Agricultural Phosphorus Management in Northern Ireland

Kieran McCavana

NIEA Water Management Unit

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Department of
Agriculture, Environment and Rural Affairs
www.daera-ni.gov.uk

NIEA
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Northern Ireland Environment Agency

Water Quality in Northern Ireland

- NI has a range of water quality problems
- Main issue is nutrient enrichment from N and P leading to eutrophication
- Agriculture is the main source of excess nutrients entering the water environment
- Primarily controlled through the Nitrates Directive

N & P Regulation

- Total Territory 2004
- Nitrates Action Programme Regs 2006
- Aim – To improve the use of nutrients on farm and, as a result, improve water quality
- Phosphorus Regs 2006 introduced to support these objectives
- Phosphorus Regs limited chemical P applications only

Main NAP Regs Measures

- Closed spreading period
- Land application restrictions
- Nitrogen fertiliser crop requirement
- Nitrogen livestock manure limits
- Livestock manure storage
- Land management

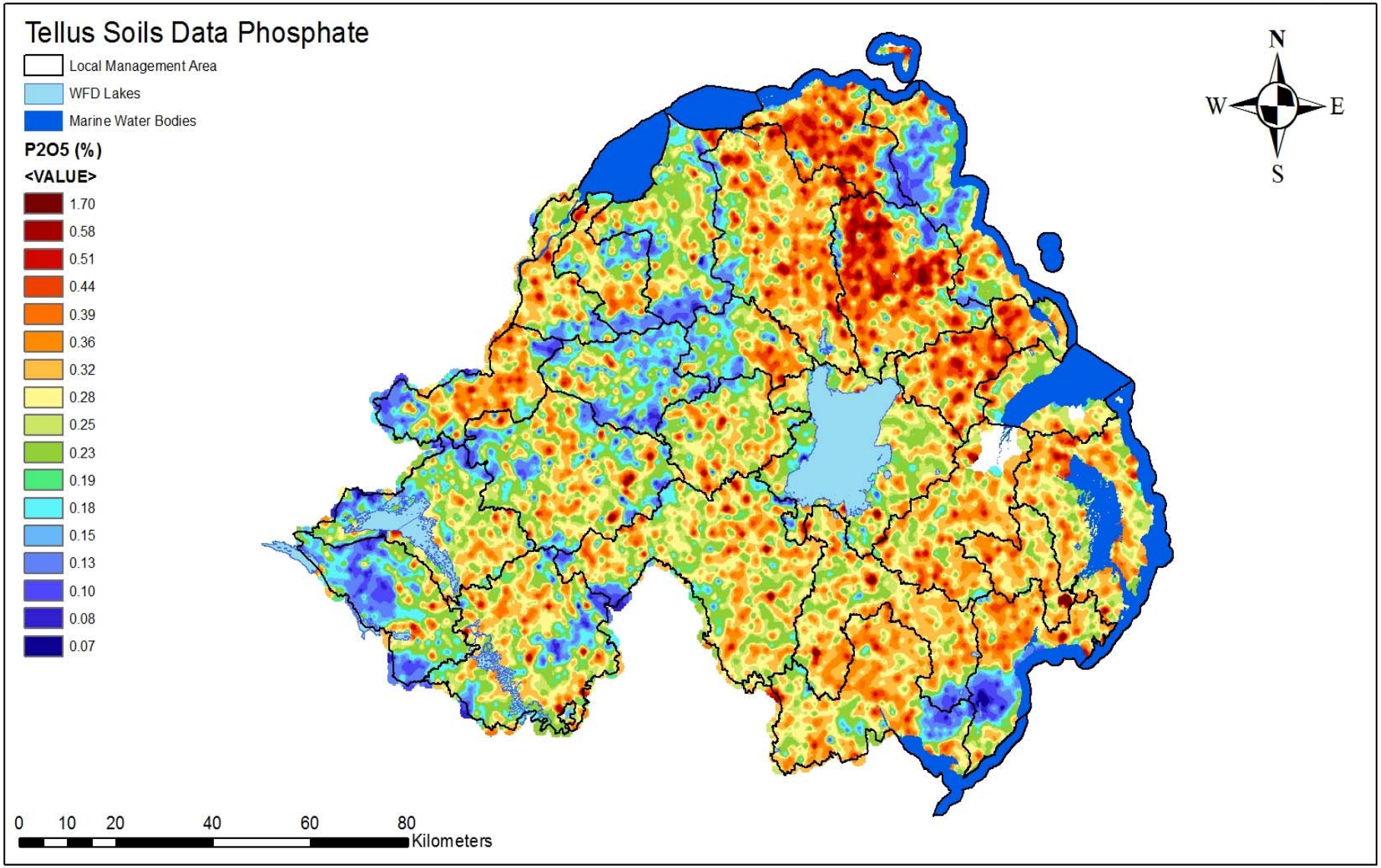
P Measures in NAP Regs

- Closed period
- High P:N ratio manures – need to soil test
- P excretion values
- P balance on derogated farms

