Systematically assessing risk in the farming landscape

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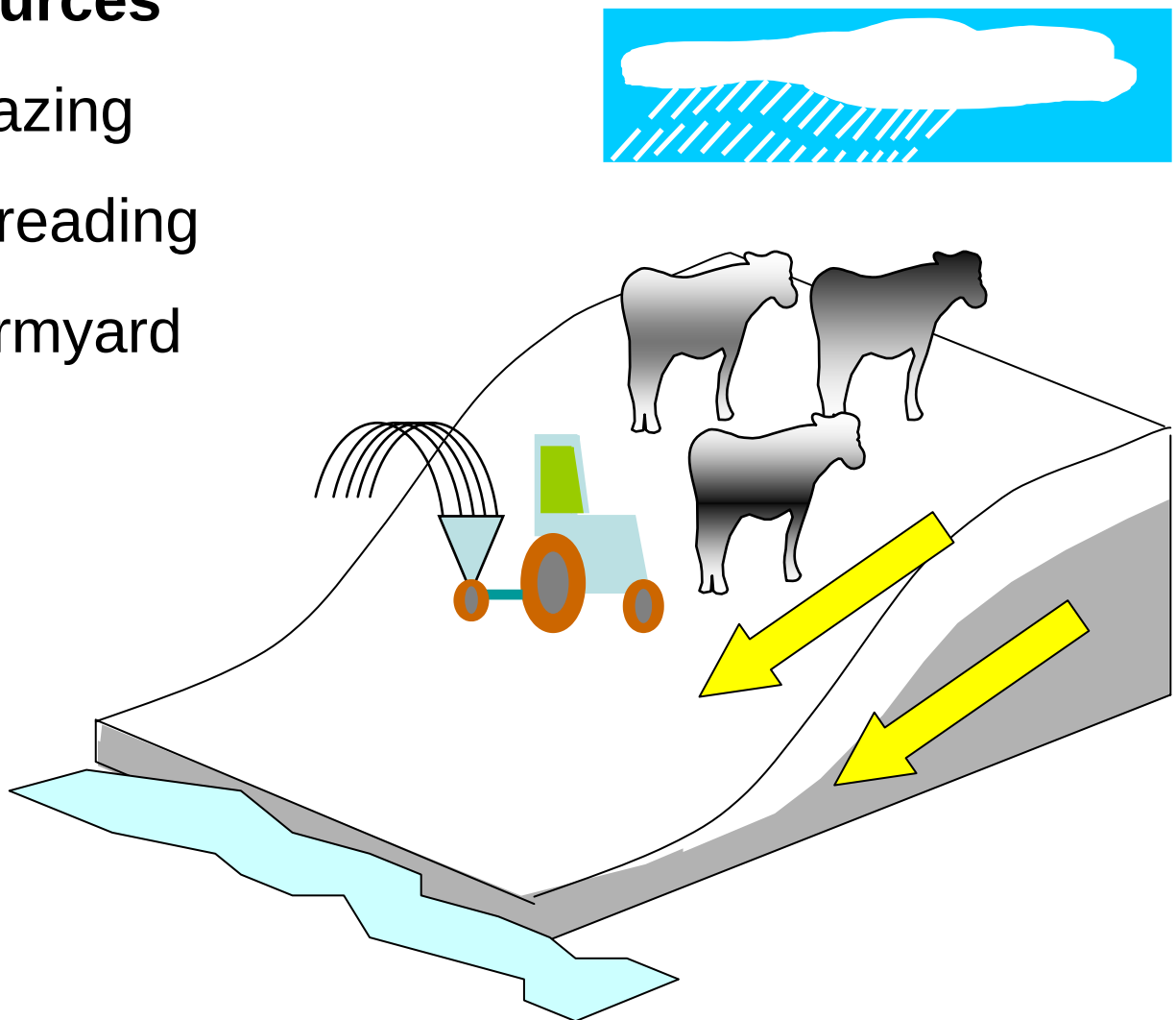
An example – potential pathogens

