Environment Agency Medium Term Plan projects

Project Name (30 Character Limit)	**Project Description** (What, action type, project scope, outputs/outcomes)
Bradford Becks Restoration Project	This is a multi year Urban river restoration project consisting of two components. 1. Design and delivery of the feasibility/ design projects on Bradford Beck, a heavily modified water body in the Bradford Canal Road corridor. Initially feasibilty was completed in 2015/16 to complete river restoration of 1km of the beck, deculverting 76m culvert. Phase 1 river restoration is delivered in 2018/19 - 2020/21 on the lower section of the beck. In partnership with Friends of Bradford's Beck, Wild Trout Trust and Bradford Council this delivers WFD benefits addressing failures for Mitigation Measures (including 5 barriers to fish passage and riparial habitat improvement and creation). Phase 2, the deculverting of a significant section of the Beck needs to align with the £47M Bradford Council Highways Canal Road Scheme. This is anticipated for 2020/21, 2021/22 work and Bradford Council are submitting an ESIF bid to help fund the project. This is a highly visible urban river restoration project that will engage with the Bradford community as well as addressing the mitigation measures and fish failures under WFD. 2. A package of improvements on the upper tributaries – Middlebrook, Pitty and Chellow Dene – designed to restore natural habitats and increase wetlands.

The Great North Bog: Yorkshire Peat Restoration Fund	Blanket Bog and peatland habitats provide water for our headwater streams and form the source of most of our waterbodies. They are globally restricted habitats with 10-15% of the Worlds bogs found in England. These habitats are vital for water supply, water quality, as well as storing carbon and supporting many rare species. Pressures from land management, recreation and pollution have meant blanket bogs have historically become severely degraded, and many of Yorkshire peatlands are made of bare and eroding peat, with numerous drains (grips). It is well recognised that degraded peat releases significant amount of organic matter, sediment and nutrients into its draing waterbodies. In Yorkshire, we have 70,000 hectares of degraded peat and these habitats are contributing to the failure of some of our water bodies by increasing sediment and phosphate levels. We have been working with IEP, EM and A&R to update investigations for impacted waterbodies and prioritise peatland habitats for restoration across yorkshire. This restoration work will suport a number of exisiting and onging projects, as well as new areas for restoration and will be delivered through two elements: 1) The Yorkshire Peat Partnership (a subsidiary of the Yorkshire Wildlife Trust) has been established to work with landowners and managers to coordinate the restoration of upland peatlands across Yorkshire nad they are leading on the delivery of the Defra Peat Restoration Fund. Through our funding we will continue to support the delivery of around 450 ha of peatland restoration and the subsequent within class improvement/ prevention of deterioration to two waterbodies and 1 lake, Semer water, one of Yorkshire only lakes. The project has already delivered survey and mapping works to design restoration, drawn up restoration plans that are signed of and agreed with landowners, completed competative tenders, and provided land management advice and guidance (2017/18 and 18/19) .Capital works has begun at three sites and we will support the final year of delivery in this project (20/21). These revenue activities will be matched by over £2 million of capital funding from the Defra Peatland restoration fund (successful £4.3 million project 'Northern England Peat Partnership Project'), Yorkshire Water, Countryside Stewardship and Heritage Lottery Fund. There is also significant in kind match funding. 2.) We will complete futher capital works at key sites in Yorkshire that have been prioritised for WFD and NFM benefits. These will include continuing works at Fleets Moss (50 ha) to support within class improvement/ prevention of deterioration to two waterbodies and 1 lake, Semer water, one of Yorkshire only lakes, works at in SUNO catchment in priority NFM areas that will be match funded by FCRM. We will also complete feasibility assessments to identify and design future work, this will form part of a future FCRM and WEIF capital project.

