

# Whole Farm Planning

The development and future of farm scale delivery on the National Trust's farmed estate

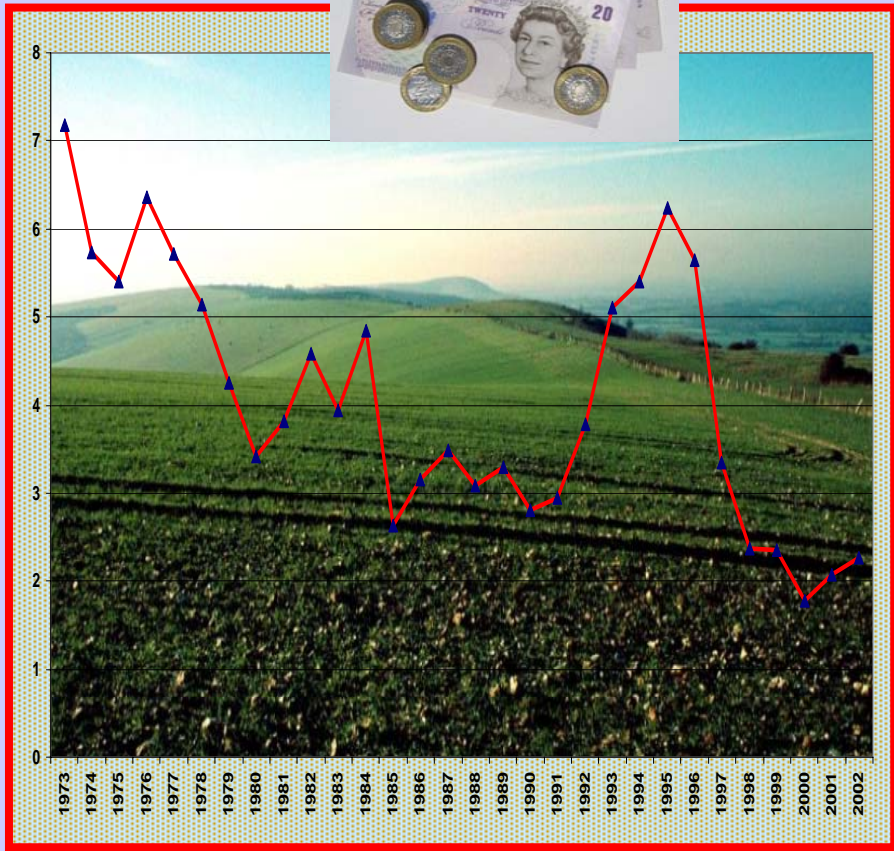
Dan Houseago, National Agriculture Adviser

