River Sid Catchment Plan

Celebrating the wildlife and dynamics of a unique river

2024

Water **Land** **People**

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River Sid Catchment Group

School Weir is one of the biggest weirs in the South West and is an impassable barrier to fish

We aim to:

- Improve the ecological health, diversity and resilience within the catchment;
- Restore access for sea trout, salmon and eels to live and breed in the Sid;
- Mitigate the impact of climate change on flooding, peak flow and biodiversity loss;
- Foster in the community an appreciation and respect of our river system.

This plan considers these aims within the contexts of:

Water **Land** **People**

There are no project proposals detailed within this Catchment Plan as these will change with time. The details of all of our projects will be published in biannual project plan updates.

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River Sid Catchment Plan

Objectives

Water

Riverine species recovery

Reinstate fish migration

Improve river habitat

Maintain water monitoring

Slow peak flow

Land

Riparian species recovery

Habitat improvement

Remove invasive species

Improve soil health

Reduce polluting run-off from land

Reduce water run- off onto roads

People

Establish stakeholder group

Seek funding to support land managers

Engage diverse groups

Communicate progress effectively

Work with national, regional

and local organisations

Build sound knowledge base

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A little bit of background

The River Sid Catchment Group (RSCG) was established in 2023 by a group of volunteers resident in the Sid Valley. It is the vision of the catchment group to elevate this river to excellent ecological health.

The River Sid is a small river in the South West flowing into Lyme Bay. The catchment is within the East Devon National Landscape. The main built-up areas are the popular seaside resort of Sidmouth and Sidbury Village. Farms, hotels, B&Bs and homes are scattered up the valleys.

In the past our land used to be managed differently. For example, we made use of eroded soil enriched by sheep grazing on the higher land to fertilise the water meadows below, and fast-flowing streams helped run fulling mills for cleaning woollen cloth. As times change, and especially with the increase of climate change, a reassessment of our rivers is necessary.

The river has often been described in superlatives; however it has some significant weaknesses.

The River Sid Catchment

Strengths	**Weaknesses**
Pristine in places	Weirs and barriers
Meandering sections	Diffuse pollution
Spawning gravels	Fast response to heavy rain
Suitable habitat for trout and salmon	Canalised in places
A good range of wildlife	Loss of flood plain
Woodland cover	Invasive species
Some excellent farming practices	Impact from domestic animals
Woody material in the river	Soil Run off

To understand where we are in terms of the amount of biodiversity in the valley, baselines would be valuable. There are various records locally and nationally that we have used, and these are referenced in the appendices. Due to the steady decline in wildlife, a baseline set at one date can differ from another. The group aims to monitor wildlife populations to clearly understand the present position and changes in the short term.

This is a community led catchment plan based on extensive public consultation, (Appendix A). Work continues to broaden the consultation process. We thank all those who have contributed their time, effort, knowledge and opinions.

There is a lot of potential waiting to be realised, and generating this is of enormous importance to the wildlife of the valley and the people working, inhabiting and visiting the area.

Catchment overview

A catchment is circled by high ground and is defined by the area where the water flows into one river system. The approximate extent of the River Sid catchment is from Mutters Moor to the west, Putts Corner at the northern end and Farway Common to the east. The catchment's relatively small size (approx. 45km^2), and that the fact that it is all within one council boundary, helps in its management.

