

Catchment delivery plan for the Alt Crossens: Working project list and third party evidence.

Draft Version 2. Based on discussions at the
partnership meeting on 13th May 2016

1.0 Introduction

A list of flagship projects is being developed by the Alt Crossens Catchment Partnership over a number of meetings. This working document identifies these projects and provides a draft specification for the work. As the steering group discuss the projects in the future, those with the most backing will be developed further, while others with less backing will be dropped or mothballed (and put into Annex 2). There is also a list of projects which have been identified by the project partners. The aim of this document is to coordinate and incorporate these projects into the flagship 'Aspirational projects'. This will provide a delivery plan for the Alt Crossens CaBA partnership which demonstrate their strategic ambition and priorities for potential funding bodies and the wider community. The aspirational projects will also allow the partnership to take an opportunistic approach, intercepting resources as they become available and making sure that they contribute to the strategic aims of the partnership.

2.0 General principles used to identify and prioritise projects for the Alt Crossens Catchment

The general principles used to identify these projects are listed below:

- Identify, discuss and refine. The initial list of 'Aspirational Projects' should be discussed and refined by the steering group. This will ensure that the limited resources of the CaBA partnership are used to develop projects which attract the most support from the group.
- The approach is about direction of travel, rather than achieving a threshold water quality or ecological status. This makes the use of evidence much simpler and easier to understand.
- The CaBA Data and GIS package can be used with summary and water body documents to focus in on the main opportunities which will bring **multiple benefits**.
- The five strategic objectives of the Alt Crossens Catchment Partnership have been used to select opportunities which should move the catchment forward in all the areas prioritised by the wider catchment partnership group.
- All 'Aspirational projects' should deliver benefits for WFD as well as CaBA if they are to be supported by the Environment Agency.
- Where ever possible projects should deliver flood risk benefits as defined in the Flood management plan.
- Where ever possible projects should deliver bio-diversity, water and cross-cutting benefits in line with Natural England and Forestry Commission 'Countryside Stewardship' spatial prioritisation.
- Each project should incorporate Environment Agency measures from the list of cost beneficial measures where possible.
- Each project should have an 'owner' to drive it forward.
- Priority 1 projects have agreement of the steering group and funding. Priority 2 projects have agreement and an 'owner' who will proceed when there is an opportunity and/or funding. Priority 3 projects need an owner to progress.
- Where ever possible projects will build on existing projects and initiatives as this will speed up delivery on the ground.

3.0 How to use this document

The summary tables below show the multiple benefits for each project against CaBA, Environment Agency and Natural England goals. Section 4 contains the specifications for each project including the current status of the project; the lead organisation and next steps required to make it happen. Section 5 lists evidence from the CaBA partnership which they believe needs to be considered in the weight of evidence used to set local objectives; prioritise delivery on the ground and underpin the adaptive management of the interventions delivered.

Summary table for Alt Crossens Catchment Partnership Objectives

	Alt Crossens Catchment Partnership Objectives##CHECK##					
Projects	Protected	Managed	Used and appreciated	Enjoyed and valued	Clean and healthy waterbodies	Restored rivers
Project 1	+++	+++	+++	+++	+++	+++
Project 2	+	+++	+++	+++	++	+
Project 3	++	+++	+++	+++	++	++
Project 4	+++	+++	+++	+++	+++	+++
Project 5	++	+++	+	++	++	++
Project 6	+++	++	-	-	+++	+++
Project 7	+	+	+++	+++	+	+

+++ indicates the main *rational* behind a project, it does not mean that the project will deliver big improvements; ++ indicates secondary benefits from the project and + indicates minor benefits from the project.

Summary table for Environment Agency WFD objectives

Aspirational project	SW (Chem)	SW (Ecol.)	GW (Quant)	GW (WQ)	Trans (Chem)	Trans (Ecol.)	Coastal (Chem)	Coastal (Ecol)
Project 1	+	++	-	-	+	+	+	+
Project 2	+	++	-	-	-	-	+	+
Project 3	+	++	-	-	-	-	-	-
Project 4	++	++	-	-	-	+	-	+
Project 5	+	+	-	-	+	+	-	-
Project 6	+	+	+	+++	-	-	-	-
Project 7	+	+	-	-	+	+	-	-

