



# Biobed regulation in the UK

## Dr Paul Fogg



# Structure

- Background
- Agricultural Waste Regulations
- Biobed exemption
- Government Support
- On-going R&D

## Background

- Stewardship activities have resulted in a better understanding of how pesticide contamination occurs
- Losses from the farmyard has been reduced by as much as 95% in some cases
- However, the modified working practices have had limited impact on the concentrations of certain pesticides being measured in raw water supplies

# Changing Regulations

- Landfill Regulations now also apply to agriculture
- Disposal of pesticide washings to soil or grass areas is now illegal
- If activity takes place no more than once a year a GW authorisation may be granted



# Biobeds: use in the UK

- Lined biobeds designed to treat non-hazardous spray solutions
  - Incidental spills and drips
  - Pesticide diluted in accordance with label
- **NO** concentrated pesticides
- Not a substitute for best practice
- Under these use conditions the performance of Biobeds is acceptable to UK Regulators



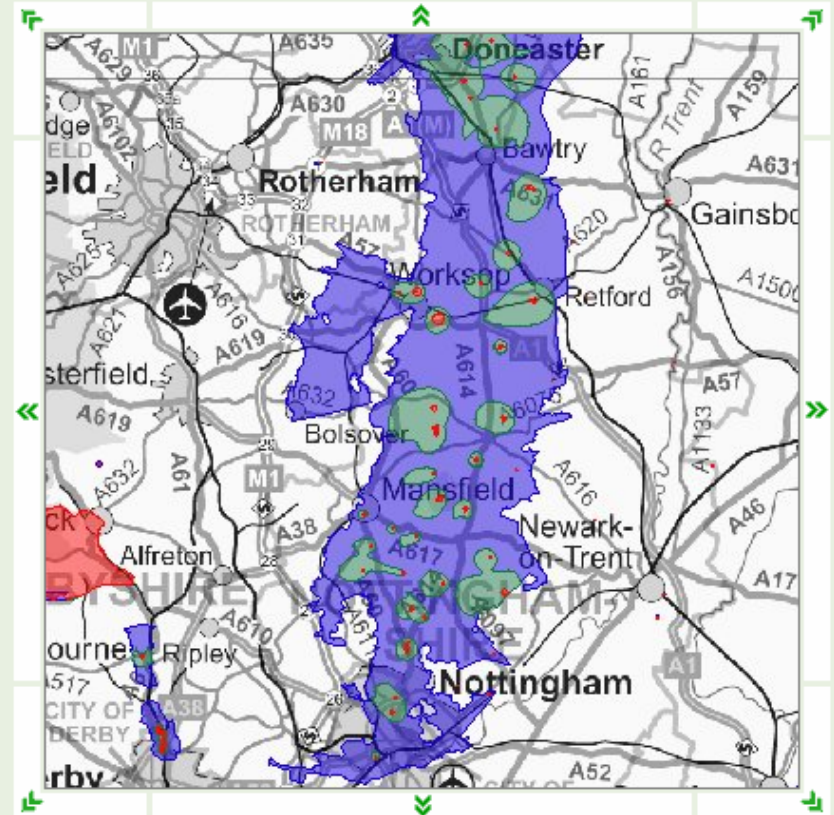
# Regulating biobeds

- Agricultural Waste Regulations came into force in May 2006
- Lined Biobeds were classified as a waste treatment system and therefore required a waste management licence
- In September 2006 a proposed exemption for biobeds was released for consultation
  - Improve the management of pesticide washings
  - Reduce the risk of pollution from pesticide handling and wash-down activities
- Exemption for Agriculture and Horticultural use granted in May 2007

# Complying with the exemption

# Locating a biobed

- Biobeds not suitable for all locations
- At least 10m from a water course and 50m from a well, spring or bore hole
- If proposed site falls within SPZ 1 or 2, then EA must be consulted
- If with 250m of Environmental sensitive area or protected habitat a EIA is required





