



West Dorset Rivers & Coastal Streams: catchment issues appraisal

22/06/2015





This project was delivered by a partnership of the Dorset Area of Outstanding Natural Beauty, Dorset Coast Forum, Dorset Wildlife Trust and Farming and Wildlife Advisory Group SouthWest on behalf of the Dorset Governance Group.

Report version: 2

Date: 04/12/2015

CONTENTS

CONTENTS.....	2
INTRODUCTION.....	3
RESULTS.....	8
OTHER POINTS.....	10
SUMMARY	11
A WAY FORWARD	14

INTRODUCTION

Project background

The county of Dorset has been split into three 'operational catchments' for the purposes of delivering the Water Framework Directive (WFD)¹:

1. Poole Harbour, which encompasses all freshwater entering Poole Harbour, including the River Frome and River Piddle;
2. Stour, which encompasses all freshwater entering Christchurch Harbour via the River Stour and watercourses entering the sea in Poole and Bournemouth ;
3. West Dorset Rivers & Coastal Streams, which encompasses a series of small watercourses that flow into the sea between Charmouth in the west to Swanage in the east.

The Poole Harbour operational catchment has a Catchment Partnership, hosted by Wessex Water, which identifies priorities for action to improve water quality. This is called the Poole Harbour Catchment Initiative² (PHCI). The same approach has been adopted for the Stour with the River Stour Catchment Initiative³ (SCI), hosted jointly by Wessex Water and Dorset Wildlife Trust. This approach has not been adopted for the West Dorset Rivers & Coastal Streams due to the disparate nature of the watercourses that make up the catchment: the mouth of the Char is 53 miles drive from the mouth of the Swan Brook and covers a variety of landscapes, making the development of a coherent partnership focussed on freshwater almost impossible. This means that there is currently no catalyst for action within the West Dorset Rivers & Coastal Streams Catchment.

In an effort to fill the gap created by the lack of a Catchment Partnership, a small project was commissioned by the Dorset Governance Group⁴ to research the main water quality issues faced by local people and organisations. The project was also asked to scope a model for delivery of the catchment based approach in the area. This project was delivered by a partnership of the Dorset Area of Outstanding Natural Beauty⁵ (AONB), Dorset Coast Forum⁶ (DCF), Dorset Wildlife Trust⁷ (DWT) and Farming and Wildlife Advisory Group SouthWest⁸ (FWAG). This report summarises the findings of this piece of work.

Project area

The focus of this report is on the freshwater systems within the West Dorset Rivers & Coastal Streams operational catchment (Figure 1 & Appendix 1). It does not cover inshore waters, except for the Fleet and the harbours that fall within the area. It does not cover groundwater. Issues affecting the River Lim have also been included, even though this falls within the neighbouring Lim and Axe operational catchment, as a number of issues were raised by participants.

The number of watercourses covered by this report differs slightly from that used by the Environment Agency for its WFD planning. The approach adopted was to include all watercourses; no matter how small they are, when interviewing individuals and organisations. The Environment Agency have not taken this approach and in this cycle of the WFD (2015-2021) have included a number of the smaller streams that occur in the area, including St Gabriel's Stream, Winniford, Jordan and others, into the coastal waterbody where they are less visible. For the purposes of this report, the West Dorset Rivers & Coastal Streams

¹ The WFD is a European Directive which introduces a planning process to manage, protect and improve the water environment. It applies to all rivers (including drains and ditches), lakes, estuaries, coastal waters and groundwater.

² <http://www.wessexwater.co.uk/environment/threecol.aspx?id=7525&linkidentifier=id&itemid=7525>

³ <http://www.wessexwater.co.uk/environment/threecol.aspx?id=11240&linkidentifier=id&itemid=11240>

⁴ A Dorset wide overview group for Catchment Partnerships made up of Wessex Water, Environment Agency, Natural England and Dorset Wildlife Trust.

⁵ <http://www.dorsetaonb.org.uk/>

⁶ <https://www.dorsetforyou.com/dorset-coast-forum>

⁷ <http://www.dorsetwildlifetrust.org.uk/>

⁸ <http://www.fwagsw.org.uk/>

catchment relates to that illustrated in Figure 1 and includes the list of rivers, streams, lakes and harbours listed below. This is much closer aligned to the first cycle of the WFD (2009-2015), which has more local relevance.