Developing the Natural Aire	Reconnecting the River Aire and and engagment with local communities by returning charismatic and iconic salmon to the River Aire for the first time in ~150 years. This will capture the imagination of people and communities through the valley. The result will be a reconnected river, engaged people and better stewardship. Initially this Environment Agency led project will produce feasibility studies for fish passage across 4 weirs to allow fish (migratory salmonids) passage up the River Aire to Gargrave and their spawning grounds. Implementation of the designs would follow the feasability phase in future years. Ten 'community hubs' along the Aire Valley will be developed at key points for local people. This £1.4 million project was successful in gaining Lottery Heritage Funding of £820,000 in 2017 and the project has started delivery phase in 2019. The weirs include: Armley, Kirkstall Abbey, Newlay Bridge (Newlay Upper), Saltaire .
DNAire Phase 2	In partnership with Aire Rivers Trust (ART), this project will ensure fish passage on weirs in the Aire catchment to allow migration for ALL fish and eels. DNAire phase 1 is addressing all weirs that are impassable to Salmonids and coarse fish species, this project will follow up with the delivery of fish passes/easments or repairs on those weirs that are passable to salmonids but not to other migratory species as identified by the Yorkshire Fish Pass priority list. This project will start after DNAire Phase 1 is complete, in 2024/ 25. Following the Yorkshire Fish Passage prioritisation list, the proposal is to make improvements to Thwaite Mills and easements at Skelton Grange, Gargrave (Systagenix), Leeds Station Dark Arches, Shipley and Bingley.
Improving Yorkshires Industrial Estates	A Yorkshire wide project to tackle problematic industrial estates which are known to contribute to ongoing pollution problems in failing WFD watercourses. The project involves working in partnership with Groundwork to use techniques for underground water bodies, identify sources of pollution and provide advice / guidance to resolve problems with the Land and Water team. This is a critical project for investigations that our Land and Water team do not have the equipment or resource to fully resolve. New industrial estates can be added as these are identified through WFD investigations (a key ongoing issue for investigation is the culverted and polluted Holbeck in Leeds).

Live Streaming Leeds	A multi year, multi water body partnership project led by Yorkshire Wildlife Trust and with Leeds City Council to deliver a programme of works in urban water bodies in Leeds city centre and suburbs. The project addresses WFD Mitigation Measure and Fish failures, priority BAP Species actions and BAP Habitat creation. Work has been ongoing on Wyke Beck with river restoration to improve more natural banking and prevent sediment ingress, in additon to working alongside Flood Risk Management teams to enhance their FAS. Work started on Wortley/ Pudsey becks in 2019. Both becks are potential native crayfish ark sites. Future years intend to address a significant culvert by removal at the bottom of Wyke Beck (unless addressed by LCC), in addition to restoration works to address mitigation measure failures on Meanwood Beck and the other priority urban water bodies in Leeds.
Moors for the Future Partnership Programme	Working in the Peak District uplands, this project is a major partnership to restore degraded moorland habitat delivering multiple benefits: WFD by tackling Protected Area reasons for failure, ENSIS biodiversity targets, natural flood risk management and climate change mitigation through restoring heavily eroded moorland, blocking gulleys, re-vegetating sphagnum moss and woodland regeneration. The Moors for the Future Partnership has been involved in a number of ground-breaking projects at the leading edge of conservation since 2003. Contribution to their core costs (partnership match of >£250K) will enable MFFP to continue to deliver moorland restoration and the associated benefits, but will also lead to the development of new Natural Flood Risk Management projects in the 5 Areas surrounding the South Pennines SAC. This is a major partnership to restore degraded upland habitats delivering multiple benefits, over 9 waterbodies in EMD, 16 in GMMC and 24 in Yorkshire Area. Action type: Peatland Restoration. Project Scope: The projects are addressing Protected Area reasons for failure: the South Pennine Moors SAC is failing for hydrological reasons, ENSIS biodiversity targets, natural flood risk management and climate change mitigation. The peatland restoration programme will contribute to re-wetting the active blanket bog, re-vegetate the bare peat, and restore the active blanket bog. Funding sources: There is significant funding (> £1.2m over the 3 EA Areas) for these works from a range of sources (e.g. UU, RDPE, EU LIFE+, PDNPA, NT, RSPB, Pennine Prospects, ML2020). Although this funding forms a relatively small proportion of overall investment, it is critical for ensuring delivery in year, and development of future capital projects. If funding is not available this would significantly affect the future programme of peatland restoration and the multiple flood risk, water quality and biodiversity benefits that it achieves.

