

Developing a Natural Resource Management Approach to Air Quality in Wales to Protect Sensitive Habitats

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Historical Background

- 1273
- 1661 John Evelyn “*Fumifugium*”
- 1852 Angus Smith “Acid rain”
- 1952 London Smog
- 1950 – 1960 Clean Air Act
- 2013 – “Year of Air”; Article 17
- 2015 – VW “scandal”
- 2016 – Royal College of Physicians

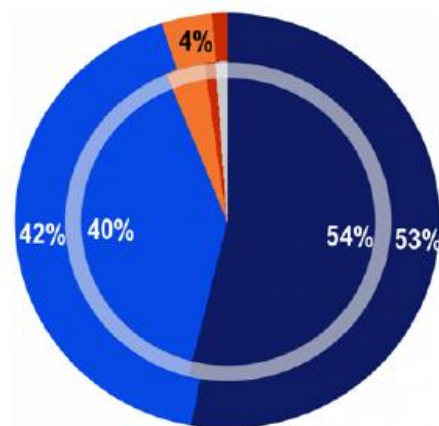
Impacts (Human Health)

- WHO
- EAC
- Obesity & Smoking
- 6 months
- 40,000 deaths \approx £20million

Eurobarometer

1. EUROPEANS AND THEIR CONCERNS ABOUT THE ENVIRONMENT

QA1. How important is protecting the environment to you personally?



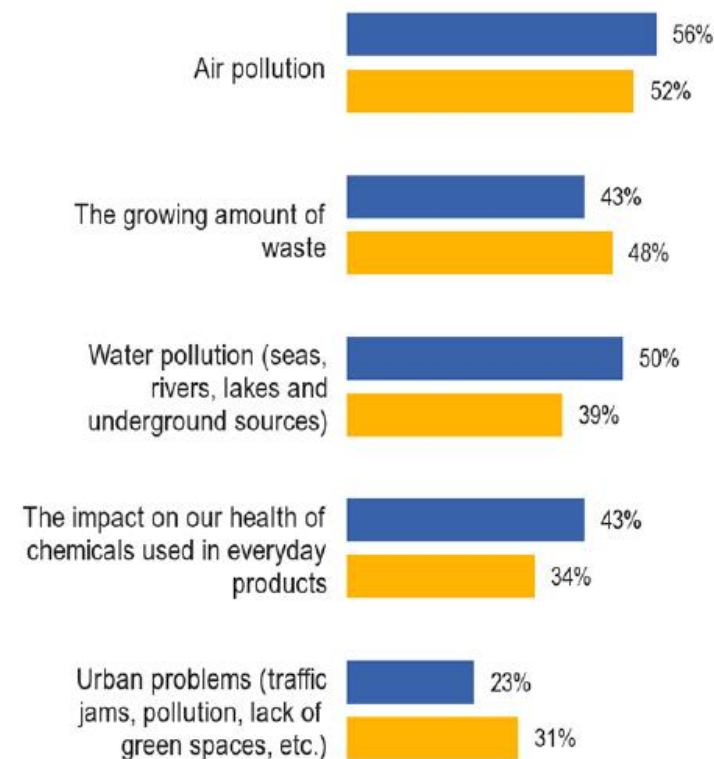
EU  Outer pie UK  Inner pie

	EU		UK	
	2014	2014-2011	2014	2014-2011
Very important	53%	- 4	54%	- 4
Fairly important	42%	+ 5	40%	+ 4
Not very important	4%	=	4%	- 1
Not at all important	1%	=	1%	=
Don't know	0%	- 1	1%	+ 1

-  Very important
-  Fairly important
-  Not very important
-  Not at all important
-  Don't know

2014(EU28): EB81.3
2011(EU27): EB75.2

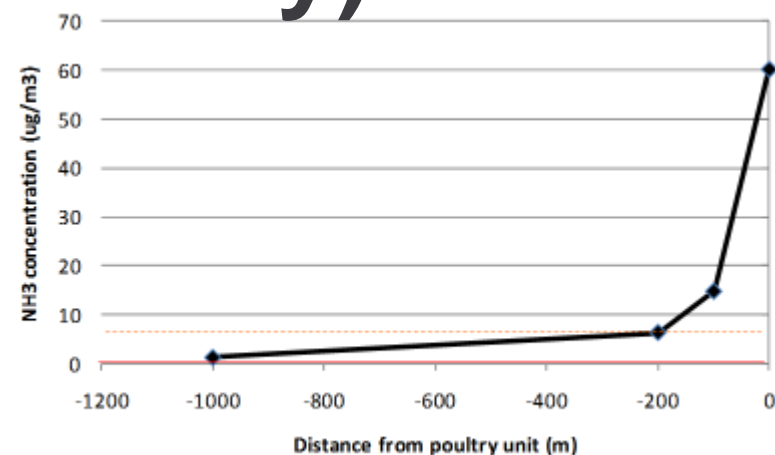
QA2. From the following list, please pick the five main environmental issues that you are worried about.