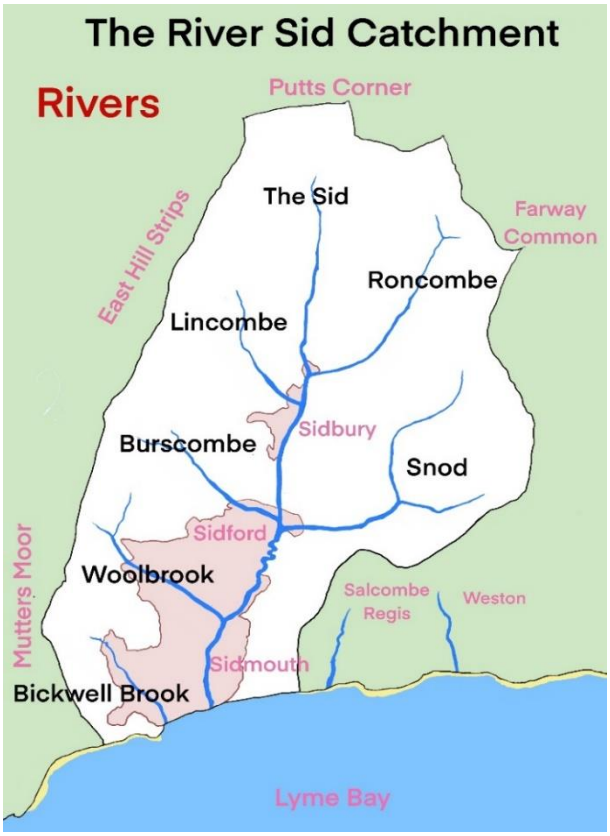


Figure 1

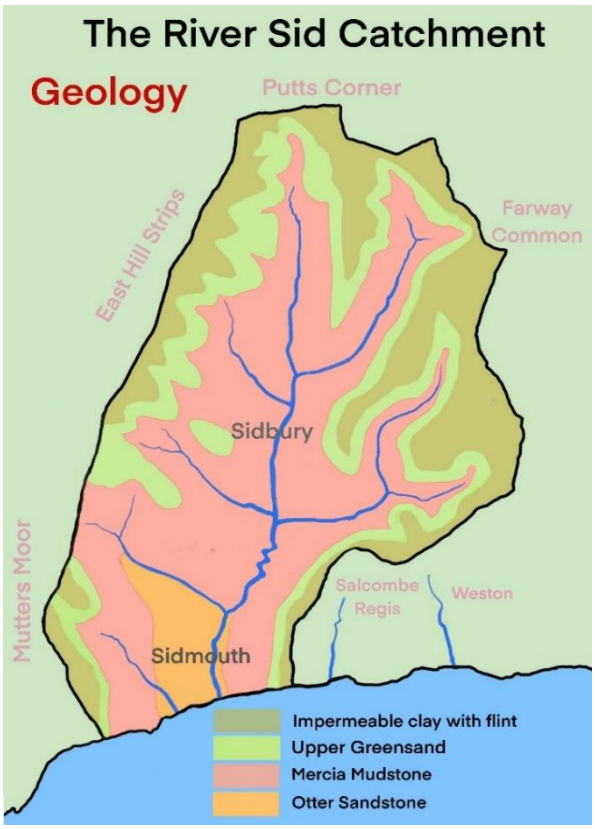


Figure 2

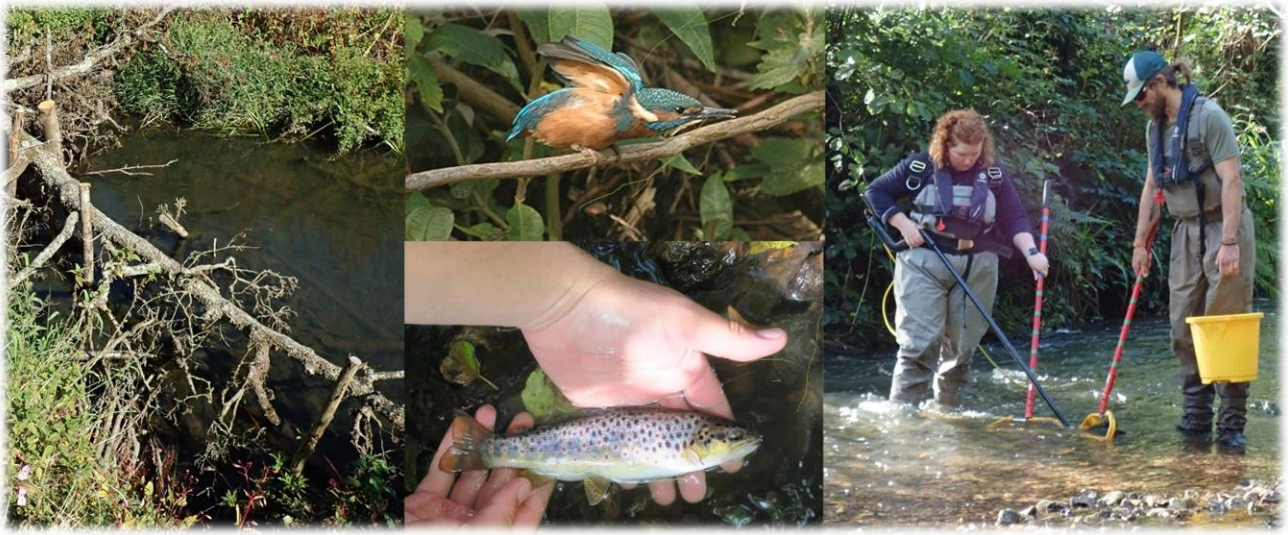
The main tributaries of the River Sid are shown in Figure 1 and are included in all mentions of "river" within this plan. Bickwell Brook is included because it used to be part of the catchment before coastline changes; Salcombe and Weston streams are not, because they are separated from the rest of the Sid valley by Salcombe hill.

Figure 2 shows the geology of the catchment, and this is described more fully in the section on Land which follows. An overview of the current habitats within the catchment is shown in Figure 3 in the Land section of this document.

Also within the catchment are:

- Local nature reserves – Fire Beacon Hill and Knapp Copse
- A national nature reserve – Mutter's Moor
- Sites of Special Scientific Interest and Special Area of Conservation– cliffs to the east of Sidmouth and Chit rocks.
- Nitrate vulnerable zones around all higher land underlain by Lower Greensand.

Water



What we have

The general state of the River.

1.1. In many places the river retains its natural characteristics where fallen trees enrich the diversity of flow, the banks are inhabited by multiple native species and willow and alder line the banks. Brown trout breed in these headwaters, otters hunt and the birdlife thrives. And as the river descends through the valley the wildlife continues to do well where humans and their dogs are not prevalent. Management over the last 150 years or so has changed the water course downstream making it deeper and straighter in places. Fencing, however, has helped prevent stock from degrading the banks.

Water Flow

1.2. In the headwaters the tributaries fall rapidly. Within the first quarter of its length the Sid has fallen some 75% of its height. This steep gradient has provided useful flow for mills in the past and winter and spring rainfall was used to usefully flood the meadows. However, with the sudden rainfall caused by climate change, high runoff causes watercourses to rise extremely quickly meaning flooding is an ever-present risk. The river has been known to increase its flow by up to 100 times in such events.

1.3. The nature of the landscape affects the passage of water from the watershed (Figure 2). Some water will percolate into the bedrock, some will stay within the soil layer and be released slowly but some runs off quickly over the ground surface and straight into the river system, particularly when the ground is already saturated or when the upper soil layer is very dry or compacted.

River Water Quality

1.4. Water quality describes the physical, chemical, thermal, and biological properties of river water. The water should nourish plants and animals ensuring that the river corridor sustains wildlife and is enjoyed by all. Children should be able to play in the river safely.

1.5. Water quality is determined by land use, soil health, topography and rainfall together with modifications to riverbanks, water courses and infrastructure. Monitoring has shown that catchment water quality is reasonable, but the Woolbrook and Knowle Stream have phosphate and dissolved solids levels that are too high and biodiversity is low. In dry periods, when pollutants can be concentrated, we have witnessed the growth of unwelcome algae in the lower reaches.

1.6. Water pollution can arise due to single sources or widespread activities. Water quality changes rapidly after single or point source pollution incidents. Increasing downpours have put pressure on Combined Sewage Overflow with spills increasing over recent years.