Sources

Grazing

Spreading

Farmyard



Pathways

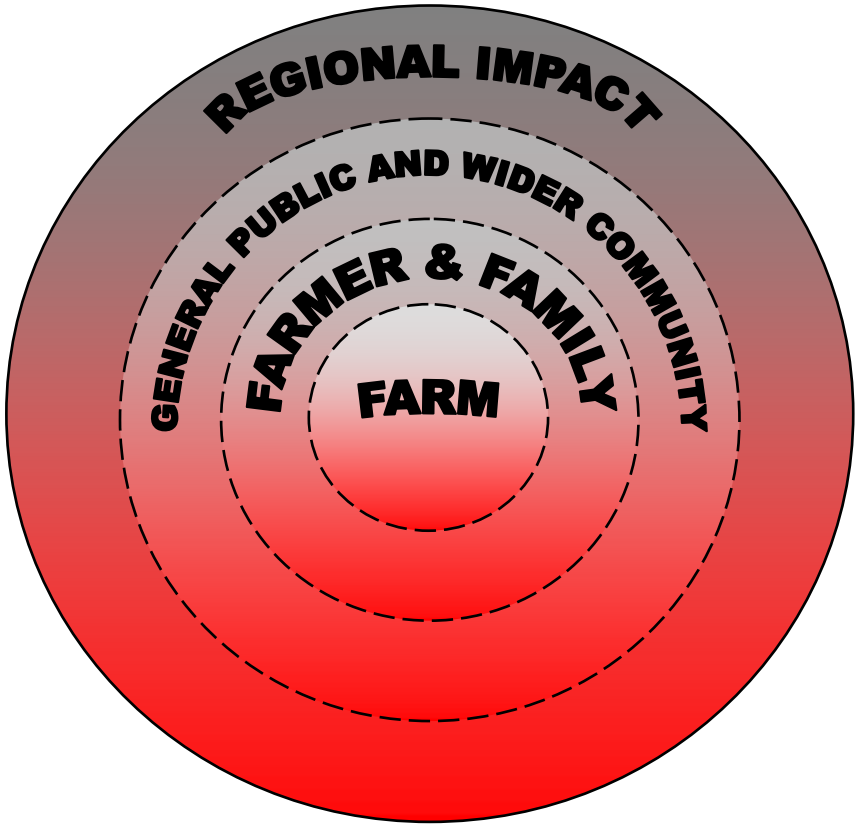
Drains

Ditches

Runoff

Livestock in streams

The spread of risk



Re-infection

Camping / festivals

Wildlife

Reputation

Illness

Potable water supply contaminated

Outbreak

Beach closure

Bad media coverage

Fall in tourism

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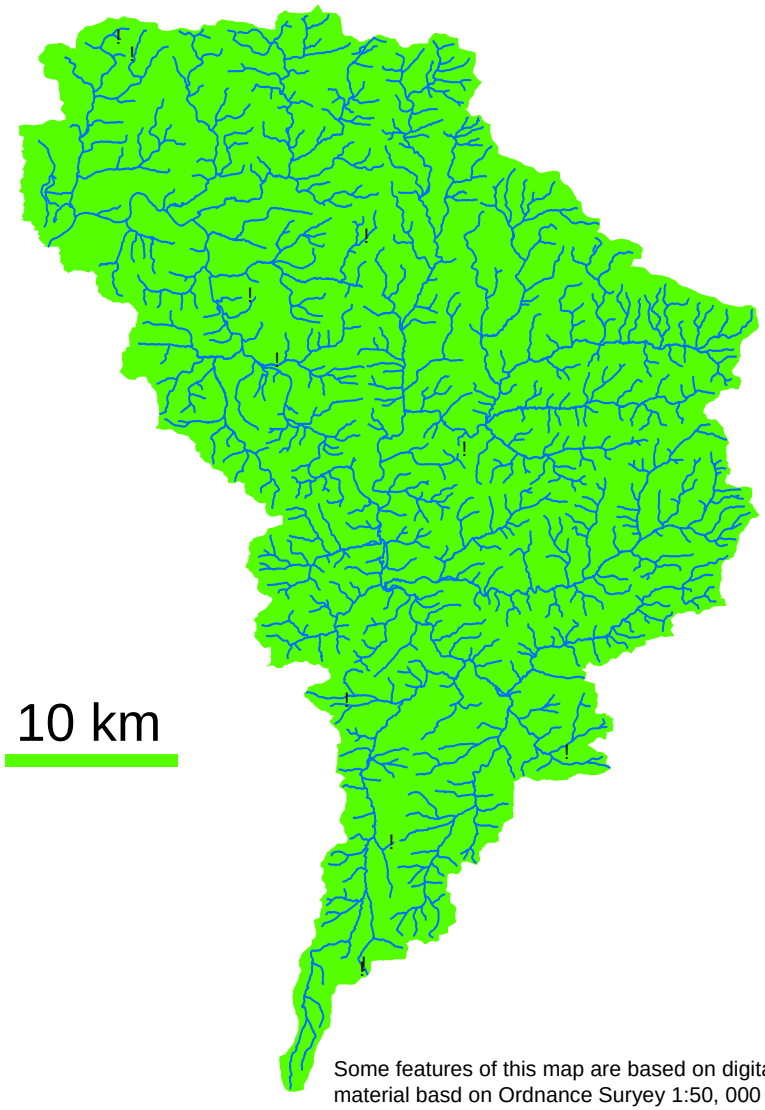
Risky situations can also arise within agricultural environments and these need to be addressed too!

