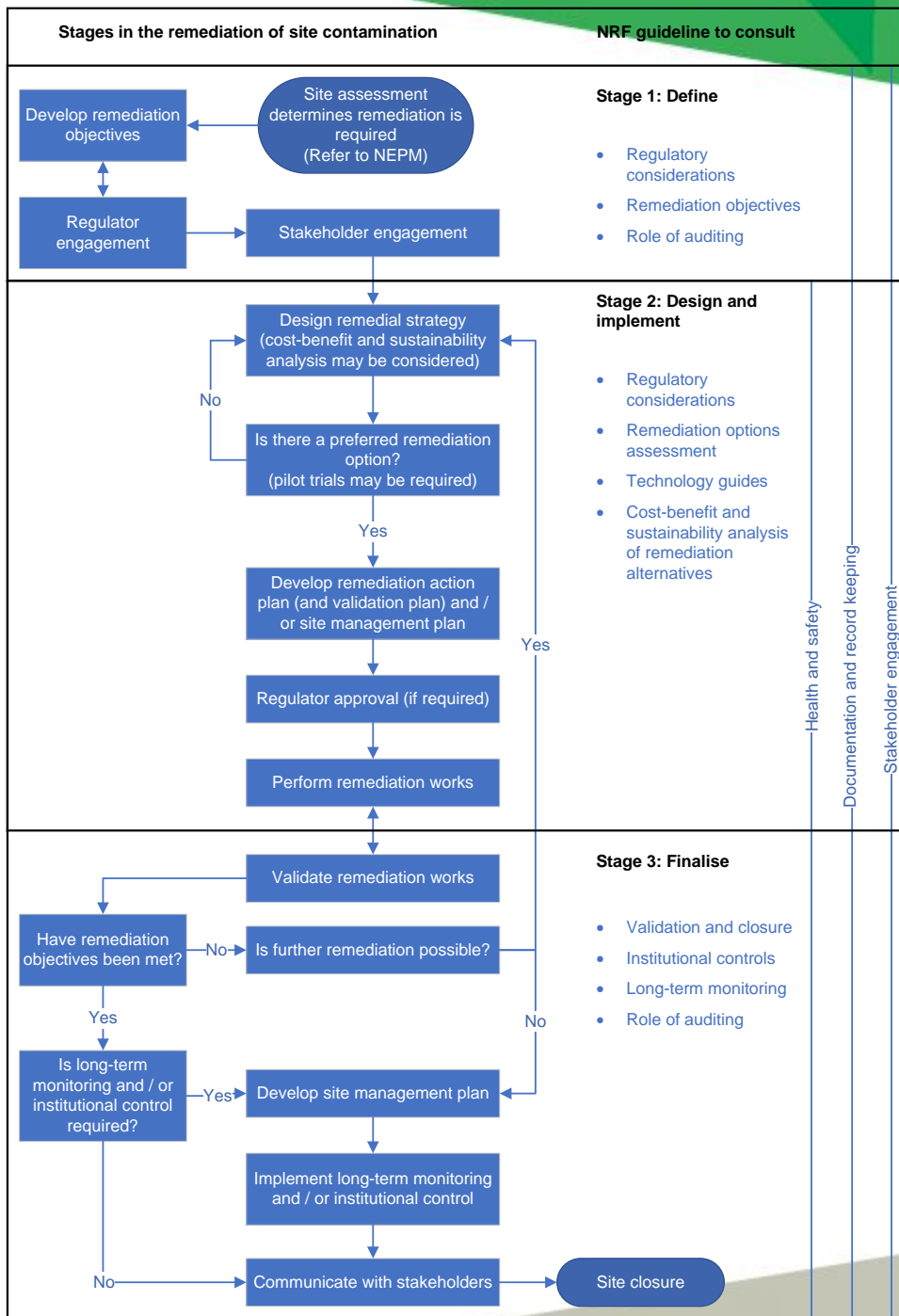
Examples of environmental values:

- *Human health eg drinking water or house gardens*
- *Aquatic ecosystems*
- *Agricultural land*
- *Kids playground/school*
- *Open park lands*
- *Air quality*
- *Aesthetic/intrinsic values*

Establishing remediation objectives conti..

- assessment and remediation are closely linked
- risk-based approach
- objectives to align with:
 - **environmental values/beneficial uses**
 - **proposed land use**
 - on-site and off-site issues
- may require **iterative** approach to developing remediation objectives
- importance of refining **conceptual site model (conservatism vs \$)**
- considers **residual contamination** (post-remediation guidelines)
- site closure (post-remediation guidelines)

FLOWCHART & THE 24 GUIDELINES



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Cost-benefit and sustainability analysis				
PRACTICE				

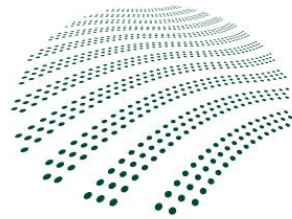
NATIONAL REMEDIATION FRAMEWORK

TIMETABLE FOR CONSULTATION AND FINALISATION

Final consultation stage

- complete package uploaded to CRC CARE website **Nov 2018**
- consultation period on complete package – start **Nov 2018**
- National roadshow – all capital cities **Feb 2019**
- **Submissions by** **31 March 2019**
- consideration of submissions/incorporation of weblinks **April-July 2019**
- ★ – consideration by NRF Steering Group **August 2019**
- consideration by Heads of EPAs **October 2019**

Thank you



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For more information, please feel free to contact me!

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