SAVING EDEN: A MANIFESTO

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FOREWORD

PEOPLE LOVE RIVERS AND THEY DON'T MAKE 'EM ANYMORE. TWO SIMPLE, YET UNDENIABLE FACTS.

BUT WHY DO WE LOVE RIVERS? LET'S DELVE A LITTLE DEEPER...

Rivers touch our daily lives in many obvious, and some quite subtle, ways. We all know they provide water for us to drink and help grow our food. But there is so much more to rivers. If managed properly they can deliver natural flood protection, they can help educate our children, provide recreational opportunities and even promote our wellbeing. Pretty important things, rivers!

So, why do we need a plan 'To Save The Eden'? Surely something this important should be in the rudest of health? If only.

The Eden, like many other rivers in the UK, is under pressure. That pressure comes from me, you, all of society and the demands it places on our natural resources. Intensive agriculture, sewage, septic tanks, urbanisation, invasive species and sometimes just neglect and ignorance have all taken their toll.

Like you, I am guessing that you will share my scepticism when it comes to words like 'plan' and 'strategy'. Over the years I have witnessed many that have failed to deliver, often driven by a lack of ambition, mediocre targets and inadequate resources. This leads to missed opportunities, poor outcomes and initiative fatigue.

Let me tell you why this plan is different and, more importantly, why you should get involved...

We urgently need to work together to safeguard the future of the Eden. Eden Rivers Trust is co-ordinating the Save The Eden Plan, putting local organisations and communities in charge of planning the future of the river, something that I think is very exciting. We don't have all the answers, no organisation does, but we are committed to doing our bit to make things better. This may result in some unlikely alliances but it's people who save rivers and not plans!

With your help we can deliver practical, innovative, real world solutions that are good for wildlife, people and the local economy.

If we get behind this, I am convinced that our children will grow up in a world where a magical, mysterious and inspirational Eden will flourish. I only have to think how my spirits are lifted when I witness an otter and her cubs playing in the shallows or the electric blue flash of a high octane kingfisher, to know how just important all of this is. Just imagine how we would all feel if we lost it.

MY HOPE IS THAT YOU'LL READ THIS PLAN AND WORK WITH US TO MAKE IT A REALITY.

SIMON JOHNSON,
DIRECTOR, EDEN RIVERS TRUST

CATCHMENT AREA

THE EDEN CATCHMENT IS HOME TO 150,000 PEOPLE AND THE POPULATION IS EXPECTED TO RISE BY 10-20,000 IN THE NEXT 20 YEARS.

THE EDEN IS 80 MILES LONG FROM HELLGILL FORCE TO THE SOLWAY, AND COVERS 850 SQUARE MILES.

THE WATER BODIES IN THE CATCHMENT HAVE A COMBINED LENGTH OF MORE THAN 1,550 MILES.

97% OF THE CATCHMENT IS UTILISED BY AGRICULTURE, WHICH EMPLOYS MORE THAN 5,000 PEOPLE.

THERE ARE MORE THAN 200,000 CATTLE IN THE CATCHMENT, NEARLY 900,000 SHEEP, MORE THAN 30,000 PIGS AND APPROXIMATELY 2 MILLION POULTRY ANIMALS.

7 MILLION PEOPLE VISIT THE CATCHMENT PER YEAR SUSTAINING 8,800 JOBS – THE QUALITY OF THE ENVIRONMENT IS A KEY REASON FOR THEIR VISITS.

PLAN ON A PAGE

WHAT IS THIS?

THIS IS A MANIFESTO FOR HOW WE CAN IMPROVE THE ECOLOGICAL AND SOCIAL VALUE OF A GREAT RIVER, ITS LAKES AND TRIBUTARIES – THE EDEN CATCHMENT.

WHY ARE WE DOING THIS?

In 2012, the Government tasked Eden Rivers Trust with exploring how a third sector local organisation could develop a plan for the catchment that would be significantly better at engaging communities than previous statutory plans. This document is the result of that process. If you are expecting a technical document that says exactly what everyone will do and where, you will be disappointed – this is about pausing and thinking about the bigger picture of how we deliver fundamental changes by 2027.

