



## Review of AA Examples

Green Ribbon Science Panel Meeting  
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CalEPA

# Purpose

- GRSP recommendations and public comments
- Required by SCP regs (section 69505.(b))
- Stakeholder support implementation plan
- Spring 2018 – web posting AA examples
- Continuously update web postings

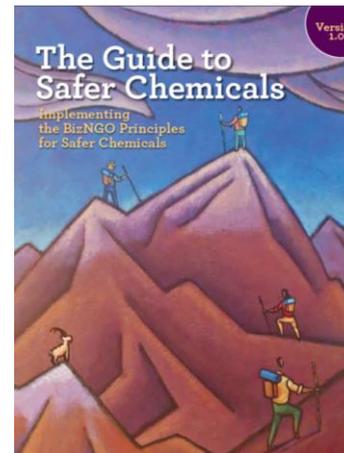
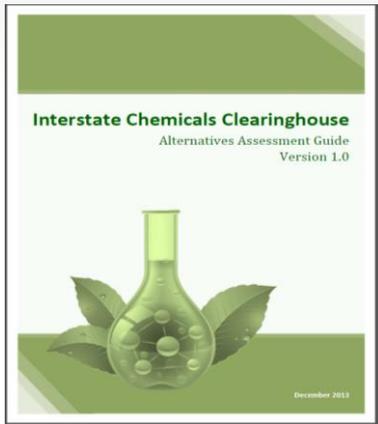


# Selection criteria for AA examples

- Chemical and product combination
- Relatively complete scope of AA
- Available in the public domain at no cost
- Aspects of California AA requirements
- Sufficient transparency of methodology and analysis
- Published after 2000

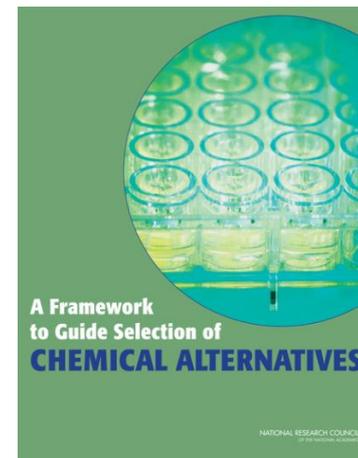
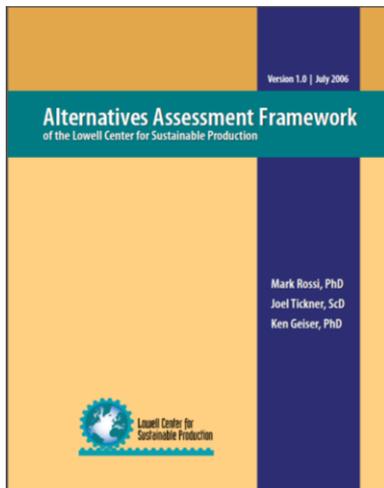