Farming, Water and the Environment Conference, November 22<sup>nd</sup> 2006

# Why **whole** farm?



# Triple bottom line



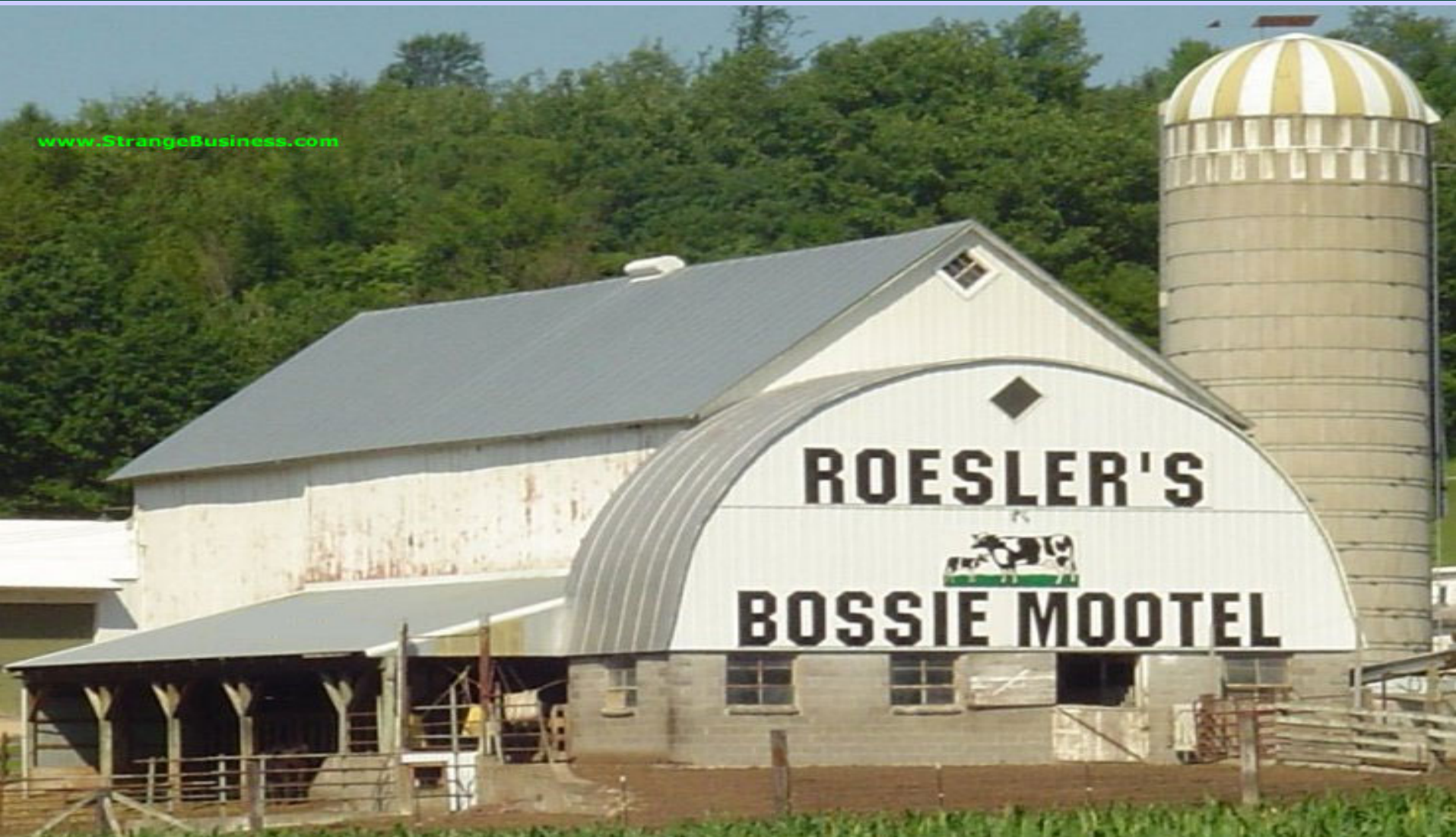
# Key point 1

A ***whole farm*** perspective is necessary, as it provides the opportunity to fully understand the relationships between social, environmental and financial elements of the business.

# Why Whole Farm **Planning**?



[www.StrangeBusiness.com](http://www.StrangeBusiness.com)





## Agriculture – 2000 and Beyond

An Agricultural Policy for the National Trust



‘Whole Farm Plans will be used as the principle mechanism to work with tenants to identify and **agree** the importance of a farm, together with the problems and potential it may have’

# Key point 2

Planning ***agreed*** objectives and outputs with ***all*** stakeholders is critical – shared ownership of problems and opportunities.

**Husband/wife/son/daughter/business partner**

**Landlord/tenant**

**Government/farmer**

# Key point 3

***Face to face*** advice and negotiation is by far the most effective delivery mechanism (so far!). Advisers need to be rural business GP's



## FARM ASSESSMENT

**Property Plans (Statement of Significance)**  
**Regional Plans (Flood Risk Management)**  
**National Plans (WFD)**

### Physical data

Maps  
Farm size  
Land use categories / area  
Soils  
Topography  
Rainfall / Drainage  
Designations

### Surveys / reports

Key environmental features  
Biological / habitat record  
Archaeological records  
Vernacular building survey / use  
Soil erosion risk  
Soil maps / analyses  
Waste management plan  
Photographs

### Existing farm description

Main and secondary enterprises  
Fertiliser / chemical usage  
Sporting interests  
Existing land management  
External relationships  
Farm buildings & fixed equipment  
Silage, slurry, dirty water, manure  
Fuel, oil, & chemical storage  
Sheep dipping  
Energy & water conservation  
COSHH, Emergency Procedures

### Farm business assessment

Tenant / family / staff / residents  
Nature of tenancy agreement/rent  
Development of existing business  
Diversification opportunities  
Constraints: physical, legal, financial, people  
Training requirements  
Organic farming potential, conversion plans  
Grant schemes available  
Marketing of products / services  
NT financial assistance for specific works