THE EVIDENCE FOR WHAT'S WRONG

The evidence and analysis of why they are failing is complicated, and needs development. Key pressures are sewage treatment works, agriculture, septic tanks, road run-off, abandoned mines and contaminated land, the impact of water abstraction on flow, human modification of water channels for flood protection, land drainage, road and rail infrastructure, barriers to fish migration and damage to riverbanks. That's you, me and our day-to-day lives… the only bad guys in this are us.

WHY DO WE NEED A PLAN?

The Eden catchment is made up of 98 water bodies. It is home to 150,000 people, visited by millions more, but crucially it also supplies water to millions of other people across the North West of England. To meet the legal requirements of the EU Water Framework Directive (WFD), by 2027 all water bodies (or at least all of those that haven't got a very good excuse) have to be in 'good' or 'high' ecological condition. At the moment only 41% are in 'good' condition. Someone has to work out how to improve the status of these water bodies. This requires practical solutions that are compatible with people living, working and playing here.

DOES ANYONE REALLY CARE?

Yes. We asked over 1,000 people, face-to-face or online, whether and why they care about rivers and how a plan might work. This overwhelmingly showed that people here care deeply about their rivers and lakes. People told us that they care about things that aren't really critical to WFD: beauty, wildlife, access and having water for them to use. Our catchment community wants a plan that is about these things as well. So our plan is going to be about what people care about, the necessary WFD requirements, and achieving other parallel standards like those in the Habitats Directive. Where there are different standards we will pursue the highest one possible.

TAKING CATCHMENT PLANNING TO THE PEOPLE

But, critically, our 1,000+ consultees also told us that they were confused by the 'experts', unable to understand the jargon, and needed better explanations of what was wrong, of the evidence, and what they could do about it. To engage non-specialists in Eden we believe you have to 'translate' the technical information for four key audiences:

1. Farmers
2. Communities
3. Organisations that invest in the catchment
4. Planners and politicians

Each group needs a clear explanation of the issues, a chance to engage on their own terms, a chance to add to or question the evidence, and bespoke support to help them achieve changes if, or when, they accept the implications of the evidence.

BUILDING A PARTNERSHIP TO ADD VALUE

This plan sets out a robust structure for achieving changes that builds on existing knowledge and initiatives. The first step is to establish a catchment coalition to work up the technical plan between 2013 and 2015. The finished plan will be completed in 2015 and will be about how to get all (or as many as humanly possible) water bodies to good status by 2027. We propose the following objectives:

1. A water-friendly planning system
2. A resilient network of habitats
3. A dynamic and more natural river system
4. A river for people: accessible, fun and culturally vibrant
5. A water-friendly farming catchment
6. A knowledgeable and water-friendly end-user community
7. Joined up thinking at a catchment (and end-user) scale

WE NEED YOUR HELP

IF THIS PLAN IS TO BE MORE THAN 'JUST WORDS' IT WILL REQUIRE COMMITMENT TO DEVELOP IT OVER THE NEXT THREE YEARS, AND TO IMPLEMENT IT TO 2027. THIS DOESN'T REQUIRE VAST NEW AMOUNTS OF MONEY, JUST BETTER CO-ORDINATION OF EXISTING INVESTMENT. WE WANT YOU TO HELP US DEVELOP THIS PLAN. IT WON'T BE EASY, BUT WE CAN DO IT. THIS CAN BE ABOUT ENABLING REAL CHANGES. FORGET THE EU'S WFD, WE NEED A CATCHMENT PLAN BECAUSE THIS IS A GREAT RIVER, AND THE PEOPLE HERE WANT IT TO STAY GREAT.

IT'S PEOPLE WHO SAVE RIVERS, NOT PLANS...

"WE'RE LIKE MOST FARMERS, WE'RE NOT PERFECT, BUT WE CARE DEEPLY ABOUT THE ENVIRONMENT, AND WE DO OUR BEST TO BE GOOD STEWARDS OF IT."

