Dr. Claire Campbell
Terrestrial Ecologist (South)
Science Advice support on Habitats Assessments for PPC

Ecology Partnership and Development Unit (EPDU)
SEPA Science & Strategy
Screening tools

- Habitats assessment for PPC activities
  - Habitats Directive requirement
  - Assessment:
    - Determine likely contribution from regulated activity
    - Is this likely to cause “adverse impact to site integrity” of designated conservation sites?
- Critical load exceedance approach
  - Threshold above which harm is likely
  - Habitat-specific
  - Most sensitive: lichens & peat
  - Applicants provide modelling
    - Process Contribution
    - Background Deposition

Critical load exceedance for nutrient nitrogen deposition (2006-08)
Screening tools

- SEPA Interactive GIS data layers
Develop SEPA biomonitoring toolkit

- Review outcomes of previous SEPA work
  - 3 Environmental Improvement Action Plans
  - 4 contract research projects
  - Soil, lichens & plant indicators

- Devise future use of biomonitoring in SEPA
  - Appropriate indicators for specific activities or site
  - Determine appropriate sensitivity of indicators
  - Specific uses and limits of application

- Cross-functional & Cross-directorate working
  - Operations
    - Regional Technical Support Units, National Policy
  - Science
    - Ecology, Environmental Quality, Environmental Strategy, Field Chemistry

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Habitats assessment in PPC

- Screening for habitats assessment:

  If Process Contribution > 1% Critical Load
  AND
  Background > 100% Critical Load
  THEN Detailed Assessment

- Background deposition exceeds critical load in large areas of central Scotland...
Critical load exceedance

Critical load = habitat-specific damage threshold

Critical load exceedance for nutrient nitrogen deposition (2006-08) from Review of Transboundary Air Pollution (2012)
Habitats assessment in PPC

- Screening for habitats assessment:

  If Process Contribution > 1% Critical Load
  AND
  Background > 100% Critical Load
  THEN Detailed Assessment

- Background deposition exceeds critical load in large areas of central Scotland

- If so, request habitat survey – N damage seen?
  ⇒ If not, then agree % exceedance with SNH
  ⇒ This is a new approach in SEPA