CASE STUDY: Taw Catchment in Devon



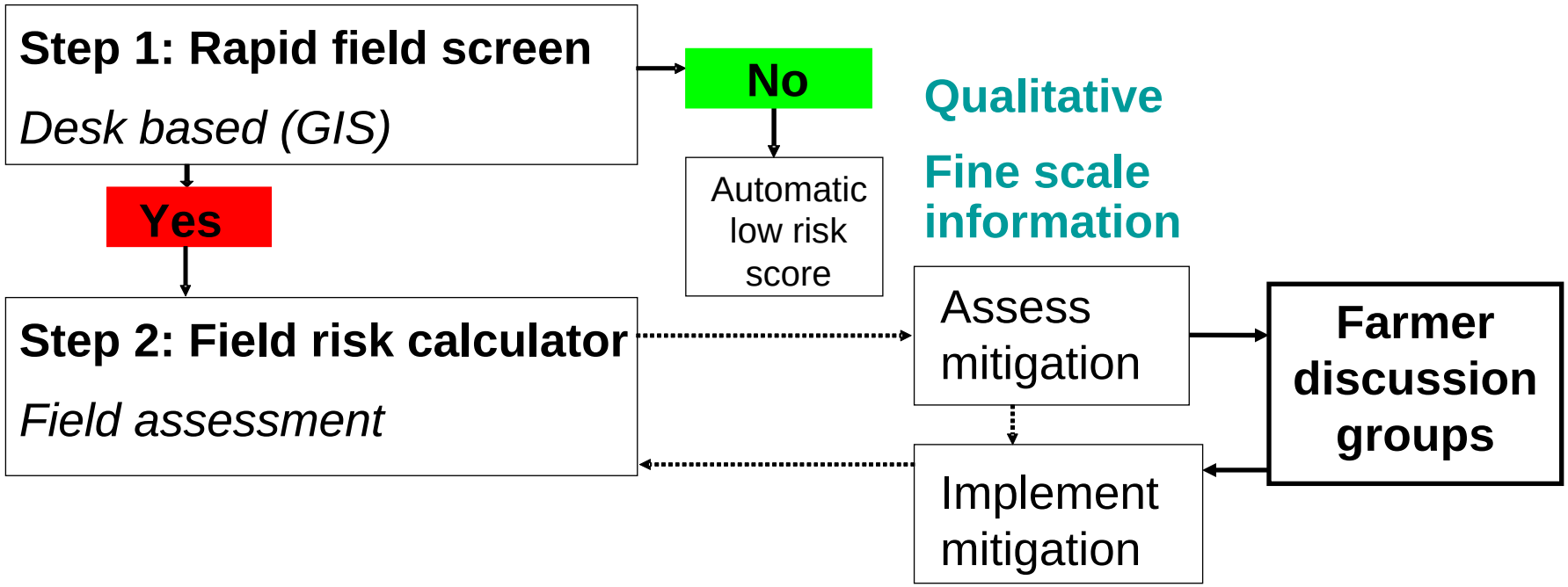
Industries reliant on clean water

Farmer engagement

10 farms monitored intensively

100 + farms involved in comprehensive survey

FIELD and FARM RISK INDEX APPROACH



FIELD RISK ASSESSMENT