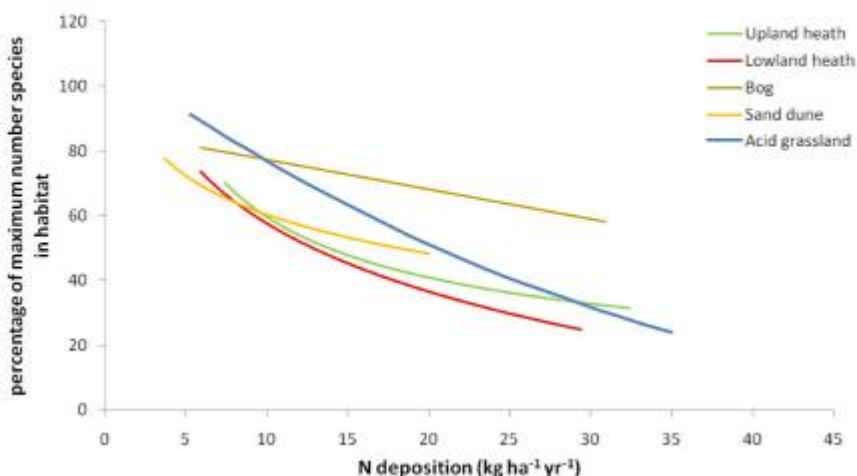
(TOP 5 ANSWERS AT COUNTRY LEVEL)



Impacts (biodiversity)



N deposition & species richness



- Short range
- Long range

Critical Load Scaling

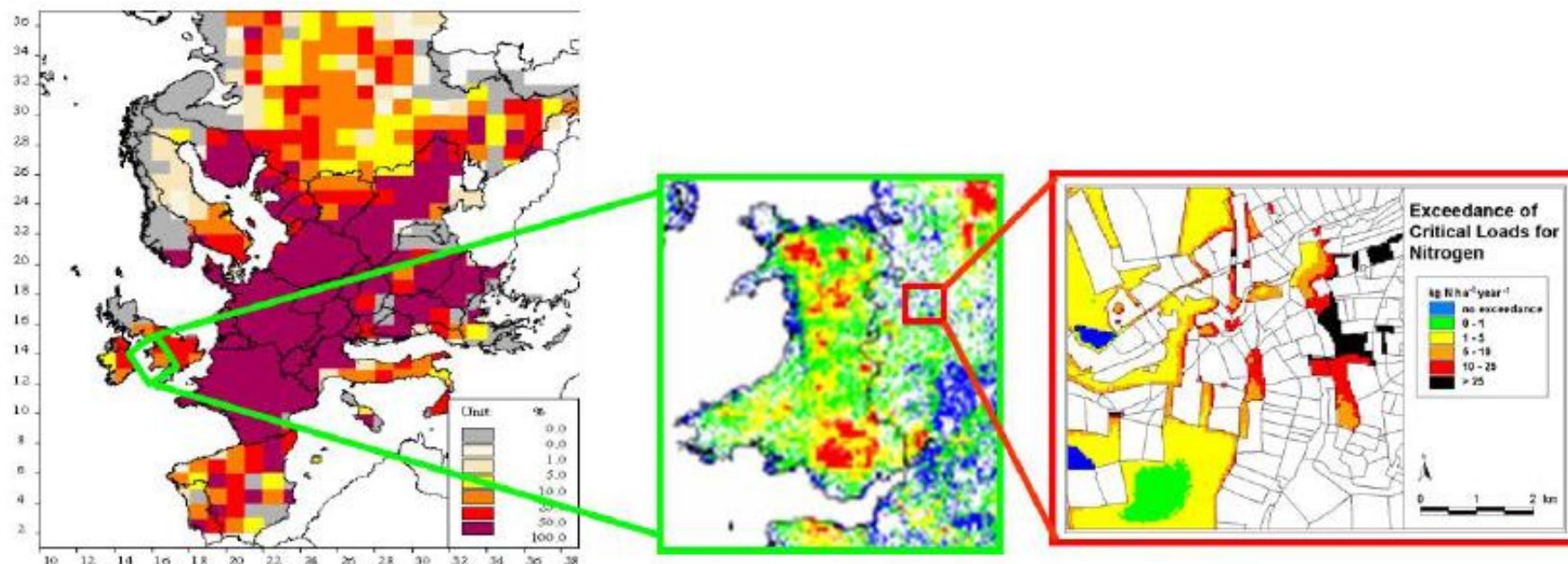


Figure 3. Spatial variability at international, regional and local scale. Source: modified from Dragosits 2014, presentation 15-07-2014 London.

