

Evaluating the impact of integrated local delivery on enhancing public good and ecosystem services resilience in a UK river catchment (PEGASUS H2020 case study).

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Abstract

This paper reviews the outcomes from a three year project (Water and Integrated Local Delivery (WILD)) that sought to 'bring about environmental improvements to the rivers and other watercourses of the Cotswold Water Park through partnership working'. The key driver for this was compliance with the Water Framework Directive (WFD) using public funding and other sources, both farmers and local communities were encouraged to get directly involved in understanding local water courses, their management and practical changes to provide agreed benefits. The result was a wide range of enhancements and delivery plans to improve the water environment that covered water quality, flooding, biodiversity, resource protection and local planning issues.

It included the development of an integrated reporting and communication template; and the development of trust and collaboration in the shared management of a natural resource. It recognized at its heart that rural spaces are subject to multiple strategic objectives that are interlinked and therefore offer multiple benefits and/or services. The approach allowed for the sharing of knowledges, negotiating different values, agreeing priorities and implementing management actions. As a case study within the PEGASUS EU H2020 project, some analysis was undertaken to determine how this partnership approach has adjusted the social-ecological systems, and whether these management and governance changes will increase the provision of the environmental and social benefits.

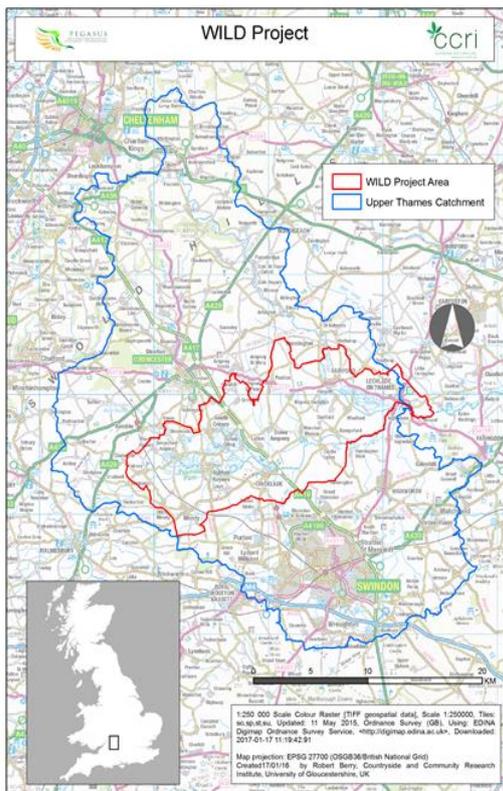
This paper will analyse the process of developing an integrated delivery strategy involving a range of stakeholders who have not collaborated before. This includes the approach to evaluation and which methods are appropriate to assess what 'success' might look like, and to what ends the various stakeholders were 'satisfied' with the outcomes and will maintain the process over the long-term. Conventional approaches such as cost benefit analysis fail to pick up changes in behaviour and values that underpin multi-objective projects, so social return on investment was used to determine the impact of the project. The paper will also assess the potential for transferability and the wider impact on institutional networks and settings. Finally it will consider the issue of policy development and implementation to stimulate local-level resilience and governance.

1 Introduction

The Water with Integrated Local Delivery (WILD) project is a facilitation-based initiative that seeks to develop a broad-based partnership to meet a range of policy priorities, centred on the Water Framework Directive (WFD), to improve the water and land-based environments.

The project areas covers of 26,000ha in the central part of the Upper Thames catchment that forms the headwaters of the Thames river basin in central and southern England. The catchment includes stretches of the River Thames extending from its source south-east of Cirencester at Kemble, to Lechlade where watercourses from the plateau of the Cotswolds join the clay lowlands around Swindon.

Figure 1 Location of WILD project area



The geology of the Upper Thames catchment is dominated by limestone that provides significant groundwater resources and the aquifers within the catchment have been classified into the Water Framework Directive (WFD) groundwater bodies. The area contains a wide variety of habitats and landscapes and provides high quality game and coarse fishing in both rivers and still waters. Some watercourses are stocked by their owners and angling associations, to supplement wild stock levels. Most of the area is rural and dominated by farming (72%), with woodland under 10%. Arable land use makes up 43% of the catchment, 29% is grassland and a further 15% is urban including Swindon, Cirencester and smaller market towns. The whole Upper Thames catchment has been designated a Nitrate Vulnerable Zone (NVZ) since 2002. Agriculture is the main land use in the catchment and this does impact on the water environment. Similarly there is an impact from both industry and new and existing housing developments as well as associated infrastructure such as roads and sewage.

