

US EPA ARCHIVE DOCUMENT

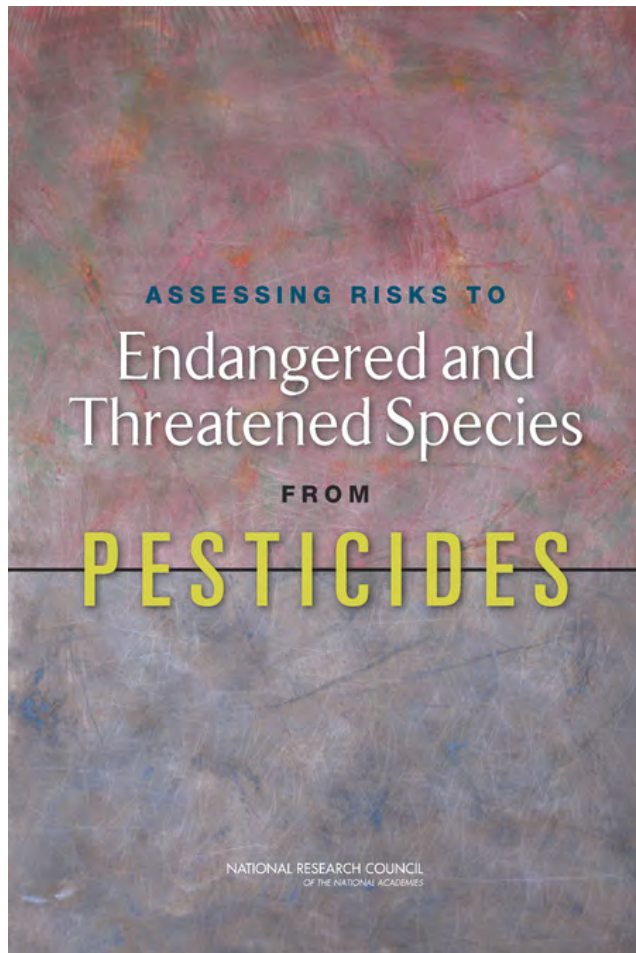
# ESA Update

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# Today's Topics

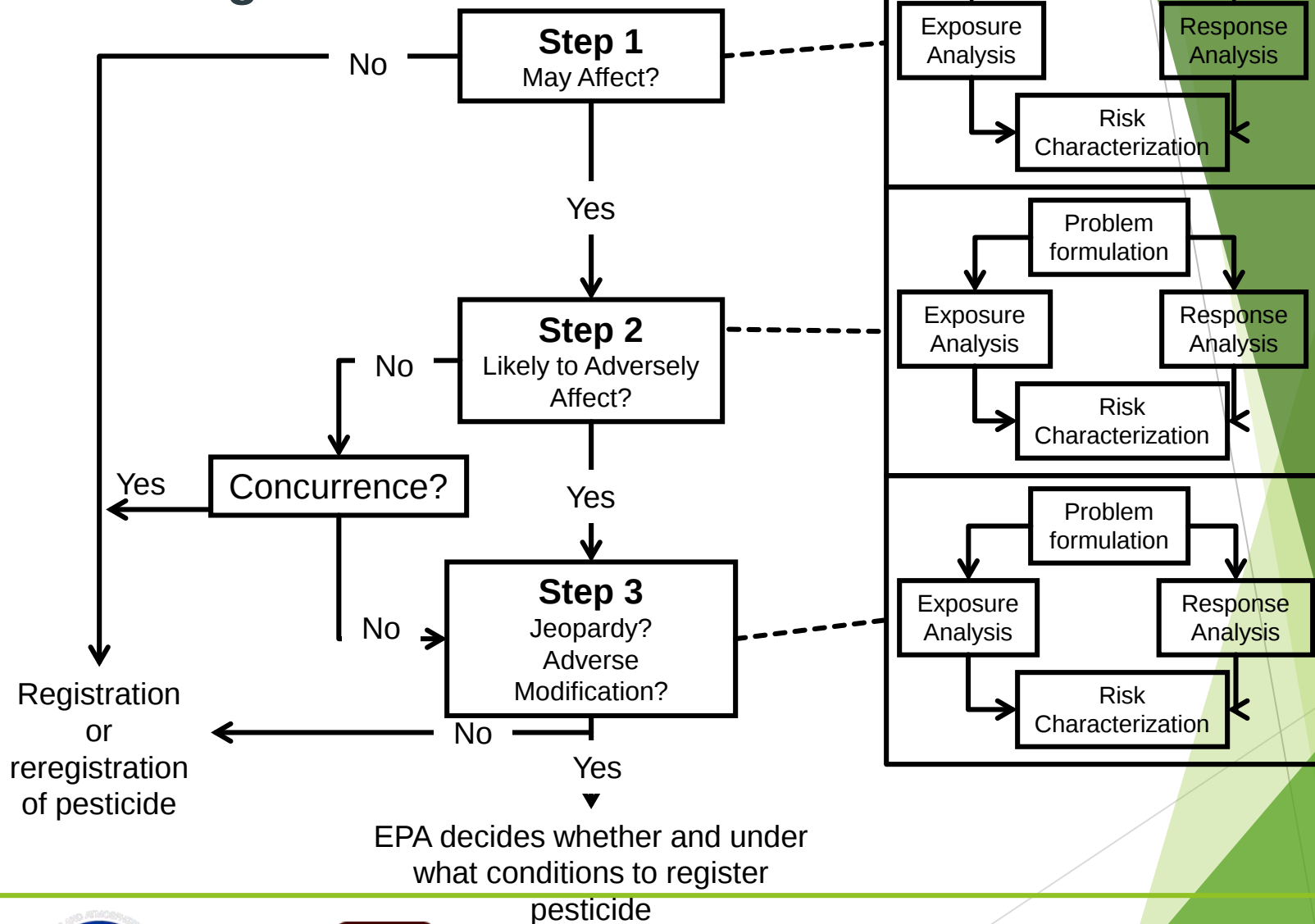
- ▶ Status of ESA-related Activities
- ▶ April 2015 ESA Stakeholder Meeting
- ▶ Challenges and Perspectives

