



Dr Laurence Couldrick CEO Westcountry Rivers Trust

Our changing catchments – how climate change and land use is impacting the rivers and catchments.

OUR CHANGING CATCHMENTS

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How climate change and land use is impacting our rivers and catchments



How has the climate changed?



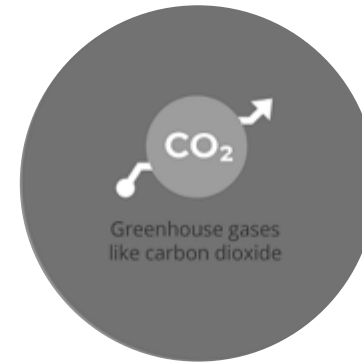
Drivers of climate change



Changes to the climate system



Impacts on plants, animals and humans

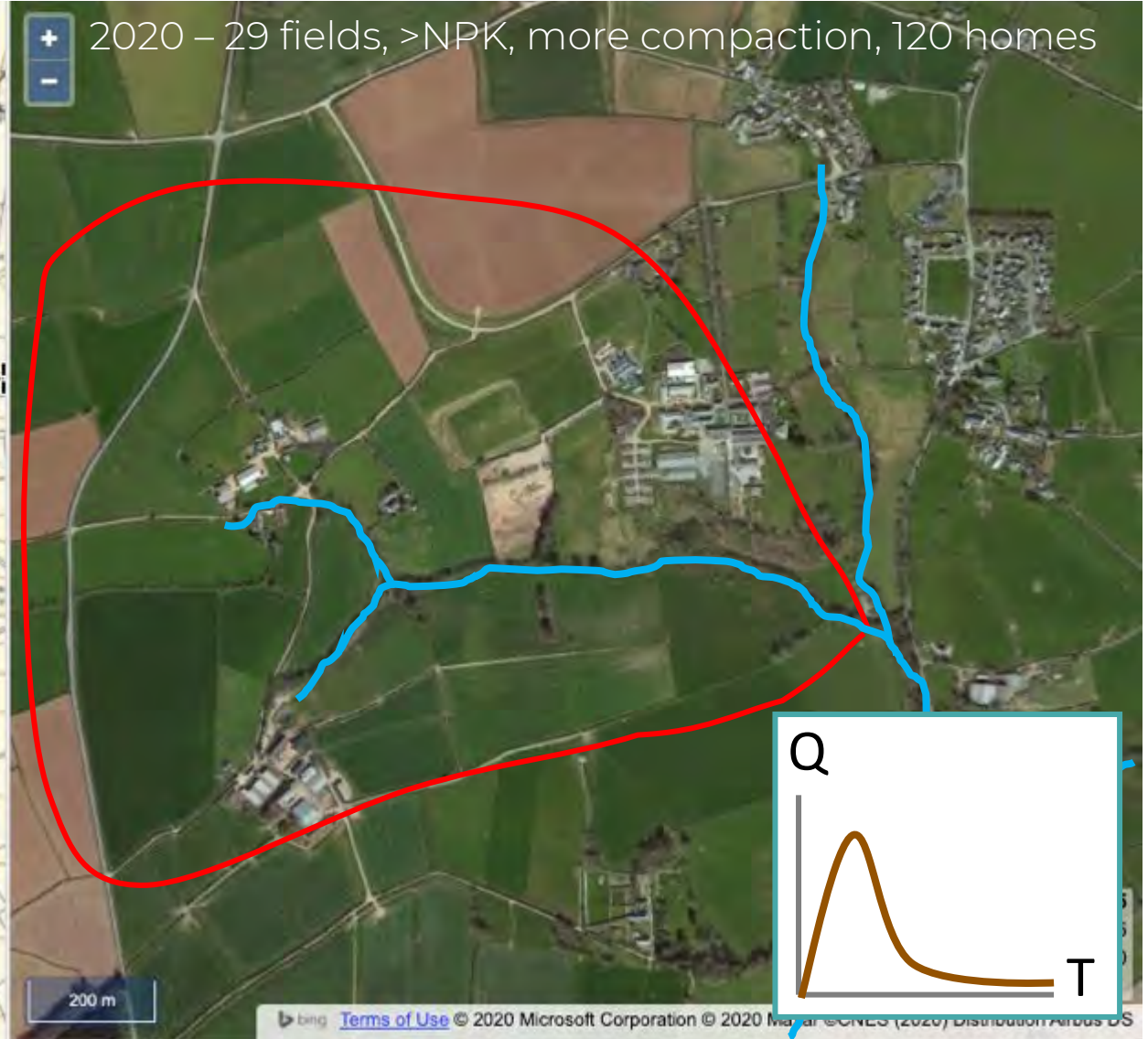
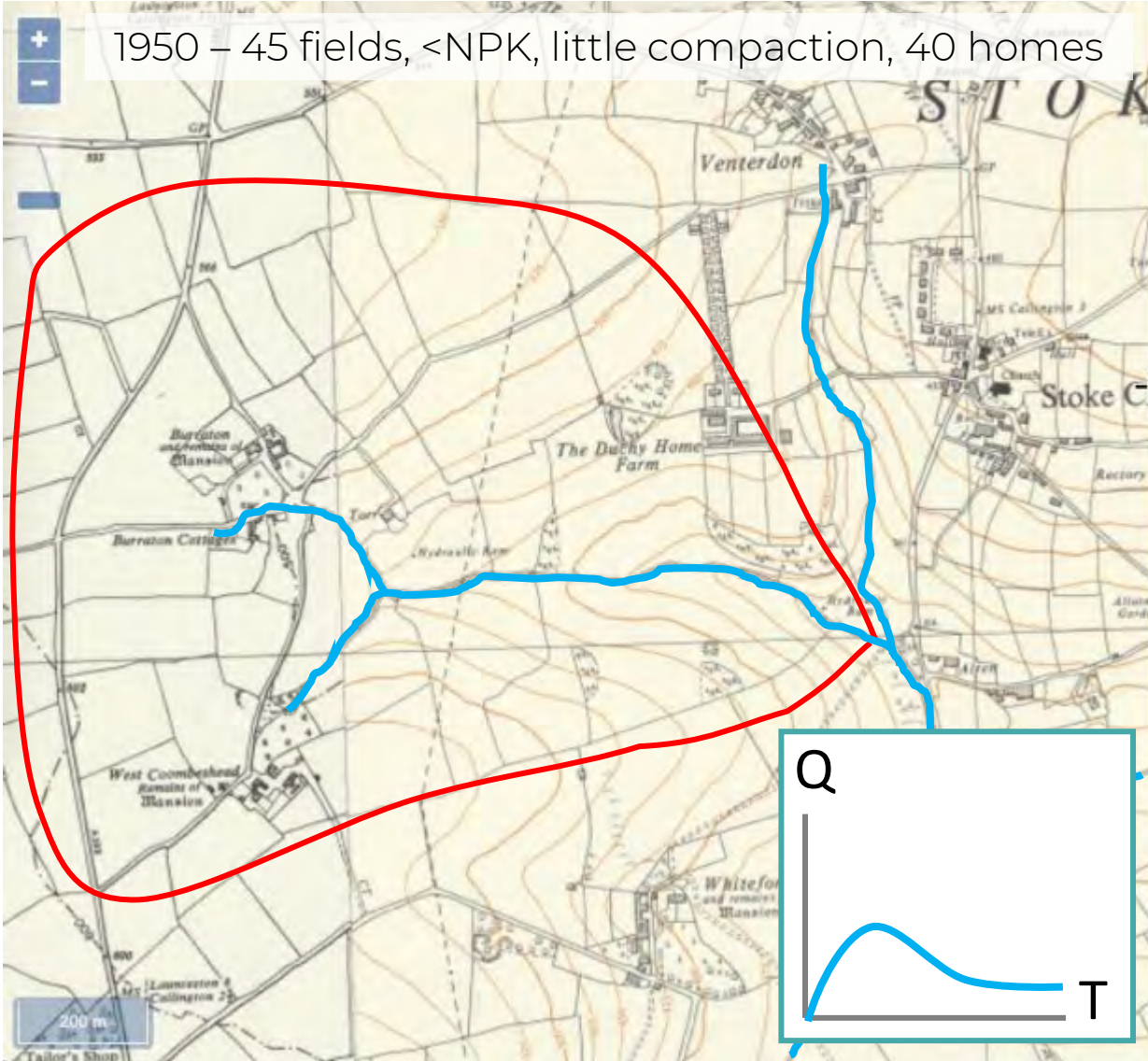