1.7. Diffuse pollution is more difficult to deal with as it arises from widespread activities both urban and rural that have occurred in the past and may still be occurring today. Rural sources may include fertilisers, pesticides, slurry, manures and septic tank effluent. Urban sources include run off from roads, car parks, hard standing in gardens and leaking sewers. These pollutants stealthily and insidiously alter water quality and are difficult to address. Good water quality and a healthy ecosystem go hand in hand.

1.8. Water Quality monitoring is undertaken at seven locations on the river at monthly intervals using the Westcountry Rivers Trust water monitoring Citizen Science Initiative (CSI) program.

Erosion

1.9. Much of the catchment is affected by powerful erosion after heavy rainfall. Water falling on high ground cannot easily soak into the stony clay soil and surges into watercourses carrying stones and gravels downstream. These stones act as a formidable erosive force deepening riverbeds and cutting into the banks, forming steep sided valleys known locally as goyles. Where the soil is sandy, it is easily lost if not held by vegetation giving rise to blocked drains and flooded roads. Within the river channel stony banks form where the water slows, and sediment can be deposited in new places depriving invertebrates of oxygen. Some aquatic life may be washed away by the river in spate[1]. However, in some locations these high flows keep our gravels free of sediment and create excellent habitat for trout to spawn.

Fish Populations

1.10. Brown trout, eel, bullhead, stone loach, brook lamprey and minnow are present in the Sid and its tributaries. Salmon and sea trout are excluded from the river by the presence of obstructions such as the impassable School Weir. These two species are recorded trying to migrate upstream and only through being caught and placed above School Weir do they succeed in getting into the main river channels and favourable spawning grounds. Other species of fish find themselves isolated within stretches of the river due to the numerous barriers (29 recorded), reducing genetic diversity. Fish populations have been monitored in 2023 and 2024 by the Westcountry Rivers Trust electrofishing team.

[1] A sudden flood

Birds

1.11. The Sid is home to many river dependent birds, including kingfisher, dipper, heron and grey wagtail. Improvement of the ecological state of the water courses will lead to more abundant food for many of these species. Invertebrate numbers in the water and diverse river and bankside vegetation are important to sustain bird populations.

Mammals

1.12. Otters are now evident in all reaches of our river system, their recovery in recent decades has been notable. Mink, which is an Invasive Non-Native Species (INNS), has a negative effect on water voles. Mink have not been recorded for a considerable time, probably because of otters' dominance. The river corridor is notable for other mammals including a good range of bat species.

1.13. Beavers on the neighbouring River Otter are thriving, it is thought only a matter of time before they migrate into the Sid Valley. Their behaviour can cause difficulties in certain situations and this will need sensitive management, but on the whole they will stimulate substantial ecological improvement in the catchment. Beavers and water voles are two species of mammal we would hope to see return to the Sid Valley.

Invertebrates

1.14. The river is home to a large number of invertebrate species, some of which act as indicators for ecosystem health. Invertebrate populations fluctuate depending on season, temperature, water flow, river morphology[2], predation and pollution. Invertebrates are a key food source for other organisms. River invertebrates are monitored by the RSCG's riverfly volunteers.

What could be changed

Natural flood management

1.15. More frequent extreme weather events are occurring with climate change and one way of improving our ability to withstand these is to introduce natural flood management techniques (NFM). These include measures to promote retention of water on the land for longer and thus to slow down the rate of flow to the river. Examples of NFM techniques include leaky dams which are wooden structures put across water courses to slow the flow; retention ponds to store water; decompaction of soil to make it more absorbent; species rich meadows where deep-rooted plants enable water to penetrate the soil to greater depths; and hedge planting across steep valley sides to help absorb water.

1.16. In the past engineered solutions were used to get the floodwater away as quickly as possible by straightening river channels, and high retaining walls were put in place to protect Sidmouth; we cannot turn the clock back, the River Sid flood plain has been built on and engineered out of existence, but many natural solutions in the head waters could reduce the current problems downstream when the river is in spate.

[2] The size and shape of river channels and how they change over time

Barriers

1.17. Harnessing the power of the river led to a considerable number of mills being built in the past. These are now out of commission. But the legacy of weirs on the river for both milling and flood defence has left us with numerous barriers to fish passage. Four of these are considered impassable and others range from difficult down to minimal interference. At 3m in height, School Weir at the bottom of the Byes, is a barrier to all migrating salmon, sea trout and eels. It's a priority of the catchment group to ensure ease of passage of all fish throughout the river system.

Monitoring

1.18. The RSCG monitor invertebrate numbers in the river at nine locations. After a year of information the average score using the Riverfly Monitoring Initiative is between 10 and 12. This is lower than desired. The best stretches record 13 to 15 in score, the lowest 4. A lot more data needs to be collected and analysed before trends in weather, season and habitat on invertebrate numbers can be extracted. The trigger levels set by the Environment Agency are 5 for the lower reaches and 7 for the higher reaches. Geomorphology recording of the structure of the river in different stretches can be undertaken using a CSI survey called MoRPh[3]. This will record changes in the form of the river and indicate where the river is more natural in character.

Invasive Species

1.19. Mink are a threat to our native water vole and although we have no definite evidence, it is possible that American mink (*Mustela lutreda*) inhabit the valley. These either escaped or were intentionally freed from fur farms in the 1960s. We must be alert to invasion by signal crayfish (*Pacifastacus leniusculus*). These were introduced into the UK by the government in the 1970s as a useful commercial species. However, they are larger than and out compete our native white cray fish (*Austropotamobius pallipes*) and can infect them with crayfish plague. Neither species of crayfish have been recorded in the valley.