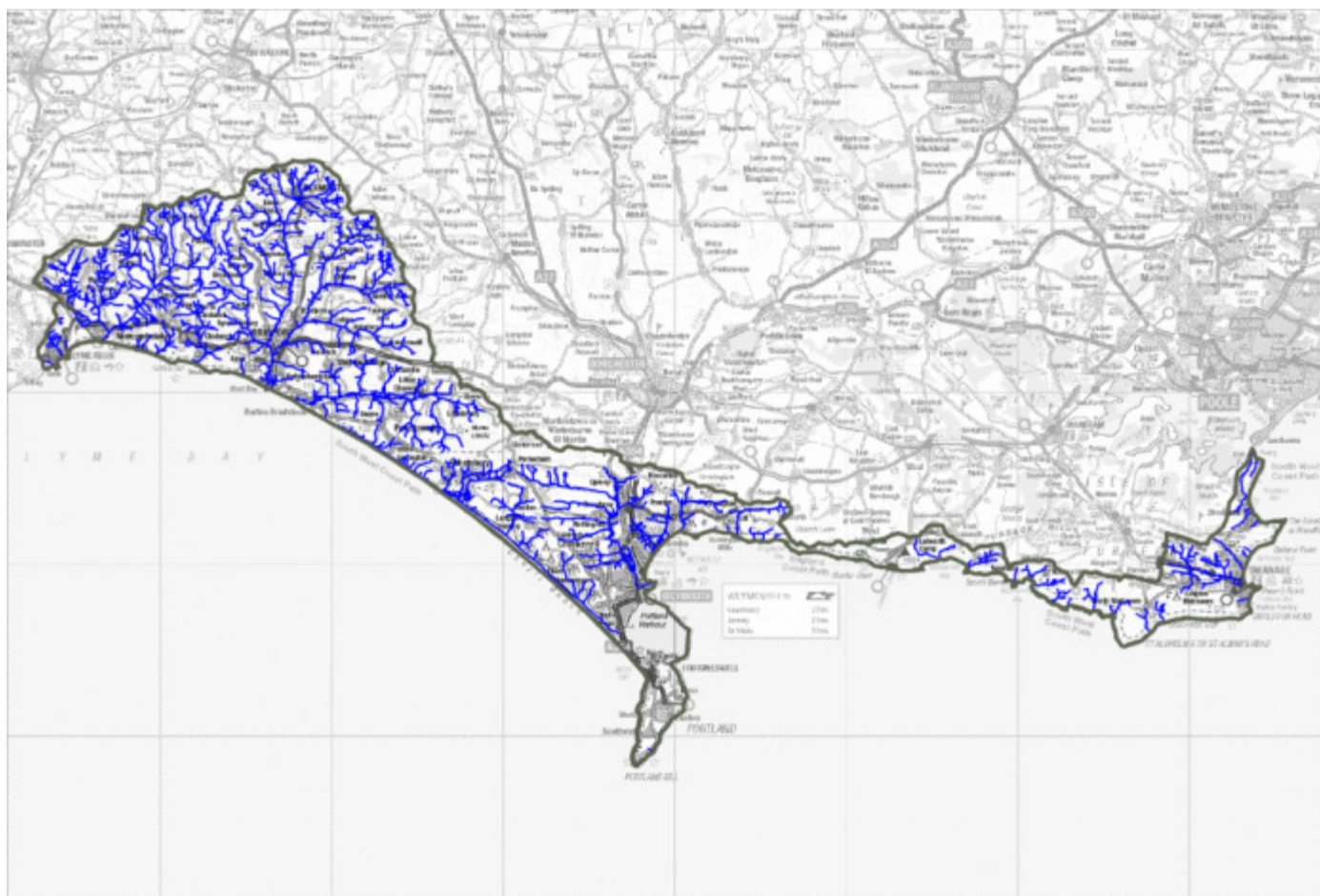




Figure 1: Map of the West Dorset Rivers & Coastal Streams Catchment boundary

Key

© Crown Copyright 2015. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Dorset County Council LA 100019790 2015 This map is not definitive and has no legal status.

- | | |
|---|---|
|  | River |
|  | West Dorset Rivers & Coastal Streams Boundary |

The rivers, streams, lakes estuaries and harbours covered by this report are (from west to east):

Rivers:

- | | |
|---|---|
| <ul style="list-style-type: none"> • Lim • Wootton Fitzpaine • Char • St Gabriel's Stream • Winniford • Eype Stream • Simene • Brit • Mangerton Brook • Asker | <ul style="list-style-type: none"> • Bride • Cowards Lake • Upper Portesham Stream • Horsepool • Rodden Stream • West Fleet Stream • Wey • Lodmoor Stream • Jordan • Osmington Stream • Tyneham Stream |
|---|---|

- Kimmeridge Stream
- Encombe Stream
- Chapmans Pool Stream
- Winspit Bottom Stream
- Seacombe Bottom Stream
- Swan Brook

Lakes

- Little Sea

Estuaries & Harbours

- Fleet Lagoon
- Wey Harbour
- Portland Harbour

Project outline

The aim of this report is to summarise the findings of a series of interviews with individuals and organisations that have an interest in the freshwater environment of the West Dorset Rivers & Coastal Streams Catchment and establish if the catchment based approach can be delivered within the area.

Interviews took place between November 2014 and March 2015. They aimed to establish what the main water quality issues were for local people and organisations, if they were doing anything to address them and what they thought about a catchment partnership for the area. A standard set of questions were developed to ensure consistency of approach but also allow flexibility for the variety of issues likely to be recorded. Due to time constraints, a set list of organisations to contact was drawn up, but the names of other organisations recommended by interviewees have been recorded for future approaches. A list of organisations interviewed for this report can be found in Appendix 2 along with other organisations that should be consulted in the future.

The findings of the interviews will strengthen our understanding of the issues affecting the area and inform the development of the catchment based approach. They will also feed into the WFD consultation that took place between October 2014 and April 2015 so that issues could be included in any future Environment Agency work planned for the West Dorset Rivers & Coastal Streams Catchment.

Catchment description

The West Dorset Rivers & Coastal Streams Catchment is characterised by small rivers that flow directly into the English Channel, as well as via the Fleet Lagoon. The total length of watercourse within the catchment is 812km. It is a largely rural catchment covering 450 km², with 89% given to agriculture and forestry. Nevertheless, there is a significant population within the catchment of 125,689 (2011 Census⁹), 52% living in Weymouth & Portland, and a further 28% residing in the other principle towns of Lyme Regis, Bridport, Beaminster, Chickerell, and Swanage.

The geology is very varied, leading to different characteristics across the catchment. In the west it is largely impermeable clay and in the east it is largely permeable limestone and chalk. See Figure 2 for a map of the geology. This varied geology influences the character of the rivers, for instance the River Char in the west has a very rapid response to rainfall. Elsewhere, some streams are fed by groundwater aquifers which tend to dampen the response unless heavy rainfall occurs following a period of prolonged wet weather.

The majority of the coastline is designated as a UNESCO world heritage site¹⁰ and the entirety of the catchment, except Weymouth and Portland, lies within the Dorset AONB. The easterly part of the catchment falls in the Wild Purbeck Nature Improvement Area¹¹. International, national and local wildlife designations exist as well as a number of other designations described in Appendix 3.