# Where to look for AA examples

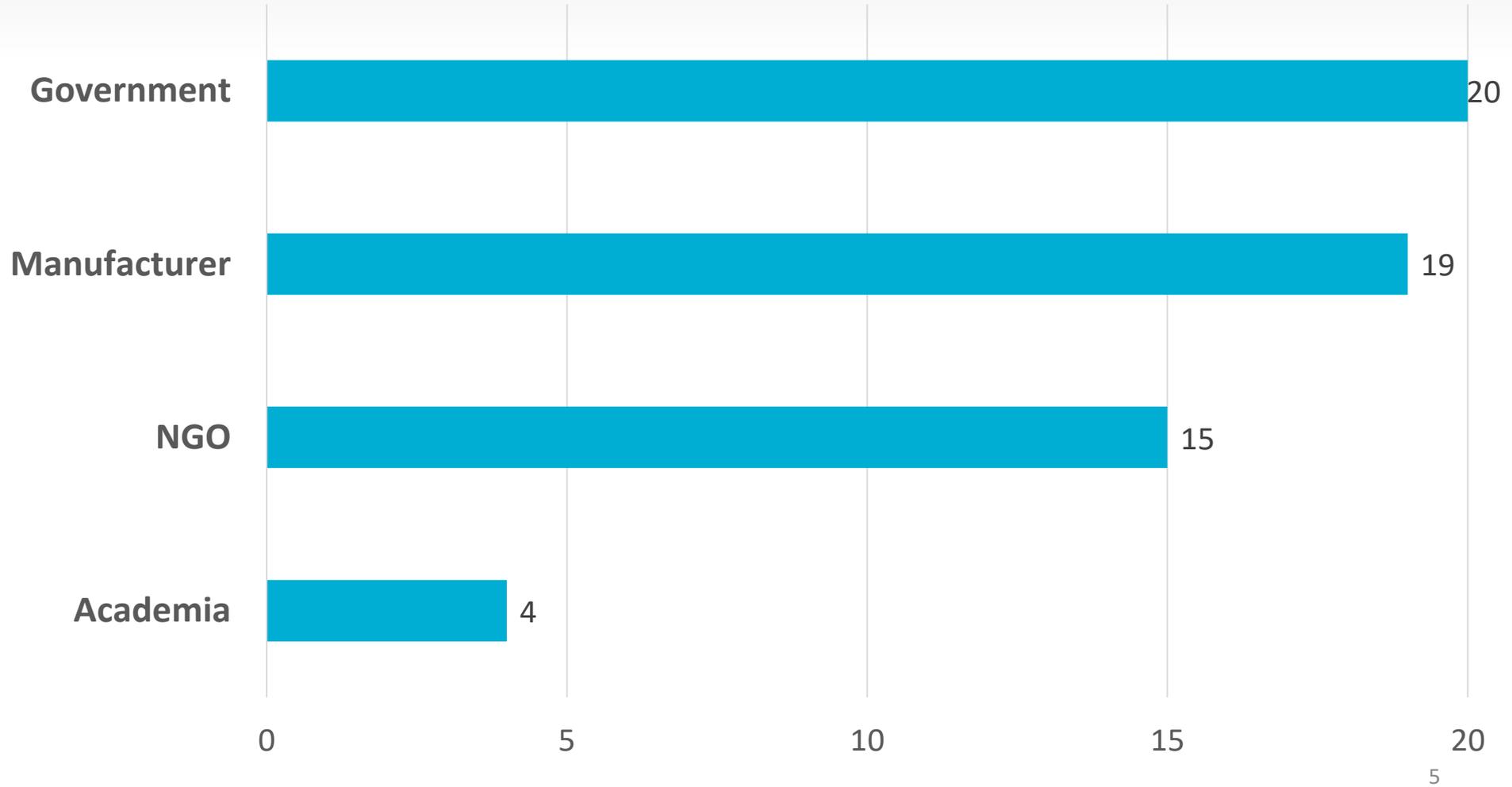


Washington State  
**Alternatives Assessment Guide**  
for Small and Medium Businesses

January 2015  
PNW03000006-10-01-002



# Who has prepared AA examples



5



# Reviewed for AA topic areas

- Function and performance (Ch. 2)
- Identification of alternatives (Ch. 2)
- Identification of relevant factors (Ch. 3)
- Initial screening (Ch. 5)
- Hazard (Ch. 4)
- Exposure (Ch.6)
- Life cycle impacts (Ch. 7)
- Economic impacts (Ch. 8)
- Decision making (Ch. 10)

First stage AA

Second stage AA



## *Reviewed for:*

- Transparency and documentation
- Relevance to California AA requirements
- Data gaps and uncertainties
- Identified AA examples that:
  - addressed California AA elements to some extent (+)
  - strongly addressed California AA elements (+++)