[3] **Mo**dular **R**iver **Ph**ysical see https://cartographer.io/case-studies/morph/

Species Recovery

1.20. The International Union for Conservation (IUCN) maintains a Red List of threatened species. https://www.iucnredlist.org/. Species relevant to the Sid Catchment Plan are included below.

Species	IUCN Red List	Local knowledge	Actions
European Eel *Anguilla anguilla*	Critically Endangered	Elvers and adults present in the river in small numbers	Remove or modify barriers for migration. Improve agricultural pollution.
White-clawed Crayfish *Austropotamobius pallipes*	Endangered	No current population	Ensure Signal Crayfish are not present in the Sid; test for alkalinity; establish the Sid River system as an Ark site[4].
Atlantic Salmon *Salmo salar*	Vulnerable	No current population. Last recorded 2015	Remove or modify barriers for migration. Preserve areas of good spawning gravels.
Brown Trout *Salmo trutta*	Least Concern	Good adult population, very low fry numbers	Remove or modify barriers for migration to establish a population of Sea Trout in the river.

[4] Refuge site safe from non-native crayfish and crayfish plague.

Paths to change – how we go forward

Objectives

1.21. The RSCG primary objectives for water are listed below.

	Objective
W1	Implement species recovery plan for eel, salmon, trout and white clawed crayfish
W2	Reinstate fish migration throughout the catchment
W3	Improve habitat for full range of aquatic species
W4	Establish, maintain and improve monitoring mechanisms, measuring key indicators of river health
W5	Use natural flood management techniques to reduce peak flow, including leaky dams, water meadows and ponds

Strategies

Mapping

1.22. Mapping of the river allows for identification of healthy and degraded habitat. The 2014 Living Rivers Report mapped the majority of the river. This can be enhanced with further mapping especially to detail the barriers to fish migration within the river system which may have been modified since the earlier survey.

Barrier assessment and modification

1.23. Fish migration requires the free passage of fish past weirs and barriers. Modification to weirs needs professional input. Fishtek, The Wild Trout Trust, the Environment Agency, Devon Wildlife Trust and the Westcountry Rivers Trust have all been engaged to date. We will continue to work collaboratively with professional organisations to modify weirs to enable fish migration to all parts of the catchment.

Monitoring riverine species

1.24. Electro-fishing allows for accurate assessment of fish species. To date this has been conducted in seven locations across the catchment. The Riverfly Monitoring Initiative (RMI) surveys monitor the presence and abundance of eight pollution sensitive invertebrate species (see Water Quality Monitoring below). We intend to train volunteers to undertake extended riverfly surveys.

Water quality monitoring

1.25. Physical and chemical properties measured by the Westcountry Rivers (WRT) Trust Citizen Science Investigation includes temperature, dissolved solids, turbidity and phosphate. This is done monthly at locations across the catchment. In addition, the nature of the river bed, banks, land use, potential sources and signs of pollution and river level are recorded alongside

photographic evidence. All monitoring data are recorded on the WRT Cartographer[5] website. More robust surveys of a larger range of chemicals are needed to ascertain their impacts.

1.26. Riverfly monitoring needs to be continued to build up robust and usable data. Our information is still patchy and needs to be rigorously confirmed to understand the impacts of pollution and flooding on riverfly populations. Training in the Extended Riverfly Monitoring program will enable a deeper level of understanding to be developed.

Other monitoring techniques

1.27. Modular River Physical (MoRPh) survey training will advance our skill in recording river characteristics and changes after interventions. Mud Spotter surveys will allow us to record the input of water and mud from culverts, pipes, ditches, eroding river banks together with mapping overland flows during and just after high rainfall. We will need to train a new set of volunteers for these initiatives.

Modelling the catchment

1.28. Computer modelling techniques are very useful in order to understand the way water moves in our catchment. We use SCIMAP (Sensitive Catchment Integrated Modelling And Prediction) to identify potential areas of intense run off. This is followed by verifying the models by survey (ground truthing). Then a range of measures can be deployed in defined areas to create natural flood management. Computer modelling systems such as PSYCHIC, (Phosphorus and Sediment Yield Characterisation In Catchments) can be used to identify major sources of sediment run off and phosphate. Our catchment advisor will need additional time to extend this understanding.

Natural flood management techniques

1.29. Strategies for the protection and improvement of water quality are wide ranging and closely aligned to ecological improvements. We will work closely with both rural and urban landowners alongside experts such as our catchment advisor, and agencies such as the Environment Agency and South West Water to mitigate against extreme run off.

1.30. NFM projects will be designed to use leaky dams, modified zuni bowls[6], retention ponds, swales[7], managed wetland areas, tree and hedge planting, SUDS (Sustainable Urban Drainage schemes), rain gardens, leaky butts and additional water storage by retail outlets and householders.

Habitat improvement

1.31. We will encourage fenced buffer strips alongside the river to protect the banks from trampling by cattle and help filter fertilisers, pesticides, slurry and eroded sediment before it reaches the river. Trees deliberately felled into the river but securely attached to the tree's stump or the bank can increase the diversity of habitat, as will trees and branches that fall naturally. Fish and other aquatic

[5] UK platform for collecting environmental monitoring data www.cartographer.io
[6] A series of stone lined basins through which water flows, reducing erosion
[7] Shallow vegetated channels designed to store and/or convey runoff and remove pollutants

wildlife require a balance of sunny and shady areas. Mapping the river will enable us to identify where improvements are needed.

Monitoring project outcomes

1.32. Once projects are in place, we will establish baselines and monitor outcomes, including water flow rates, bank erosion, changes to the shape of the river channel, and nature of the river bed alongside river water temperature, turbidity, dissolved solids, phosphate and RMI riverfly scores. We will also monitor effects on the wildlife populations of the river.

Sharing data

1.33. The CaSTCo (Catchment systems Thinking Cooperative) project aims to upgrade citizen science monitoring whereby amateur results can be used more reliably by the Environment Agency. We aim to participate when this is launched in order to further our aim of protecting and improving watercourses in the catchment.