⁹ <https://www.dorsetforyou.com/378324>

¹⁰ <http://jurassiccoast.org/>

¹¹ <http://www.dorsetaonb.org.uk/our-work/wildpurbeck>

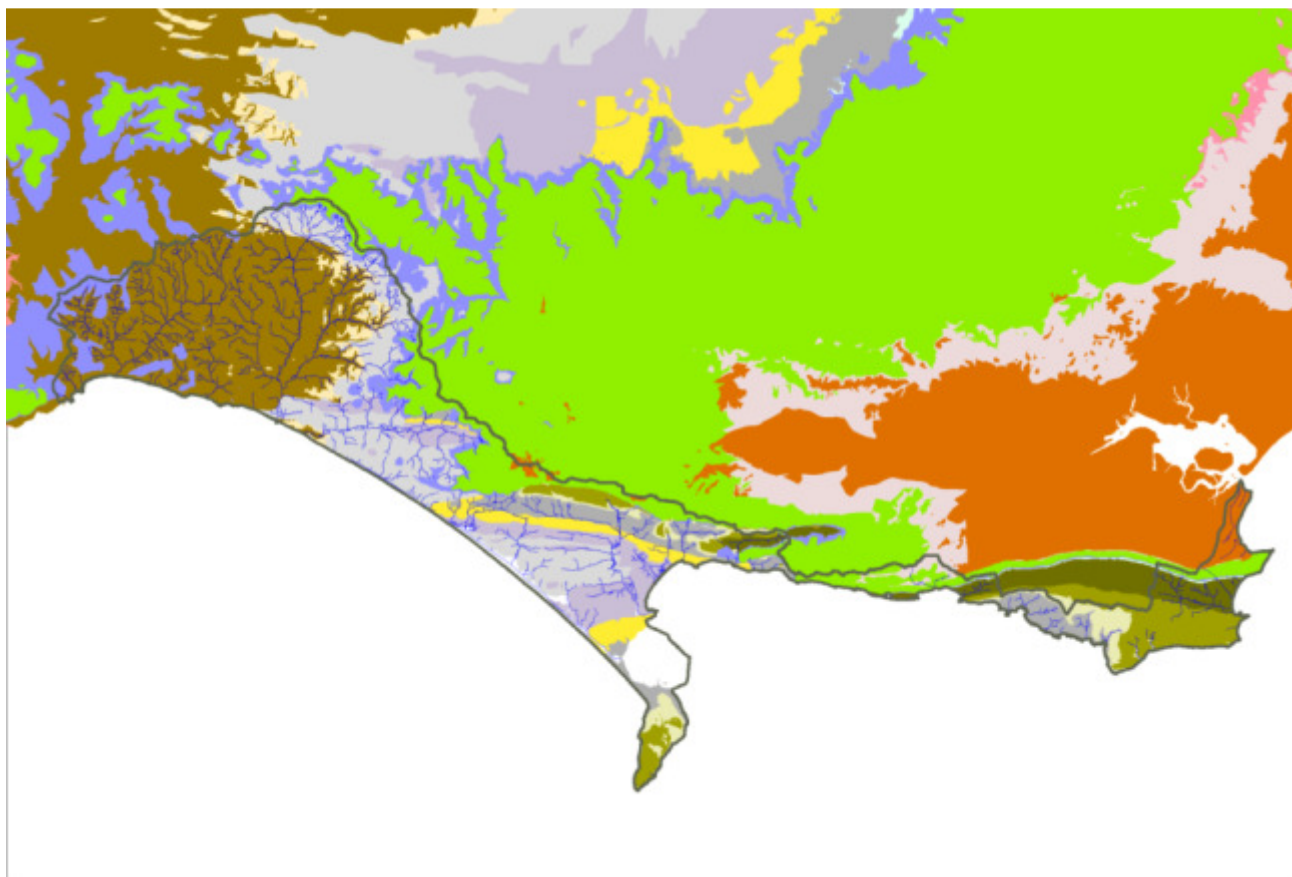







Figure 2: Map of the geology of the West Dorset Rivers & Coastal Streams Catchment boundary

Key

-  Impermeable & neutral, for example clay. Laid down 66 – 201 million years ago.
-  Permeable & calcareous, for example chalk & limestone. Laid down 66 – 201 million years ago.
-  Permeable & acidic, for example sands and gravels. Formed 23 – 66 million years ago
-  River
-  West Dorset Rivers & Coastal Streams Boundary

© Crown Copyright 2015. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Dorset County Council LA 100019790 2015 This map is not definitive and has no legal status.

Catchment pressures

Pressures on the water environment described by the Environment Agency in the WFD consultation are described below:

The main reasons for not achieving good status in the West Dorset Rivers & Coastal Streams catchment were:

- *diffuse pollution from rural areas,*
- *point source pollution from water industry sewage discharges,*
- *physical modification, and*

- *flow*

Investigations concluded that this was due to how land was managed for agriculture, land use, and geology which exacerbated erosion and input of sediment.

Flooding is of increasing concern in Dorset: managing the impact of high flows for local residents and the environment is becoming more challenging due to the effects of climate change such as more unpredictable weather patterns. In some areas of the catchment, low flows are also of concern and the effects of abstractions are being investigated¹².

Further refinements of these categories have been taken by the PHCI and are equally relevant to the West Dorset Rivers & Coastal Streams. This refinement has split the threats into seven categories:

1. **Nitrogen** - *point source or diffuse*, for example diffuse agricultural pollution
2. **Phosphates** - *point source or diffuse*, for example point source Sewage Treatment Works discharges
3. **Sediment** - *agricultural or highways*, for example highways runoff
4. **Channel morphology** - *flood defence, water level management or land drainage*
5. **Quantity** - *high flow or low flow*
6. **Invasive species**, for example Himalayan balsam or signal crayfish
7. **Other**, for any issues that do not fit with the above categories

It is these issues that form the foundations for the interview questions, a copy of which can be found in Appendix 4.

Some of the threats, particularly point source, are known and regulated. Where they are impacting the water environment, action will be taken by the Environment Agency to remedy them. The biggest point source threat in the catchment are discharges from Sewage Treatment Works and abstraction of water for drinking, agriculture and industry.