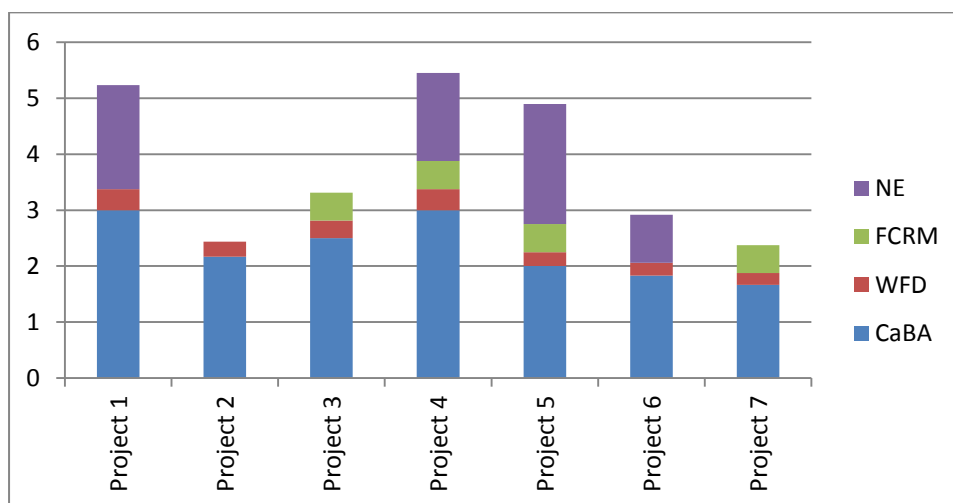
Summary table for Environment Agency & Local Authority flood risk management objectives.

Aspirational project	Preventing risk	Preparing for risk	Protecting from risk	Recovery from and review of risk
Project 1	++	++	++	-
Project 2	TBC	-	-	-
Project 3	++	++	++	-
Project 4	+	+	+	-
Project 5	-	-	-	-
Project 6	-	-	-	-
Project 7	-	-	-	-

Summary table for Natural England and Forestry Commission priority areas for Countryside Stewardship.

	Bio-diversity	Water	Historic environment	Woodland priorities	Landscape	Multiple Env. benefits	Other priorities inc Climate change and water quality
Project 1	++	++		+		+++	+++
Project 2	TBC	TBC	TBC	TBC	+	+++	
Project 3	-	+	-	+	-	+++	+
Project 4	+	+++	-	+	-	+++	+++
Project 5	-	+	-	-	-	+++	+++
Project 6	TBC	+	TBC	TBC	TBC	+	+++
Project 7	+++	+++	-	-	-	+++	+++

The projects in this plan deliver across all the detailed CaBA objectives and the surface water components of the WFD agenda. There is significant delivery for FCRM and for Natural England and the Forestry Commission Countryside Stewardship objectives.



Graph 3.1. Are aspirational projects aligned with strategic goals of the Alt Crossens CaBA partnership; the EA WFD RBMP; the FRMP and the strategic aims of Natural England?

4.0 Priority projects for the Alt Crossens catchment

4.1 Priority 2: Project title: Partnership approach to manage water levels in the Alt Crossens for multiple benefits.

Status: Building on the project identified in the FRMP (Moderate Priority).

Project Owner: The new IDB/drainage partnership?

Location: Middle Urban Alt (Policy unit)

Aims and objectives of the project against CaBA vision and WFD objectives.

CaBA aim: Develop a partnership approach to water management with a focus on agriculture and secondary benefits for, bio-diversity and recreation in the Alt Crossens.

Strategic Goal	Protected	Managed	Used and appreciated	Enjoyed and valued	Clean and healthy waterbodies
DoT	+++	+++	+++	+++	+++

Environment Agency WFD Objective. Achieve 'Good ecological potential' by 2027.

Strategic Goal EA	SW (Chem)	SW (Ecol.)	GW (Quant)	GW (WQ)	Trans (Chem)	Trans (Ecol.)	Coastal (Chem)	Coastal (Ecol)
DoT	+	++	-	-	+	+	+	+

Environment Agency FRMP Objective. Institute a partnership approach to land management (Act4555).

Aspirational project	Preventing risk	Preparing for risk	Protecting from risk	Recovery from and review of risk
DoT	++	++	++	-

Natural England Objective. Reduce nutrients and FIOs in the Alt Crossens catchment.