According to the Thames River Basin Plan (Defra 2016) the Significant Water Management Issues in the Upper Thames catchment concern both point source and diffuse pollution from agriculture and urban developments. Other issues causing concern are the physical modifications to the river channel, invasive non-native species and erratic water flow.

Table 1 shows the key characteristics of the WILD project.

Table 1 Key features of the WILD project

Region or locality	Upper Thames catchment, focused around Cotswold Water park
Main Farming/ forestry system	Agriculture, mostly commercial arable with some grazing land. Small amounts of private woodland.
Area (ha) of initiative (& Case Study)	WILD project area is 26,000 ha
Key ESBOs covered	Water quality, flood protection, rural vitality, soil protection. Reference to species and habitats and landscape character.
Total no. of farmers/ foresters involved	About 150 farmers, of which almost all have some connection with the initiative.
Other key stakeholders involved	Three local NGOs acting as main delivery partners; 18 out of 19 local communities fully involved; support from key public agencies; involvement of local university; wider range of partners through Upper Thames Catchment Partnership and Thames Water.
Source(s) of funding	Re-directing of public investment through Environment Agency, considerable local input through 'in-kind' contributions
Start date of initiative	WILD started in April 2013 but there had be related activity in this area since 2010.
End date of initiative	March 2016, Phase 2 of WILD covering a wider area started in October 2016 for further three years.
Further information	Visit http://www.fwagsw.org.uk/projects/wild-project/ or http://www.ccri.ac.uk/wild/

Funding was secured to tackle these issues and this established the base for the WILD project; Phase 1 which ran from April 2013 until March 2016 is evaluated in this report. Phase 2 runs from October 2016 until September 2019. The central aim of WILD was the improvement of the water environment through an integrated approach that meets the needs of WFD (good ecological status of all water courses) and also provides a range of other multiple benefits (economic and social as well as environmental). The project had three objectives:

1. To deliver Good Ecological Status through direct actions in water bodies in the WILD project area according to WFD priorities;
2. To create a framework to addresses other negative drivers on water quality and enable local delivery so protection of the water environment becomes self-sustaining.
3. To integrate and deliver the aims and objectives of strategic policy programmes relevant to the project area using the Integrated Local Delivery (ILD) approach.

As a result it is possible to see that there is a clear focus on one key Environmental and Social Beneficial Outcome¹ (ESBO) (water quality) and to link with other local strategies and priorities. Therefore the potential benefits of this case study are the use of a framework that focuses on the integrated delivery and a desire to maximise the synergies that arise from a multi-ESBO approach.

2 Integrated Local Delivery and related governance

The WILD project involved the formation of a core partnership between the Environment Agency (EA) (the main funder) and the three NGO delivery partners; the Farming and Wildlife Advisory Group South West (FWAGSW), Gloucestershire Rural Community Council (GRCC), Cotswolds Water Park Trust (CWPT) and Countryside and Community Research Institute (CCRI). The wider partnership involved National Farmers Union, Thames Water, Wildlife Trusts, local councillors, agricultural advisors and key farmers and landowners. Both FWAGSW and GRCC acted as independent facilitators in the development of the partnership and in bringing different priorities and stakeholders together. The CCRI acted as a 'critical friend' and develop an on-going and iterative approach to evaluation.

The key priorities within the WILD project concerned the water environment, biodiversity and landscape and local communities. The water environment covered issues such as water quality, water flow, invasive species, flood protection and amenity and was dominated by the implementation of the WFD, issues of drinking water quality and localised flooding (Objective 1). Terrestrial biodiversity had a direct impact on the water environment and there was increasing awareness through integrated catchment management evidence that the two are closely connected, as well as landscape character where key features like hedgerows provide multiple benefits (Objective 2). The local communities within the WILD project area were susceptible to flooding but were also aware that of the benefits of improved water quality (here Objective 3 provided the mechanism by which they could be involved). Included in this priority are also the demands for more housing and the pressure this causes on the existing infrastructure.