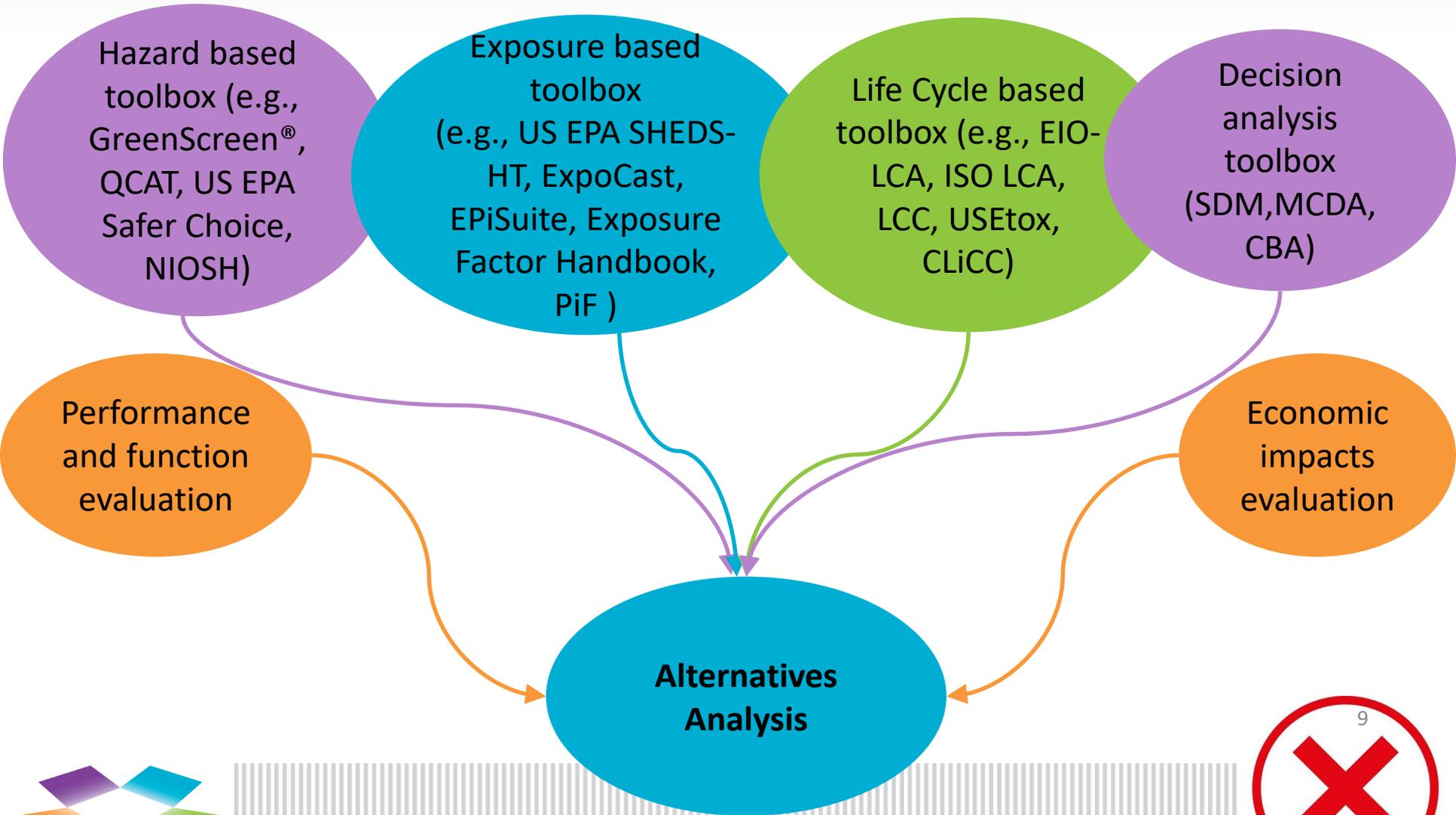


# Not reviewed for comprehensiveness

- Performance and function
- Adverse environmental impacts
- Adverse public health impacts
- Adverse waste and end-of-life effects
- Environmental fate
- Materials and resource consumption impacts
- Physical chemical hazards
- Physicochemical properties
- Associated exposure pathways and life cycle segments
- Economic impacts



# Not reviewed for appropriateness of tools



## Not reviewed for:

- Quality of supporting information
- Adequacy of analysis
- Compliance with California AA requirements
- “Bad” examples



# Further selection criteria for GRSP discussion

Choose 13 from initial 58 AA examples

- Variety of alternatives assessment frameworks
- Variety of organizations
- Variety of industry sectors