Evidence of Impacts

- Plant Atlas
- Today 90% exceed nutrient N-CLo in Wales
- Habitats Directive Art. 17 2013 Report
- 34 air pollution “high pressure” - “high threat”

Recent NRW Work

- Nitrogen Decision Framework
- TAP – Nitrogen Deposition
- AAANIS
- Powys Poultry Pilot
- (NRW tying it all together!?)



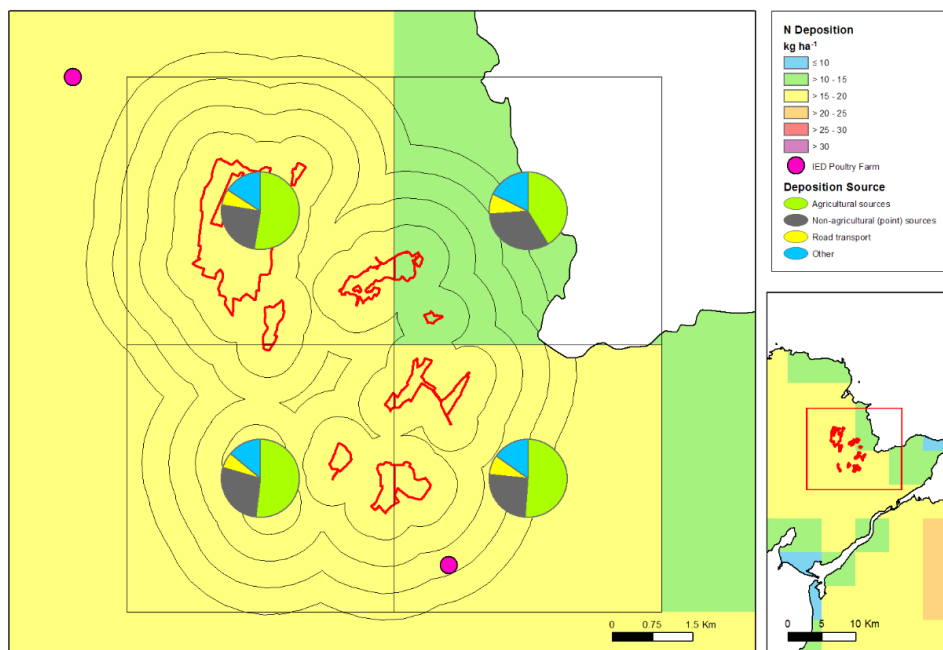
Nitrogen Decision Framework

Exceedance Score	←Strength of site-based evidence that N deposition is not causing adverse impacts		No site-based evidence	Strength of site-based evidence that N deposition is causing adverse impacts →					
	Moderate	Weak		Very weak	Weak	Moderate	Moderately strong	Strong	
Very low	G	G	G	G	G	G	Y	O	
Low	G	Y	Y	Y	Y	Y	Y	O	
Medium-low	Y	Y	Y	Y	Y	Y	O	O	
Medium	Y	Y	Y	Y	Y	O	O	R	
Medium-high	Y	O	O	O	O	O	O	R	
High	O	O	O	O	O	O	R	R	
Very high	O	R	R	R	R	R	R	R	
No critical load									
No Exceedance score	Y	Not possible to assess	Not possible to assess	Not possible to assess	Not possible to assess	Not possible to assess	O	O	R

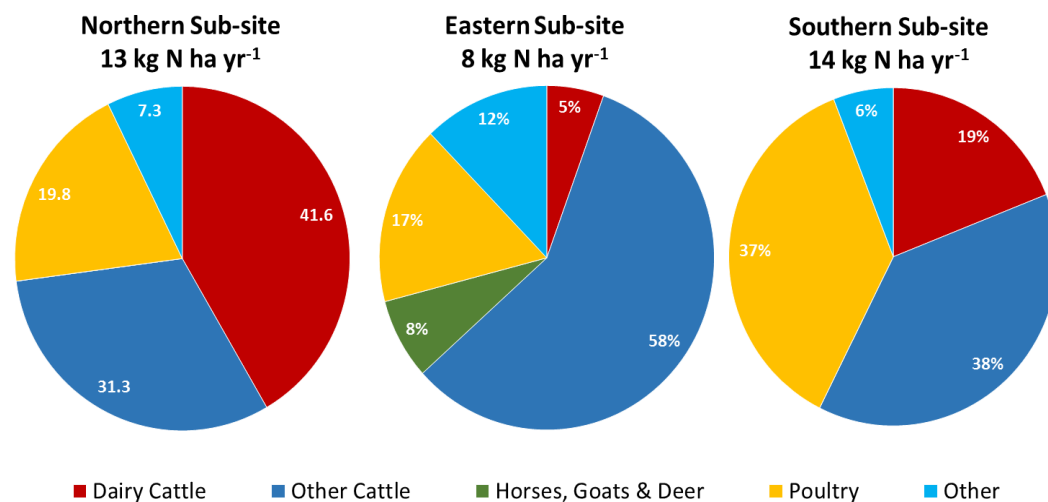
Thematic Action Plan Air Pollution: N Dep