# Design and operation of system

## Containment / Treatment / Re-use

- Direct and indirect
- Impermeable pavement with sealed drainage
- No more than 1500 litres of secured, covered, pre-treatment storage
- Biobed must be lined with impermeable membrane



- Biomix (50% straw, 25% topsoil, 25% peat substitute)
- Biobed must be
  - 1.0m deep
  - 1m<sup>3</sup>/ 1000 litres
  - Turfed
- ≤ 15,000 litres of pesticide waste in any 12 month period
- Treated water must be re-used for the benefit of the business



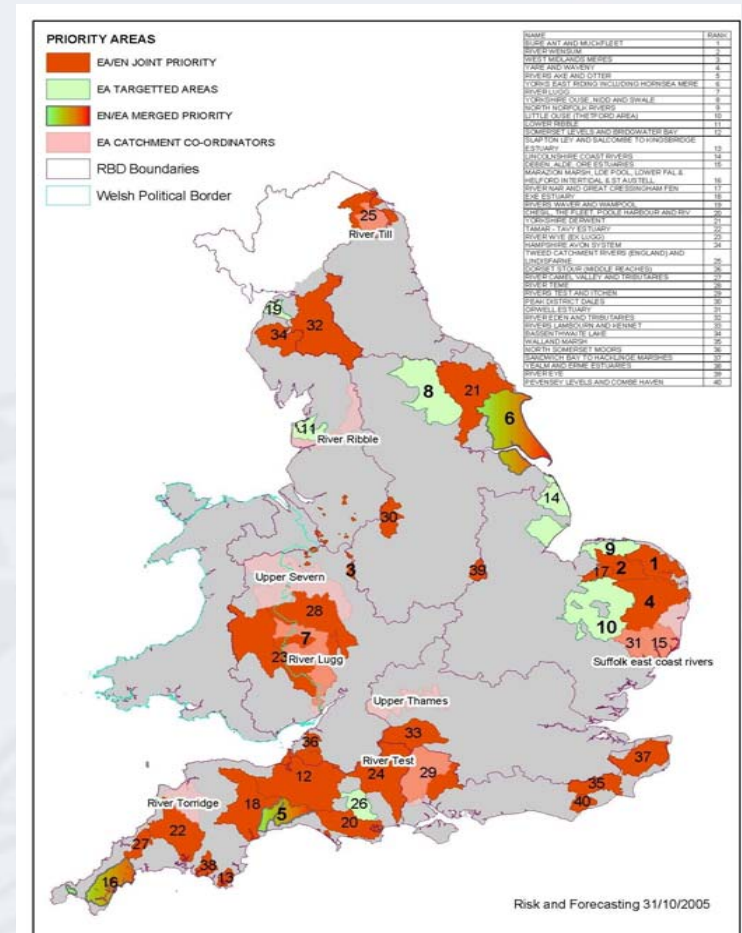
- Biomix replaced after 5 years
  - Stored for 12 months but not more than 3 years
  - No more than 50m<sup>3</sup>
- Exhausted biomix spread to land
- No spreading when land is
  - Frozen
  - Waterlogged
  - Flooded
  - Covered with snow
- No more than 50 t/ha
- NVZ rules must be followed where applicable





# Government Support

- England Catchment Sensitive Farming Delivery Initiative
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- A clear solution for farmers
- Biobeds are eligible items under the ECSFDI Capital Grants Scheme to a value of £2850.00



The England Catchment Sensitive Farming Delivery Initiative (ECSFDI) is delivered in partnership by Natural England, the Environment Agency and Defra

# Ongoing R&D

- Long term performance
- Maintenance
- Safe storage
- Re-use options for treated water
- Using exhausted biomix to 'seed' fresh biomix
- Degradation of oil





# Acknowledgments

- Pesticide Safety Directorate



- Lincolnshire Machinery Manufacturers Association