Refreshing the Aire; Better Becks	Refreshing the Aire is a phased landscape scale project for the Middle and Upper Aire addressing WFD failures for Fish, Invertebrates, Phosphate and Mitigation Measures (all common elements of the water bodies included in the project) through river restoration, and land management practices to reduce diffuse agricultural pollution. Element 1. The Better Becks partnership project (Yorkshire Wildlife Trust, Aire Rivers Trust, Wild Trout Trust) was fully developed for another funding stream, and is ready 'on the shelf project'. This will focus on 5 tributaries across the Middle Aire adressing mitigation measure failures; the ambitions are to tackle fish passage on impassable barriers, water quality issues from diffuse pollution, making space for water and working with natural processes, habitat improvements and addressing invasive species in priority waterbodies in this operational catchment (may be fully externally funded via ART and YWT bids). The principles are those of an extension of the Upper Aire Project. Element 2. In collaboration with Leeds FAS2 NFM Project and partners (2021/22 - 23/24), this project would create of a string of pools and marshes along the Aire Valley Ings from Skipton to Keighley. This river restoration and chain of habitats will form stepping stones for important wetland bird species moving from one catchment to the next across the pennines. Working with the Yorkshire Wildlife Trust and landowners we will take forward suggestions for floodplain habitat improvements identified as part of the Upper Aire Flood Risk Management Strategy and addressing WFD Mitigation Measure failures. The habitat creation will complement wetland initiatives in the Ribble Valley and the Lower Aire Valley, thus connecting wildlife at a landscape scale across the country. Funding will be sought by YWT from various sources including HLF and Countryside Stewardship. Potential to work with Local Authorities, RSPB and NE. Year one would be delivering a feasibility study including identifying land owner engagement unless completed by Leeds FAS NFM.

Upper Aire Habitat and Land Management Project	The Upper Aire Project works in a predominantly rural catchment, from the Yorkshire Dales National Park to the outskirts of urban Bradford District. Building on a very successful current partnership with Yorkshire Wildlife Trust and Yorkshire Farming and Wildlife Partnership to deliver both WFD improvements (improving fish and mitigation measures failures) and BAP habitat creation. Fish populations are less than Good in 16 WFD waterbodies, due to diffuse sources of sediments and phosphates, and river habitat modification. The Upper Aire has been identified as a priority project for addressing these WFD failures by working with local farmers. This sub-catchment has also been identified as a priority for wetland habitat creation by the Aire Catchment Network, and in the Wetland Vision for Yorkshire. In addition, the Upper Aire FRM Strategy completed a study identifying a number of floodplain sites and washlands where wetland habitat could be created. The project aims to: - Reduce sediment input to the river by changing land management, slowing bank-side erosion and controlling non-native invasive species (WFD fish and phytobenthos failures). Changes in land management, and creation of wetland and woodland habitat will also contribute to reducing run-off and 'slowing the flow'. - Improve river habitats for fish by bank-side rehabilitation, increasing in-channel morphological diversity and improving fish passage. (WFD fish failures & FCRM Mitigation Measures) - Create new floodplain wetland and wet woodland BAP habitat. (OM4a). The project is working in parallel with Leeds FAS 2 NFM Project, and the LGF3 Project led by YWT, working with natural processes to slow the flow.
Yorkshire Septic Tanks	Septic tanks can pollute surface water in rivers, as well as impacting groundwater supplies, and have been identified as significant contributors to WFD failures across Yorkshire. Such pollution can cause damage to the environment, such as increases in phosphate, increased organic pollution and decline in dissolved oxygen, with potential consequences to invertebrate and fish communities. New regulations that have recently come into place mean a project to address water quality issues arising from septic tanks is essential and timely. This project will be Yorkshire wide the initial focus area in 2016/17 was Wensleydale, the Esk in 2017/18. For the final years of project will utilise the materials developed to roll out across targetted areas of Yorkshire. There is a need for a project on two levels – firstly to raise awareness of septic tank maintenance and pollution potential across Yorkshire . New regulations place come into place more of an onus on householders in the maintenance of their tanks and many are unaware of the issues relating to this. Secondly, the project would do targeted work in septic tank pollution hotspots. The target areas will be the Upper Ure catchments, as identified by EM and catchment coordinators. A successful campaign has already been established in Cumbria and Lancashire and this project will use some of the same resources and learn from the lessons.

Lower Aire and Calder Washlands	We have an aspiration, shared by Natural England, to enhance and expand the wetlands in the Mid Aire and Lower Calder alongside great river restoration. Calder Rivers Trust are working with us and Wakefield Council to identify opportunities for enhancing the Lower Calder wetland areas alongside river restoration. In 2020 partners will deliver a pilot project with Wakefield Council and potentially other partners (eg YW at Stanley works). The project has the potential to link with EA FCRM 'MALC' Mid Aire and Lower Calder work around reconnecting flood plains and removal of FCRM 'reservoirs'. This project addresses MM failures by reconnecting floodplains and enhancing ecology. There is potential for a significant multi partner project across this area.