The ILD approach was designed to enable policy makers, with different areas of duty, to be part of a complimentary and integrated delivery at a local level (See Short 2015; Short et al 2010). Identifying and integrating locally relevant strategies was achieved by an initial asset scoping exercise that identified the assets, coordinates the related strategies, plans and initiatives and engaged with the relevant contact for each asset and strategy within the WILD area. This requires a specialist facilitator, provided by FWAGSW and GRCC for the WILD project.

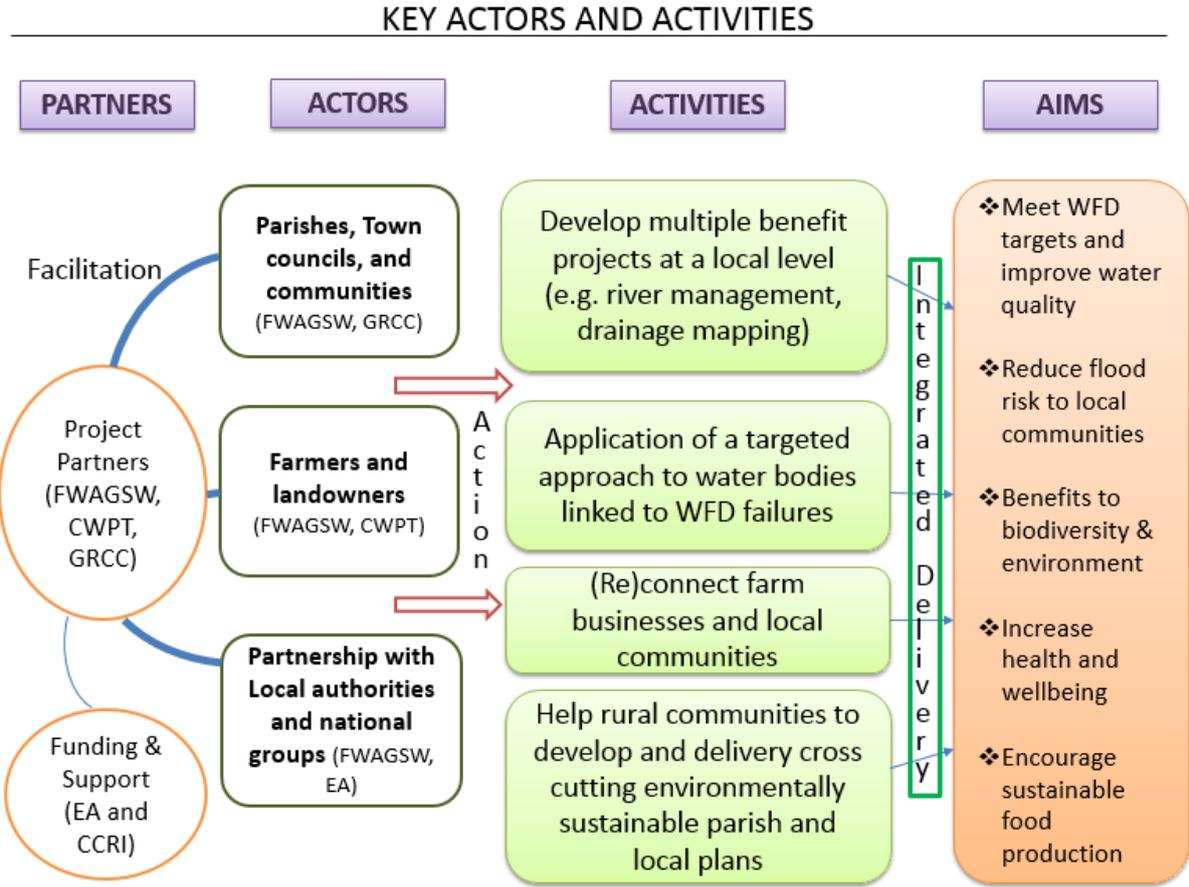
Different policy strategies have different spatial and temporal priorities so the WILD project aimed to bring these together by linking them to administrative layers to develop actions that focus on multiple benefits. A secondary consequence is that this binds people to an area where they have a cultural connection, which helps with delivery at the start and over the long-term. Local stakeholders develop expertise and are seen as deliverers of policy and sources of knowledge.