### Environmental opportunities

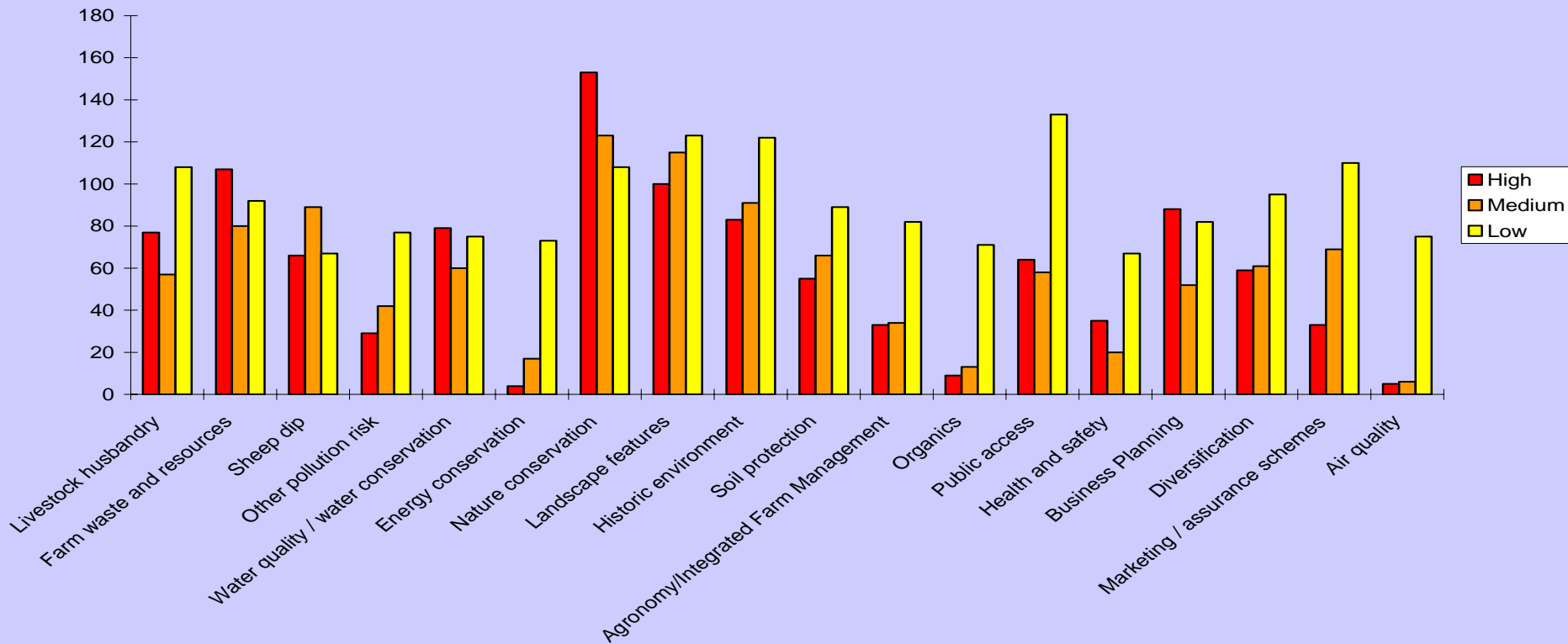
Minimising / avoiding environmental problems by improved practice or alternative land use  
Enhancing & creating wildlife habitats  
Agricultural systems: Integrated Farm Management, Organic farming.  
Soil conservation  
Farm waste & resources management  
Building improvements  
Improving public access wherever appropriate

# Key point 4

Farm scale planning needs to be set in the local, regional and national context.