Aspirational project	Bio-diversity	Water	Historic environment	Woodland priorities	Landscape	Multiple Env. benefits	Other priorities inc Climate change and water quality
Project 1	++	++		+		+++	+++

Next Steps

Task 1: Contact the EA FCRM team and discuss the possibility of CaBA taking part in workshops/meetings to see how a partnership could be developed which would deliver multiple benefits.

- High risk option## Use Life IP to mobilise wider CaBA contacts and resources from IDBs in the east of the country and local experts (contact who worked in Mott MacDonald).to discuss approaches with local land managers with CaBA brokering the discussions.
- Medium risk option. Pilot Partnership meeting with IDB experts from the east of the country; technical experts from the catchment and a farmers representative (no farmers from the area). The aim of the meeting would be to test out the arguments and approaches required for the 'real' meeting with impacted farmers.

- Low risk option. CaBA partnership attend existing meetings, listen and look out for opportunities to contribute to the partnership. Task 2 below could provide maps which would allow CaBA to gradually increase its role and visibility within the partnership.

Task 2. Wet weather walkover survey based on a strategic approach to identify opportunities for a number of the projects listed in this plan, opportunities for: NFRM/sediment trapping; wetland/wet woodland creation; habitat creation/re-naturalisation and barrier removal/easement.. The aim would be to use Life IP to 'fund' a small number of walkover surveys to show how CaBA could generate a key resource required for the partnership approach.

Task 3: Produce a story map of opportunity areas for the creation of additional flood storage etc within the catchment and work with the local community to gauge interest in starting the ball rolling before the modelling work delivers. The aim is to deliver 'pilot' schemes for each of the opportunities to generate momentum and draw in far greater resource.

Partners: NFU, Healthy Waterways Trust, United Utilities, Environment Agency

4.2 Priority 2: Project title: UU returning rivers (AMP5)

Status: Adding value to existing project. AMP 5 & 6 inc possible removal of STW. Also septic tanks focus in the Alt Crossens (think FIO bathing water shellfish)

Project Owner: United Utilities

Location: WFD water body. TBC

Aims and objectives of the project against CaBA vision and WFD objectives.

CaBA aim: United Utilities invested £##M on improving the water quality of the Alt Crossens in AMP5. The aim of this project is to maximise the amenity and ecological benefits of the improving water quality from this investment and augment the improvement with improvements to discharges from septic tanks.

Strategic Goal	Protected	Managed	Used and appreciated	Enjoyed and valued	Clean and healthy waterbodies
DoT	+	+++	+++	+++	++

Environment Agency WFD Objective. Achieve 'Good ecological potential' by 2027.TBC when actual water bodies have been identified.

Strategic Goal EA	SW (Chem)	SW (Ecol.)	GW (Quant)	GW (WQ)	Trans (Chem)	Trans (Ecol.)	Coastal (Chem/bathing)	Coastal (Ecol)
DoT	+	++	-	-	-	-	+	+

Environment Agency FRMP Objective. NA

Aspirational project	Preventing risk	Preparing for risk	Protecting from risk	Recovery from and review of risk
DoT	TBC	-	-	-

Natural England Objective. Focus 'Countryside stewardship' work into priority areas as defined by Natural England and the Forestry Commission.

Aspirational project	Bio-diversity	Water	Historic environment	Woodland priorities	Landscape	Multiple Env. benefits	Other priorities inc Climate change and water quality
Project 1	TBC	TBC	TBC	TBC	+	+++	

Next Steps

Task 1: Identify the WFD waterbodies where AMP5 investment will have made/AMP6 investment will make, the greatest difference to water quality by working with UU engineers. Look for improvements to works discharging to small streams; streams where treatment works outfalls have been removed (if a treatment works has been shut and flows diverted); P stripping or improvements to CSOs. The possible removal of STW at ### has great potential to improve the water quality in the ## Brook

Task 2: Focus EA/HWWT septic tank campaign on the Three Pools Waterway catchment and

Task 3: Identify and map 'Friends' groups who are active in the Alt Crossens. These groups can be used to deliver river improvement schemes which compliment expected water quality improvements.

Task 4: Check priority catchments for 'Countryside Stewardship' priority areas to ensure focused delivery of multiple benefits and bring in new partners

Task 5: For the waterbodies identified as having improving water quality focus volunteer lead projects to remove INNs and improve river habitat and access. These river improvement schemes will build on the improvement in water quality. So if:

- Phosphorus levels reduced, focus on habitat improvement.
- If sewage litter reduced (e.g. from CSO) then focus on access.