Implementation therefore involved different partnerships for different actions composed of locally relevant teams from agency, Local Authority, NGOs and local farmers and communities to deliver projects that offer multiple benefits and offering coordinated support to local communities. Combining the datasets and partner strategies into a GIS system also helps understand the prioritisation of delivery at different spatial and temporal scales.

¹ ESBO is the term used to captures the scope of the desired social and environmental outcomes for agriculture and forestry which the project seeks to enhance. These are often called public goods or ecosystem services.

The diagram below sets out the main governance arrangements, these are described in more detail later in the report.

Figure 2 WILD project: governance arrangements



Delivery is not spatially confined but embedded across the project area and beyond so that each community can discover what is important in their local area and be inspired and enabled to take action to protect their local environment. The ILD approach enables the identification and delivery of projects with multiple benefits to landowners and managers, local communities and the whole Upper Thames partnership. It also facilitates the provision and analysis of data on the environment, including water flow data which can impact on plans for future growth and development.

3 The Social Ecological System

The WILD case study is mainly concerned with four key ESBOs: **water quality**, especially in terms of ecological status and diffuse/point source pollution issues from agriculture urban development and infrastructure. Local flooding issues are raised discussed at multiple levels meaning that **flood protection** is important and this is linked to issues of **rural vitality** as communities can feel negatively challenged after regular flooding events. Increasingly seen as the ‘slow feedback variable’ (Biggs et al 2012), **soil protection** and the need for increased soil functionality in order to meet the other three ESBOs.

The key 'action situations' are where farmers and advisors are attempting to implement sustainable practices in order to enhance certain combination of ESBOs. Work with farmers and communities has resulted in the delivery of River Management Plans and these have been received but the level of implantation is patchy. There is a basic Payment for Ecosystem Service (PES) by Thames Water to reduce chemical pollutants in water. All stakeholders show WILD as a shared problem solving network for integrated delivery struggling with the challenges of linking soil, agriculture, communities, biodiversity & water. These are widely recognised but not entirely overcome. The impact of climate change in terms of extreme events has been discussed but no specific actions have taken place.

The main governance system is the use of regulations set at the national level but a local framework has been established for WFD delivery. This is almost exclusively through local partnership rather than regulation and inspection. There is some join up of different statutory duties and this includes the CAP in terms of greening & cross-compliance and agri-environment schemes, new and existing farmer/local networks, private sector involvement in water but not gravel extraction.

Therefore it is clear that the ESBOs interlink and there is recognition amongst the delivery team and key partners that water quality, flood protection, soil protection and species and habitats are all interconnected. There is a strong link between flood protection and rural vitality, where a community comes together to take action to reduce flood risk and work towards a more resilient management of the water environment.

4 Innovative governance arrangements

WILD is replicating the shift from a sectoral based approach covering flooding, drinking water, abstraction and irrigation quality towards one that is taking 'an integrated approach that covers many disciplines' such as spatial planning, ecology, hydrology and water management (Rijke et al., 2012, p.369). Increased integration around the governance of water resources has coincided with a heightened awareness of the various goods and services that ecosystems provide to society (Fish 2011). Key elements include the provision of clean water and the regulation of water flow and these were identified in the Millennium Ecosystem Assessment (MEA 2005) and the UK by the National Ecosystem Assessment (NEA) (NEA 2012 and 2014). The UK NEA also highlighted the need for a systems approach, which has in turn influenced the development of the Catchment-Based Approach (CaBA) (Defra 2012). Both are frameworks that reveal the shift towards a territorial or place-based approach, which seeks to recognise the links between the ecosystems and society (MEA, 2005).