### Issues by Priority

574 farms assessed to date

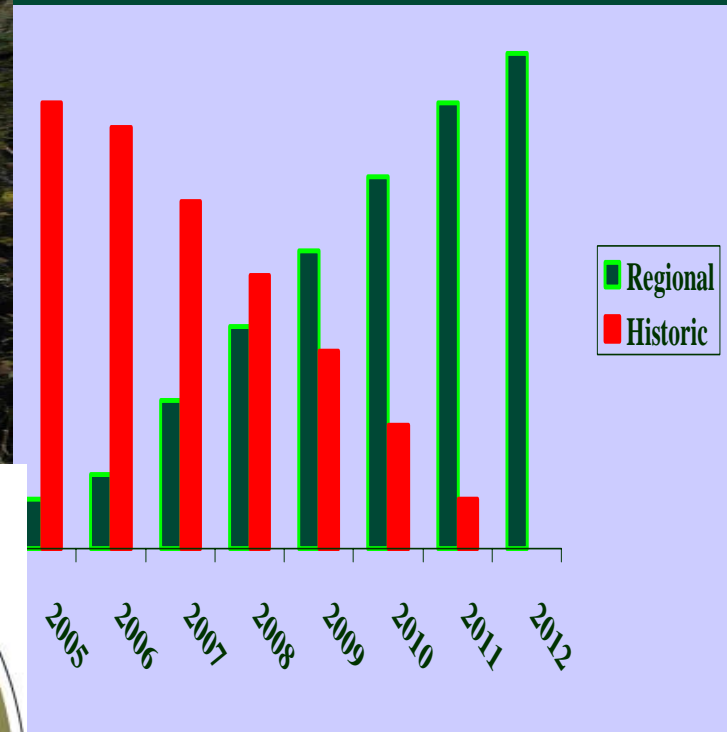


The above assessment from the advisory database is used as the basis for identifying action leading to progress on issues

# Key point 5

Monitoring and reviewing the outputs of the farm planning process is critical.

# Food production, Agri-environment, Diversification, Single Payment Scheme





<a href="#">HOME</a>	<a href="#">Soil, Geology and Land Use</a>	<a href="#">Designated and Protected Areas</a>	<a href="#">Water Framework Directive</a>	<a href="#">Hydrological Overview</a>	<a href="#">Flood Risk</a>	<a href="#">Flash Floods</a>	<a href="#">Abstractions &amp; Discharges</a>	<a href="#">Climate Change</a>	<a href="#">Buildings</a>
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Property Name	BORROWDALE			Property Area (ha)	9959.50	<a href="#">Glossary</a>
Property ID	10116	Region	NORTH WEST	Area Less Than 0.3 ha	No	<a href="#">Maps</a>

## NSRI Soil Classes (ha)



Terrestrial Raw	Raw Gley	Lithomorphic	Pelsols	Brown	Podzolic
		14287.39		333.34	5307.20
Surface Water Gley	Groundwater Gley	Man Made	Peat	NSRI Area of Soil at Risk to Erosion	
95.43	12.66		834.40	834.40	

## British Geological Survey Rock Groups (ha)

based on the British Geological Survey 1 : 250,000

## Solid Geology

## Drift Geology



Solid Dominant Name	Alluvium	Blown Sands	Brickearth	Clay Flint	Crag Group	Non Mapped	Glacial Sand Gravel
Llanvirn and Arenig	278.00					295.50	
Solid Dominant Area	Lacustrine	Landslip	Peat	River Terrace	Raised Marine Deposits	Sand Gravel Unknown Origin	Till
2935.66			557.25				298.25

## Defra Rural Land Classifications (ha)

Land Use Class 1	Land Use Class 2	Land Use Class 3	Land Use Class 4	Land Use Class 5
			298.75	9301.25
Catchment Sensitive Farming 2006 - 2008 Priority Catchments	Non Agricultural	LFA Severely Disadvantaged	LFA Disadvantaged	Moorland Line
9922.47	504.75	9959.30	0.20	8333.04

## Slope Classifications (ha)

Area in Slope Classes 0 to 2	Area in Slope Classes 2 to 7	Area in Slope Classes 7 to 11	Area in Slope Classes > 11
7.00	566.50	623.50	8907.75



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**River Basin District**

North West

**Associated Catchment Abstraction Management Strategy**

Leven and Crake

West Cumbria

Derwent

**Water Framework Directive Designations** (ha where not specified)**Water Dependent Natura 2000**

SAC

SPA

Yes

**Protected Water Bodies used for Abstraction**

Rivers (m)

Lakes

Groundwater

Not processed

9959.50

**Economically Significant Species**

Shell Fish Waters

Freshwater Fish

Freshwater Fish

Lakes

Rivers (m)

No

Not processed

**Protection from Nitrate**Nitrate Sensitive  
AreasNitrate Vulnerable  
Zones**Nutrient Sensitive Areas**

Rivers (m)

Lakes

Estuaries

**Recreational Waters**

Bathing Water Areas

**River Basin Characterisation** (ha where not specified)**Risk Assessment**

Overall Risk

Point Source  
PollutionDiffuse Source  
PollutionAbstraction  
RiskMorphological  
RiskAlien Species  
Risk

Rivers	HIGH	NO	HIGH	MOD	MOD	MOD
Lakes	MOD	LOW	LOW	NO	LOW	MOD
Groundwater	MOD	LOW	MOD	LOW		
Transitional						
Coastal	NO_DATA	NO_DATA	NO_DATA		NO_DATA	NO_DATA