Task 5: Produce a story map which shows where the project will work and explains why the locations have been chosen.

Partners: Healthy Waterways Trust, United Utilities, Environment Agency, , Natural England, etc.

4.3 Priority 2: Project title: Slow the flow in Sefton

Status: Added value to project planned by Sefton Council

Project Owner: Local Authority and HWRT

Location: WFD water body. Sefton (WFD water body removed from cycle II)

Aims and objectives of the project against CaBA vision and WFD objectives.

CaBA aim: Work in partnership with Sefton Council to deliver initial natural flood risk management measures with the local community which bring amenity and biodiversity benefits as well as giving momentum to the longer term flood risk management plan for the area.

Strategic Goal	Protected	Managed	Used and appreciated	Enjoyed and valued	Clean and healthy waterbodies
DoT	++	+++	+++	+++	++

Environment Agency WFD Objective. Contribute good ecological status by 2027. TBC when water bodies identified.

Strategic Goal EA	SW (Chem)	SW (Ecol.)	GW (Quant)	GW (WQ)	Trans (Chem)	Trans (Ecol.)	Coastal (Chem/bathing)	Coastal (Ecol)
DoT	+	++	-	-	-	-	-	-

Environment Agency FRMP Objective. This is an area of rising flood risk. Compliment planned NFRM with delivery from other organisations.

Aspirational project	Preventing risk	Preparing for risk	Protecting from risk	Recovery from and review of risk
DoT	++	++	++	-

Natural England Objective. Focus 'Countryside stewardship' work into priority areas as defined by Natural England and the Forestry Commission.

Aspirational project	Bio-diversity	Water	Historic environment	Woodland priorities	Landscape	Multiple Env. benefits	Other priorities inc Climate change and water quality
Project 1	-	+	-	+	-	+++	+

Next Steps

Task 1: Meet with EA and Sefton Council FCRM teams to identify where they consider additional storage could be 'built' into the Alt Crossens catchment based on current flood risk.

Task 2: Wet weather walkover survey for the Upper Alt to identify opportunities for a number of the projects listed in this plan, opportunities for: NFRM/sediment trapping; wetland/wet woodland creation; habitat creation/re-naturalisation and barrier removal/easement.

Task 3: Produce a story map of opportunity areas for the creation of additional flood storage etc within the catchment and work with the local community to gauge interest in starting the ball rolling before the modelling work delivers.

Task 4: Use local experience of delivering NFRM in St Helens and Mersey Estuary to install some demonstration interventions in the catchment. Use these to engage local community a build momentum for a larger project supported by Sefton Council/EA FCRM.

Partners: Healthy Waterways Trust, United Utilities, Environment Agency, Red Rose Forest, Sefton Council, , Natural England etc.



Fig #. The Upper Alt catchment with SW flooding risk. Sefton Council plan to identify how a slowing the flow approach could reduce flood risk down the river Alt.

4.4 Priority 2: Project title: Habitat creation on the Alt for flood risk management, amenity and bio-diversity

Status: Planned as part of the FRMP for the Alt Crossens

Project Owner: EA & HWWT

Location: Fine Jane Brook, Sandy Brook or Cheshire lines sub-catchment

Aims and objectives of the project against CaBA vision and WFD objectives.

CaBA aim: Maximise the flood, water quality, amenity and bio-diversity benefits of habitat creation, including wetlands along the Alt River in locations where there are no PVA banks. These are the low risk locations for habitat creation. This will compliment the work of the Environment Agency who plan to carry out similar work in areas with the higher risk PVA banks.

Strategic Goal	Protected	Managed	Used and appreciated	Enjoyed and valued	Clean and healthy waterbodies
DoT	+++	+++	+++	+++	+++

Environment Agency WFD Objective. To achieve good ecological status in water body TBC##

Strategic Goal EA	SW (Chem)	SW (Ecol.)	GW (Quant)	GW (WQ)	Trans (Chem)	Trans (Ecol.)	Coastal (Chem)	Coastal (Ecol)
DoT	++	++	-	-	-	+	-	+

Environment Agency FRMP Objective. This is an area of rising flood risk. Compliment planned NFRM with delivery from other organisations.