Flooding after heavy rain when water can turn red with soil eroded from the land

Land

What we have

Geology and soil

2.1. The Sid Valley is surrounded by a 200m high plateau comprising Upper Greensand overlain by stony clay. (Fig 2) There is a spring line around the valley where water moving through the Upper Greensand meets the impermeable Mercia Mudstone. Below this the soil is mostly a sandy loam with a lot of stone, so pasture tends to predominate over arable use. The lower reaches of the tributaries and river contain some fine meadow land.

2.2. Soil is a hugely important habitat in its own right. Good soil will hold billions of tiny organisms within it as well as those visible to the naked eye. The quantity of organic matter within the soil is a good indication of soil health. Good soils absorb most of the rainwater falling on them until they reach capacity. Soil is held by roots – particularly those of permanent pasture, shrubs and trees. These roots contribute to the decaying organic matter and the quantity and diversity of fungi and microorganisms.

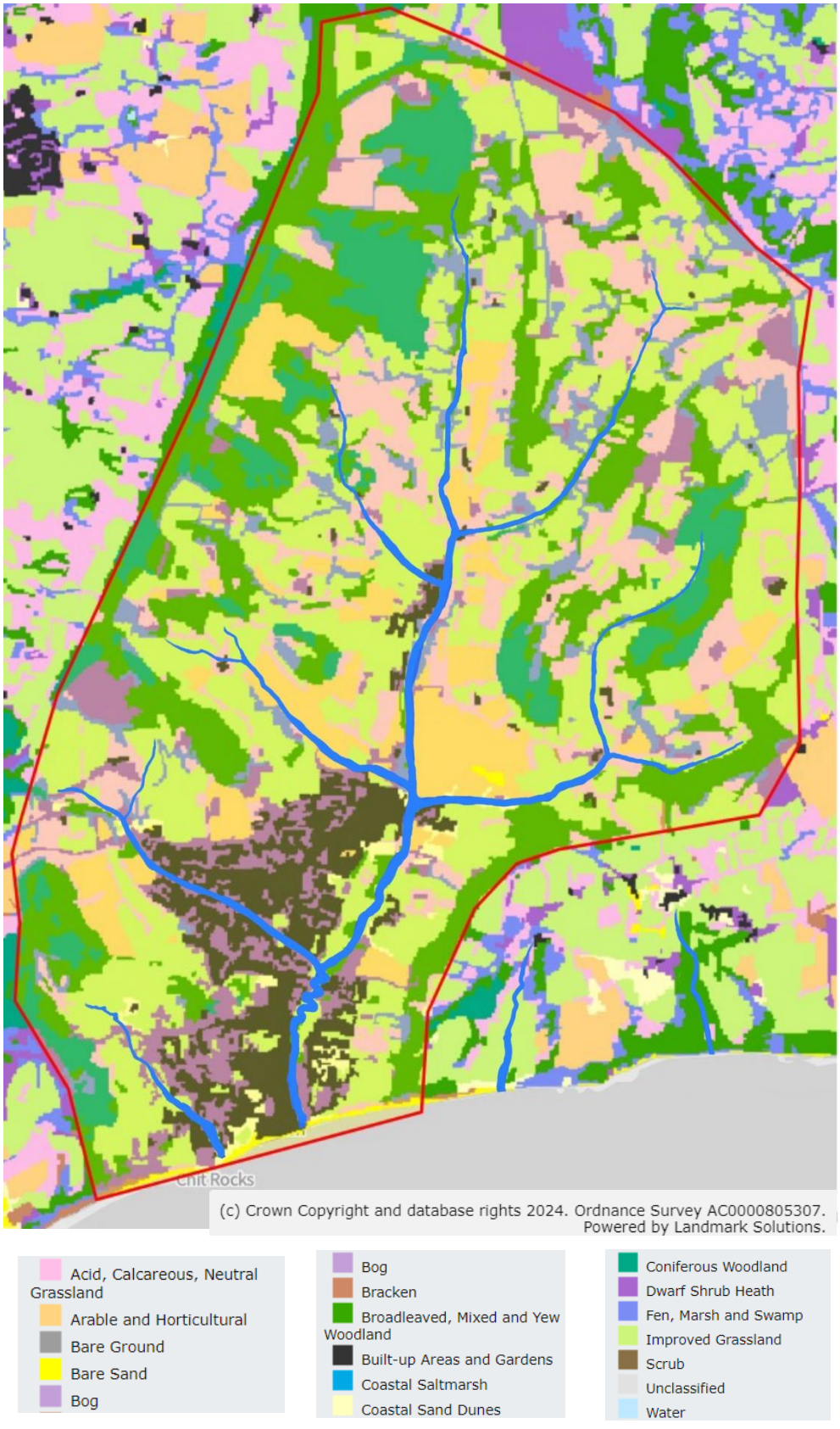
2.3. Climate change is causing more frequent and severe downpours which have a very significant impact on soils and soil management and ultimately on farming practice and food production.

Habitats

2.4. The location, size and frequency of habitats are important considerations in the management of the land. While the land itself – rocks, stones, soil and slopes – has stayed fairly constant over the centuries, land use has altered considerably because of external economic factors and population growth.

2.5. The Living England project, led by Natural England, has produced a satellite-derived national habitat probability map. This allows the satellite information to be used in places where we do not have on-the-ground surveyed data. Ground truthing this information and tailoring it to the key characteristics of the catchment will enhance its usefulness.

The habitats in the Sid Catchment are shown in Figure 3 below, with River Sid and tributaries overlain.
Probability map last updated June 2024



Urban Environment

2.6. Roads channel water run-off quicker than any other structure in the landscape. They have the ability to dump water at speed into low lying areas that have not the drainage capacity to deal with such a deluge. This can lead to localised flooding.