Action	Detail	Priority	Link to GB Framework Strategy Implementation Plan	Link to existing work programmes	Lead organisation	Partner organisation(s)	Estimated Cost (£)	Proposed Timetable
<p>Influence NRW permitting & advisory roles (e.g. under Industrial Emissions Directive and local planning) in order to reduce the levels of atmospheric nitrogen affecting N2K sites.</p>	<p>Integrate NRW permitting decisions with responses to local authorities as planning advisors, by:</p> <p>Developing new policies/guidance on how to respond to planning casework likely to contribute to atmospheric nitrogen, (i.e. the need for air pollution assessments under EIA schedule 2 as recently directed by Welsh Government and under Section 6.1 of the Environment Bill Wales 2015 (historic NERC duty)).</p> <p>Establish training/ operational guidance for regional development teams and permitting staff to help implement these policies.</p>	High	Wales Biodiversity Strategy	<p>Regional Development Teams</p> <p>Permitting Teams</p> <p>Review of N2K Management Plans</p>	Natural Resources Wales	<p>Welsh Government</p> <p>Local Authorities</p>	Staff time	2018
<p>Review policies to identify changes in policy required to reduce the levels of atmospheric nitrogen affecting N2K sites.</p>	<p>Review Welsh Government funding for rural agriculture developments where air quality is an issue (e.g. for new poultry developments) which are likely to affect N2K sites</p>	High	Welsh Government Rural Development Programme		Welsh Government	Natural Resources Wales	Staff time	2020
<p>Identify and set air pollution objectives and targets for the restoration of N2K sites.</p>	<p>Set the targets in the context of other strategies and work as measures to reduce the contribution from nitrogen will have significant additional benefits (e.g. diffuse water pollution and human health).</p>	High	Chief Scientist Group (Task and Finish Nitrogen Decision Framework)	Review of N2K Management Plans	JNCC	<p>NRW</p> <p>Welsh Government</p>	Staff time	2018
<p>Develop an integrated diffuse pollution strategy to include diffuse air pollution impacts.</p>	<p>Ensure NRW diffuse pollution strategy includes diffuse air pollution.</p>	High	WFD	WFD	Natural Resources Wales	<p>Welsh Government</p> <p>NFU/FUW</p> <p>Water companies</p>	Staff time	2017

Assessing and Addressing Atmospheric Nitrogen Impacts on Sites (AAANIS) Anglesey Fens SAC

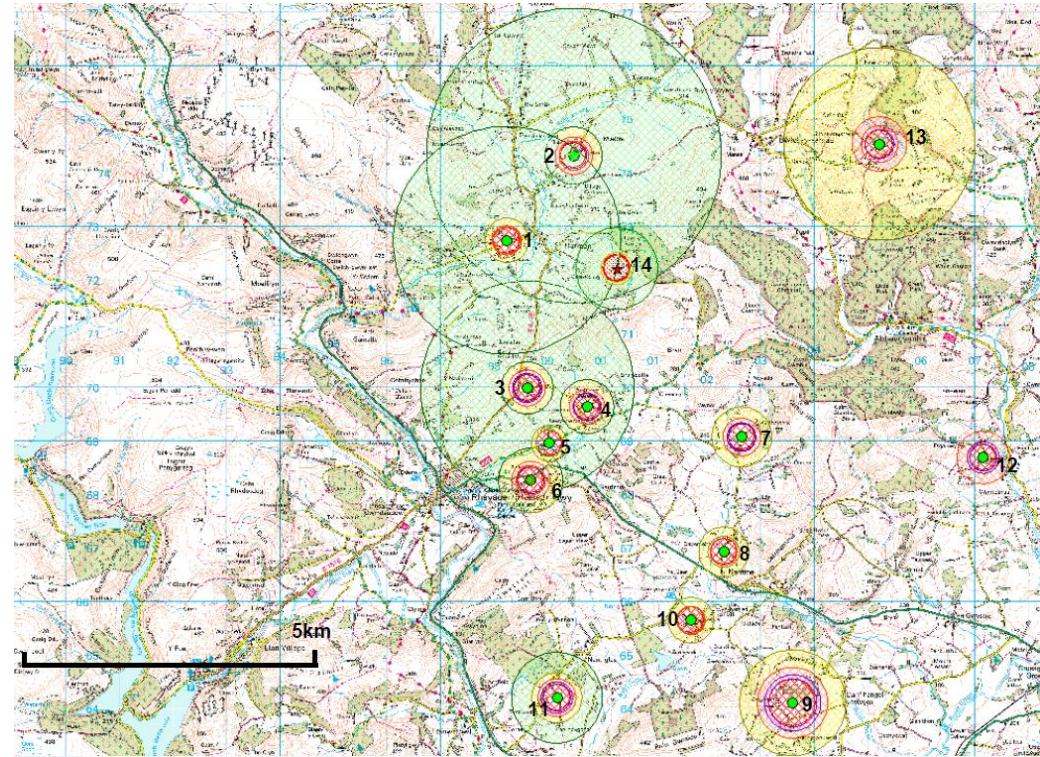


Estimated N dep (2010 -12) and source attribution (2005)