More about the P Issue

Coordinates: 270,705 , 376,922

Tellus Soils Data Phosphate



Title: Tellus Soil Data Phosphate

Scale: 1:1,017,508

Drawn by: 1003242

Date: 20 June 2017

Description:

Tellus Soil Data Phosphorus Oxide P2O5

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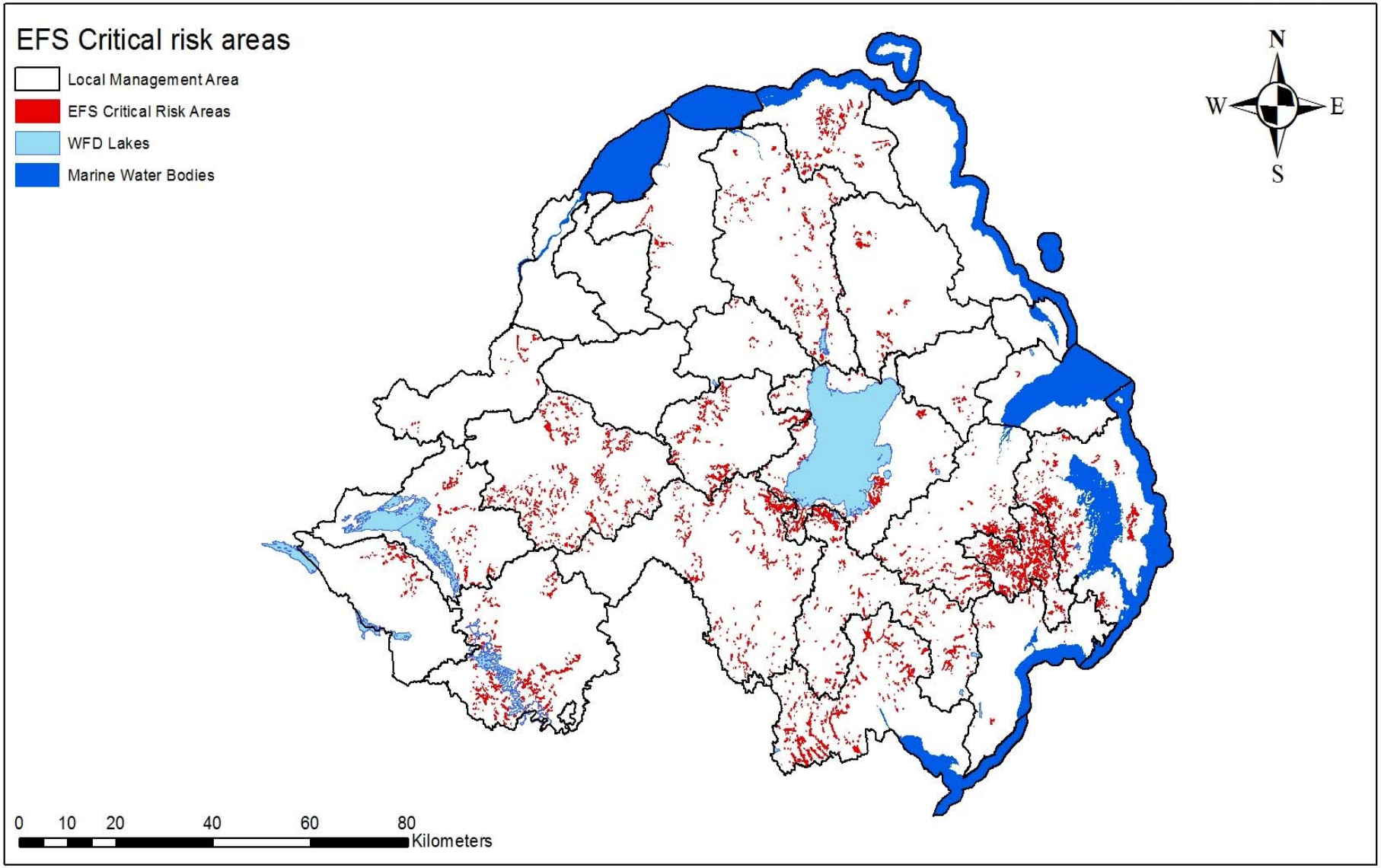
Coordinates: 270,705 , 376,922