Blackstock et al (2014) sought to identify good practice in collaborative catchment management and concluded that relationships and procedural aspects were key. Within WILD the relationships across the partners is strong but because the delivery partners are NGOs rather than agencies the procedural processes are less well developed. However, there is a preference for using existing processes and procedures in order to reduce duplication and to embed a wider acceptance of integrated local delivery. Bissett et al (2009), go on to identify three overarching principles for good practice in catchment management:

- Integration – where common issues, objectives, types of information or stakeholders in a catchment are identified and involved so multiple goals can be achieved.
- Collaboration – where different stakeholders work together to agree actions and achieve goals.
- Adaptation – where the planning process can anticipate, accommodate and respond to change.

The table below shows the areas within WILD that link to these three areas.

Table 8 WILD project activities by key integrated catchment management principles

Principle	Activities and actions in WILD project
Integration	<ul style="list-style-type: none"> • Sharing partnership across government programmes. • Integrated reporting approach within project. • Tasks shared across all partners. • Public, private and ‘in-kind’ funding integrated on the same mini-projects.
Collaboration	<ul style="list-style-type: none"> • Mix of public and private partners working together. • Actions agreed through stakeholder engagement and subsequent review. • Strategic programmes linked by project delivery partners.
Adaptation	<ul style="list-style-type: none"> • Problem-solving approach to challenges involving partners and stakeholders. • Using existing structures where appropriate and making links between them. • Disseminating latest data and making it relevant to local priorities.

While the ILD approach and framework has been used since 2010 in a number of projects, the UTCP has been using it within a water catchment since 2011. The presence of a tried and tested framework is important in terms of transferability. ILD follows the same lines as co-management or adaptive governance. It is the delivery partners and the work practices related to the natural assets that change in ILD and it appears that the type of approach taken by the WILD project is well suited to catchment management and the type of ESBOs that are involved.

This recognises a different way of working when compared to conventional catchment management:

- Shared strategic vision, focused on outcomes integrating national and local drivers for improving the water environment.
- Sharing of information to understand the evidence in order to determine environmental priorities.
- Understanding the activities and partnerships concerned with sustainable management of the natural environment.
- Having regard for activities in adjacent catchments in the basin district.
- Ensuring comprehensive representation of issues by working collaboratively with appropriate stakeholders.

The WILD project fulfils all of these principles but goes further by combining the agricultural, biodiversity and local community aspects into a single project and process. The ILD approach has been seen as a positive measure to improving water quality, flood risk and community engagement. One respondent in particular summarised the value of the ILD approach well:

“I am generally of the view that it is the individuals involved in the delivery, as much as the delivery model itself, which is crucial to a partnership project’s success.” (WILD survey 2015)

“It’s a better approach as long as the right guidance and contacts are being given.” Indeed, “it has created a positive response from farmers, rather than a regulatory approach, which tends to make people keep quiet and worry that they may be in breach [of regulations].”(WILD survey 2015)

The CCRI was a partner in the development of the ILD approach (Short et al 2010) as this met the institute's mission of developing robust research and implementing it in practice. As described in the previous section the CCRI had a defined role within the WILD project as a 'constructive friend' who helped the delivery partners meet the objectives of the WILD project. In terms of governance the CCRI fulfilled an enabling role for the project and attempted to evaluate the impact of this innovative project. There were 2 key areas of activity, the first was to ensure that the delivery partners acted in an integrated way and this was helped through the development of an integrated reporting strategy (see Appendix 3) so activity was recorded on a place-basis rather than by issue. The second was to record the benefits of the ILD approach and project as a whole in meeting multiple objectives. The later proved particularly difficult as it was challenging to make a specific causal link that WILD was responsible for changes that occurred. However, the use of the SROI approach has helped indicate the direction of change and to highlight indicators which can be used in the follow-on project to record change.

5 Social return on investment

Given the extensive list of delivery partners and stakeholders (see Figure 2) one aspect of the in-depth CS analysis of ancillary economic and social benefits was to focus efforts on involving the main stakeholder groups in a Social Return On Investment (SROI) analysis through the following activities:-

- Delivery partners took part in a half day SROI workshop to identify and prioritise project outcomes and to consider the other drivers affecting these outcomes.
- The Farmer Guardians group completed a short survey on WILD outcomes during an evening social event. Other farmers were contacted via a short on-line survey.
- Local government, parish council and agency staff were briefed about the SROI exercise at flood action meeting in Cirencester. They were then asked to complete a short survey on line or hardcopy.
- In depth interviews were held with key informants from the EA and Natural England.

