

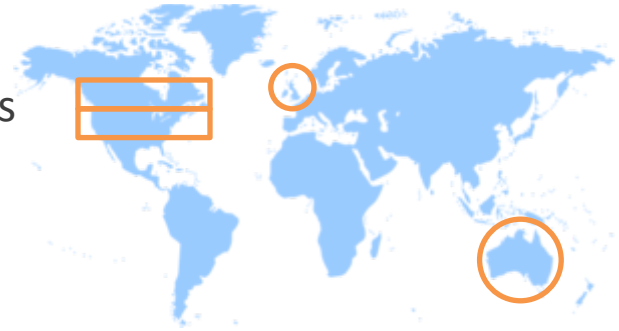
CSAP SURVEY OF
OTHER
JURISDICTIONS,
HOW DO WE
STACK UP?
Michael Sloan

- Where else does Professional Reliance play a key role in contaminated sites management?
- How is Professional Reliance implemented?
- Strengths and weaknesses
- Timeframes, cost, effectiveness

EXTERNAL JURISDICTION REVIEW:

Scope of Work

- Where:
 - Canadian provinces
 - Representative US states
 - United Kingdom
 - Australia
- What:
 - Quantitative analysis
 - Operational frameworks
 - Approval hierarchies
 - Measurements of success
 - Qualitative evaluation
 - Rationale for change
 - Effectiveness
 - Innovations

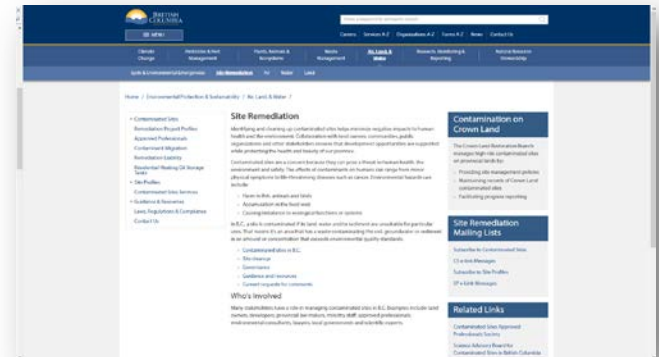


EXTERNAL JURISDICTION REVIEW:

Methodology

- Review of similar studies
 - Alberta Environment 2004
A Review of Regulatory Approaches to Contaminated Site Management. Environmental Law Centre. Pub. No: T/756. ISBN No. 0-7785-3210-0 (On-line Edition). <http://environment.gov.ab.ca/info/library/6896.pdf>
 - OCETA 2007
Jurisdictional Review of Contaminated Site Qualified Professional Programs. Ontario Centre for Environmental Technology Advancement.
http://canadianbrownfieldsnetwork.ca/PDF/Jurisdictional_Review_of_Contaminated_Site_QP_Programs_FINAL_REPORT_WITH_APPENDICES.pdf
 - Fowler 2007
Site Contamination Law and Policy in Europe, North America and Australia – Trends and Challenges. Professor Robert Fowler, University of South Australia & CRC CARE
http://www.iccl.ch/download/meeting_stockholm/Session%20D%20Rob%20Fowler%20Paper.pdf
 - Brandon 2013
Chapter 9 – Recommended Features of a Model Law on Site Contamination. *Global Approaches to Site Contamination Law.* DOI 10.1007/978-94-007-5745-5_9. Elizabeth Brandon. ISBN: 978-94-007-5744-8 (Print) 978-94-007-5745-5 (Online) Springer Science+Business Media Dordrecht 2013

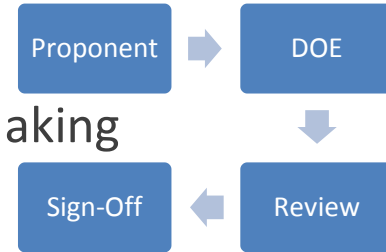
- Agency websites
- Questionnaire
 - SLR practitioners
- Interviews
 - Regulatory personnel