EFS Critical risk areas



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EFS Critical risk areas

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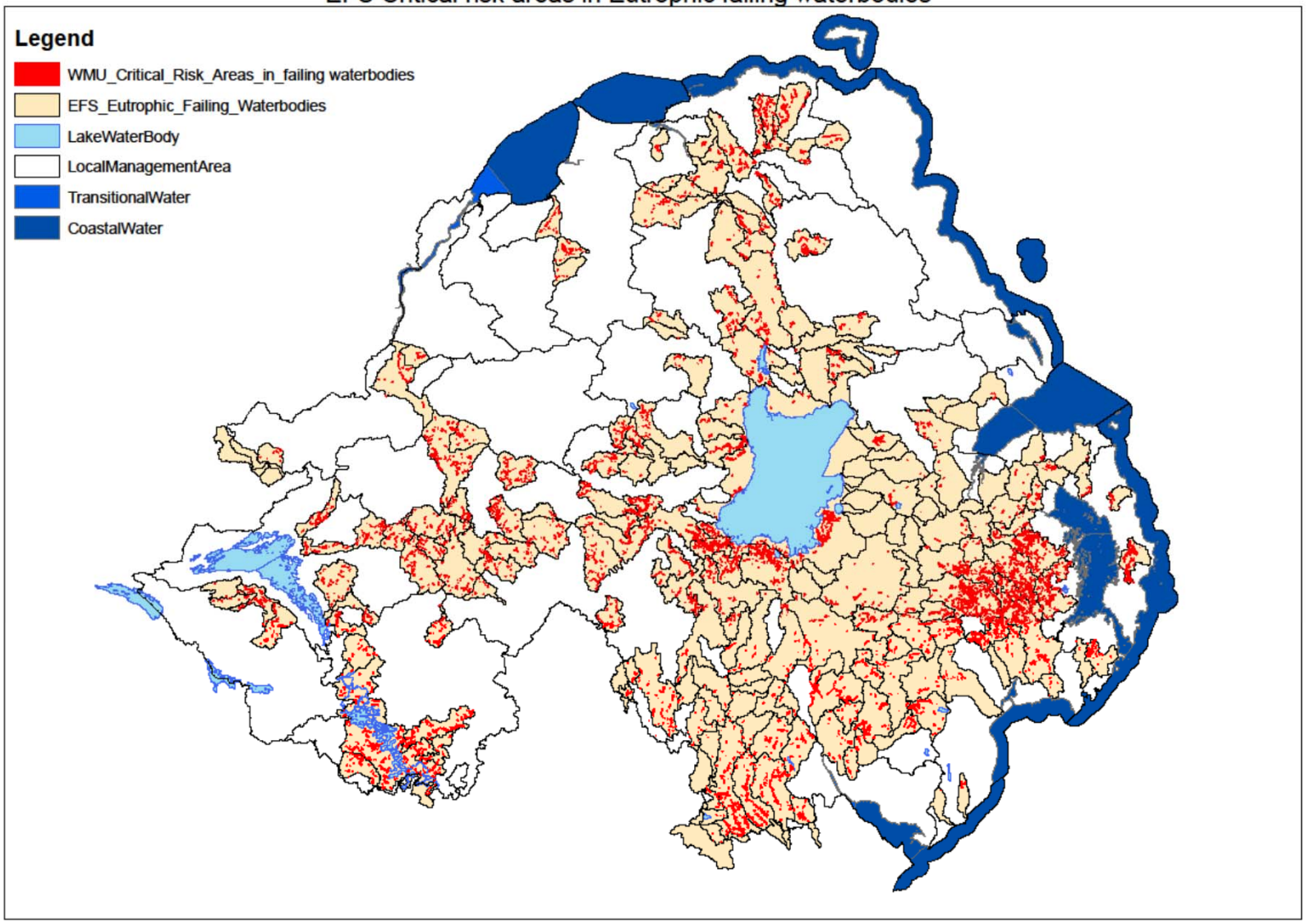
EFS Critical risk areas in Eutrophic failing waterbodies



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Issues going forward

- P levels still too high in waterways and many soils
- Increasing P surpluses on farms
- Increased use of concentrate feeds
- Not realising the potential of more production from forage
- Not all areas suitable for the application of P
- Need to consider hydrological connectivity and risk
- Need to soil test

Phosphorus – a little goes a long way or does it?

- Identifying farmland which is suitable as a recipient
- Doing the sums – at what distance does it remain feasible to transport animal manures?
- Sometimes phosphorus goes much further than it should.

A measured approach

- Crop requirement
- P status of soil
- Sensitive habitats vulnerable to nutrient enrichment

Doing the sums – at what distance is it feasible to transport animal manures?

- Must be economically viable to succeed in anything more than the short term
- Transport cost may exceed the total nutrient value of the livestock manure

Sometimes phosphorus goes much further than it should

Good farmyard management is essential

- Accidental discharge
- Inadequate separation of clean and dirty water can lead to a deterioration in water quality
- Problem can be solved by improving practice and often with a low cost solution

Careful management of phosphorus is good for business and the environment

- Livestock manure must be treated as an asset and not as a waste management issue
- Phosphorus must be applied to land in line with crop requirement and soil P status
- Soil analysis is essential to remove the guesswork
- Livestock manures to be spread on suitable land as close to the source of production as possible