To provide a basis for decision making and to assess strategies to evaluate risk

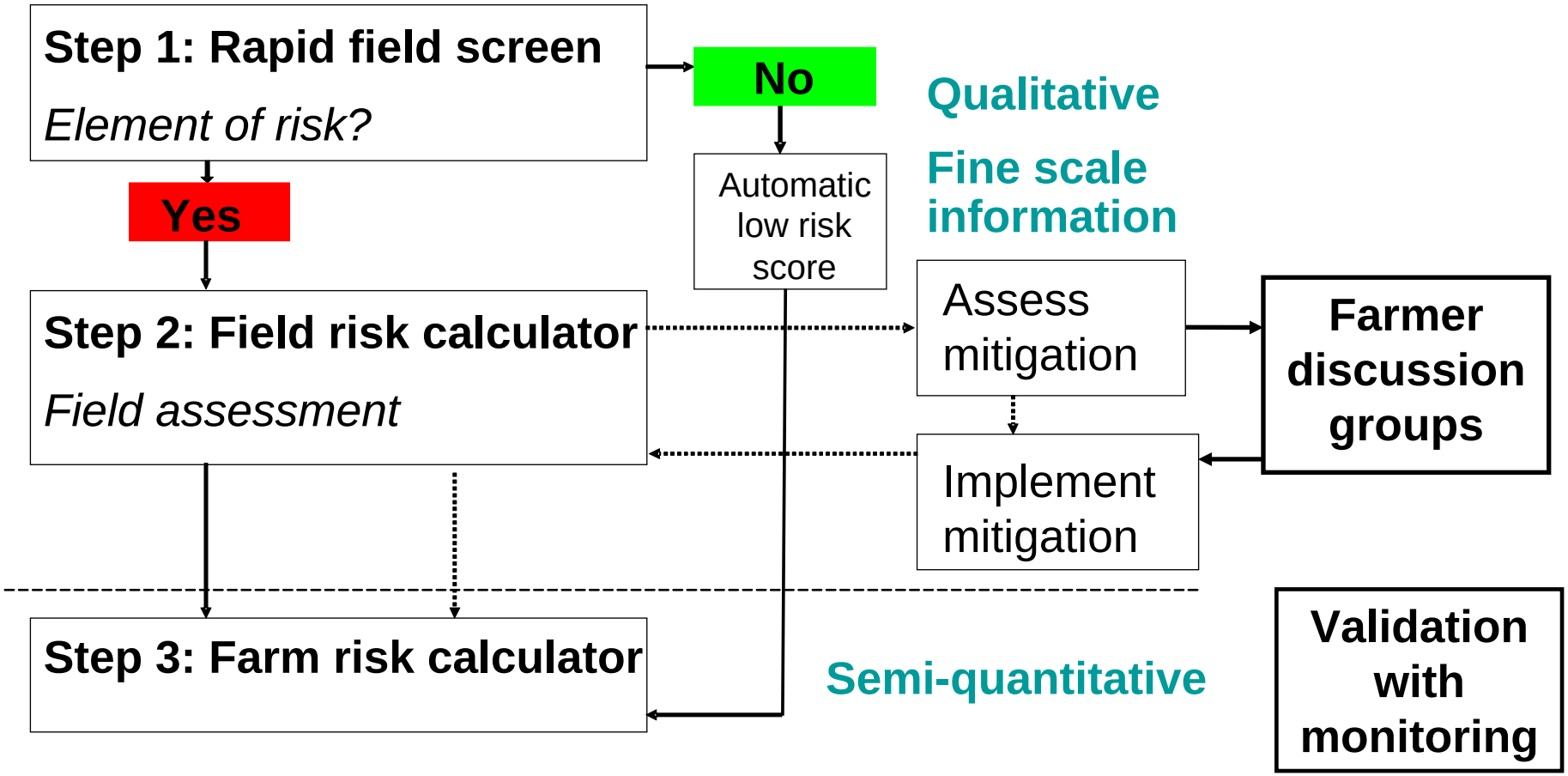
Simple structure

Field scale prioritisation of mitigation

Relative not absolute

Expert weightings

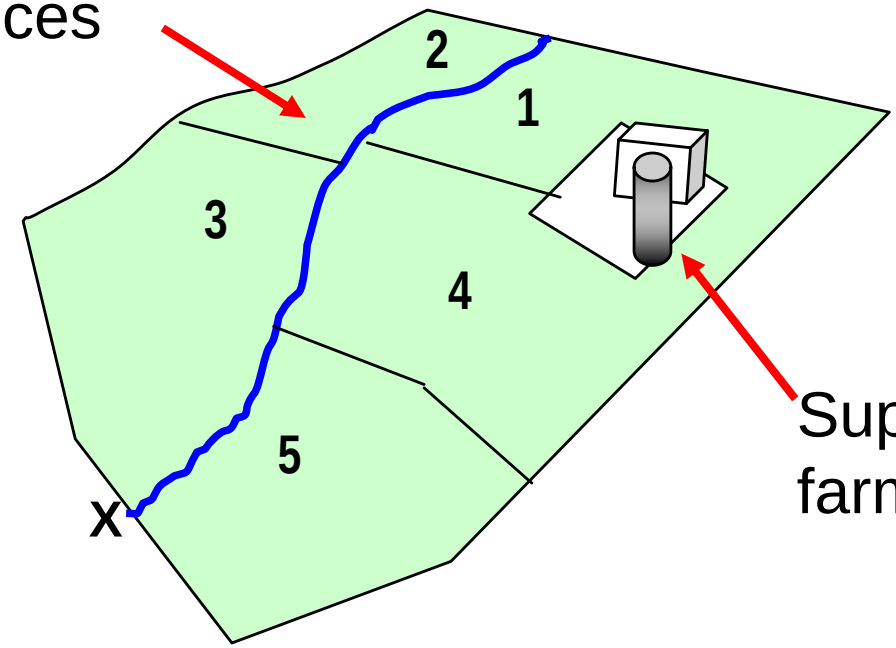