Strategic Goal EA	Preventing risk	Preparing for risk	Protecting from risk	Recovery from and review of risk
DoT	+	+	+	-

Natural England Objective. Focus 'Countryside stewardship' work into priority areas as defined by Natural England and the Forestry Commission.

Aspirational project	Bio-diversity	Water	Historic environment	Woodland priorities	Landscape	Multiple Env. benefits	Other priorities inc Climate change and water quality
Project 1	+	+++	-	+	-	+++	+++

Next Steps

Task 1: Identify, with the EA, where there are river banks which do not have PVA cores.

Task 2: Walkover survey on sections of the river which do not have a PVA core to identify ideal locations for riparian planting, habitat creation and wetland creation.

Task 3: EA plan to work on pilot where there is a PVA core to improve higher risk sections with PVA core.

Partners: Healthy Waterways Trust, United Utilities, Environment Agency, England etc.

4.5 Priority 2: Project title: Farm advice targeted to reduce dredging (sediment) and improve water quality for bathing waters.

Status: Adding to/extending existing projects in neighbouring catchments of Ribble and Wyre & compliment CSF work within the catchment on septic tanks.

Project Owner: Healthy Waterways and Ribble RTs

Location: Crossens catchment.

Aims and objectives of the project against CaBA vision and WFD objectives.

CaBA aim: To work with the agricultural industry to minimise sediment and FIO losses to streams and rivers in the Crossens catchment thereby reducing the need for dredging and improve the amenity value of local beaches. Coordinate project with CSF work on septic tanks.

Strategic Goal	Protected	Managed	Used and appreciated	Enjoyed and valued	Clean and healthy waterbodies
Project	++	+++	+	++	++

Environment Agency WFD Objective. Achieve 'Good ecological potential' by 2027

Strategic Goal EA	SW (Chem)	SW (Ecol.)	GW (Quant)	GW (WQ)	Trans (Chem)	Trans (Ecol.)	Coastal (Chem/bathing)	Coastal (Ecol)
DoT	+	+	-	-	+	+	-	-

Environment Agency FRMP Objective. No specific synergies identified however, this is an area of flood risk and the reduction of sediment in the main river.

Strategic Goal EA	Preventing risk	Preparing for risk	Protecting from risk	Recovery from and review of risk
DoT	-	-	-	-

Natural England Objective. Focus 'Countryside stewardship' work into priority areas as defined by Natural England and the Forestry Commission.

Aspirational project	Bio-diversity	Water	Historic environment	Woodland priorities	Landscape	Multiple Env. benefits	Other priorities inc Climate change and water quality
Project 1	-	+	-	-	-	+++	+++

Next Steps

Task 1: FRMP identifies a need for dredging and has started to let local landowners manage their own water course. Find out where landowners are managing local water courses and target these farmersto minimise sediment and FIO losses.

Task 2: Talk to local CSF officer and co-ordinate advice so that farmers do not receive multiple visits.

Task 3: Use NE targeting maps to identify priority sub-catchments.

Partners: Healthy Waterways Trust, [CSF](#), United Utilities, Environment Agency,

4.6 Priority 2: Project title: Sustainable groundwater resources in the Alt Crossens.

Status: Aspirational

Project Owner: United Utilities

Location: SPZs on the Triassic sandstone

Aims and objectives of the project against CaBA vision and WFD objectives.

CaBA aim: Achieve a long term reduction in nitrates at the most strategically important boreholes in the Triassic sandstone, based on detailed risk/vulnerability assessment in each SPZ1

Strategic Goal	Protected	Managed	Used and appreciated	Enjoyed and valued	Clean and healthy waterbodies
Project	+++	++	-	-	+++

Environment Agency WFD Objective. Achieve WFD ecological status GW

Strategic Goal EA	SW (Chem)	SW (Ecol.)	GW (Quant)	GW (WQ)	Lake (Chem)	Lake (Ecol.)	Canal (Chem)	Canal (Ecol)
DoT	+	+	+	+++	-	-	-	-

Environment Agency FRMP Objective. NA

Strategic Goal EA	Preventing risk	Preparing for risk	Protecting from risk	Recovery from and review of risk
DoT	-	-	-	-

Natural England Objective. Focus 'Countryside stewardship' work into priority areas as defined by Natural England and the Forestry Commission.