# National Academy of Sciences Report



- ▶ Released on April 30, 2013
- ▶ Developed in response to a joint request by EPA, NMFS, FWS, and USDA
- ▶ Recommended 3-step process that integrates ecological risk assessment methods with ESA Section 7 consultations

# 3-Step Approach: ESA Consultation and Ecological Risk Assessment



United States  
Environmental Protection  
Agency



# Interagency Process Agreements

- ▶ Goal: unified interagency approach with agreement on process across all phases
- ▶ “Shared” agency approaches
- ▶ All agencies open to change in risk assessment methodologies
- ▶ Once vetted, day-forward and iterative approach based on real-world experience
- ▶ Streamlined process

# ESA Timeline

- ▶ April 2013: NAS report released
- ▶ Three interagency workshops:
  - ▶ August 2013, May 2014, and November 2014
- ▶ Four stakeholder workshops:
  - ▶ November 2013: Interim scientific approaches  
<http://www.epa.gov/espp/2013/nas.html>
  - ▶ April 2014: Feedback on interim approaches
  - ▶ October 2014: Interagency presentations and more stakeholder feedback
  - ▶ April 2015: <http://www.epa.gov/espp/2015/espp-workshop.html>
- ▶ Settlement agreements on ESA-litigation
- ▶ Multiple stakeholder presentations

# Status of Ongoing Work

- ▶ First national-level pesticide consultations
- ▶ Collaborative effort among EPA, NMFS, FWS, and USDA
- ▶ Consistent with interim approaches based on the NAS report recommendations
- ▶ The three pilot chemicals are:
  - ▶ Chlorpyrifos
  - ▶ Diazinon
  - ▶ Malathion
- ▶ Draft Biological Evaluations (BEs) for three pilots in Fall of 2015
- ▶ Final Biological Opinions (BiOps) for three pilots in December of 2017



# April 2015 Stakeholder Workshop

- ▶ Update on the Problem Formulation (PF) for the three ESA pilot chemicals
- ▶ Geospatial data on pesticide use patterns and listed species range maps
- ▶ Risk hypothesis and weight-of-evidence (WOE) approach
- ▶ Step 2 analysis:
  - ▶ Aquatic analysis: shortnose sturgeon
  - ▶ Terrestrial analysis: Kirtland's warbler

# April 2015 Stakeholder Workshop

- ▶ Update of the PF for three ESA pilots
  - ▶ Description of the Federal Action under ESA
    - ▶ Product labels of all pesticide products containing the pesticide being assessed
    - ▶ Seeking label clarification of use sites that can be anywhere
  - ▶ Pesticide Active Ingredient Information
    - ▶ Mode and mechanism of action, fate overview and degradates of concern
  - ▶ Conceptual models
  - ▶ Analysis plan
    - ▶ Step 1 – “May affect” or “no effect” – based on co-occurrence of species range with pesticide use
    - ▶ Step 2 – NLAA or LAA

# April 2015 Stakeholder Workshop

## ▶ Geospatial data

- ▶ Needed for Steps 1-3 of the analysis

## ▶ Pesticide Use Sites:

- ▶ Agricultural uses: Cropland Data Layer (CDL) and National Agricultural Statistic Service (NASS) census levels
- ▶ Non-ag uses: forestry, nurseries, mosquitocides

## ▶ Listed Species Range Maps:

- ▶ NMFS species provided to EPA (~100 species)
- ▶ FWS using phased approach to refine and deliver data



# April 2015 Stakeholder Workshop

- ▶ Risk Hypothesis (RH) and WOE Approach
  - ▶ RH = is it likely that fitness of an individual of a listed species and/or the primary and biological features (PBFs) of designated critical habitat will be adversely affected by pesticide x according to registered labels?
  - ▶ Various lines of evidence are assigned weights based on confidence in data using criteria
    - ▶ Exposure data: relevance and robustness
    - ▶ Effects data: biological relevance, species surrogacy, and robustness
  - ▶ Compare exposure concentration data with effects data to establish overlap
  - ▶ Interagency teams are currently developing the WOE process
    - ▶ Approach to be applied and revised based on lessons learned from the pilot BEs



# Challenges and Perspectives

- ▶ Aquatic modeling
  - ▶ ~2000 - 8000 modeling runs per chemical
- ▶ Terrestrial modeling
  - ▶ Need to account for 3 different sets of units (mg/kg diet, mg/kg BW, and lbs a.i./A)
  - ▶ Need to integrate existing terrestrial tools (T-REX, T-HERPs, AgDrift, and TerrPlant)
- ▶ Number of LAA/NLAA calls - 1,850 listed species, approx. 800 of which have designated critical habitat (CH)

# Challenges and Perspectives

- ▶ Each Agency implements its statute, regulation, and policies
  - ▶ This is not a “culture”
  - ▶ Each organization is expected and required to carry out their mandates
- ▶ NAS report provided the roadmap
  - ▶ Gray areas require interpretation and judgement
- ▶ It's a lot of work
  - ▶ It's not one and done; additional analyses will be routine
  - ▶ Conclusions will change

# Questions?