EXTERNAL JURISDICTION REVIEW: Operational Frameworks

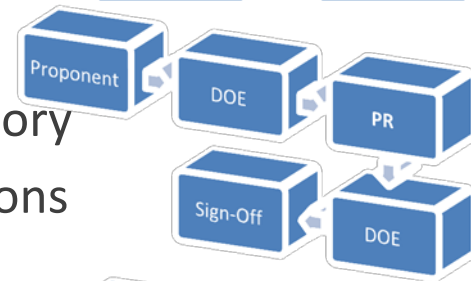
- DOE – Department (Ministry) of Environment

- Exclusive Regulatory Decision-Making
- Command-and-Control



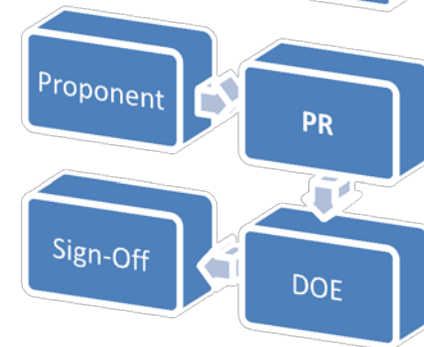
- EXT – External Review

- Independent Technical Advisory
- Supporting regulatory decisions



- PR – Professional Reliance

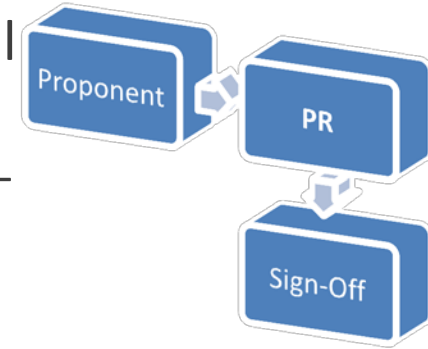
- Proponent Technical Advisory
- CSAP Model
- Subject to audit



EXTERNAL JURISDICTION REVIEW: Operational Frameworks II

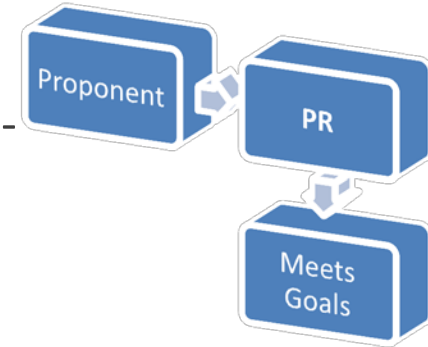
- PR Plus – Enhanced Professional Reliance

- Independent Surrogate Decision-Making
- APs issue instruments directly
- Regulator sets review & audit parameters



- Goal – Endpoint Focused

- Proponent Self-Policing Decision-Making
- Regulator sets program goals & performance standards
- No direct regulatory oversight unless there is a problem
- Professional societies conduct audits



EXTERNAL JURISDICTION REVIEW: Evolution of a Framework

DOE	EXT	PR	PR+	Goal
United States (CERCLA - 1980) California (SWRCB – 1967 DTSC - 1976)	Connecticut (1995)	Massachusetts (LSP - 1993) N Carolina (1997) W Virginia (1997) N Jersey (2009) Ohio (2014)		
Canada (1990s)	BC (2001) Atlantic (2003-2013)	Ontario (1996) BC (2007) Alberta (2008)		SK* (2015)
England & Wales (1990) Australia (1990s)			Victoria (1990) N Territory (2000) W Australia (2003) S Australia (2009) N S Wales (2013) Queensland (2015)	



EXTERNAL JURISDICTION REVIEW: Evolution of a Framework

- Why a Professional Reliance framework?
 - Reduced or limited DOE resources
 - Duplication of expertise between regulator and private sector
 - Improved certainty of timeframes
 - Increased flexibility in remediation strategies

EXTERNAL JURISDICTION REVIEW: Qualitative Evaluation

- Measurements of success
 - Number of remediated sites vs total sites
 - Leaking underground storage tanks removed
- Program funding & typical cost
- Program transparency
- Regulatory and technical effectiveness
- Timeliness
- Benchmark vs DOE framework
 - Improvement
 - No change
 - Regression