Water Resource Risk Assessment - Summary Tables of Data (WRRA\_v18\_Web\_v02)  
Haycock Associates Limited 2005-2006 ([www.haycock-associates.co.uk](http://www.haycock-associates.co.uk))

[Support](#)



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**Catchment Details**

	Length of main river (km)	Low lying land less than 10m AOD (ha)	Area covered by lakes (ha)	Area of catchment upstream DOMINANT (ha)	River Basin District
River Name DOMINANT River Derwent	13.30		290.25	7731.25	North West
Lidar Coverage Area (ha)	3726.5	Associated CAMS Name Leven and Crake	Associated CAMS Name West Cumbria	Associated CAMS Name Derwent	Associated CAMS Name
Flood Storage Area (ha)		National Flood Defence Length (m)	Area Benefitting From Flood Defence (ha) (Environment Agency)	Area Benefitting From Flood Defence (ha) (Haycock Associates)	
				6.25	

**Water Bodies Registered Under the Reservoir Act 1975**

Number of reservoirs

Reservoir Name	Reservoir Situation	Easting	Northing

IDLRT Basin Unit	Max Hortonian Stream Order	RHS River Classification	RQO River Classification
data not processed			

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Total No of Abstractions	Number outside property	Agriculture	Industrial Commercial	Amenity	Production of Energy	Water Supply
<b>21</b>						
<b>Groundwater Abstractions</b>						
<b>Surface Water Abstractions</b>		<b>2</b>	<b>5</b>			<b>14</b>

License Number	Purpose	Source	Point Name	Purpose	Outside NT Boundaries	CART1 EAST	CART1 NORTH	
2775007006	Agriculture	Surface Water	"STREAM AT ROSTHWAITE, KESWICK, C	General Farming & Domestic		325300	514400	<a href="#">i</a>
2775007028	Agriculture	Surface Water	"R. DERWENT, BORROWDALE"	Fish Farm/Cress Pond Throughflow		323400	512000	<a href="#">i</a>
2775007009	Industrial, Commercial and Public Services	Surface Water	"STREAM AT SCAFELL HOTEL, ROSTHWAITE,	"Drinking, Cooking, Sanitary, Washing, (Small Garden) -		326200	514800	<a href="#">i</a>
2775007010	Industrial, Commercial and Public Services	Surface Water	U/N TRIB OF STONETHWAITE BECK @	"Drinking, Cooking, Sanitary, Washing, (Small Garden) -		326200	514800	<a href="#">i</a>

Total No of Discharges	Discharges - Receiving Waters	Lake/Reservoir With	Into Land	Soakaway	Underground Water	Onto Land	Irrigation Area
<b>3</b>					<b>1</b>		
		Onto Land and Into Watercourse	Controlled Sea	Freshwater River	Sea Outside Control	Saline	Miscellaneous
				<b>2</b>			

Permit Number	Discharge Type	Receiving Water	Receiving Water Code	Site Name	CART1 EAST	CART1 NORTH	
17390266	Sewage disposal works - other	WATENDLATH BECK	Freshwater river	CAFE BORROWDALE	327500	516500	<a href="#">i</a>
17590308	Domestic Property (Single)	GROUNDWATERS/CAT GILL	Freshwater river	ASHNESS FARM	327100	519290	<a href="#">i</a>
17590308	Domestic Property (Single)	GROUNDWATERS/CAT GILL	Underground water	ASHNESS FARM	327140	519280	<a href="#">i</a>

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[Glossary](#)  
[Maps](#)

## UKCIP 01 Medium High

### Actual Figures ( - ve = a decrease)

	Annual Average Net Rainfall (mm/d)	Precipitation Winter/Summer Ratio	Summer Net Rainfall (JJA) (mm/d)	Winter Net Rainfall (DJF) (mm/d)
1961-1990	3.63	1.25	1.44	5.35
2020	3.69	1.29	1.32	5.58
2050	3.62	1.35	1.06	5.63
2080	3.83	1.36	1.24	5.81
Range	- 0.97 to 8.23	0.72 to 3.40	-3.74 to 4.78	0.88 to 12.4