The people selected to take part in the research were central to the delivery and development of WILD and therefore knowledge about the issues involved. The SROI approach draws on resources developed by Social Value UK (2015), who note that SROI is "built on well-established evaluation approaches and on health and environmental economics... and focuses on answering five key questions":

1. Who/what changes? – with particular reference to the ESBOs
2. How do they change?
3. How do you know they have changed?
4. How much is down to the WILD project?
5. How important are the changes?

Through the SROI process this evaluation was able to assess further the physical benefits from the WILD project, the first aspect considered the specific environmental outcomes of the WILD project, which largely centred on the delivery of good ecological status as defined by WFD. Because WILD is a 3-year project, it is unsurprising that there has been only limited progress toward the overall goal of good ecological status in priority water bodies. In this situation, it is useful to assess progress towards achieving intermediate outcomes that should assist in achieving good ecological status and secondary

outcomes (other benefits of the project). These expected physical and environmental outcomes were codified into a set of ‘outcome statements’ during the course of a SROI exercise with the WILD Delivery Partners.

In total eight aspects were considered:

- Improved (wildlife) habitat (in & around rivers/streams).
- Improved habitat (overall).
- Less pollution from sewage overflow (foul infrastructure).
- Less pollution from residential cess pits.
- Less pollution from farmland (diffuse).
- Less pollution from farm structures e.g. slurry pits etc.
- Reduced flood risk/impact.
- Better soil ecology and structure.

The project’s success in achieving these outcomes was assessed, based on results from discussions and reported in surveys and interviews with a number of famers and landowners (12), as well as local government and agency staff and the delivery partners (10) (See Appendix 3 for full list). Reported environmental outcomes are summarised in Table 5 below. Responses are reported separately for the farmer/ landowner respondents (farm) and for local government/agency respondents (LG/A). Responses are reported as a percentage of all respondents who answered that question, by row.

Table 5 Reported Physical and Environmental Outcomes from WILD

	Don't Know		No significant effect		Some improvement		Major improvement	
	Farm	LG/A	Farm	LG/A	Farm	LG/A	Farm	LG/A
Improved (wildlife) habitat (in & around rivers/streams)	11%	13%	11%	0%	67%	88%	11%	0%
Improved habitat (overall)	11%	25%	11%	0%	67%	63%	11%	13%
Less pollution from sewage overflow (foul infrastructure)	57%	57%	29%	29%	14%	14%	0%	0%
Less pollution from residential cess pits	100%	57%	0%	14%	0%	29%	0%	0%
Less pollution from farmland (diffuse)	14%	57%	0%	0%	57%	43%	29%	0%
Less pollution from farm structures e.g. slurry pits etc.	29%	71%	0%	29%	57%	0%	14%	0%
Reduced flood risk/impact	29%	25%	0%	38%	71%	13%	0%	25%
Better soil ecology and structure	14%	57%	14%	14%	57%	29%	14%	0%

Note: “Farm” denotes responses by farmers and landowners, “LG/A” – responses by local government and agency staff.

The main findings from the SROI Table 5 are summarised as follows: -

- The majority of farmer/landowner respondents were positive about the impact of WILD on most physical and environmental outcomes. 67% of farmers and 88% of local government/agency staff reported that there had been “some improvement” in (wildlife) habitat in and around rivers/streams.
- Farmer respondents also reported “some improvement” for less diffuse pollution from farmland (57%), less pollution from farm structures e.g. slurry pits (57%), reduced flood risk/impact (71%) and better soil ecology and structure (57%).
- Many respondents “don’t know” whether some outcomes have occurred. For example, all farmer respondents stated that they did not know whether there was less pollution from residential cess pits and 57% did not know whether there was less pollution from sewage overflow. Many local government/agency representatives responded that they did not know whether there was less pollution from farm structures or other sources or better soil ecology and structure.
- The high proportion of respondents selecting “don’t know” is unsurprising and may lend more confidence to the other reported results since it suggests that respondents who did not know, selected this option rather than guessing.