It is known there are in excess of 464 consented discharges in the catchment; many are small, less than 1m³/day and a significant number do not routinely operate. Larger Sewage Treatment Work discharges include: Chideock, Bridport, Weymouth, West Milton, Puncknowle, Charmouth, Chideock, Stoke Abbot, Abbotsbury and Swanage.

The most significant abstractions in this area are for public water supply. Large volumes are also abstracted for agriculture, aquaculture and industry, however the majority of these quantities are returned to the environment. There are 94 abstraction licences in the catchment, both from surface and ground water.

Maps showing some of these known threats can be found in Appendix 5, including:

- Consented discharges
- Licensed abstractions
- Invasive species

The purpose of this issues appraisal is to identify pressures that are important to local people and organisations that have not been flagged up by the Environment Agency and other agencies. The following section outlines those pressures raised during interviews and are presented on a sub-catchment basis. The summaries also include the WFD categorisations for that watercourse, if applicable, and any known actions planned or taking place.

¹² <https://consult.environment-agency.gov.uk/file/3172448>

RESULTS

34 interviews with individuals and organisations took place between November 2014 and March 2015 to identify the main issues they felt were impacting the water environment. To provide a framework for these interviews the questions were themed around seven issues:

- | | |
|-----------------------|---------------------|
| 1. Nitrogen | 5. Quantity |
| 2. Phosphates | 6. Invasive species |
| 3. Sediment | 7. Other |
| 4. Channel morphology | |

A list of the interviewees can be found in Appendix 2 and a copy of the questionnaire can be found in Appendix 5.

The responses from these interviews were collated into a master spreadsheet. An anonymised copy can be found in Appendix 6. The number of individual issues raised totalled 296, however many of these have been repeated by different organisations. For each sub-catchment, these issues have been combined and summarised as threats, and it is these that are presented in Appendix 8. The threats have been presented in a standardised format to allow comparison. They are defined below:

- **Sedimentation** – sediment is smothering the natural bed of the stream;
- **Invasive species** – the presence of invasive species is impacting the natural balance of the system;
- **Diffuse pollution** – pollutants are entering streams along significant lengths;
- **Diffuse agricultural pollution** – agricultural pollutants are entering streams along significant lengths;
- **Point source pollution** – pollutants are entering streams at specific points;
- **Litter** – the presence of litter is impacting the natural balance of the system;
- **Failing bathing water quality standards** – pollution from the streams is impacting bathing water quality;
- **Abstraction** – the removal of water from streams for drinking, agriculture, etc. is having an impact on the natural balance of the system;
- **Habitat degradation** – the habitat quality is being reduced, impacting the functioning of the natural system;
- **Sediment runoff** – sediment is being eroded off the land and flowing into streams;
- **Complex rural runoff issues** – a number of runoff issues are compounded to cause water quality issues;
- **Coastal erosion** – the coast is eroding;
- **Bank erosion** – the stream banks are eroding;
- **Stream blockages** – the stream suffers from blockages to flow;
- **Flooding** – the stream floods surrounding land;
- **Low flows** – the stream suffers from low water levels;
- **Shading** – the stream suffers from excessive shading from bank-side trees;
- **Lack of awareness** – more could be done to increase awareness of the stream and what it has to offer;
- **Water level management** – the streams are artificially managed to control water level and this is impacting the natural balance of the system;
- **Algal blooms** – incoming nutrients are causing an increase in the amount of algae growing

A summary of which threats affect which sub-catchment can be seen in Appendix 7.

During the interviews, it was identified where actions were being undertaken to address some of the threats. These have also been listed along with the Environment Agency's classification for the waterbody, where this is applicable.

The willingness of organisations to engage in a Catchment Partnership was also discussed during the interviews and using this information several models of operation were drawn up. These are discussed in more detail in the Way Forward section that follows.

OTHER POINTS

During the course of the interviews a number of points were raised that did not relate to specific issues currently affecting the waterbodies in the West Dorset Rivers & Coastal Streams Catchment. Broadly, these can be summarised under the five following themes.

Communication

A number of participants felt that poor communication was limiting effective delivery, for example;

“You need to be very clear on the information given regarding the status of water bodies”

However, it was also mentioned that good communication is an effective means of delivering change, for example;

“Identify the small but achievable things that everyone can do and promote them”.

Any future delivery in the West Dorset Rivers & Coastal Streams Catchment should ensure effective communication, from Statutory Agencies to communities and organisations as well as from communities and organisations to the Statutory Agencies. Good communication should also be used as a tool to effect change.

A different approach

A number of participants felt that the Catchment Partnership approach being delivered by the PHCI would not work in the West Dorset Rivers & Coastal Streams Catchment. For example;

“The best approach would be to break it down into three areas – Purbeck, Weymouth, West Dorset”

“I have to admit to being wary of 'talking shops' but prefer to deal with the issues on the ground”

Any future delivery in the West Dorset Rivers & Coastal Streams Catchment should look at a different way of delivering the Catchment Based Approach, as the area does not lend itself well to the model being delivered elsewhere in the County.

Local

Linked to ‘A different approach’, the theme of ‘Local’ was repeatedly mentioned by participants as an important element. For example;

“This way it wouldn’t be seen as Dorchester or Weymouth leading, but a way forward owned by local people”

“If farmers are to be invited onto working group, recommend the catchment be split east / west to capture farmer engagement with their ‘local’ streams”

“We are not unwilling to be part of a Partnership but realise that we only have a ‘watercourse’ of pretty small size so problems may not be the same as larger rivers”

It is therefore important that any future delivery should facilitate local action on the ground. There was little interest in a generic larger scale approach.

Action

Again, linked to ‘A different approach’ and ‘Local’, a strong message was that action is wanted on the ground. For example;

“Would like to see action and delivery of best practice”

“Future for catchment based approach must not be bureaucratic”

"Farmers will come up with solutions, it's what they do!"

"Would want to see action on the ground to address issues"

Data

Data was also mentioned a number of times by partners as a key element for getting action on the ground. It helps with effective communication and, with robust data, it develops trust that the right thing is being done. For example;

"It is Important to identify issues based on clear science not local conjecture to get farmers to take it seriously and engage"

"Having status changing in different years with no clear explanation of why undermines the meaningfulness of the information".