EXTERNAL JURISDICTION REVIEW: Qualitative Evaluation

Where		Pop (M)	Cost	Cleanups	/Yr	Sites	Time
BC	DOE	4.35 (2007)	\$35-45k	1,000 COCs	100	9,000	3-4 mo
BC	PR	4.5 (2011)	\$15-21k	1398 COCs	130	9,000	1-3 mo
ARBCA	EXT	2.32	Minimal	6700			
ON	PR	13.68	Minimal	1,175 RSCs			30 days
CA	DOE	38.8	\$5-10k	2,115 NFAs	125	90,000	Months
CT	EXT	3.6	\$3k	230		17,600	
MA	PR	6.75	\$5k/vr	33,000	1,500	44,000	
NJ	PR	8.94	~\$10k	3,790		8,500	
NC	PR	9.94	\$8-30k	340 BAs		20,000	2 mo+
WA	DOE	7.06	Minimal	200 NFAs		6,800	Months
WV	PR	1.85	\$5k	2,850		3,600	
UK	DOE	56.07	Minimal	150 (2007)		325,000	3-6 mo
NSW	PR+	7.57	Minimal	40 SASs		339	< 30 days
NT	PR+	0.24	Minimal	154 SASs			< 30 days
VIC	PR+	5.89	Minimal	777 Cert		4,655	< 30 days
WA	PR+	2.56	Minimal	707		20,000	< 30 days



EXTERNAL JURISDICTION REVIEW: Qualitative Evaluation

- Learnings & Innovative tools

- Technical

- **Public database** of sites & reports, searchable at no/low cost, geo-referenced



ENVIROSTOR

- CLEANUP SITES**
 - ✓ Federal Superfund
 - ✓ State Response
 - ✓ Voluntary Cleanup
 - ✓ School Cleanup
 - ✓ Evaluation
 - ✓ School Investigation
 - ✓ Military Evaluation
 - ✓ Tied Permit
 - ✓ Corrective Action
- PERMITTED SITES**
 - ✓ Operating
 - ✓ Post-Closure
 - ✓ Non-Operating
- DISPERSED SITES**
 - △ GeoTracker LUET
 - △ GeoTracker SLUC

MAP AN ADDRESS Irvine [Go]

SHOW SITES WITHIN 1000 FEET OF THE FOLLOWING ADDRESS: [Go]

SITES CURRENTLY VISIBLE ON MAP		713 SITES LISTED		EXPORT THIS LIST TO EXCEL
PROJECT NAME	SINQS	PROJECT TYPE	ADDRESS	CITY
1510 SUNNYMEDE	INACTIVE - ACTION REQUIRED	EVALUATION	1910 SUNNYMEDE	EAST PALO ALTO
1298 EL CAMINO REAL	NO FURTHER ACTION	VOLUNTARY CLEANUP	1298 EL CAMINO REAL	MENLO PARK
1601 S CALIFORNIA AVENUE	ACTIVE	VOLUNTARY CLEANUP	1601 CALIFORNIA AVENUE	PALO ALTO
1633 OAKLAND ROAD	CERTIFIED	VOLUNTARY CLEANUP	1633 OAKLAND RD	SAN JOSE
303 RAVENDALE DRIVE	REFER. RIVOCB	VOLUNTARY CLEANUP	303 RAVENDALE DRIVE	MOUNTAIN VIEW
1010 SOUTH 3RD STREET	CERTIFIED	VOLUNTARY CLEANUP	1010 SOUTH 3RD STREET	SAN JOSE
482 PERSIAN DRIVE	ACTIVE	VOLUNTARY CLEANUP	482 PERSIAN DRIVE	SUNNYVALE
485 SOUTH MONROE STREET	CERTIFIED	VOLUNTARY CLEANUP	485 SOUTH MONROE STREET	SAN JOSE
500 MATHER STREET	NO FURTHER ACTION	VOLUNTARY CLEANUP	500 MATHER STREET	SANTA CLARA
505 EAST WOODS LANE	NO FURTHER ACTION	VOLUNTARY CLEANUP	505 EAST WOODS LANE	SUNNYVALE

