# Victorian Biosolids Regulation: Current & the future

#### **ENVIRONMENT PROTECTION AUTHORITY**

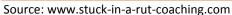




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# If you remember one thing...







WeKnowMemes





## EPA at a glance

Effective Regulator





#### **Influential Authority**





# EPA's priorities

Deal with past pollution

Reduce the environmental and health impacts of historical contamination

#### Objectives:

Improve transparency of management of contaminate d environments and their impacts

Enforce the law to ensure contaminated environments are safely managed

Support the conversion of contaminated environments to assets

Learn from the past to prevent future problems Tackle current environmental issues

Prevent pollution and improve efficiency of resource use

#### Objectives:

Tackle pollution and ensure/improve compliance using a risk-based approach

Support planning decisions to prevent impacts

Minimise impacts of resource use

Shape the environmental future

Avoid future impacts by anticipating and acting

#### Objectives:

Enhance the intelligence and communication of environmental quality and its drivers and impacts

ensure science and other evidence underpins decision-making at national, state and local levels

Lead and influence strategies and standards that safeguard from future impacts



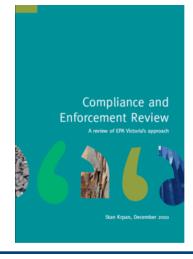


### Where are we up to?



Science and evidence needs to underpin our decision-making and policy











### R&D Strategy



#### **Strategic University Partnerships**







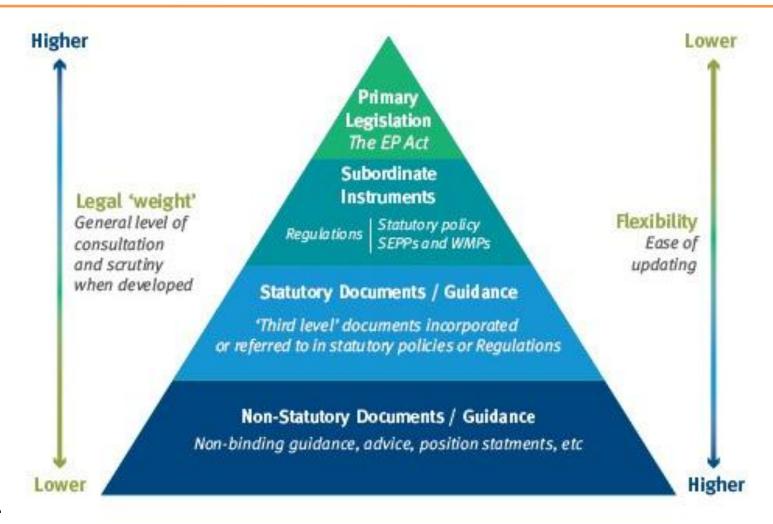


Trusted knowledge-driven collaboration, strategically driving evidence-based environmental protection.





## How do we regulate biosolids?







#### Biosolids Guidelines

Key aspects of all biosolids guidelines:

- Contaminant grade
- Treatment grade (pathogens & vectors)
- Management practices
- Reporting and monitoring





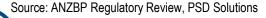
#### Contaminants

Table 5.1 - Biosolids contaminant grade comparison

Australia National	NSW	Vic	SA	Qld	Tas	WA	NZ	EU	USA
C1	A	C1	A	A	A	C1	a		
	В		В	В					
C2	С	C2	С	С	В	C2	b	1	A
	D			D				2	В
	Е	C3		Е	С	С3			

Table 5.6 - Biosolids contaminant level comparison Grade C1/A

Contaminant	NSW, Qld, ACT	National	SA	Tas	Vic	WA	NZ 'a' (after 31/12/12)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Cadmium	3	1	1	3	1	1	1
Chromium	100	100-400	1 (Cr VI)	100	400	100	600
Copper	100	100-200	100	100	100	100	100
Lead	150	150-300	-	150	300	150	300
Zinc	200	200-250	200	200	200	200	300





# Treatment grade

Table 5.2 - Biosolids pathogen grade comparison

Australia National	NSW	Vic	SA	Qld	Tas	WA	NZ	EU <sup>1</sup>	USA
P1	A	T1	A	A	A	P1	A		A
P2		T2	В			P2			
Р3	В	Т3		В	В	Р3	В		В
P4	С			С	С	P4			

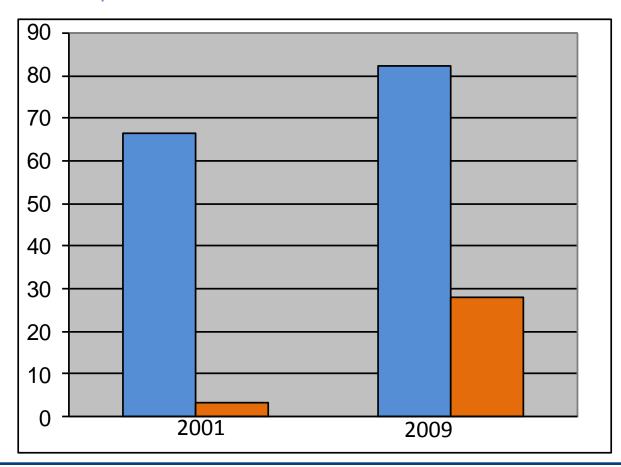
Source: ANZBP Regulatory Review, PSD Solutions