JAMES RAINE, FOG CLOSE FARM, KIRKOSWALD

WHY THE PLAN IS NEEDED

Before we can come up with a plan to save the Eden we need to understand the current health of our water environment. We need to know where it's not healthy and identify what's wrong with it. To help us do this the Environment Agency classifies our rivers against whether they are achieving the targets we expect in terms of wildlife, habitat and water quality. The overall target is Good ecological status; that is a water environment with only minor deviation from pristine condition. Every water body is ranked at one of five-tiers of status: High, Good, Moderate, Poor and Bad.

In addition, 19% are classified as being artificial or heavily modified – rivers and still waters which have been significantly impacted by human engineering, e.g. straightened, dammed, and embanked, and which cannot or should not be reversed, for example Haweswater Reservoir. In these cases the target is to meet Good ecological potential by lessening the impact of the modification, for example, by providing adequate compensation flow from a dam structure.

THE EDEN IS IN GOOD CONDITION, RIGHT?

NO. ACTUALLY IT'S RATHER GRIM READING.

52 RIVERS AND 6 STILL WATERS (59% OF THE 98 WATER BODIES) FAIL TO ACHIEVE GOOD ECOLOGICAL STATUS. NO WATER BODIES REACH HIGH STATUS. 41% ARE IN GOOD CONDITION, 46% MODERATE, 12% POOR AND ONLY 1% BAD.

REASONS FOR FAILURE

So, why do so many of our rivers and lakes fail to reach Good ecological status or favourable condition?

In some cases there may be just one reason for failure that is relatively simple to identify, for example, heavy metal contamination from a disused mine. In other cases there may be several potential sources of a pollutant which need investigating – are high levels of phosphate coming from agriculture, septic tanks or sewage treatment works? But, more often than not, a river will fail as a result of the complex interaction of several pressures, both current and historic. This is especially true for failures linked to biological elements, which are often the most difficult to untangle and understand.

The reasons for failure have been identified by routine monitoring, computer modelling, walkover surveys, academic research and local knowledge. The Environment Agency's current understanding is contained in a database and series of desk-based studies for each water body. The 'How the plan will work' chapter sets out how we think we can build on this knowledge through peer review, ground truthing and, most importantly, testing by the local community. This will allow us to develop a more certain picture of reasons for failure and the solutions that will address the key issues.

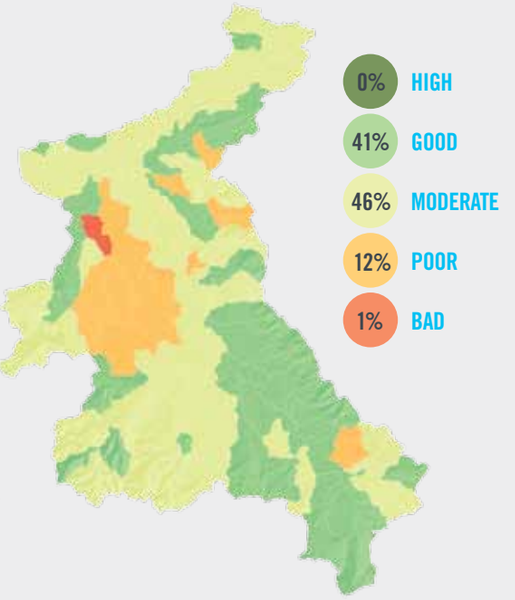
CLASSIFICATION MAP

How does the classification work?

The current, baseline classification was produced by the Environment Agency in 2009. This wasn't an easy task; it involved adapting historic monitoring programmes to new ways of classifying rivers. Some elements were measured for the first time, for others it was the first time that monitoring had been undertaken on a wide scale.

To produce the classification, the Environment Agency monitors a range of river quality indicators and assesses whether these reach the targets they expect. These include biological elements such as fish, algae, aquatic plants and insects; water quality elements such as pH, dissolved oxygen, phosphate, ammonia; specific pollutants such as heavy metals, pesticides and hydrocarbons; and physical habitat elements such as river flow and morphology. The overall ecological status is then based on the lowest scoring element, in what is called a one-out-all-out system. Therefore, if all elements are Good apart from one element that is scored as Moderate, the overall ecological classification for that river or lake will be Moderate.