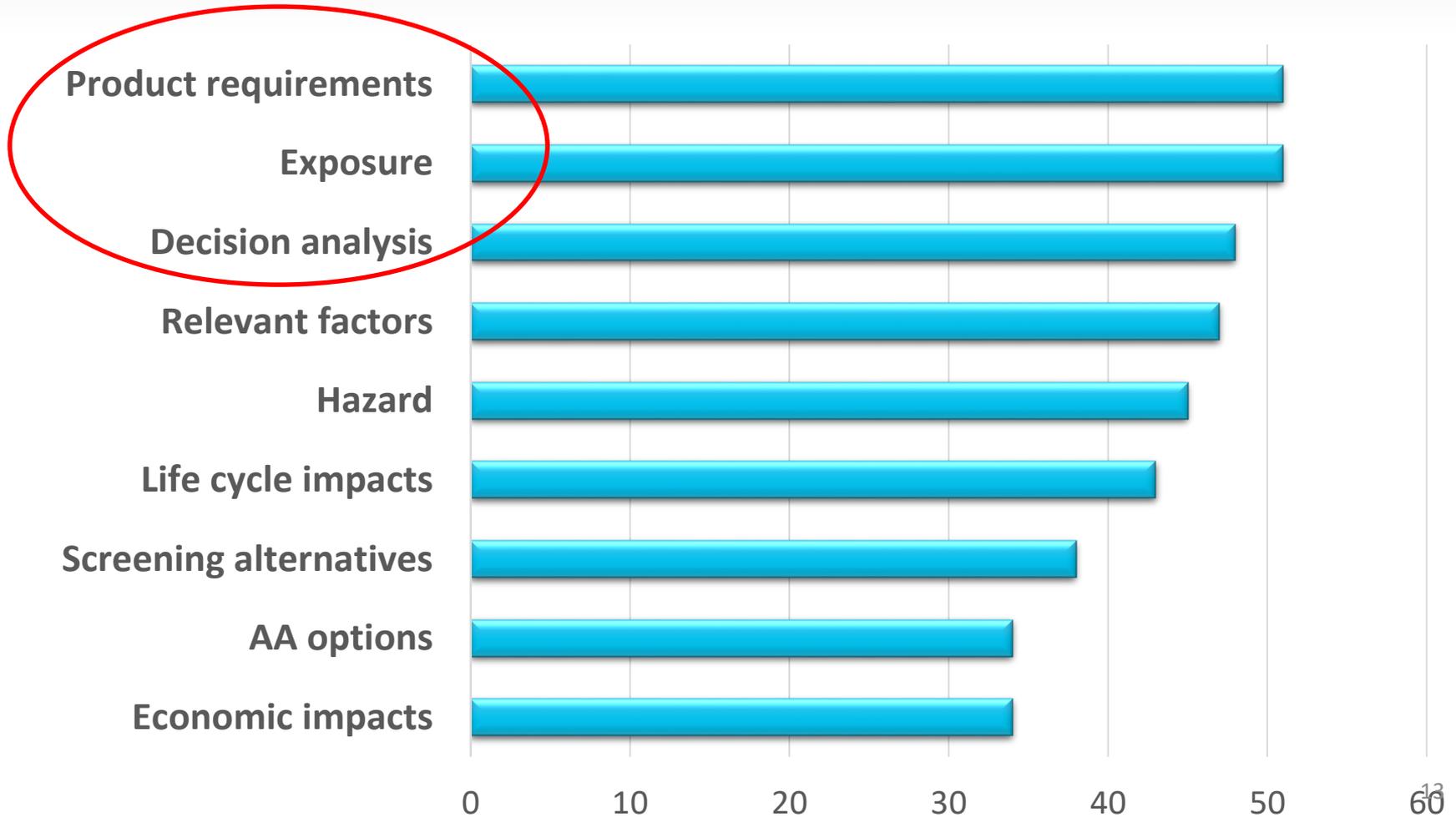


# Summary table for 13 AA examples

ID	Function	ID alternatives	ID relevant factors	Initial screening	Adverse impacts		Life cycle impacts	Economic impacts	Decision making
					Hazard	Exposure			
1	+++	+	+++	+++	+		+++		+
2	+	+++			+++	+	+		+++
3	+++	+	+		+++	+++	+	+	+++
4	+	+++		+	+++	+	+	+	
5	+	+		+++	+	+	+	+	+++
6	+	+++				+++	+++		
7		+		+++	+	+			
8	+++	+++			+			+	
9	+	+			+++	+			
10	+	+			+++	+			+++
11	+	+++						+++	
12	+++	+++	+	+++	+	+		+	
13	+	+++		+++	+	+		+	+



# Stakeholder survey: training needs in AA



# Panel comment on strength of example

- Does the panel agree that the example is strong in the area identified? If not, why not?
- If so, what makes it a strong example?
- How could it be even stronger?
- Is the panel familiar with any assessments in the strength area that would serve as better examples?
- Did the example adequately support any conclusions in the report?



# Panel feedback to DTSC

- Did DTSC correctly assess the AA examples?
- What was missed?
- Do we need certain expertise to review the examples? How might DTSC might cover the diversity of areas required?
- What can DTSC do to facilitate development of example assessments that better address the California requirements, i.e., better coverage of all California AA elements and more thorough analyses?
- Are there recommendations for how the program should follow up on this effort?



# Panel recommendations for communication with stakeholders

- What aspects of our evaluation need to be conveyed to stakeholders?
- What is the best means of presenting our findings to stakeholders?



# Thank the contributions from AA team:

- Scott Braithwaite
- Suzanne Davis
- Heather Lee
- Tony Luan
- Diana Phelps
- Melissa Salinas
- Lynn Nakayama Wong
- Xiaoying Zhou