Overall

The overall impression from participants was that it is worthwhile to deliver improvements to the water environment. However, the current mechanisms are not as effective as they could be, so other solutions need to be looked at that deliver action on the ground at the local level. This approach should be based on excellent communication and sound data.

SUMMARY

Consultation

Over the winter of 2014, a total of 34 organisations were interviewed to find out what they perceived as the main threats to the water environment in the West Dorset Rivers & Coastal Streams Catchment. These 34 organisations were made up of 10 community based organisations such as Dorset Community Action, 14 Public sector organisations such as West Dorset District Council, 6 private bodies such as National Farmers Union and 3 3rd sector organisations such as the Westcountry Rivers Trust. A further 10 organisations were contacted but either did not respond or a convenient time to discuss the issues could not be arranged. In some cases, several different departments of the same organisation were interviewed, for instance within Dorset County Council: Flood Risk Management and Dorset Countryside were all interviewed.

As a result of the interviews a further 10 organisations have been identified to contact for any future work on the catchment.

Issues

There was broadly an even representation of issues raised, except for sediment where there was approximately twice the number compared to others. This in turn was divided evenly in two between sediment from agriculture and sediment from the highways (though the origin of sediment distributed by highways may come from agricultural land). Under 'other', issues raised ranged from impacts on water vole populations and silting of river gravels to lack of awareness about the importance of rivers and the impact of shading.

The link between agricultural sediment and phosphates is strong as the phosphates are bound to sediment particles. And where water and sediment are running off agricultural land, it is often associated with elevated levels of nitrogen too. As these issues account for a quarter of all comments received during the course of the interviews, the perception is that agricultural issues are a significant threat to the water environment in the West Dorset Rivers & Coastal Streams Catchment. This threat is further exacerbated

by runoff from the highways network, and when combined with the agricultural issues, accounts for over a third of anecdotal threats.

ISSUE	SUB-ISSUE	TOTALS	PERCENTAGE
Invasive species	TOTAL	32	11%
Channel morphology	Flood defence	8	7%
	Water Level Management	8	
	Other	5	
	TOTAL	21	
Nitrogen	Diffuse	24	10%
	Point	5	
	Other	1	
	TOTAL	30	
Phosphates	Diffuse	19	13%
	Point	18	
	Other	2	
	TOTAL	39	
Quantity	High flows	26	13%
	Low flows	12	
	TOTAL	38	
Sediment	Agriculture	37	26%
	Highways	36	
	Other	5	
	TOTAL	77	
Other	TOTAL	59	20%
GRAND TOTAL		296	100%

The range of issues identified through the interview process applies across all of the sub-catchments in question, but not evenly. Broadly, sediment is an issue in twice as many catchments as the other issues. It features as an issue in 24 of the 29 identified sub-catchments (83%). By comparison, the next biggest single issue is phosphates, which is an identified issue in 14 of the 29 sub-catchments (48%). Nitrogen and Quantity are an issue in 13 sub-catchments (45%), Invasive species in 12 (41%) and Morphology in 7 (24%).

The Char is the sub-catchment with the most identified issues (57) followed by the Brit (41), Asker (29), Wey (28), Winniford (17), Bride (16), Fleet (15) and Jordan (11). Together, these eight sub-catchments make up 72% of the identified issues.

Issue	Number of mentions	Number of catchments it is an issue for	% of catchments it is an issue for
Nitrogen	30	13	45%
Phosphates	39	14	48%
Sediment	77	24	83%
Morphology	21	7	24%
Quantity	38	13	45%
Invasives	32	12	41%
Other	59	18	62%

Issue	Char	Brit	Asker	Wey	Winniford	Bride	Fleet	Jordan
Nitrogen	6	2	3	4	1	1	4	2
Phosphates	7	3	3	4	4	1	6	1
Sediment	12	9	9	7	4	6	3	1
Morphology	7	4	3	1	0	3	0	2
Quantity	7	6	3	4	3	3	0	1
Invasives	8	9	3	1	2	1	1	2
Other	10	8	5	7	3	1	1	2
TOTAL	57	41	29	28	17	16	15	11

Limitations

The data gathered is limited in a number of ways. They are mostly anecdotal and therefore not backed up with empirical evidence. However, this does not mean that they should be discounted. If the findings of this report detail the perceived threats to the water environment, it is of great value to the communities in question that these threats are addressed. They also broadly align with wider work on the Poole Harbour Catchment Initiative and therefore it can be inferred that the issues are real.

The catchments with the greatest focus of activity, such as the Char, are the catchments where there are the greatest numbers of identified issues. However, the trends that are evident from these cases can be applied to the other catchments in the study area. It should also be noted that the rivers with the greatest focus of activity are those where it is felt the most help is needed, and therefore justify that greater focus.

In the short space of time available for undertaking this study, a significant number of organisations were contacted. However, given more time, a wider consultation exercise could have been undertaken to even more accurately reflect the issues faced by the West Dorset Rivers & Coastal Streams Catchment.

A WAY FORWARD

As part of the interview process, questions were asked about how to take forward action for the West Dorset Rivers & Coastal Streams, particularly about what they would like to see happen on the ground and how they thought the Catchment Based Approach could work in the area. The result of these questions has allowed a way forward to be proposed.

Taking the answers to the question 'is there anything else that could be done' and removing duplicates, the text was fed into www.wordle.net and has produced the wordle in Figure 29. A wordle is a representation of the most common words used in text, with those used more frequently represented in a larger size than those that are less frequently used. It is a very crude analysis of the priorities identified by participants, but does give some idea of the ranking of those priorities. The relevant words that stand out in terms of issues and actions are:

- Management
- Parish & Community
- Farmers & Landowners
- Invasive
- Drainage
- Advice

This will help inform the development of any future model of delivery within the West Dorset Rivers & Coastal Streams Catchment.