SOUTH WEST

- milder, wetter winters
- rises in sea level around coastline
- hotter, drier summers, but when rain does fall, it could be much more intense in nature



How have catchments changed?



Impacts on river ecosystem health



Past approach to spatial planning on the Tamar



Defra's Climate Change Plan 2010

defra

Environment Agency

South Devon Coast

South Devon Areas of Outstanding Natural Beauty Management Strategy 2009-14

Environment Agency

BATHING WATER PROFILE

We have produced a profile for each European designated bathing water in England and Wales. The profile gives information about the bathing water including any improvements made to provide better water quality for bathers. Bathing water profiles are a requirement of the revised Bathing Water Directive 2006/7/EC and supporting regulations.

All bathing water profiles will be reviewed and updated by May 2012. We would like your feedback and comments to contribute to this review. If you wish to comment on the profile please send an email to bwpsa@environment-agency.gov.uk between 24 March and 30 September 2011.

Plymouth Hoe West, Devon, England

Environment Agency

Cornwall and West Devon Mining Landscape - Management Plan

World Heritage Site Management Plan 2005-2010

Environment Agency

Cornwall and West Devon Mining Landscape

World Heritage Site Management Plan 2005-2010

Celebrating Cornish Mining Heritage

West Lakes Trust

City Action Plan

South Devon

Area of Outstanding Natural Beauty

Management Plan 2009-2014

South Devon

Area of Outstanding Natural Beauty

Management Plan 2009-2014

South Devon

Area of Outstanding Natural Beauty

Management Plan 2009-2014

Northern Devon FLAG

Development Strategy 2011 - 2015

May 2011

FLAG

TAVISTOCK CONSERVATION AREA

MANAGEMENT PLAN

July 2009

NOAA FISHERIES SERVICE

SOUTHWEST REGION Saltwater Recreational Fishing Action Agenda

November 2011

NOAA FISHERIES SERVICE

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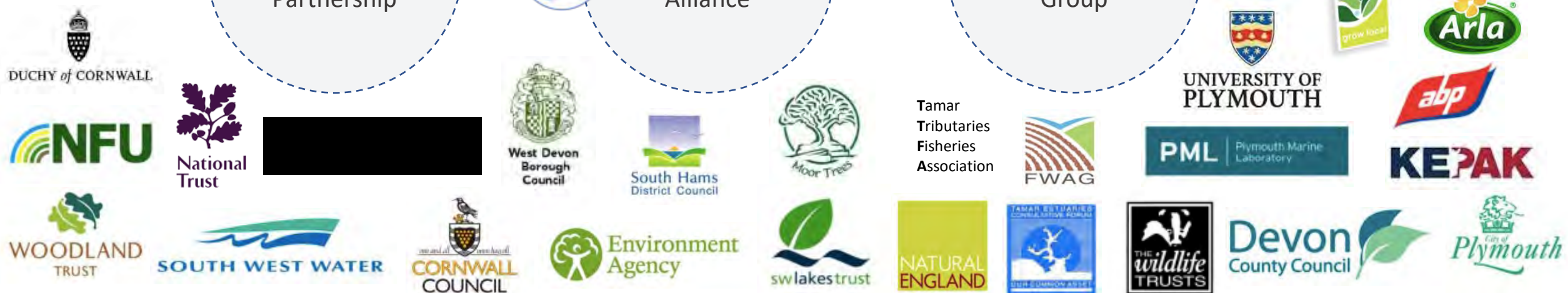
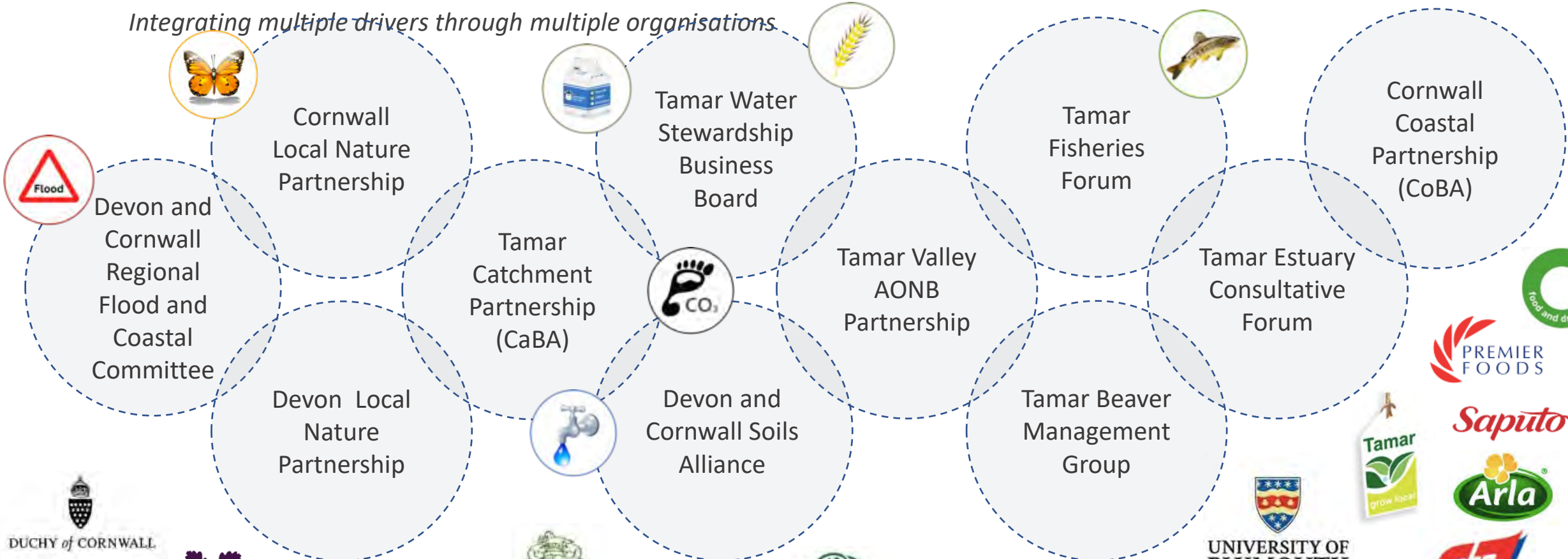
November 2011



Partnership working... strands...