Aspirational project	Bio-diversity	Water	Historic environment	Woodland priorities	Landscape	Multiple Env. benefits	Other priorities inc Climate change and water quality
Project 1	TBC	+	TBC	TBC	TBC	+	+++

Next Steps

Task 1: Contact UU water resources team to see if the abstractions are on the NEP plan.

Task 2: If the abstractions are in the NEP plan for high GW nitrate then identify if #Reaseheath College can work with one pilot farmer as a broker to move leaky crops out of SPZ1.

Partners: Reaseheath College, United Utilities, Environment Agency.

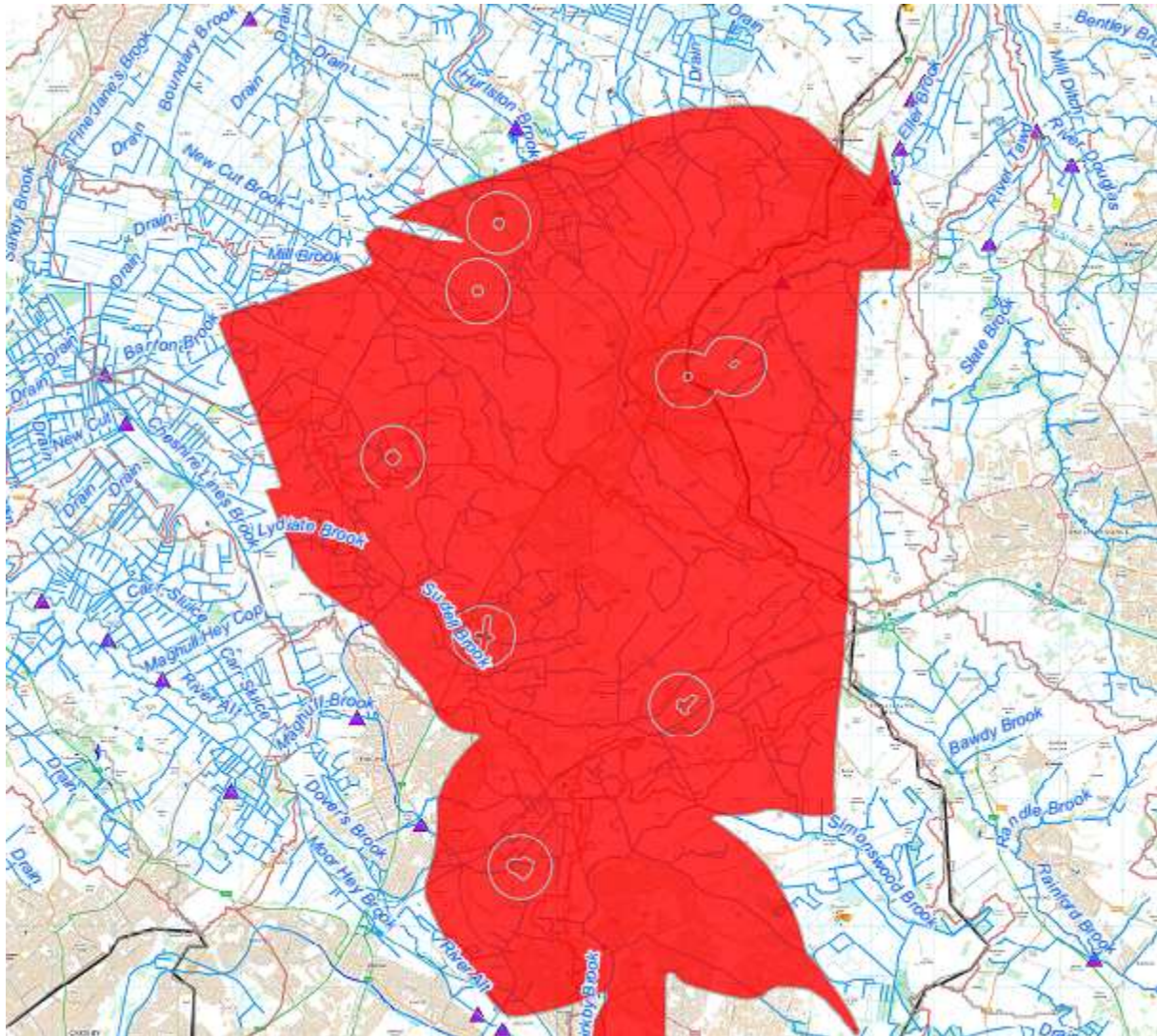


Fig #. Groundwater source protection zones on the Triassic Sandstone aquifer. The area is used for intensive horticulture NEAPN model shows high nitrate loading in the area.