Figure 29: Wordle highlighting the most common opportunities identified by organisations during the West Dorset Rivers & Coastal Streams Catchment consultation.

Catchment Partnership proposals

To help promote action to overcome the threats identified by the participants in this study and those registered with the Environment Agency, and provide equality with the other operational catchments in

Dorset, it is important to establish a mechanism for delivering the Catchment Based Approach. By doing this, it will highlight the issues faced by the West Dorset Rivers & Coastal Streams with the statutory Agencies, including the Environment Agency and Wessex Water. It will also provide a mechanism for prioritising action and leveraging in funding as well as endorsement of local action.

Five models are briefly presented below as options for delivering the Catchment Based Approach in Dorset. These will form the basis of discussion with the Dorset Governance Group who oversee the Catchment Based Approach in Dorset and can provide limited resources to help run the Catchment Partnership in the West Dorset Rivers & Coastal Streams Catchment.

The evaluation of the five models is undertaken through a simple Strength, Weakness, Opportunity and Threat (SWOT) analysis. This SWOT analysis is based around the spread out nature of the catchment, the lack of a single river to provide a focal point and a comparison with existing delivery in the Poole Harbour Operational Catchment and River Stour Operational Catchment. It also factors in the feedback received from organisations, where there was little appetite for forming new partnerships but there was a willingness to engage around improving the water environment.

1. Full Catchment Partnership

This model is based on other existing management within Dorset. An officer, hosted by an organisation and fully funded, coordinates a wide partnership of organisations interested in the water environment. This partnership develops and oversees delivery of an action plan and liaises with statutory agencies to ensure that action is helping to meet WFD obligations.

<p>Strengths</p> <ul style="list-style-type: none"> Established mechanism for delivery. Brings together a range of expertise into one delivery mechanism. Reduced risk to the host of the partnership officer. Compliments the Poole Harbour Catchment Initiative and the River Stour Catchment Initiative 	<p>Weaknesses</p> <ul style="list-style-type: none"> Difficult to bring together a partnership that covers such a wide geography. The number of rivers & streams in question will make it very hard to establish a single plan of action. The creation of another partnership will add to the burden of those already involved in both the Poole Harbour Catchment Initiative and River Stour Catchment Initiative. Creates a financial burden for the host organisation.
<p>Opportunities</p> <ul style="list-style-type: none"> Will enable delivery on the ground in an area that has historically had little focus. Will raise the profile of the area with the Statutory Agencies. A chance to share expertise with new organisations. Coherent delivery in partnership with Poole Harbour Catchment Initiative and River Stour Catchment Initiative. 	<p>Threats</p> <ul style="list-style-type: none"> Continued need for funding an officer. Reluctance to engage by organisations already delivering for their sub-catchment. It becomes just another talking shop amongst the usual suspects. Increased competition for funding.

2. Sub-catchment Partnerships

This model is similar to the Full Catchment Partnership, but rather than one partnership covering the whole of the area, there are three small partnerships covering the west, centre and east. This proposal would provide greater focus for action across a number of rivers and streams that share a similar geography and reduce the need for travel amongst participants of any partnership meeting. A single funded officer would oversee the three separate partnerships.

<p>Strengths</p> <ul style="list-style-type: none"> • More responsive to local needs. • Reduces burden on partnership members. • Would allow greater involvement from local organisations. • Would deliver increased activity across the whole of the West Dorset Rivers & Coastal Streams Catchment. 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Diluted influence with statutory agencies. • Increased burden on those organisations that have an interest across the whole of the catchment. • Dilution of time and investment to each sub-catchment partnership. • Increased administration.
<p>Opportunities</p> <ul style="list-style-type: none"> • Will focus attention on those streams that have had little attention. • Will provide greater support for those organisations already delivering on the ground. • A greater local presence resulting in increased awareness of the improvements to the water environment. • An opportunity to demonstrate an alternative form of delivery to Statutory Agencies. 	<p>Threats</p> <ul style="list-style-type: none"> • Continued need for funding an officer. • Increased competition for funding. • Resources are spread too thinly and result in little action. • Uneven distribution of resources across the three sub-catchment partnerships.

3. Community Partnerships

This model is based around delivery at the community level and not the sub-catchment level. A coordinator will work with communities to address issues affecting the water environment in their area. It will allow local knowledge to lead to local solutions, with a small partnership of organisations working in a coordinated way to support the community. The increased communication at a local level will allow greater input to solutions and therefore greater ownership of them. The scale of delivery can be tailored easily to meet local needs.

<p>Strengths</p> <ul style="list-style-type: none"> • Focussed delivery of action to address local threats. • Involves everyone interested in their water environment and values their input. • Allows greater innovation. • Supports organisations already delivering locally. 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Cannot deliver across the whole of the West Dorset Rivers & Coastal Streams evenly. • Cannot meet expectation of local communities due to limited resources. • Will take time and resources to establish. • Is not an established model of delivery
<p>Opportunities</p> <ul style="list-style-type: none"> • A chance to deliver innovative solutions to historical issues. • Support provided by a greater range of organisations to help deliver aspirations. • Improved links from local communities to Statutory Agencies. • Improved community cohesiveness. 	<p>Threats</p> <ul style="list-style-type: none"> • Continued need for funding an officer. • Lack of strategic direction and solutions conflict with Statutory Agency advice. • Could become resource heavy mode of delivery • Relies on individuals with communities to drive delivery forward.

4. Catchment Sensitive Farming

This model is based on the successful model for addressing diffuse agricultural pollution that is being delivered on priority catchments throughout England, where advice and grants are offered to address high risk land and activities impacting water quality. The West Dorset Rivers and Coastal Streams catchment is not covered by the Catchment Sensitive Farming initiative, except a number of sub-catchments that flow into The Fleet. However, Dorset Wildlife Trust, in partnership with Natural England, has been delivering the Catchment Sensitive Farming approach in the River Char sub-catchment with some success.

