Alternatives Assessment at Ecology

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Preventing & Reducing Toxic Threats
Averting toxic exposure is the smartest, cheapest, and healthiest approach!

GOALS
• Benign design
• Communities, Workers & Environment protected
• Moving towards increased sustainability

Green Chemistry
Safer Alternatives
Phase out PBTs
Identify Chemicals of Concern
Gather data
- Use Reporting
- Product Testing
Bans, Limits

Thanks to Saskia vanBergen
Ecology Experience with AAs

• 2004-08 Ecology/Health directed to investigate/reduce PBDEs.
  – Mix of Executive Order & state law (RCW 70.76).
  – AA focus on decaBDE.
  – Directs investigation of substitutes & promotion of safer alternatives.
• 2014 Alternatives to Copper Antifouling Paint.
  – Pilot of the IC2 Alternatives Assessment Guide v1.0 (ToxServices).
• 2017 WA Antifouling Boat Paint Alternative Assessment.
  – Northwest Green Chemistry & TechLaw.
• 2018-19 PFAS in Food Packaging (currently in process).
2008 decaBDE AA

- Culmination of a decade of work worldwide (abundant DATA).
- Experience with the multicriteria decision challenge.
- Incorporating life-cycle thinking.

2006 WA ad hoc assessment of hazards

2008 GreenScreen (Clean Production Action)
2017 Alts to Copper Antifouling (NGC)

- 2011 WA bans copper in AF paint.
  - Effective for new vessels 1/1/2018.
  - No requirement for alternatives assessment.
- 2017 NGC assessment of alternatives.
  - Challenge of assessing performance.
  - What’s sufficient to assess “impact”?
- Limited innovation/new products.
  - Washington State a small market.
  - AF paints are registered pesticides (FIFRA).
- 2017 Ecology requests delay in ban to further consider impact of alternatives.

NZEPA Risk assessment - recreational marinas

2018-19 PFAS Food Packaging AA

• 2018 Legislature bans PFAS in food packaging.
  – PFAS is banned as a CLASS.
  – Ban effective when Ecology identifies safer alternatives.
  – Specifies use of Interstate Chemicals Clearinghouse Guide.

• RCW 70.95G definitions & criteria specify “safer alternatives”:
  – Meet improved hazard & exposure considerations.
  – Be practicably & economically substituted.
  – Readily available in sufficient quantity & at comparable cost.
  – Perform as well as or better than PFAS.

• No allowance for tradeoffs!

Amended toxics in packaging law: [http://app.leg.wa.gov/rcw/default.aspx?cite=70.95G](http://app.leg.wa.gov/rcw/default.aspx?cite=70.95G)
Summary

• We still struggle with multicriteria decisions.
  – But we have tools that help, like GreenScreen.
  – Hazards of mixtures (i.e., products) – another multicriteria decision.
  – Legislatures can help 😞
• We have a strong tendency to undercomplexification.
  – Oversimplification serves many masters – resist!
• Little experience going beyond the four (hazard, performance, cost and exposure).
• Policy - Don’t ban without an accompanying AA.
• Need for model legislation?