FIELD and FARM RISK INDEX APPROACH



FARM SCALE RISK CALCULATOR

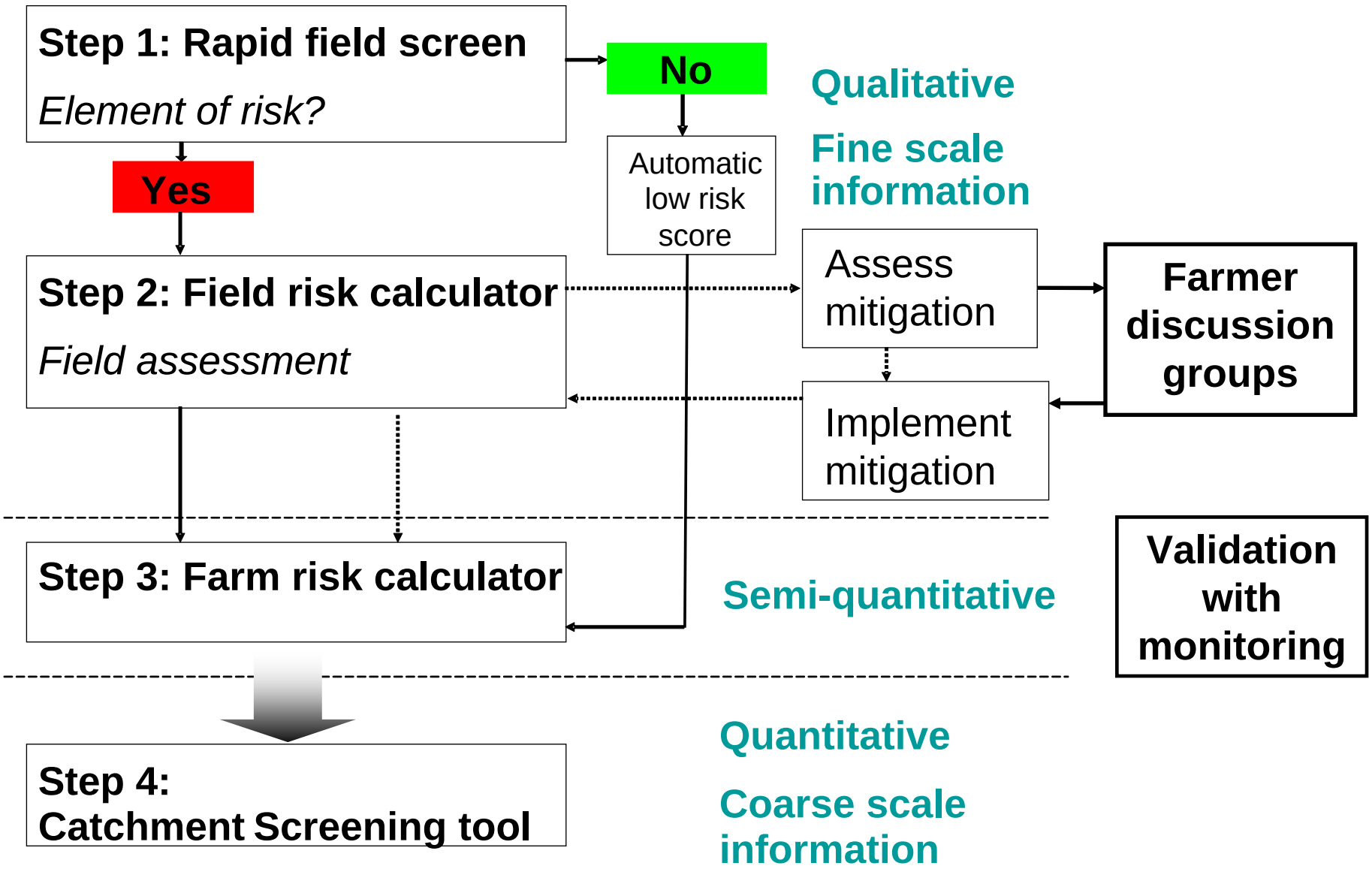
CONCEPT OF **ACCUMULATING RISK**

Individual field
risk indices

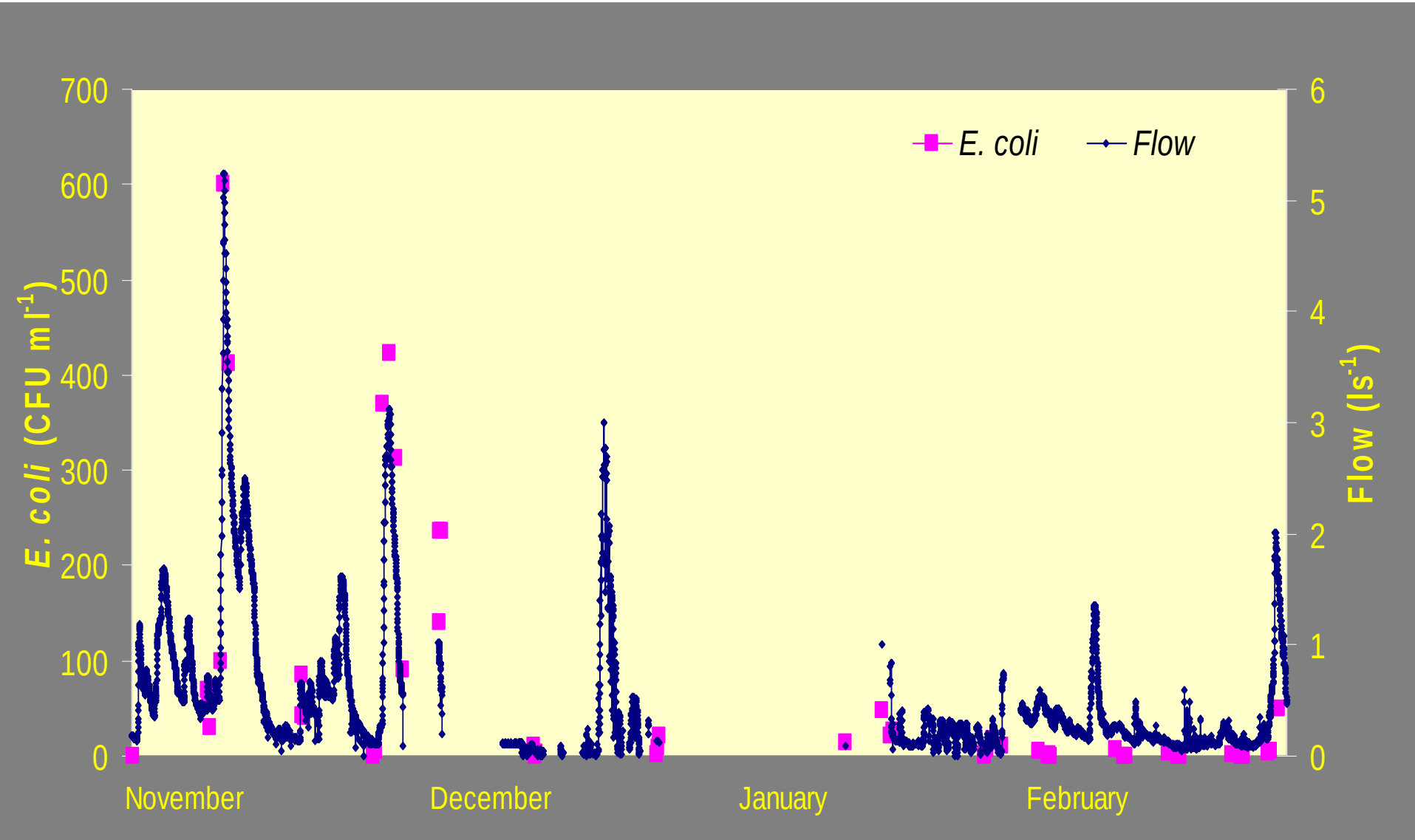


Supplementary
farmyard risk index

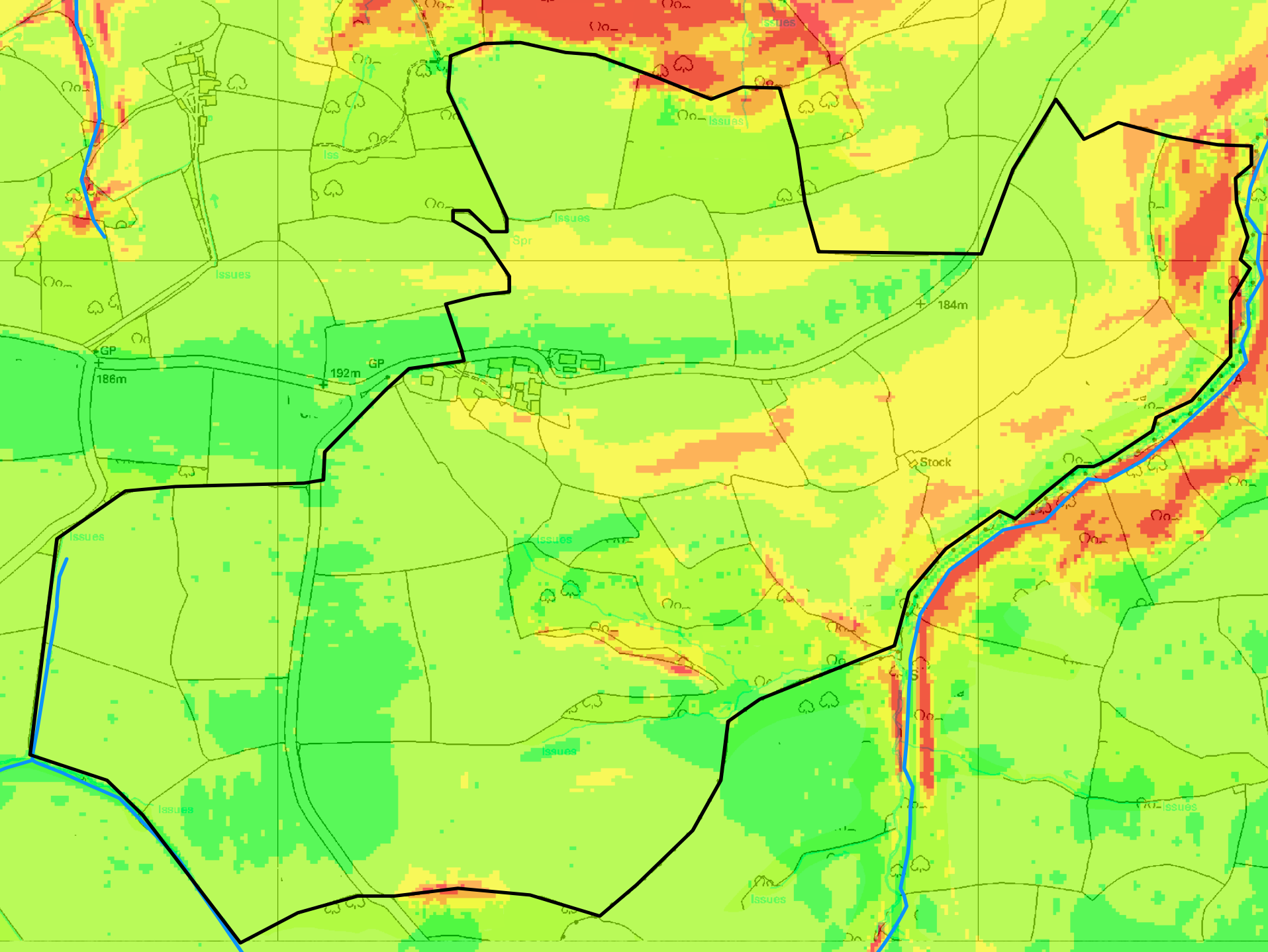