<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • The model has been successfully trialled elsewhere. • Is trusted by the farming community as an effective delivery mechanism. • It is a simple form of delivery, with advice followed by action. • Could be rolled out quickly. 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • Requires significant resources to deliver effectively. • Would not have the same backing from statutory agencies as the official Catchment Sensitive Farming scheme. • Only focusses on one sector • Creates a financial burden for the host organisation.
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Would provide some form of parity amongst farmers across Dorset. • Would focus on an area that has not been the focus of advice and support, but is in need. • Is flexible model so could be adapted to local demands. • Potential to work with neighbouring Catchment Sensitive Farming partnerships: Axe & Otter and Piddle, Frome & Fleet Lagoon. 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Continued need for funding an officer as well as grant scheme. • Resources are spread too thinly and result in little action. • Uneven distribution across the catchment resulting in continued resentment from the farming sector. • Uncertain future for Catchment Sensitive Farming with the advent of Countryside Stewardship.

5. Do nothing

As the name implies, this is a continuation of the situation as it currently exists. Work will be undertaken where it is a priority for Statutory Agencies, or where pressure is applied by communities and organisations to Statutory Agencies. There would be no influence with the Dorset Catchment Management Group and no leverage for bringing in funding. However, there would also be no costs involved in hosting any form of partnership.

<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • Lean model of delivery that requires no funding. • Does not add to the burden of partnerships in the area. • Allows for organisations to lobby Statutory Agencies on the issues that are important to them. • Frees up resources to deliver elsewhere in Dorset. 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • Does not provide any focus or influence for investment in the catchment • Does not support the communities to overcome the threats to their water environment. • Creates resentment amongst communities and organisations when investment is focused elsewhere in Dorset. • Leaves the water environment at risk.
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Other organisations can take on the delivery of the Catchment Based Approach in the area. 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • The water environment continues to degrade. • Lack of awareness leads to loss of value of the water environment. • Future funding opportunities are missed. • Lack of influence with Statutory Agencies.

Recommendation

Based on the feedback received from organisations, and the simple analysis undertaken, the logical models to explore further are the Community Partnership approach and Catchment Sensitive Farming approach, perhaps in tandem.

The Community Partnership approach has been trialled by FWAG SouthWest in Gloucestershire under the name of Water Integrated Local Delivery (WILD). It was developed by FWAG SouthWest and Countryside

and Community Research Institute (CCRI)¹³ and has achieved significant gains for the water environment, as is demonstrated in the following case studies. However, there are significant challenges faced when delivering this type of approach, not least meeting community expectations, which are linked to adequate resourcing that requires significant and time consuming fundraising.

Catchment Sensitive Farming is a national programme¹⁴, but has been rolled out on the River Char by Dorset Wildlife Trust, with the support of the Environment Agency and Natural England. Though not supported financially along the same lines as other Catchment Sensitive Farming catchments, it has helped deliver significant action to overcome problems as demonstrated in the case study below. This approach is limited to the farming sector and therefore would not be a holistic approach for delivering improvements to West Dorset Rivers and Coastal Streams catchment, but it would help assist improvements from a sector that is known to impact the water environment.

1. Case Study – WILD Siddington Parish

Siddington is a parish of about 600 homes, situated on the southern side of the market town of Cirencester in Gloucestershire. After publishing its Parish Plan in 2009, Gloucestershire Rural Community Council (GRCC) alerted Siddington to an opportunity to work with FWAG SouthWest to launch the Water Integrated Local Delivery project (WILD). Siddington was invited to become a pilot parish; it was felt that the project could help to resolve some of the issues raised in the Parish Plan that related to water management, such as flooding and poorly maintained watercourses. As a result of this collaboration, the following activities were successfully undertaken by members of the community in Siddington:

- Mapping of the direction and general condition of all the watercourses and footpaths in the parish.
- All flood-risk areas in the parish identified and solutions proposed. Some solutions have been implemented and successfully reduced the severity of flooding in areas.
- Conservation volunteers worked with FWAG SouthWest and the parish council to clear blockages in ditches and streams, allowing water to flow freely.
- A large number of industrial archaeology remains, from as far back as the 17th century, were found and recorded for the first time and the information is now included in the Historic Environment Record.
- Wider community benefits were also achieved, for example, footpaths were cleared and re-signed with the help of the Gloucestershire Rights of Way Manager and local volunteers.
- This project has re-engaged farmers, landowners and residents with the land and they are now reaping the benefits of good land management and a better understanding of roles and relationships.

2. Case Study –WILD Poulton Village

Poulton village have been developing a Parish Plan, and with the support from Gloucestershire Rural Community Council and the WILD Project, a village survey was carried out and flooding was identified as an issue. As a result of further survey work it was evident that fish populations in the river Ashbrooke were declining due to low summer flows. The NFU farmer champion for the village also worked with FWAG SouthWest and Catchment Sensitive Farming to look at water flows across farmland above the village and identify actions to mitigate the impact. The need for simple management procedures to rectify the issues was identified.

The parish council also met with landowners and mapped rivers, streams, ditches, road culverts and drains in the village. The parish council discovered that much of the ditch infrastructure was not well connected, preventing water from flowing along a natural path, and resulting in water collecting at a central point in the village. They identified 40 issues contributing to this, such as the lack of suitable culverts and some ditch

¹³ www.ccri.ac.uk/ild

¹⁴ www.gov.uk/catchment-sensitive-farming-reduce-agricultural-water-pollution

networks being filled in or disconnected. Work could then start identifying who could take responsibility for resolving the issues, using local farmers and members of the community as well as volunteer groups and organisations.

The community now understands how the water is flowing and who owns and manages the land. Furthermore, the greater understanding of the governance of river, ditches and streams has created an opportunity for shared problem-solving and a tighter-knit community.

3. Case Study – Catchment Sensitive Farming on the River Char

There have been four 'phases' of work on the catchment since winter 2011. The collaborative project between Dorset Wildlife Trust and Natural England has run every winter since then.