It's important to know that not all elements have been measured within all water bodies and that there are questions and debate over the certainty of the classification and the representativeness of the models and monitoring sites used. However, work is ongoing by the Environment Agency to improve the classification tools, widen the monitoring programme, and make better use of other organisations' data, to plug the gaps, and to provide a more robust and representative classification for the next baseline in 2015. There will always be limitations with the data, but what we need is enough data to have sufficient certainty that the classification is correct and that we can justify actions.



SPECIAL AREA OF CONSERVATION

The River Eden is hugely important for nature and wildlife and, for this reason, much of the river and its tributaries has been designated a Special Area of Conservation (SAC) (or 'Protected Area' as it is also known) under a piece of European legislation called the Habitats Directive. The Protected Area is divided into 39 units and has been classified into three tiers of condition. These are 'Unfavourable No Change' (23%); 'Unfavourable Recovering' (54%); and 'Favourable' (23%). In many cases the conservation objectives set for the Protected Area are more stringent than the standard targets for all rivers. This is why you will see some rivers on the map that are classified in Good ecological status but unfavourable condition. Where there are two standards the plan will aim for the higher of the two.

WATER FRAMEWORK DIRECTIVE EXPLAINED

WHAT WE ARE ABOUT TO EXPLAIN WILL NOT BE THE MOST EXCITING BIT OF THIS PLAN, BUT YOU NEED TO KNOW ABOUT IT, SO BEAR WITH US...

The catalyst for this plan was a piece of rather dull-sounding, but rather important, EU legislation called the 'Water Framework Directive' (WFD for short). WFD is the most substantial piece of water legislation ever produced by the EU and will provide the major driver for achieving sustainable management of water in the UK and other Member States for many years to come. It requires that all inland and coastal waters must reach at least 'good' ecological status by 2027. 'Good ecological status' may sound like jargon but it's basically a measure of the health of the river system by measuring key chemical and biological factors. It also sets a series of environmental objectives and ecological targets for surface waters.

WFD has been signed up to by the UK government and if you use water (and we all do), it's going to affect you. With so many water bodies currently beneath 'good' status, meeting WFD targets by 2027 is going to require some major changes – the choice is whether we do it smart or do it dumb. WFD requires catchments to have a plan, and to renew it every six years. Our target is to have our plan fully completed by 2015 to dovetail with other critical plans.

WFD has a specific article (Article 14) that requires all Member States to genuinely consult with the people who live, work and play in river catchments. Not the usual window-dressing seen-it-all-before-you're-not-really-listening consultation stuff, but genuine engagement with communities. The plan you are reading resulted from the UK Government giving a handful of non-governmental organisations the opportunity to do catchment planning, to see if they could genuinely engage with communities. We think we've risen to that challenge and have created a process for developing the full plan in the next three years that will be community based.

By listening to people we have heard loud and clear that they want a plan for the Eden that is more than about meeting the sometimes narrow ecological and chemical requirements of WFD; the people of our catchment want a plan for the river that both helps it meet WFD, but also gives them a river and landscape that is rich in wildlife, remains a thing of beauty, continues to give them the water they need for their businesses, homes and recreation, and lastly that is as accessible as possible.

OUR PLAN IS MORE THAN WFD ALONE. WE CALL IT WFD+

PRESSURES

A BEGINNER'S GUIDE TO THE PRESSURES ON THE EDEN

Our work with a range of stakeholders during the last year has been about identifying clearly the key pressures faced by the Eden. We have boiled these down to seven key pressures that are resulting in Eden's less-than-perfect ecological status. Getting the Eden into a good status that we can all be proud of will require us to address these pressures.

The good news is that all of these seven pressures can be addressed, and the solutions are not always expensive or complicated. We just have to be willing to acknowledge them, and then care enough to work together to address them. It's not rocket science.