# Biosolids - the past

Annual production versus reuse – 2001 to 2009





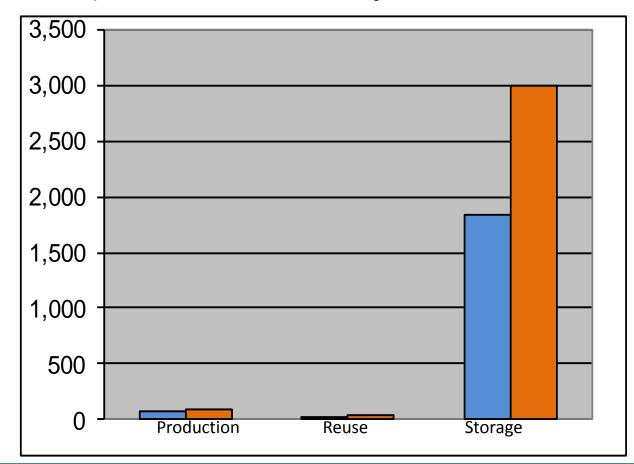


Volume

(tonnes x  $10^3$ )

# Biosolids - the storage challenge

Annual production & reuse versus storage – 2001 to 2009





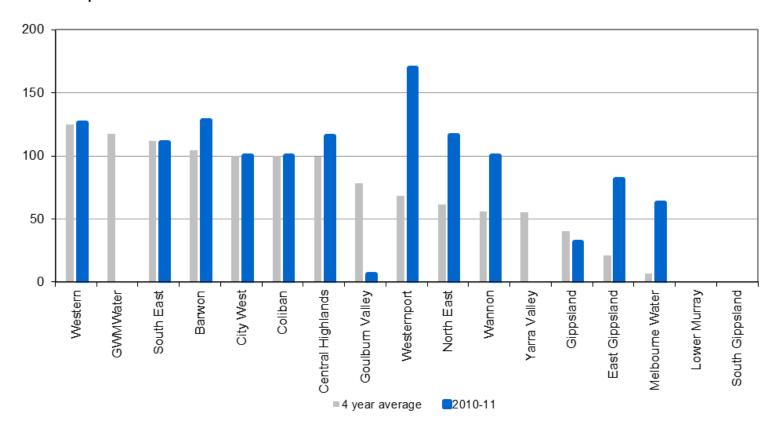
Volume

(tonnes  $\times 10^3$ )



#### Biosolids – the current numbers

#### Proportion of biosolids reused in 2010-11

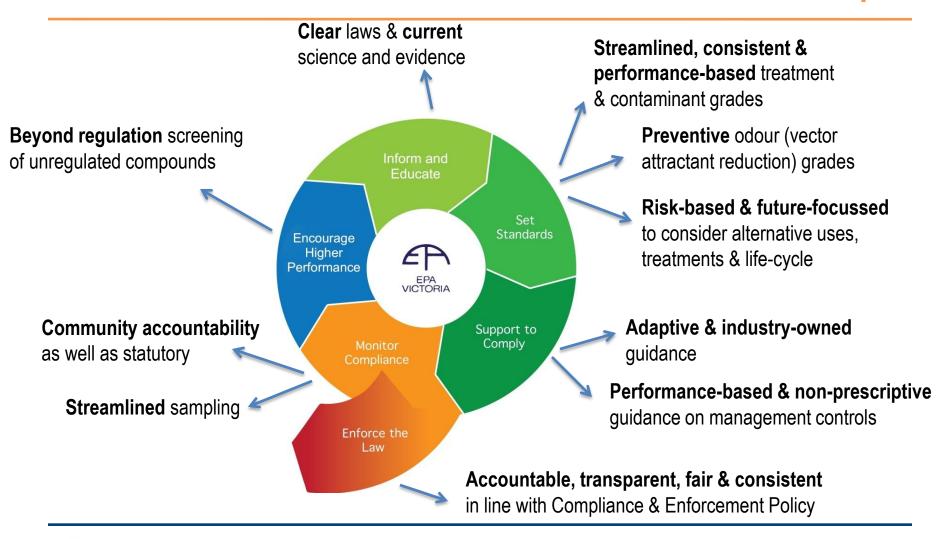


Source: Essential Services Commission: 2010-11 Water Performance Report





### The future – ANZBP review & workshop







#### More info...

**EPA Victoria** 

www.epa.vic.gov.au

Ph: 1300 EPA VIC

Australian and New Zealand Biosolids Partnership www.biosolids.com.au

Victorian Water Industry Association - VicWater www.vicwater.org.au





# Duty calls....