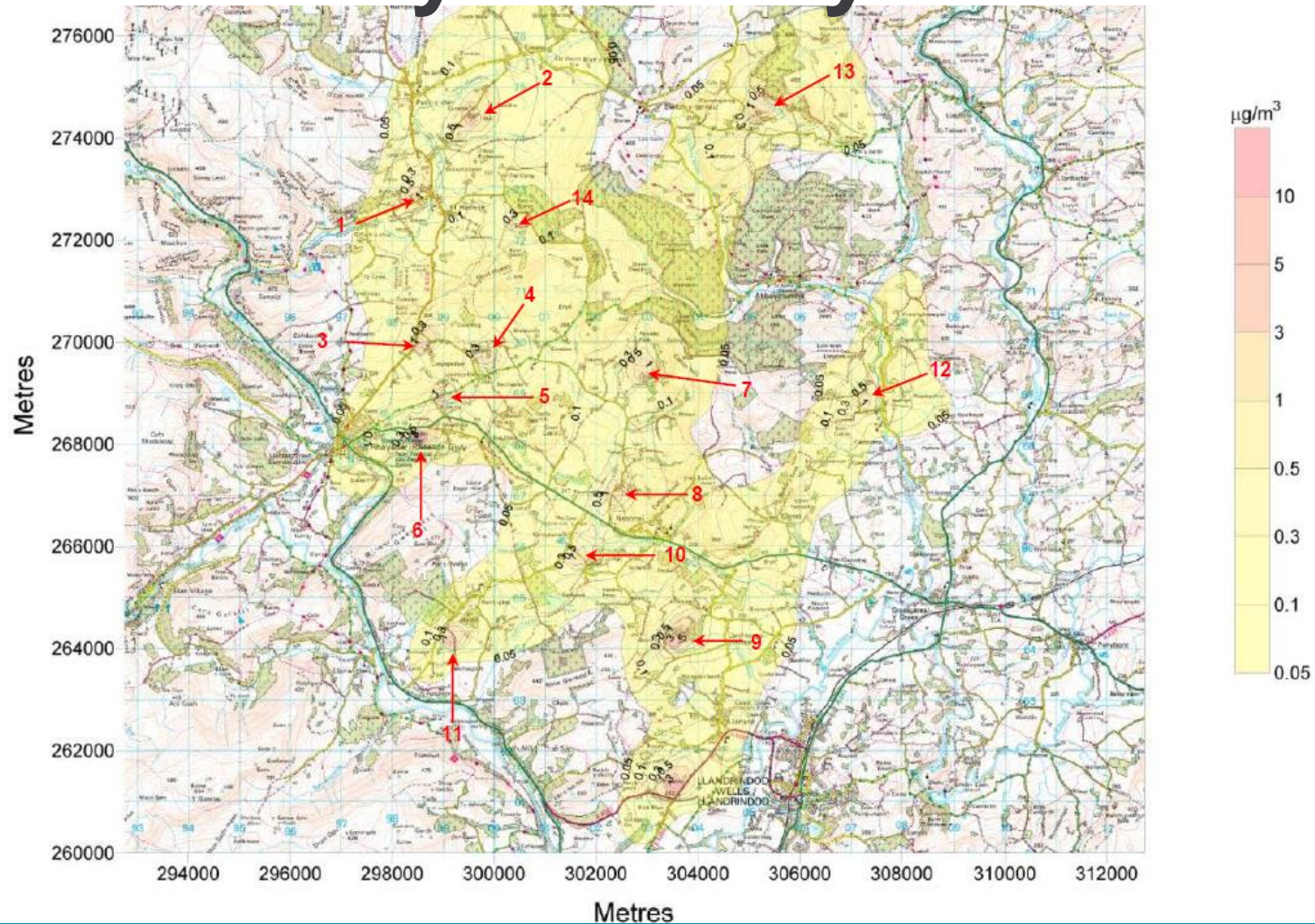


Agricultural NH₃-emissions sources within 2km of site

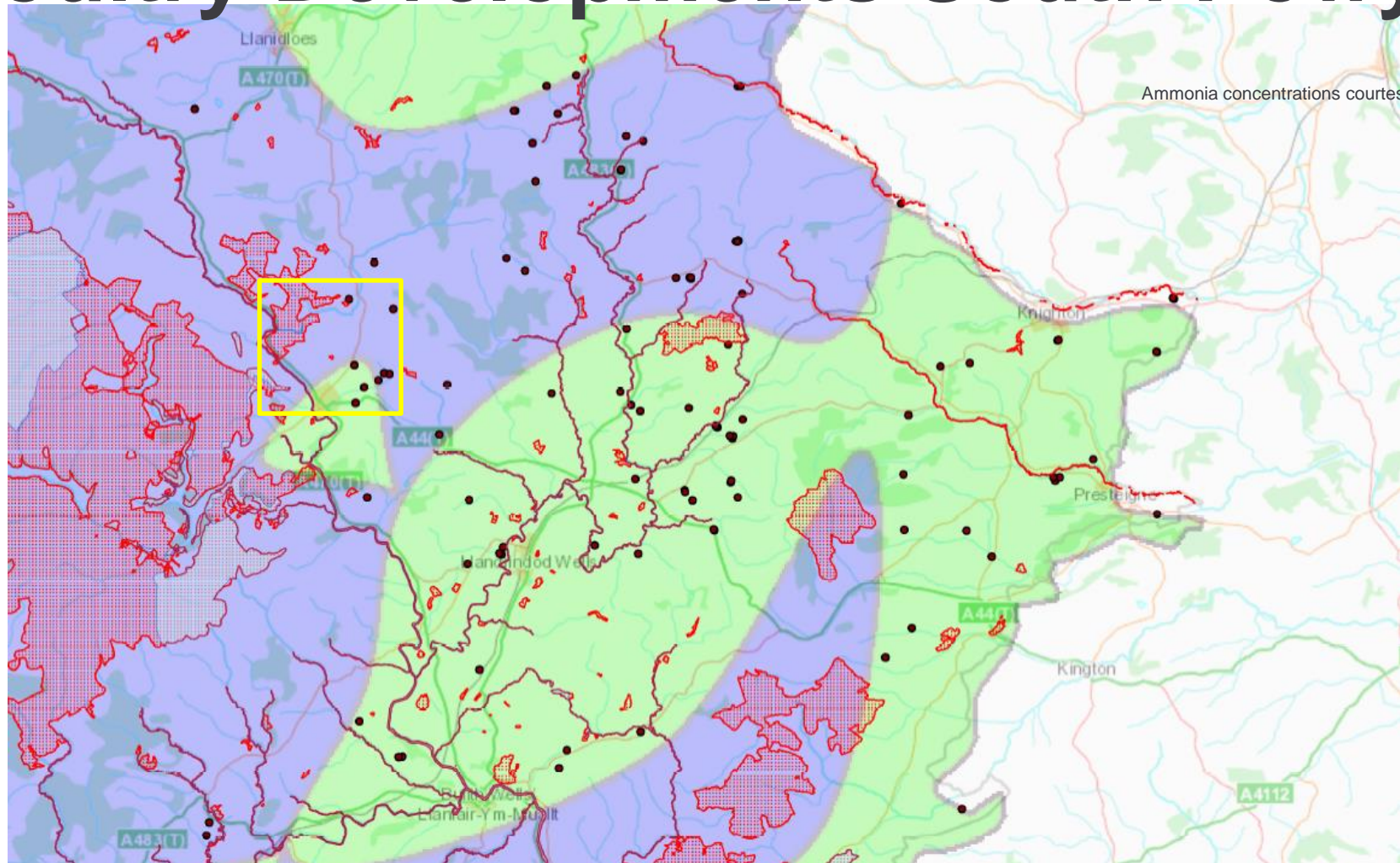