... through four key

Integrating multiple drivers through multiple organisations



Supporting Soils

Slowing and purifying water flow into our rivers whilst building carbon

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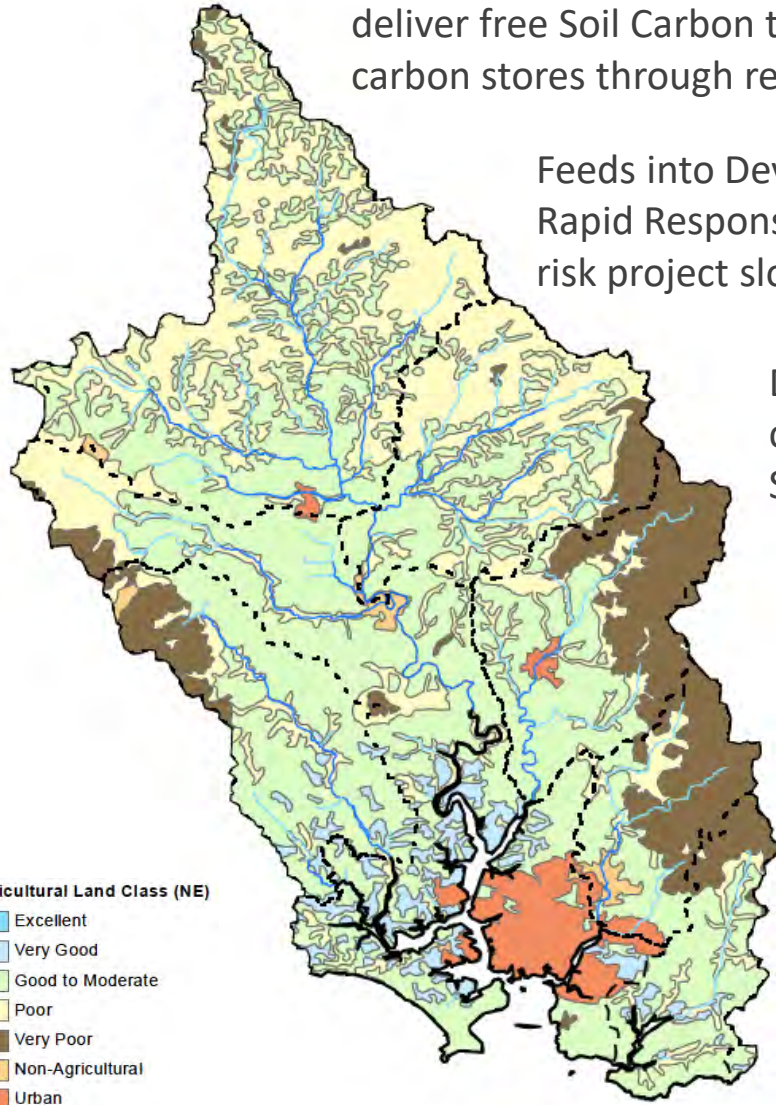
Builds on Devon and Cornwall Soils Alliance to deliver free Soil Carbon testing for farmers to build carbon stores through regenerative agriculture

Feeds into Devon County Council's Rapid Response Catchment flood risk project slowing flows

Delivers change under current and future WINEP South West Water schemes

Links to Defra Landscape Recovery Trial on the Tavy and lower Tamar

Trains future farm advisors linked to Duchy College and Farm Net Zero



Reconnecting Rivers

Providing a free-flowing river not impeded by man made barriers

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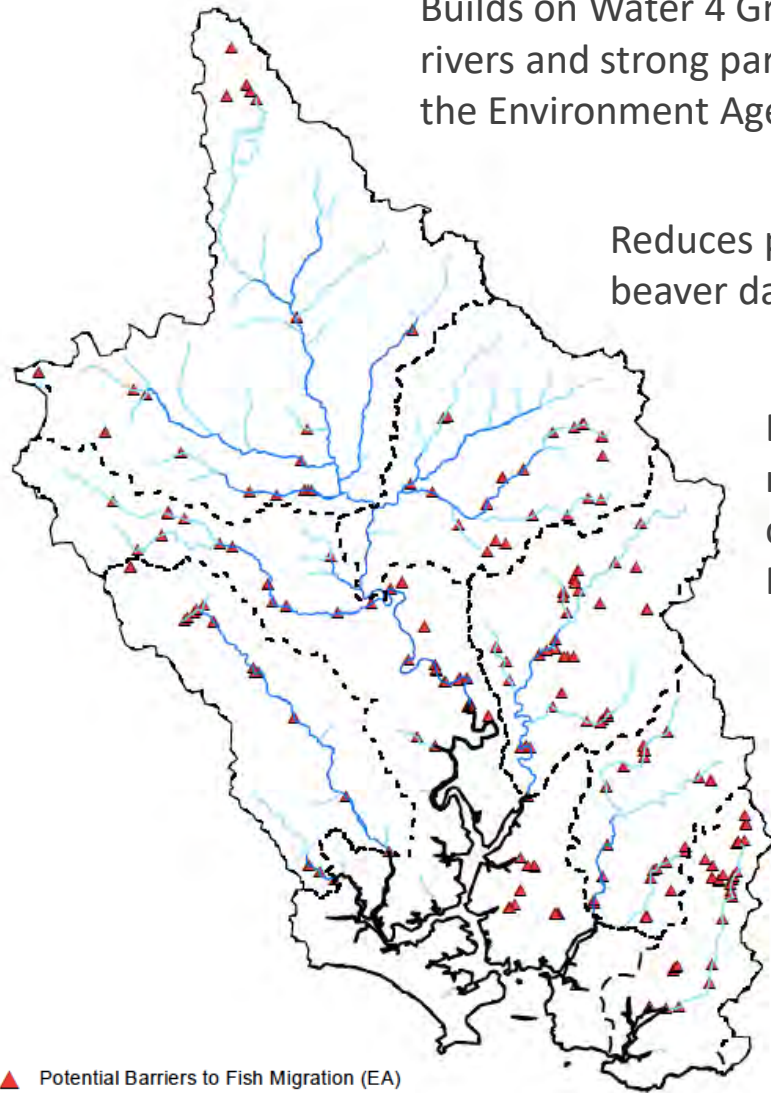