FIELD and FARM RISK INDEX APPROACH



Complementary sampling



We can apply what we know to……FIELD RISK MAPPING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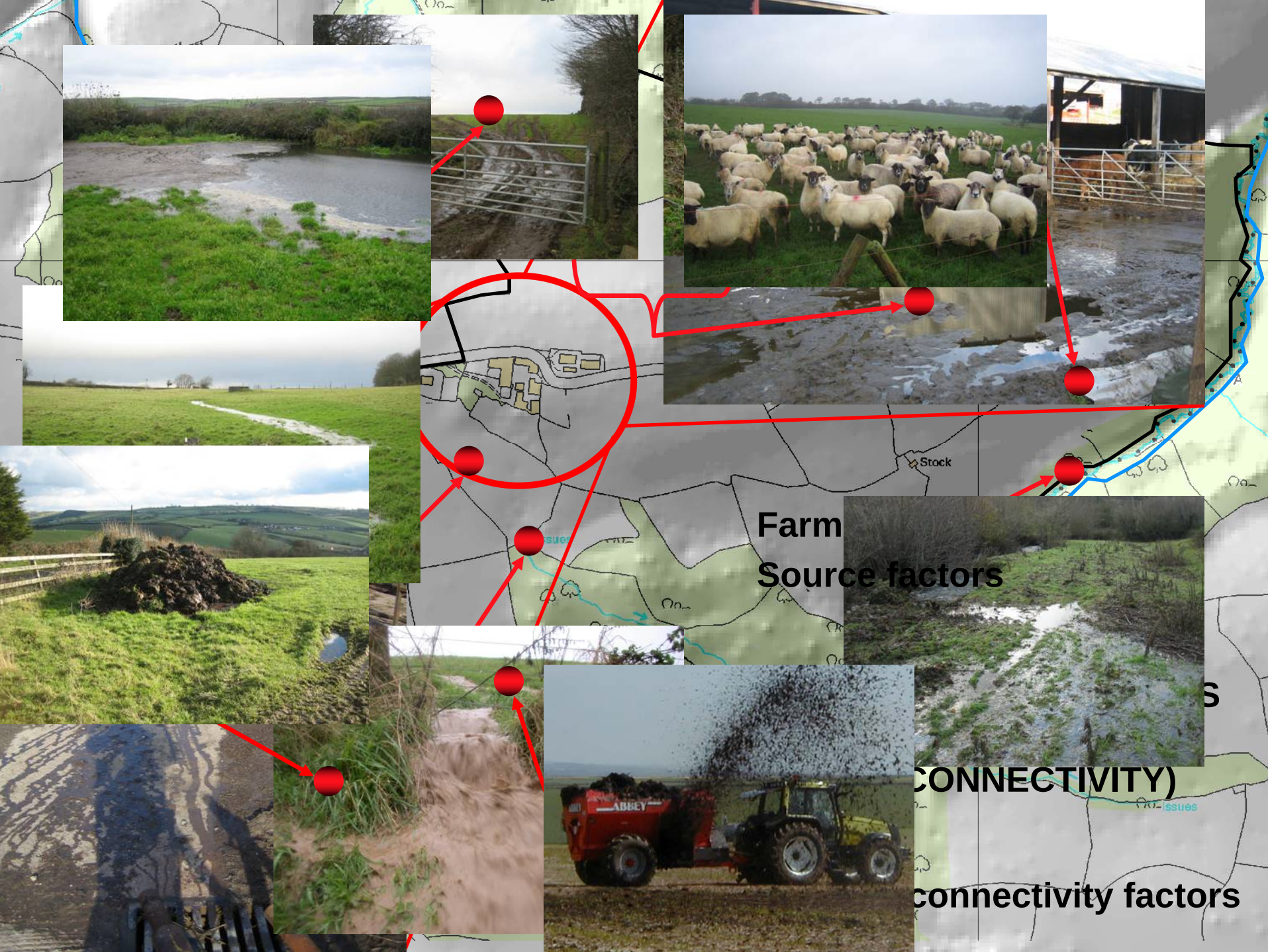
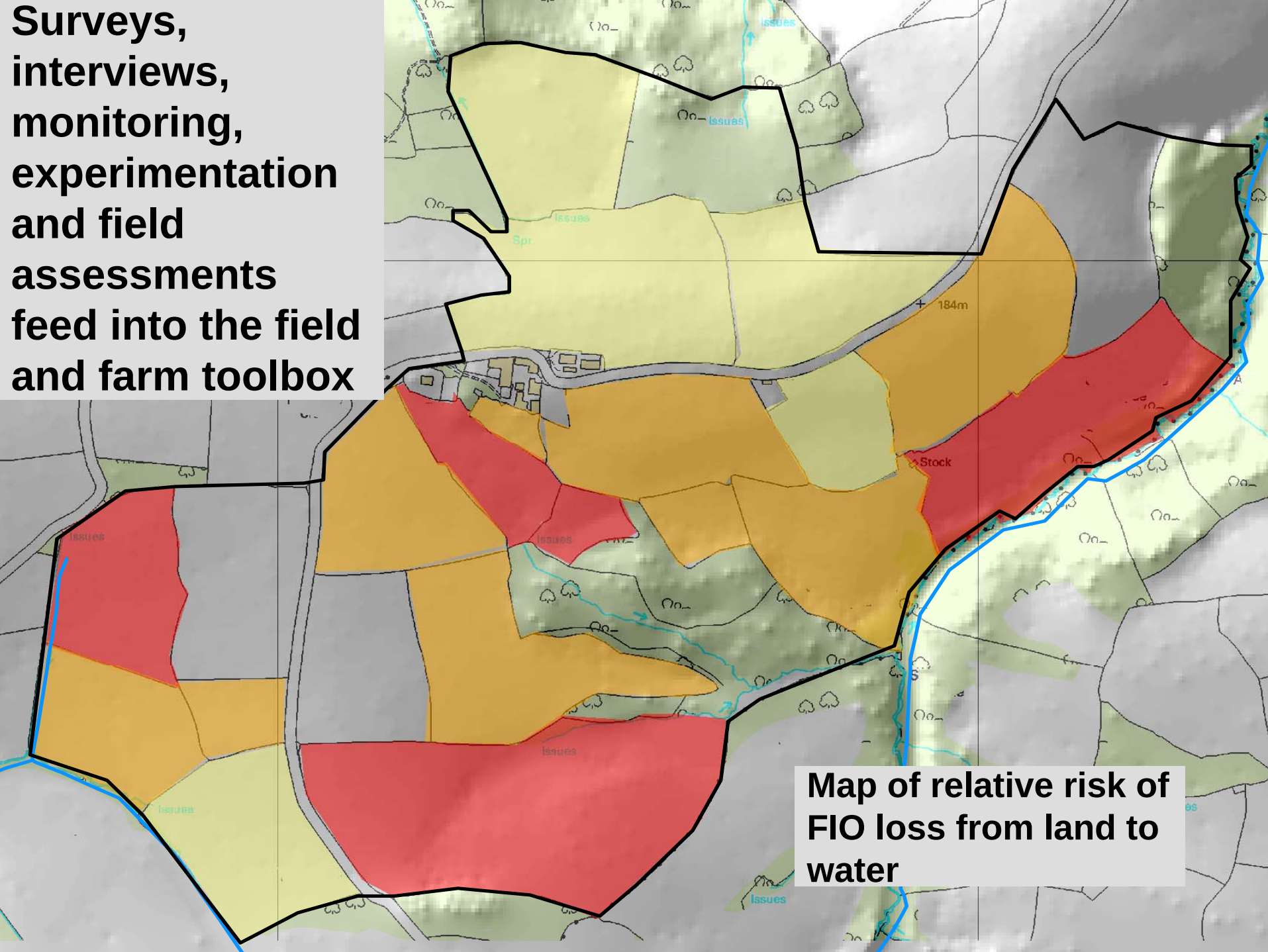
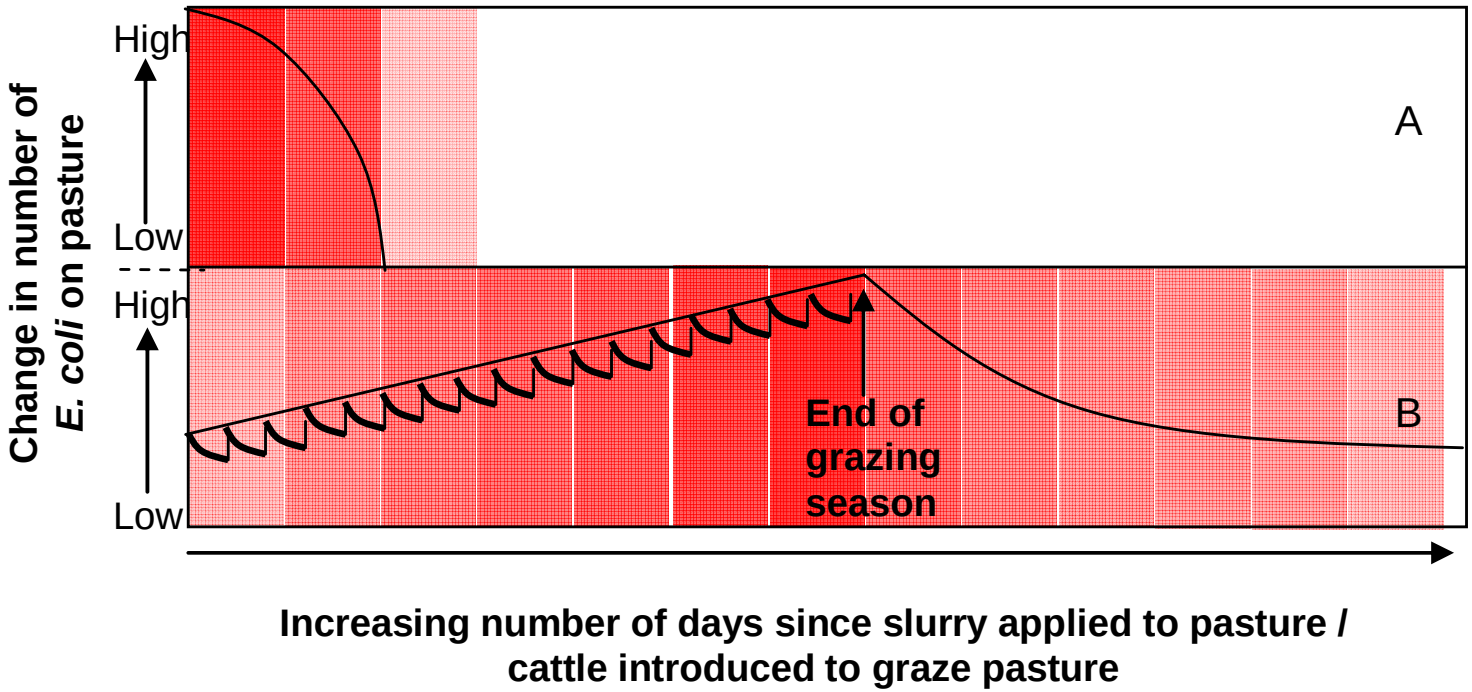

Stock
Farm
Source factors
CONNECTIVITY)
connectivity factors

Surveys, interviews, monitoring, experimentation and field assessments feed into the field and farm toolbox



Map of relative risk of FIO loss from land to water

Temporal component too……



Potential for *E. coli* transfer to surface waters given appropriate hydrological drivers

High Low

WHERE NEXT ?

WE NEED TO WORK IN HIGH RISK AREAS

ACKNOWLEDGEMENTS

The RELU programme

Taw Catchment Farmers

NFU, EA, Defra, Shell fisheries, RDA

http://www.lec.lancs.ac.uk/cswm/foodchains.htm