4.7 Priority 2: Project title: Misconnection amnesty -in the Upper Alt (housing and industrial estates)

Status: Adding value and new energy to existing project (Wrong connections on the Alt)

Project Owner: Healthy Waterways and United Utility and Amazon?

Location: WFD water body. GB112069060610

Aims and objectives of the project against CaBA vision and WFD objectives.

CaBA aim: The Upper Alt is an urban area with poor water quality and high social deprivation. This project will use citizen science to focus on misconnections and poor water quality discharges from the industrial estates to create an exemplar for urban water stewardship in the Alt.

Strategic Goal	Protected	Managed	Used and appreciated	Enjoyed and valued	Clean and healthy waterbodies
Project	+	+	+++	+++	+

Environment Agency WFD Objective. Moving from 'Moderate' to 'Good ecological potential' by 2027 with a particular focus on inverts (poor - 2015) and phosphate (moderate - 2015)

Strategic Goal EA	SW (Chem)	SW (Ecol.)	GW (Quant)	GW (WQ)	Lake (Chem)	Lake (Ecol.)	Canal (Chem)	Canal (Ecol)
DoT	+	+	-	-	+	+	-	-

Environment Agency FRMP Objective. No specific synergies identified however, this is an area of increasing flood risk due to climate change.

Strategic Goal EA	Preventing risk	Preparing for risk	Protecting from risk	Recovery from and review of risk
DoT	-	-	-	-

Natural England Objective. Focus 'Countryside stewardship' work into priority areas as defined by Natural England and the Forestry Commission.

Aspirational project	Bio-diversity	Water	Historic environment	Woodland priorities	Landscape	Multiple Env. benefits	Other priorities inc Climate change and water quality
Project 1	+++	+++	-	-	-	+++	+++

Next Steps

Task 1: Discuss the feasibility of re-naturalising the half culverted stream (**Knowsley Brook**) from the industrial estate into the river Alt. Discuss project with the EA as a way of improving the quality of the environment into which the industrial estate discharge i.e. project is a way of engaging the local businesses and showing them the benefits they could bring to the area

Task 2: Link in with potential Freshwater watch urban blitz to raise profile of urban water quality and approach AMAZON to see if they are interested in being a corporate sponsor for citizen science in the catchment. This could be a continuation of the HWT 'Catchment Scientist' initiative.

Task 3: Do a full wet weather walkover survey on Knowsley Brook downstream from the industrial estate to identify point sources of pollution and collect qualitative information. Produce a story map which could be used to explain work and the wider context of improving the water environment as a way to drive growth and investment.

Partners: Healthy Waterways Trust, United Utilities, Environment Agency, [Knowsley](#)