Powys Poultry Pilot



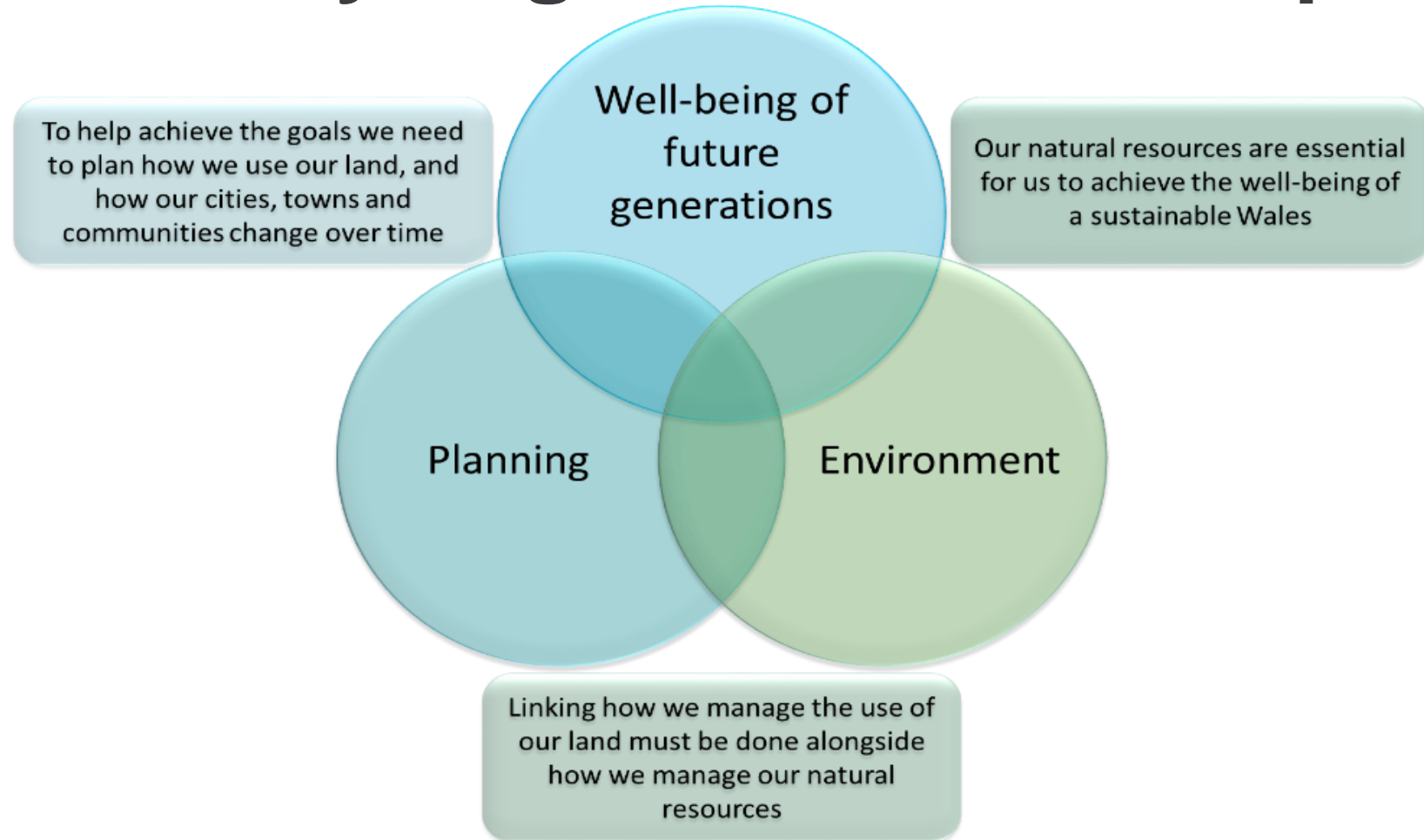
Powys Poultry Pilot



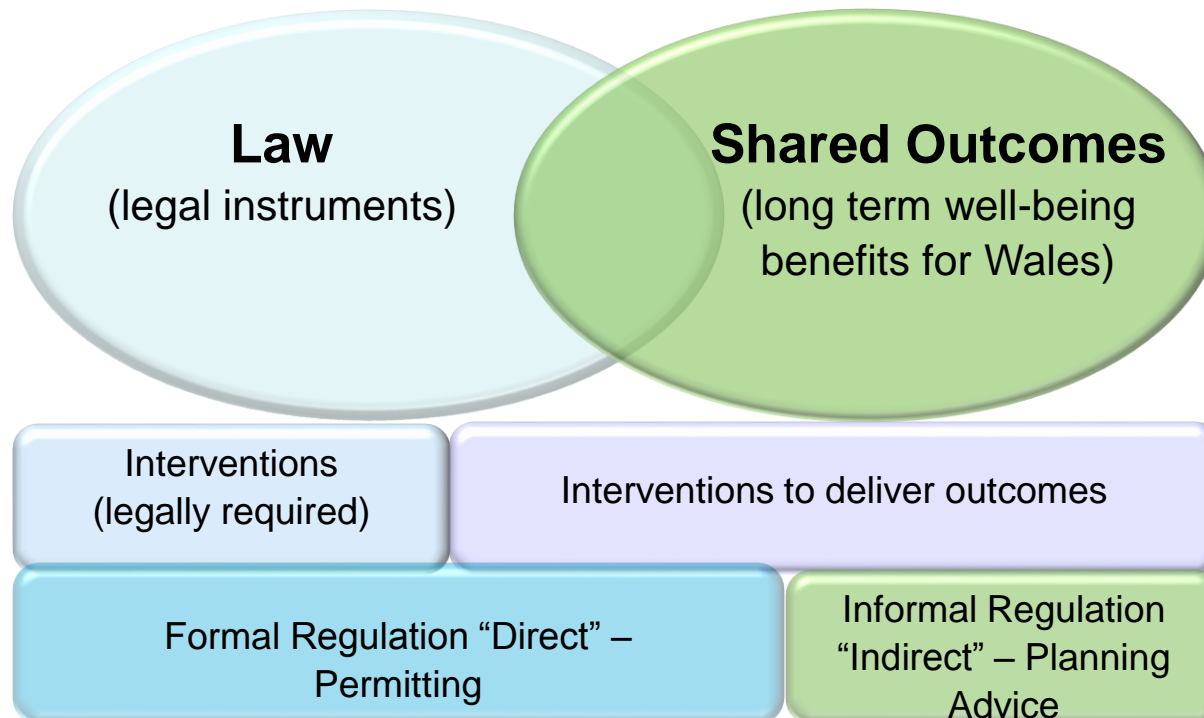
Poultry Developments South Powys