2.7. Built up areas have specialised drainage requirements that are beyond the scope of this document. Domestic gardens have an impact on the quantity and quality of surface water. Quality soils will absorb rainfall, while concreted and paved surfaces will deflect it.

Birds

2.8. Several bird species have become rare within the valley in recent years, these include water rail, snipe and cuckoo. Yellow hammers are also very scarce. This is mainly due to habitat loss. However, there's some successes with cirl bunting and goshawks both breeding within the valley for the first time in many years. Nightjars are also thriving on the heathland. There are good levels of water dependent birds, including kingfisher, dipper, heron and grey wagtail. Development of the ecological state of the water courses will lead to more abundant food sources for many species.

Mammals

2.9. The catchment supports populations of many species of mammal including badgers, otters, deer, bats, foxes, rodents, and of course humans, domestic pets and livestock. Water voles have not had any verified recordings in the catchment in recent times.

Trees

2.10. A comparison of current data on land use with that collected as part of the 1840s tithe map assessment, shows that we have increased tree cover on the higher land of the catchment at the expense of the heathland and rough grazing. A lower proportion of the woodland is deciduous than in the past. The canopy cover in the valley is 23% compared to a national average of 18%. The Treeconomics survey by the Sidmouth Arboretum has shown consistent tree cover for over 10 years.

2.11. Orchards, once covering 180 hectares, are now rare and willow and alder plots and managed coppice non-existent. Gardens and parkland, however, have increased and provide a potentially wide variety of plants to support insects.

What could be changed

Species Recovery

2.12. Water dependent species relevant to the Sid Catchment Plan are included below.

Species	IUCN[8] Red List	Local knowledge	Actions
Eurasian Otter *Lutra lutra*	Near Threatened	Otters are well established in the catchment.	Improve fish stocks in the river. Ensure some areas of the rivers protected from dogs. Reduce diffuse and acute pollution.
Common Snipe *Gallinago gallinago*	Vulnerable	Snipe have been lost to the lowland areas of the catchment but still hold on in some of the high ground.	Increase availability of unimproved damp pasture.
Eurasian Water Vole *Arvicola amphibius*	Least Concern	Neighbouring catchments have had limited success in reintroductions, there are none within the Sid Valley.	Control predators (mink), Establish natural riparian habitat.
Eurasian Beaver *Castor fiber*	Least Concern	Abundant in neighbouring catchment, migration to the Sid expected.	Welcome natural migration of beaver into the catchment for their effect on the creation of wetland habitats where appropriate.
Western Water Rail *Rallus aquaticus*	Least Concern	Locally rare, suffering from habitat loss.	Establish good riparian habitat. Ensure areas of the rivers protected from dogs.

Habitats

2.13. Mapping is an important first step in managing the habitats within the valley. Assessing the value of each habitat is needed and then consideration as to enhancement, conservation or replacement. Connectedness is important and should be assessed for target species. For this project the key land habitats are going to be the riparian corridors and wetlands.

Soil management

2.14. The resilience of the land to the extreme effects of climate change is important Understanding the role of carbon and organic matter in the soil, such as promoted by regenerative farming can be very helpful.

[8] International Union for Conservation https://www.iucnredlist.org

Land management

2.15. Farmers are generally very keen to support wildlife on their land, and the government issues grants to this end. Whenever it is possible for us to support and work alongside those who manage the land to enhance the environment, we will endeavour to do so.

Buildings

2.16. We can manage our gardens, parks and fields in ways which help the catchment become more resilient to climate change and allow nature to recover. Water collection from roof tops for garden use, and slow release storage systems are helpful at reducing peak flow. Sustainable drainage systems can be incorporated in to building sites.

Roads

2.17. Identifying and logging the occurrence and destination of excess road run-off is an important first step before informing Devon County Council of problem areas. This information is also important for land managers uphill of the run-off, in the hope they can alleviate the problem through new and informed management practices.

Paths to change – how we go forward

Objectives

2.18. The RSCG primary objectives for land are listed below.

	Objective
L1	Implement species recovery plans for otters, common snipe, water voles, beaver and water rail
L2	Improve habitat for the full range of riparian species
L3	Remove invasive species esp. Himalayan Balsam and Japanese Knotweed.
L4	Employ a catchment advisor for professional advice on diffuse pollution and soil health.
L5	Reduce point and diffuse pollution from the land and reduce water run-off from land onto roads.
L6	Improve soil health in the catchment for carbon capture, water retention and biodiversity

Strategies

Habitat Improvement

2.19. Bankside habitat improvement can include the following.

- Control of invasive non-native species of plants e.g. Himalayan Balsam and Japanese Knotweed. The RSCG works with the Sid Bashers to control Himalayan Balsam. Finding methods to progress the removal of Japanese knotweed is proving difficult as methods are expensive.

- The use of stakes and brushwood to protect riverbanks from erosion, giving plants an opportunity to grow. Trees such as alder are necessary if the current course of a river or stream is to be maintained during times of fast water flow.

The planting of trees, shrubs and aquatic vegetation makes a significant contribution to the river's biodiversity but management is necessary as in heavily shaded areas vegetation may need thinning to diversify the habitat for fish. We shall map habitats and select habitat types that need greater presence and choose sites for implementation.

Wildlife Monitoring

2.20. The Sid Valley Biodiversity Group (SVBG) and other local organisations actively monitor wildlife populations in the valley. At present bats, butterflies, birds and plants are systematically monitored in the valley. We will work alongside these partners to enhance these populations.

Wetland Creation

2.21. Retaining water upstream is beneficial to the ecology within a landscape as well as for water run-off. Wetland creation such as ponds, water meadows, and swales can significantly enrich biodiversity through the increase in habitat diversity. Care is needed to manage new wetlands to ensure they remain wet through droughts with a balanced biodiversity to discourage mosquitos. We will devise projects at suitable locations to increase wetland habitat.