PEOPLE PRESSURE

Everyone who lives and works in, or visits, the catchment potentially has a negative impact on its water or ecological status. Even though a lot of the Eden catchment has a very low population density – some of the lowest densities in the UK – people still impose significant pressures, even in a rural area like this.

We all drink and use water – more than you might think. Everything we pour or flush down our drains, from washing powders to sewage, can damage the river if not treated properly. In rural areas such as ours, one of the major pressures on the river today comes from unsewered communities, many of which have inferior or poorly maintained septic tanks or treatment works. There may only be 150,000 people living in the catchment, but we have several million visitors each year. This puts even more pressure on our rural sewage systems, particularly in tourist hot spots, and can lead to water quality issues.

Abstracting water for people to use also affects the health of the river system in a range of ways. Reservoirs and abstraction structures can cause major barriers to fish passage, they can also prevent the natural downstream movement of river cobbles and gravels damaging river habitat. If too little water is left in streams and rivers, or the natural 'flow variability' is lost then habitat is damaged and wildlife can die. Whilst the local population is low, millions more in the Greater Manchester area are dependent on drinking water abstracted from the Eden catchment. This means that up to 420 million litres of water are abstracted from Haweswater and the River Eden each day – that's a lot of water to take out of a river system.

There are plans for an additional 10-20,000 people to live in the catchment in the next 20 years, with particular growth in and around Carlisle. 20,000 extra people will place significant pressure on the existing infrastructure. 20,000 people consume a lot of water, and produce a lot of dirty water. Expansion of the urban, concrete area will also lead to more rapid surface run-off. Without sympathetic development and the addition of effective green spaces this growth may result in overwhelmed sewage systems, poor water quality and greater flood risk. These challenges can be met, but they require intelligent design of the growth areas based on an understanding of water issues.

APPROXIMATELY 97% OF THE CATCHMENT IS FARMED IN ONE WAY OR ANOTHER.

IT IS NOW ESTIMATED THAT 70% OF THE BIOMASS IN THE RIVER RHINE IS MADE UP OF MASSES OF 'KILLER SHRIMP' THAT ARE WIPING OUT NATIVE SPECIES.

COMMERCIAL PRESSURES

This is a working landscape where many tens of thousands of people earn their living, many of them from land-based industries. Approximately 97% of the catchment is farmed in one way or another, or used for other economic activities like forestry, tourism or shooting. One of the key challenges of a catchment plan is that individuals or businesses are often constrained by their need to make a profit from their land. Businesses in the catchment are overwhelmingly small, by national standards, and more likely to be family owned and run. Local businesses are also affected heavily by commodity prices, so the global price of milk or lamb may dictate whether a farm business invests in upgrading their buildings or waste infrastructure. Any catchment planning needs to be sensitive to these realities, and should be designed to co-ordinate investment for nudging businesses closer to the ideal, by providing accessible, understandable and fit-for-purpose support.

BIOLOGICAL THREATS

The Eden, like many other rivers, is now significantly affected by the increasingly global spread of flora and fauna species. A number of plant 'invasive species' are already established on the Eden, and doing significant harm. Himalayan Balsam, Japanese Knotweed and Giant Hogweed all outcompete native species and leave exposed riverbanks open to soil erosion in the winter. This soil washes into the river where it can damage the habitat for fish and other species. The Eden is also one of the last strongholds of the native white-clawed crayfish. Their continued existence is threatened by the arrival of signal crayfish, which have wiped out entire native populations elsewhere in the UK through competition for resources and also through the fungal infection, crayfish plague. The Eden's fish stocks are also at risk from a range of fish diseases. The key point is that this threat comes partly from all of us – we brought these alien species to the catchment for our ponds or gardens, and if we're not careful we will, in our ignorance, bring other problems in the future. And some of the potential future 'nasties' should give everyone food for thought: it is now estimated that 70% of the biomass in the River Rhine is made up of masses of 'killer shrimp' that are wiping out native species.