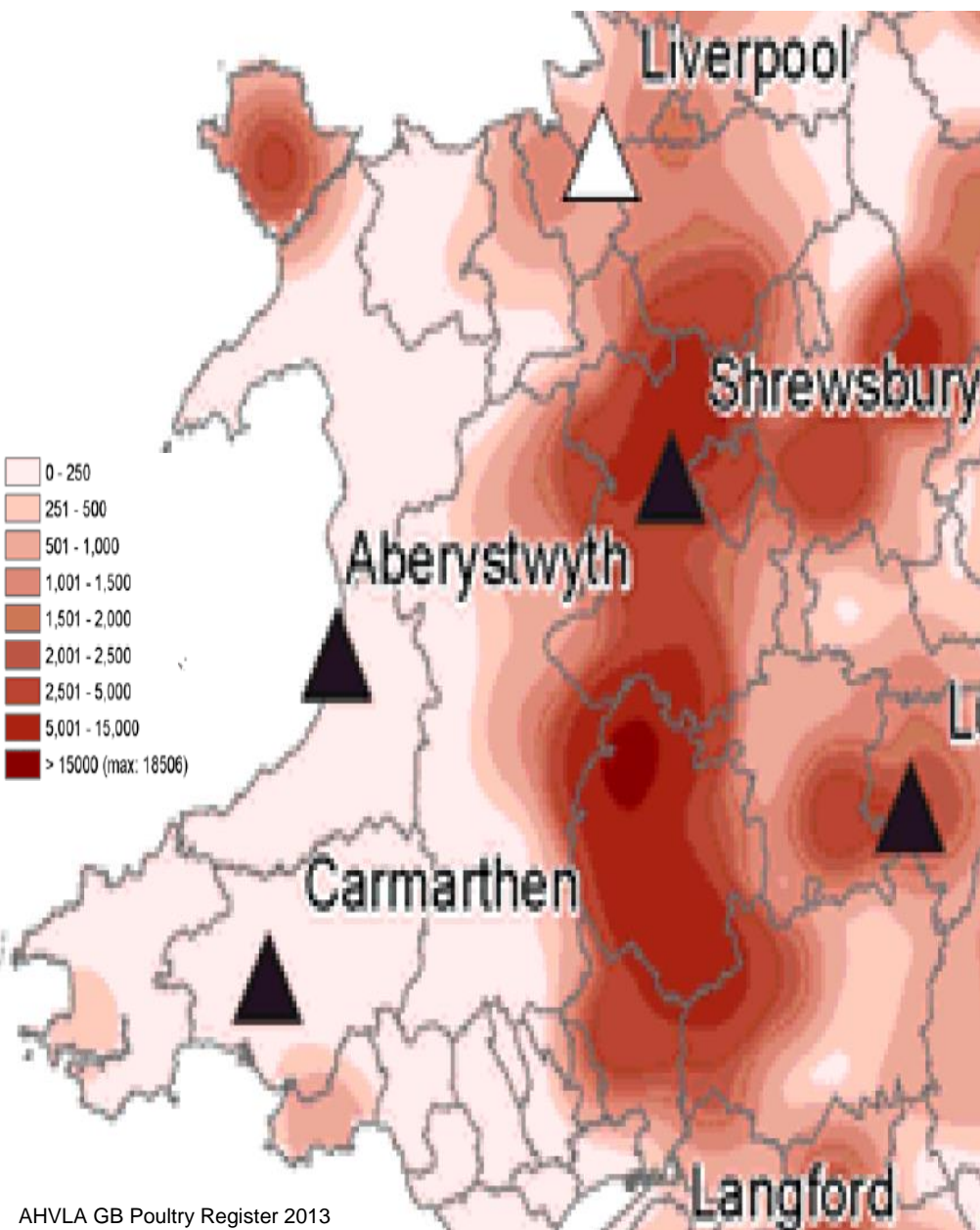


Primary Legislative Landscape



Formal / Informal Regulation





- Thematic **A**ction **P**lan –
Site **N**itrogen **A**ction **P**lan
- SNAP–DRAGONS

Delivering
Regional
Action on the
Ground
On
Nature
Sites





Any Questions?