Builds on Water 4 Growth on neighboring rivers and strong partnership working with the Environment Agency

Reduces pressure from possible beaver dams to fish migration

Builds on Roadford mitigation scheme delivered by WRT and Fisheries Associations

Links to projects within the Urban areas through Plymouth River Keepers



▲ Potential Barriers to Fish Migration (EA)



Wilding Wetlands

Connecting the river with its floodplain across the catchment

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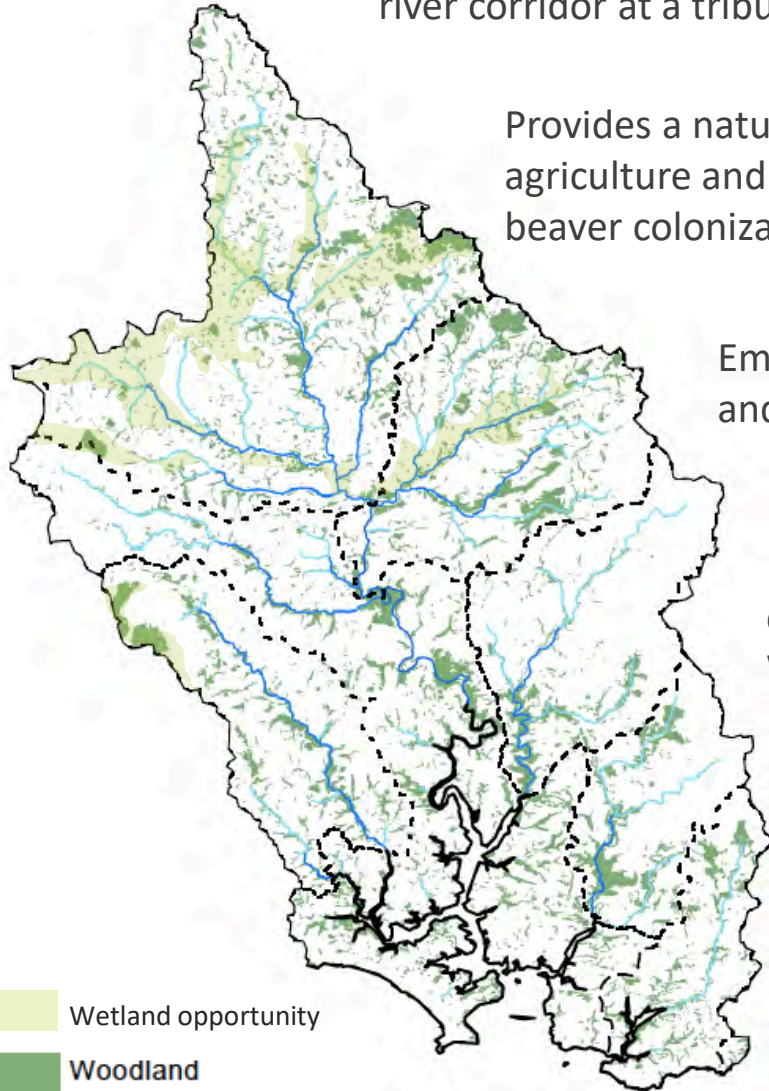