CLIMATE CHANGE

Climate change poses particular threats to the Eden and its communities. The extreme flood and drought events we have witnessed in the past decade are glimpses of what might become more familiar in the future. The human and economic cost of floods, such as those in Carlisle in 2005 (the worst floods since 1822), are massive – estimated at £250 million. The floods saw 180mm of rainfall in one day. Around 1,800 properties were flooded, three people lost their lives, and more than 70 people sustained injuries. Subsequently in 2010 the Environment Agency implemented a £38 million flood alleviation scheme that protects 1,500 properties using 10km of raised flood defences. The scheme was completed as a result of new information on flooding levels and climate change projections. So, everyone in the catchment has an interest in making it more resilient and robust to adapt to, and mitigate the effects of, possible climate changes. The smaller streams in the headwaters face perhaps the greatest ecological threat from a 1-2 degree rise in environmental temperature: because they lack the volume of water, and also too frequently the vital shade of trees to retain a moderate temperature for local species when faced with a warmer environment. Little streams heat up quicker than big ones, or lakes.

TRANSPORT AND INFRASTRUCTURE

Even though the Eden catchment is one of the least populated and most rural areas in the UK, it does not escape from the transport pressures that are usually associated with major urban areas. The M6, A6, A66 and West Coast Main Line rail route all cut a corridor through the Eden Valley and run alongside either the Eden or its tributaries for many miles. Other main roads and dual carriageways carve through the rest of the catchment. The impact of the M6 in particular is high on some stretches of river, and in the past has been the source of pollution incidents. The age of the M6 means that drainage and settlement ponds were not given the consideration they would be on a newer stretch of road, and retrofitting solutions is often deemed to be not 'cost effective' compared with the needs of other even more traffic dense stretches of road nationally. The construction of these roads and railways often included alterations to rivers, such as straightening and embankments, with new barriers created for migratory fish and the loss of vital habitat. In recent years great progress has been made by the emergency services at preventing potential pollution incidents from escalating, but real risks still exist of a major incident, or simply from increasing traffic volume over time leading to increased run-off of dirty water into rivers.

THE HUMAN AND ECONOMIC COST OF FLOODS, SUCH AS THOSE IN CARLISLE IN 2005 (THE WORST FLOODS SINCE 1822), ARE MASSIVE – ESTIMATED AT £250 MILLION.

THE AGE OF THE M6 MEANS THAT DRAINAGE AND SETTLEMENT PONDS WERE NOT GIVEN THE CONSIDERATION THEY WOULD BE ON A NEWER STRETCH OF ROAD.

PRESSURES ON THE MIGRATORY FISH STOCKS

Populations of migratory fish in the Eden, like many rivers in North West Europe, are struggling to meet their conservation targets. Pressures in the freshwater phase of fish migrations are well documented and include habitat loss, barriers, weirs, hydropower turbines and pollution. However, in many cases declines of migratory fish populations are caused by factors in the marine as well as the freshwater environment. The Eden and its tributaries are part of a global water ecosystem. Some of our most iconic and enigmatic species such as salmon, sea trout, eels and sea lamprey spend a considerable amount of their lives in the world's oceans and are heavily affected by factors like over fishing at sea and climate change. For thousands of years, salmon have used their 'genetic sat nav' to return to the becks of their birth and complete one of the most amazing life cycles of any species. They are the ultimate indicators, not only of the health of a catchment, but of the marine ecosystem, stretching from Kirkby Stephen, via Iceland to Greenland and back again.

HISTORICAL LEGACIES

People created many of the challenges faced by the Eden and its tributaries. In the name of 'improvement' rivers were straightened, land drained, bridges spanned rivers, and weirs were added for mills. Not all of this can, or should, be undone, but to restore the rivers to full health measures will need to address some of the issues that historic works have created. Some of the water bodies in the catchment are also affected by the run-off from abandoned mines or contaminated land linked to previous industrial activities. Farming families are coping with the buildings and infrastructure inherited from previous generations. And even the design of the M6 is from an era that makes creating filtration ponds difficult. The point is simple; we have to start in the real world with the realities of how people live and work in the catchment, with an awareness that the starting point isn't a blank sheet of paper but the result of centuries of human history. There is no point being critical of the past; we have to work with what we've inherited.