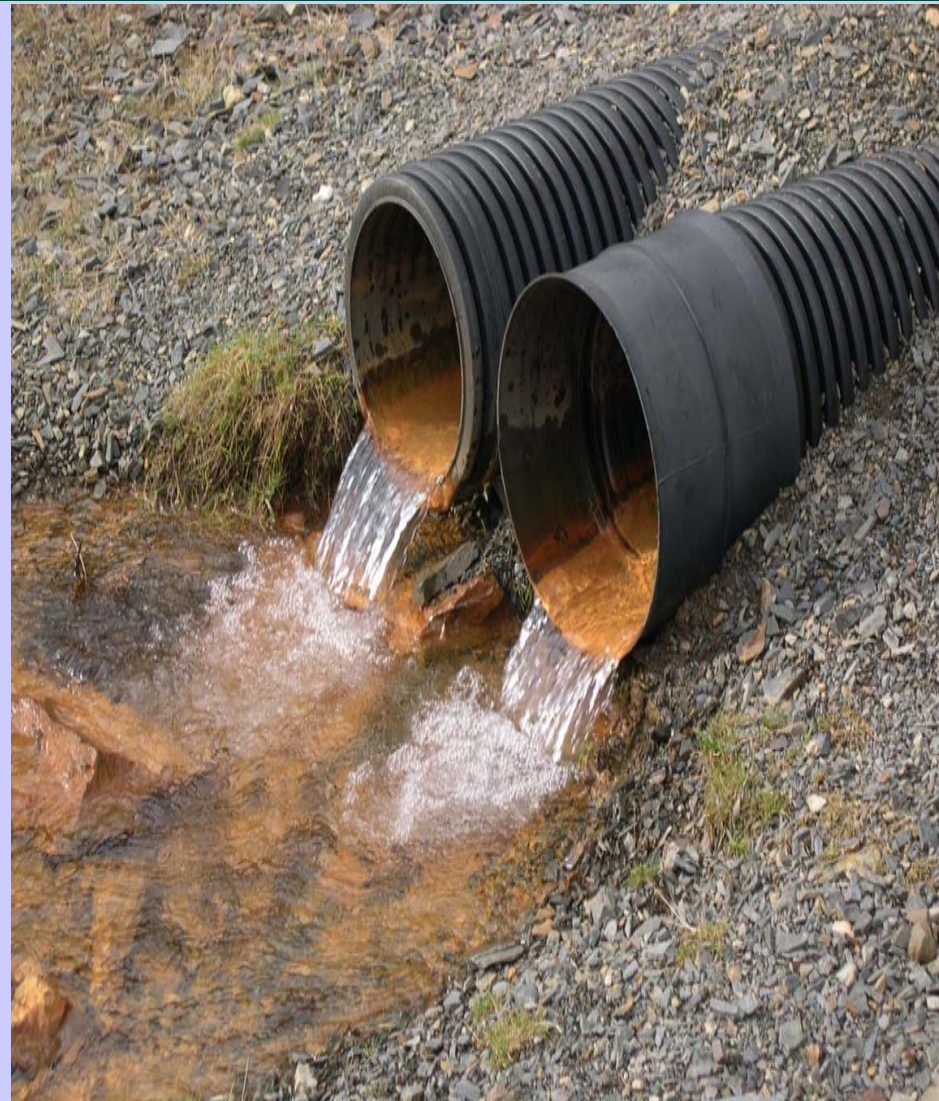
### Change from 6190 (1961-1990) baseline ( - ve = a decrease)

	Max Summer Temperature (JJA)	Change in Annual Average Rainfall (mm/d)	Change in Summer Net Rainfall (JJA)(mm/d)	Change in Winter Net Rainfall (DJF)(mm/d)
6190 -2020	1.24	0.12	-0.12	0.23
6190 -2050	1.83	0.10	-0.38	0.28
6190 -2080	2.17	0.32	-0.20	0.46
Range	0.85 - 3.45	-0.02 to 0.57	-1.27 to 0.43	-0.13 to 0.62

# WATER FRAMEWORK DIRECTIVE

## Headlines for farm planning from NT Water Resource Risk Assessment

- **43% of water in England and Wales drains to a NT boundary**
- **27% of NT properties have designated water dependant SAC's**
- **9% of NT land is Peat**
- **5% of NT land within Flood Zone 3 (Q100)**
- **18% NT land is situated on a vulnerable aquifer**
- **13% NT land in a source protected zone of public groundwater supplies**
- **92% NT land situated in recharging groundwater zones suitable for drinking water**
- **26% NT land in NVZ**
- **40% NT land has slope > 11%**
- **28% NT land is prone to erosion**





# Key point 6

Training Needs Assessment and risk assessment methodologies need to be more firmly embedded in the Whole Farm Planning process.

# Key point 7

Lots of ***excellent*** public data out there to assist with Whole Farm Planning, but it is extremely inaccessible to busy people. There is real environmental benefit to be had from making data more accessible and user friendly.

# The End(s)