Builds on Woodlands for Water to wild the river corridor at a tributary scale (Ottery pilot)

Provides a natural buffer to agriculture and de-conflicts beaver colonization

Employs apprenticeships and new starters

Delivers investable change for the Tamar Water Stewardship Board



Wetland opportunity
Woodland



Connecting Communities

Creating resilient communities that demand resilient catchments

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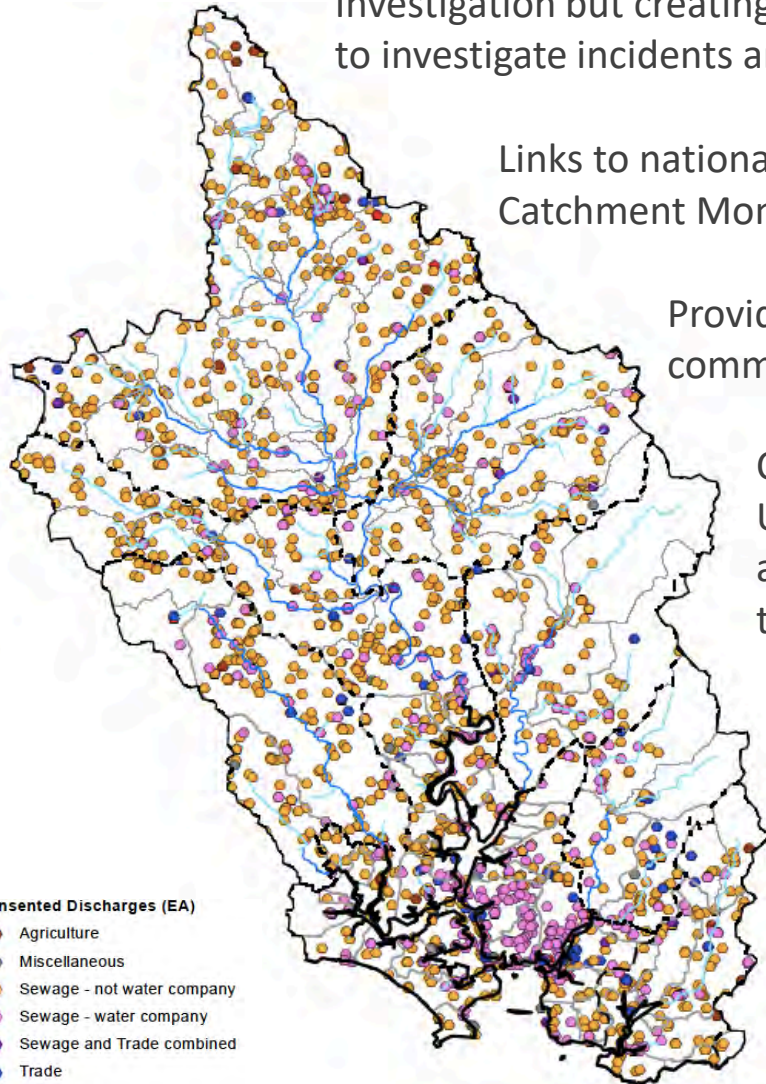
Builds on the existing Citizen Science Investigation but creating smarter volunteers to investigate incidents and problem areas

Links to national Rivers Trust Catchment Monitoring Cooperative

Provides a route to engage communities in their river

Cements links with University of Plymouth and Duchy College Cow to Catchment data hub

Further the Plymouth Rivers keepers work and Preventing Plastic Pollution drive



Consented Discharges (EA)

- Agriculture
- Miscellaneous
- Sewage - not water company
- Sewage - water company
- Sewage and Trade combined
- Trade
- Waste site



In summary - We need more joined up monitoring and more integrated delivery to create resilient catchments and communities



Thank You



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