Funding has secured the services of a Dorset Wildlife Trust Officer to focus efforts within the catchment. Activity has included:

- Coordinated delivery by suitably qualified external consultants of 1:1 advisory visits on soil husbandry, water management and yard infrastructure. 16 farms have had visits and reports produced.
- Followed up advisory visits to check farmers are happy with their reports and feasibility of implementing recommendations; also collected a 'body of evidence' for future grant priorities.
- Organised events on soil husbandry, water management and yard infrastructure, along with a 'River Celebration' event, that included electro-fishing and kick-sampling for invertebrates. 6 events have been run to date.
- Administered a small capital grant, with funds secured from Water Framework Directive and Environment Agency. This work linked to other, separately funded River Char projects, but focussed on advice and administration time for coordinating implementation of capital works: 12 farmers have received small capital grants, 6 of these directly related to specialist 1:1 visits, with the remainder coming about through CSF contacts.
- Produced a newsletter for River Char farmers: 3 newsletters so far, another planned for 2015.
- Liaison with the Environment Agency on candidate priority farms and walk-over surveys.

The fact that the River Char is not a target area for Catchment Sensitive Farming is a constant sore-point for local farmers. The main reason given by Natural England is the absence of European Protected sites, though bathing waters are potentially affected; they have failed once in 2012.

A 'body of evidence' has been collected for potential on-farm projects that could be carried out if the funding was available. This was presented to Oliver Letwin MP at a specially convened National Farmers Union meeting in the River Char catchment in October 2012.

The catchment Sensitive Farming approach in the River Char catchment has supported a number of other programmes, including:

- A Water Framework Directive-funded Dorset Wildlife Trust project on the River Char in 2011 / 2012 that included river restoration works and a small capital grants scheme.
- A number of Environment Agency funded Dorset Wildlife Trust projects focussed on river restoration between 2012 and 2015
- Invasive Non Native Species project funded by the Non-native Species Secretariat that looked at the problems caused by Himalayan balsam and giant hogweed.

The collaborative nature of the Catchment Sensitive Farming initiative in the River Char catchment has worked very well and resulted in much more on-the-ground presence in the catchment than would otherwise have been possible. Overall, 18 farmers have received capital funding for projects including guttering, fencing, tracks, gateways and pasture pumps. This has resulted in over 75% of the farming community in the River Char catchment being in contact with the project.

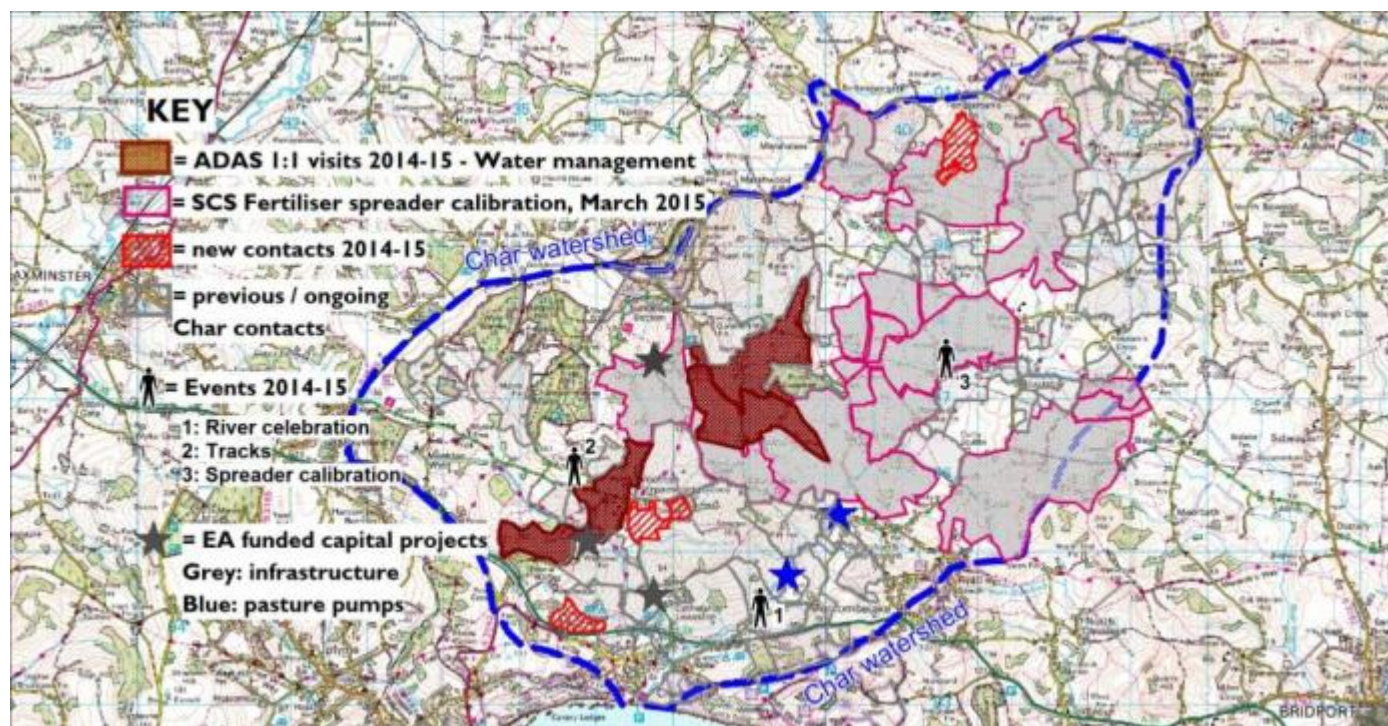


Figure 30: Map of the West Dorset Rivers & Coastal Streams Catchment boundary

© Crown Copyright 2015. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Dorset County Council LA 100019790 2015 This map is not definitive and has no legal status.

Next steps

The next steps are to present the proposal to the Dorset Governance Group, who commissioned this report, and discuss the viability of the options outlined. Should agreement be reached on the Community Partnership approach, a fund raising plan will be put together to ensure the resources required to successfully deliver the approach can be secured.