Tree Planting

2.22. 14,000 woody plants are being planted by the Sidmouth Arboretum Trust within the catchment, many of these creating hedgerows providing food, shelter and migration corridors for wildlife with the additional benefit of retaining water on the land. The RSCG will promote these activities both for their ecological benefits and for run-off.

Modelling and mapping

2.23. We will use computer modelling to inform us how water interacts with the land followed by site visits to verify these models.

2.24. We will use wet weather walks to identify sources of sediments, their direction of travel and impact on roads. Mapping overland flows is part of the WRT Mud Spotter and the data will be held on Cartographer.

2.25. We will employ a catchment advisor to work with landowners to mitigate these problems.

Typical valley view with trees on the hill tops and cultivated land on valley slopes

People

What we have

Population

3.1. As of 2021, the Sid Valley is home to around 14,400 people. People experience the River Sid in a range of ways, from walking alongside it, farming close by it or enjoying the wildlife it attracts. 85% of the population live in Sidmouth and Sidford, with the remaining 15% residing in Sidbury and rural areas. There is also a significant and fluctuating tourist population.

Organisations

3.2. The RSCG engages with the following organisations: Westcountry Rivers Trust, Wild Trout Trust, Devon Wildlife Trust, South West Water, the Environment Agency, East Devon National Landscape, and East Devon Catchment Partnership.

Community Groups

3.3. We work collaboratively with: Sid Valley Biodiversity Group, Sidmouth Town Council, Friends of The Byes, Sid Vale Association, Sidmouth Arboretum Trust, Sidmouth Balsam Bashers. We network with other groups in neighbouring catchments.

Public Consultation

3.4. The RSCG ran a comprehensive public consultation during 2024 including

- a three day 'shop front' residence in Sidmouth during the Sid Valley Biodiversity Festival;
- awareness raising activities in the Byes;
- a community questionnaire which received over 100 responses (see Appendix A for summary.)

We also held two public meetings, one hosted by SWW and the other by the RSCG, where we provided an overview of the catchment to attendees, specifically welcoming land owners, land managers, farmers and other interested parties, to have a say on the challenges and opportunities they feel the catchment holds. This has given us a lot of data to work with in terms of

what the local community wishes to happen in the catchment (Appendix A). Although the consultation events attracted a good number of people, certain groups were underrepresented such as young people aged 16-25, and those who might have found it difficult to engage due to other work or life commitments and circumstances.

Inclusiveness

3.5. The RSCG strives to provide inclusive opportunities which are welcoming and accessible to all. We will always treat people with respect irrespective of, for example but not limited to, age, disability, gender reassignment, marriage or civil partnership, pregnancy or maternity, race, religion or belief, sex, or sexual orientation.

What could be changed

Cooperation

3.6. Members of the Sid Valley community engage with the river catchment in different ways and have different views on how to improve it. We aim to seek views from a diverse range of people, with a focus on underrepresented communities such as young people, and those with life commitments or circumstances which can make engagement difficult. The RSCG has links to many voluntary groups and we are open to partnerships and joint projects to further our aims.

Knowledge

3.7. Developing a sound knowledge base around the complex systems that operate within ecosystems is important but can never be exhaustive. The RSCG will actively extend members' learning and seek professional knowledge and input where possible. We shall share this with the wider community in hosting talks, field events and longer-term commitments such as volunteering. Everyone needs to have sound information on how they can individually help to improve the catchment.

Volunteers

3.8. Currently volunteers operating under the RSCG banner are undertaking water monitoring and riverfly surveys. Other volunteer groups are planting trees and hedgerows across the valley (Sidmouth Arboretum Trust), dealing with Himalayan Balsam (Sid Balsam Bashers) and managing the river at Margaret's Meadow and Gilchrist Field (Sid Vale Association). The Byes riverside park is managed by East Devon District Council in association with the Friends of The Byes volunteer group. The RSCG will look at extending its volunteering opportunities as projects role out.

Paths to change – how we go forward

Objectives

3.9. The RSCG primary objectives for People are listed below

	Objective
P1	Establish a River Sid Stakeholder Group to increase engagement and delivery of projects.
P2	Seek funding to support landowners and managers.
P3	Engage diverse community groups in river related learning and engagement activities.
P4	Continue to communicate our progress and concerns to a wide audience.
P5	Work alongside national, regional and local groups to promote our aim.
P6	Continue to build and share a sound knowledge base on topics relevant to this plan

Strategies

Stakeholders

3.10. The stakeholders in our catchment are varied and we will consider the needs and views of these groups in our work. The main larger groups are:

- residents who value different aspects of gardens and public parks;
- farmers, foresters and nursery owners, whose livelihood depends on the output of the land;
- tourism businesses that depend on an attractive, functioning valley;
- nature itself, in all its forms.

3.11. We can all suffer from floods, and in different ways are affected by the consequences of historical alterations to the river, climate change and degradation of nature. Each stakeholder possesses views, requirements and useful knowledge which we shall seek, building relationships to help understand evidence and establish an agreed approach across the catchment.

3.12. We recognise that the natural world does not have its own voice and therefore can be overlooked as a key stakeholder. The RSCG is committed to understanding the needs of freshwater, intertidal and riparian ecosystems within the catchment. We aim to foster positive relationships between humans and the natural world and will advocate for nature when it is under threat.

Funding

3.13. We have and will continue to seek funding to be able to provide land owners, managers and residents with practical and financial solutions to be able to

manage land, whether farmland or back garden, with biodiversity gain, landscape regeneration and soil retention in mind.

Guidance

3.14. We shall continue to utilise our existing connections with national, regional and local organisations who provide expert support and guidance, and we shall engage individual professionals when needed.