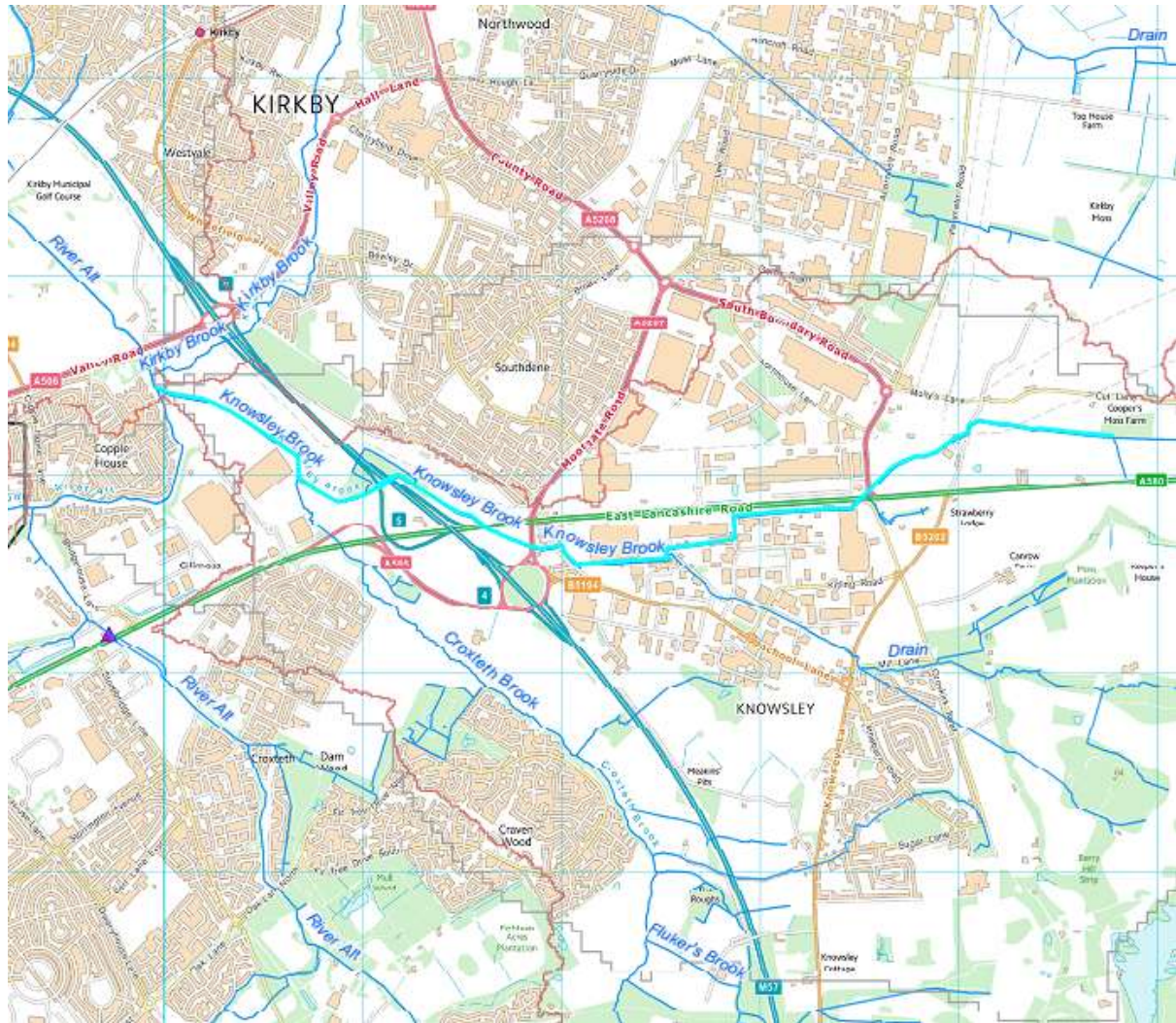


Fig # Knowsley Brook flowing into the Upper Alt. Both NE habitat networks and the EA Riparian shade data identify the confluence of the brook and the river Alt as an ideal area for riparian woodland. There are two UU BH within the catchment at Knowsley Randley Bridge and Knowsley. It is not known if they are in use or if there are WQ issues.

5.0 Priority Evidence from Alt Crossens Catchment partnership.

The Environment Agency **will use** evidence from CaBA partnerships as part of the weight of evidence used to set objectives at a local catchment level; prioritise activity on the ground and assess the effectiveness of the measures which have been implemented. Decisions that have been affected by this information will be recorded in The Catchment Data Explorer, however, the data itself will only be stored and accessed locally.

The Environment Agency **will not use** evidence from CaBA partnerships to change the WFD status of a waterbody. This is because the status is used for reporting up to the EC and must be consistent with the agreed methodologies.

Key sources of evidence which the CaBA partnership wish to be incorporated into the weight of evidence approach are detailed in the following sections. This evidence should be focused on information which supports Environment Agency understanding in a priority area for delivery, i.e. where the evidence could be used to 'tip the balance' to get a project started. Another priority is evidence which conflicts with Environment Agency understanding and may enable a project to be delivered in spite of misleading catchment scale data and understanding.

5.1 Evidence source 1: Water quality data from

Which location is this evidence relevant to?

Summary of the evidence:

What should happen as a result of the evidence?

Contact details:

5.2 Evidence source 2:

Which location is this evidence relevant to?

Summary of the evidence:

What should happen as a result of the evidence?:

Contact details:

Actions after meeting:

- 1.

Annex 1: Projects identified in workshop 15th July

Annex 2: Aspirational projects which have been moth balled.