The ILD framework used in the WILD project is expected to provide social and networking benefits to communities through improved connection with and understanding of the local environment and communities enabled, inspired and more proactive in taking action. WILD’s expected/intended social outcomes were codified into the following set of outcome statements during the course of a SROI exercise with the WILD Delivery Partners as follows:

1. Communities value local knowledge more highly than before.
2. Communities value expert knowledge more highly.
3. Communities have a better understanding of the local environment.
4. Communities are better connected with the local environment.
5. Communities have a wider range of useful connections with other organisations and agencies.
6. Community groups, agencies and organisations trust each other more than before.
7. Communities are enabled and inspired and more likely to take action.
8. Communities have taken more action to improve the local environment.

Reported social outcomes are summarised in Table 6. Responses are reported separately for the 12 farmer/ landowner respondents (farm) and for 10 local government/agency respondents (LG/A). Responses are reported as a percentage of all respondents who answered that question, by row.

The main findings arising from Table 6 are: -

- The majority of respondents reported some increase or a large increase for all social outcomes. All respondents reported that communities value local and expert knowledge more and that they were enabled and inspired and more likely to take action. Around 90% of respondents reported that communities have a better understanding of the local environment, are better connected with the local environment, have a wider range of useful connections and stakeholders trust each other more (excluding ‘don’t knows’);
- 75% of farmer/landowner respondents and 43% of local government/agency respondents, reported that there had been *some* increase in communities taking action to improve the environment. Most respondents would agree that there has not been a *large* increase in social action.

- There are some clear differences of opinions on whether some social outcomes have occurred – for example 56% of farmers suggest there has been a large increase in the extent to which communities value expert knowledge. Only 25% of local government/agency respondents shared this view and 38% did not know.
- Few respondents reported “no change” although it should be noted that some of the “no change” responses were from a key informant with a good knowledge of project outcomes; they observed that “there was no change in the number of connections with other organisations and that it was too early to say whether “community groups agencies and organisations trust each other more than before”.

Table 6 Reported Social Outcomes

	Don't Know		No Change		Some Increase		Large Increase	
	Farm	LG/A	Farm	LG/A	Farm	LG/A	Farm	LG/A
Communities value local knowledge more	11%	25%	0%	0%	56%	38%	33%	38%
Communities value expert knowledge more	11%	38%	0%	0%	33%	38%	56%	25%
Communities have a better understanding of the local environment	25%	29%	0%	14%	50%	14%	25%	43%
Communities are better connected with the local environment	13%	25%	0%	13%	63%	25%	25%	38%
Communities have a wider range of useful connections with other organisations and agencies	25%	14%	0%	14%	50%	29%	25%	43%
Community groups agencies and organisations trust each other more than before	11%	25%	0%	13%	44%	13%	44%	50%
Communities are enabled and inspired and more likely to take action	11%	25%	0%	0%	33%	50%	56%	25%
Communities have taken more action to improve the local environment	25%	29%	0%	14%	75%	43%	0%	14%

Note: “Farm” denotes responses by farmers and landowners, “LG/A” – responses by local government and agency staff. Green colour scale highlights cell values from 0% (no colour) through to 75% (dark green).

Based on the survey responses and detailed discussions with some key informants, it is suggested that WILD has been successful at building foundations that can enable an increase in community action. It

is probably too early to be able to judge the extent to which increased community action has occurred and the degree to which any increase is sustainable.

The SROI-type exercise is looking to assess the impact of the WILD project in the context of the counterfactual e.g. “what would have happened without WILD?” WILD has been associated with increased funding for delivery partners and a set of inputs and outputs as detailed above. However, some of these things may have happened without WILD under a “business as usual” scenario. It should also be noted that a variety of approaches to improved catchment based management have been implemented in recent years. We are not aware of any empirical study that would allow assessment of the SROI WILD as compared to some of the other approaches and initiatives in other parts of the country. Respondents were asked for their personal assessment of the extent to which different groups of outcomes were attributable to WILD. It is unsurprising that respondents found this a hard question to answer and that the results are somewhat varied.

Table 10: To what extent are outcomes attributable to WILD?