Community Engagement

3.15. We recognise the need to promote an overall interest and respect for the natural world and aim to tap into several community initiatives, using creative science communication, the arts, intergenerational events and volunteering to bring the community along with us, fostering a new generation of people who will have the drive to protect our freshwater ecosystems and surrounding landscapes. We will continue to provide activities such as information walks and talks, citizen science monitoring and national initiatives and engage with the community in a range of ways which contribute positively to the catchment.

Communication

3.16. We will continue to communicate our successes, concerns and knowledge to a wide audience. We will do this using a range of methods including social media, newspaper articles and sharing information in the library and other community information points. We will also seek funding for the creation of a website.

Community consultations in progress

References

Mapping

Multi-Agency Geographic Information for the Countryside. (MAGIC)
The MAGIC website provides geographic information about the natural environment from across government. It is currently managed by Natural England and draws data from many different organisations. It is hosted on the DEFRA.gov.uk website.

The information is presented in an interactive map which can be explored using various mapping tools that are included. Users can access maps using a standard web browser.

Protected conservation sites within the Sid Catchment.
Sid Valley Biodiversity Group maps showing the important land based and marine protected sites in the area.

Data

Population
2021 census for East Devon. See Sidmouth rural, Sidmouth Sidford and Sidmouth Town.

Environmental Data
Environment Agency Catchment Data Explorer. This provides officially recorded ecological and chemical data about the water environment used in River Basin Management Plans. Being a small river, the River Sid is in the Sid and Otter Operational Catchment and within South West River Basin district.

Monitoring watercourse health.
The Riverfly Monitoring Initiative (RMI) provides a standardised monitoring technique which groups can be trained to use to detect any severe perturbations in river water quality.

Defra's Natural Capital and Ecosystem Assessment (NCEA) programme
The NCEA programme maps the size, location and condition of England's natural capital and ecosystems in order to monitor England's environment and nature long term. Data is being collected across different habitat types to develop a baseline of natural capital evidence and enable monitoring changes over time. Data on species is also collected. Environmental data, maps and other products are becoming available, e.g. the Living England Habitat map.

Government Policies

Environmental Land Management Update June 2023: DEFRA reform of agricultural policy and spending. Reforms to grant provision for land-based environment and climate goods services following transition from EU Common Agricultural Policy.

Reports on the River Sid

Most of these reports can be downloaded from FriendsOfTheByes.org.uk
Living Rivers Project Devon Wildlife Trust for the Sid Vale Association April 2014
Fish Passage Options Appraisal, School Weir Sidmouth. Fishtek Consulting 2022
Advisory Visit River Sid Devon. Wild Trout Trust 2021
Upstream Extension of Sid Advisory visit, Wild Trout Trust 2022
Lower Sid Site visit EA Fish Pass Advisory Service Jan 2023
River Sid Habitat Proposal, Wild Trout Trust April 2023

Appendices

A - Report of findings from public consultation

The report contains the key findings from the River Sid Catchment Group Community Questionnaire, a consultation tally sheet and a SWOT analysis exercise.

The following table is from the tally sheet used at all the events during the consultation exercise. Respondents were asked to tick the three options that they felt were most important.

	Total Ticks	% Of people voting for this
1. Promoting Clean Water	50	54
2. Promoting River Ecology	46	49
3. Improving the Natural State of the River	34	37
4. Reducing Peak Flow	32	34
5. Improving Fish Migration	30	32
6. Clearing Invasive Species	28	30
7. Removing Barriers	24	26
8. Reducing Run Off	17	18
9. Citizen Science Initiatives	14	15

The community questionnaire was shared widely over 6 weeks both through social media and in the local library. 118 responses were received.

People were asked how they experienced the river and for their perception of threats to water retention and water quality. Views were also sought on the community perception of habitat and river enhancement issues, what engagement they would appreciate and what specific actions they would like to see.

A final part of the questionnaire asked people to write the 3 words that came to mind when thinking of the River Sid.

The word cloud is shown on the right.

The complete report is available [here on Google docs](#) and on the [SVBG website.](#)

B - Historical interventions

Decade	Intervention	Positive impact	Negative impact
1880	Continued reduction in local mills		Removal of leats and less control of waterways.
1890	Development of sewage network (Sidmouth urban council permission for outfall sewer 1963)	Night soil no longer deposited in waterways.	
1920	Establishment of Forestry Commission	Increased tree planting & woodland cover	Mainly conifers.
1930	Tractors replacing horses	More land for food. More efficient farming.	Impact on soil.
1940	Decline in use of coppicing and use of wood fuel	More tree growth on river banks.	Impact on vegetation biodiversity.
1950	Increase in housing		More hardstanding: more run-off of rain.
1960	Mains water no longer from local springs & boreholes, but imported	Springs now free to flow through land.	Springs now free to flow through land.
1960	Decline of sheep farming for wool	Hilltop pasture becomes woodland.	Decline in hilltop scrub biodiversity.
1960	Artificial fertilisers replacing manure	Allows more precise dosing and less wastage and run-off.	Spring flooding of meadows no longer needed, so streams less controlled and straighten at times of high flow.
1960	Intensification of agriculture incl. use of pesticides	Higher yields.	Huge impact on insect numbers.
1960	Fencing of rivers & streams	Less degrading of river banks by animals.	Increase in shading of rivers.
1980	Organic farmer certification scheme	less pesticides on some land.	removal of hedgerows for extensive grazing.
1980	Easier, mechanised field drainage	Reduce liver fluke.	Reduce biodiversity of meadows.
1990	Decline of dairy farms		Some pasture changed to maize or rapeseed
1990	Building of weirs	Alleviate flooding.	Prevents passage of fish up river.
2000	Introduction of large farm machinery	Potential impaction of soil.	
2000	Decline in Farming incomes.		Land increasingly managed by contractors with less long- term interest in land.
2000	Increase in housing		More hardstanding: more run-off of rain.