	To some extent (some but not all outcomes would have happened anyway)	These outcomes would not have happened without WILD
Community and parish outcomes	45%	55%
River works, biodiversity and habitat improvements	56%	44%
Farmer engagement	70%	30%

	Farm	LG/A	Farm	LG/A
Community and parish outcomes	75%	29%	25%	71%
River works, biodiversity and habitat improvements	33%	67%	67%	33%
Farmer engagement	50%	83%	50%	17%

Note: One respondent who selected “don’t know” excluded

Overall, respondents were more or less evenly split as to whether community and parish outcomes and river works and habitat improvements were entirely attributable to WILD or “to some extent” attributable to WILD. No respondents selected “these outcomes would have happened anyway”. Respondents were less inclined to attribute all farmer engagement outcomes to WILD with 70% selecting “some but not all outcomes would have happened anyway”. However the more detailed breakdown shows an interesting variation with those directly involved more likely to say that it would not have happened without WILD. For example 71% of the local government and agency officers (LG/A) thought that the outcomes were down to WILD compared to 15% of farmers compared to 67% of farmers thinking the river works were down to WILD compared to 33% of LG/A. This suggests that those closest to the decision are more able to see the benefit of the project.

Some context for these results is provided by the in-depth interview of a key informant. This individual suggested that the majority of community and parish outcomes would *not* have happened without WILD. They based this conclusion on the fact that the WILD community and parish activities are largely unique to WILD. By contrast, a variety of approaches to river works, habitat improvements and farmer engagement are being implemented through nationwide policies; so some but not all of these activities may have happened anyway. However what the WILD provide was able to provide was a coordinated approach to the delivery of these national programmes using facilitation and knowledge exchange.

It should also be noted that the sampling and survey method adopted for this SROI exercise, may have led to some upward bias in the reported outcomes of WILD. The surveys were targeted at people who were known to be active participants in WILD. Amongst these, people with a very positive attitude to WILD may have been more likely to complete the survey. It has not been possible to assess all outputs that have been included in WILD project documents WILD. For example, 461 farmers are reported to be engaged in sustainable pesticide management under a Thames Water initiative. The extent to which this is attributable to WILD has not been assessed.

Overall preliminary findings in terms of impact:

- WILD has been successful at building foundations that can enable an increase in community action. It is probably too early to be able to judge the extent to which increased community action has occurred and the degree to which any increase is sustainable.
- WILD has been at least partly responsible for a range of positive environmental outcomes. In particular, there was widespread agreement amongst respondents that there has been some improvement in wildlife habitat in & around rivers/streams and overall. Also that there has been some reduction in diffuse pollution from farmland and that there has been some improvement in soil ecology and structure on farmland in the project area.
- These outputs and intermediate outcomes should eventually contribute towards achievement of the overall project aim of achieving Good Ecological Status in priority water bodies in the project area and in the enhanced provision of a range of ESBOs.

6 Transferability of the WILD project

The transferability of the WILD project lies in the ILD framework which can be used on any area-orientated project. The approach is very similar to that used in other landscape-scale programmes and closely mirrors other approaches such as ‘community-based conservation’ (Berkes 2003), ‘co-management’ (Carlsson and Berkes 2005) and ‘adaptive management’ (Jacobson et al 2009). These start from the premise that conservation and community development can be simultaneously achieved. However, this requires shift in ecological thinking that recognises the social as part of the ecosystem and the need for participatory approaches to identify and integrate ‘traditional’ human activities into conservation management. The type of approach implemented by WILD reflects the principles and process of co-management, as outlined by Carlsson and Berkes (2005), who outline this as ‘the result of extensive deliberation and negotiation’ - meaning it is very much a process rather than a pre-determined destination. The presence of the local university is an additional element that is easily replicated in other contexts and places provided the right approach is taken, that of a constructive and enabling ‘friend’ who assists with rather than leads the engagement and knowledge exchange.

The WILD project has taken a co-management approach and used a policy instrument like WFD to shift and embed changes in behaviour at the local level. In that sense the ILD framework is directly transferable, although well suited to projects based on natural systems such as catchments or easily defined landscapes it could work in a non-geographical context. The role of facilitation is central to the approach, with less time devoted to specific policy tasks and more on developing cross cutting solutions to a range of locally-identified issues.

7 References

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