BAD GUYS? GOOD GUYS?

You may have noticed that three things aren't on this list that you might expect if you were more familiar with other rivers – industry, manufacturing and power generation. That's because the pressures affecting the Eden reflect the human activities in the catchment, and Eden is an overwhelmingly rural area dominated by farming, forestry and primary industries. This doesn't mean that these are 'bad' activities, it simply means that they are what affect this catchment, and working with those sectors has to be the focus of this plan.

Not all of these threats are equal, and they are not constant – they change over time. 30 years ago the pressures were different, and in 30 years time the current pressures may seem equally obsolete, hopefully because this plan addresses the current pressures.

OUR FOUR AUDIENCES EXPLAINED

HERE IS THE REALITY CHECK FOR EVERYONE INVOLVED IN CATCHMENT PLANNING OR RIVER RESTORATION WORK… NO-ONE ELSE KNOWS WHAT WE ARE TALKING ABOUT!

We spoke to more than 1,000 people about the plan and they told us something simple but of fundamental importance – the language we use does not work for them, they simply don't recognise or understand the terms that specialists use. Phrases such as 'point source pollution', 'diffuse pollution', 'ecosystem services', 'acidification', 'morphological alterations' or 'riparian habitat' just won't work. To most people it's gobbledygook. It suggests that caring about rivers is just for professors, and this isn't what we want.

This is a classic example of what sociologists call an 'insider dialogue' – one group of people talking about a thing in a way that only they understand. That's fine if only a few dozen specialists need to speak to, and understand, each other, but it becomes a fatal flaw when we try to go one step further and talk to many thousands of people.

The people we spoke to wanted this presented in simple terms, with a dialogue built around simple questions and answers:

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WHAT IMPACT DO I HAVE ON THE RIVERS?

HOW DO YOU KNOW THIS IS TRUE, AND THAT IT ISN'T SOMEONE ELSE'S FAULT?

OK, I GET IT, BUT WHAT CAN I DO ABOUT IT?

We discovered that there are four groups of people that we overwhelmingly need to speak to, and knowing this shapes how you answer those three questions. The four groups are as follows:

1 Communities

The people who live, work and play in the catchment and, crucially, those who consume water from the catchment.

Action – persuade lots of people to make little changes that add up to something bigger.

2 Farmers

The people who farm the vast majority of the land in the Eden catchment.

Action – secure small changes to many farms, and work with a few big farms to make some big changes.

3 Major investor organisations

The organisations who already spend large amounts of public, private and third sector monies in the catchment.

Action – nudge their investment towards being more co-ordinated to help improve the water bodies.

4 Planners and politicians

The organisations and people who shape what future development in the catchment (and, crucially, the end-user area) looks like.

Action – ensure that planning policies and implementation are as water-friendly and efficient as can be.

Our plan is based around answering those three questions to those four audiences. We will make our plan accessible and understandable to all.

CATCHMENT COMMUNITY

"I SHARE ERT'S PASSION FOR CONSERVATION, EDUCATION AND RESEARCH AND FEEL PROUD TO HAVE CONTRIBUTED TO THE EXCELLENT WORK THEY HAVE CARRIED OUT IN THE CATCHMENT OVER THE YEARS."

STEPHANIE KERSHAW, VOLUNTEER, MORLAND BECK

THERE ARE MORE THAN 150,000 PEOPLE LIVING IN THE EDEN CATCHMENT.

A PEOPLE'S CATCHMENT PLAN WILL BE ABOUT HOW WE CAN MAKE THE EDEN AND ITS CATCHMENT BETTER FOR WILDLIFE, RECREATION, BETTER FOR PRODUCING SUSTAINABLE AMOUNTS OF CLEAN WATER AND MORE BEAUTIFUL. THIS IS ABOUT CREATING A BETTER PLACE TO LIVE AND WORK.

Whether you live here, work here or are just visiting the catchment, you may have a negative impact on its water or ecological status. That's you and me. We all use water, more than you might think.

OVERVIEW

The Eden Valley is home to a wide array of different communities, from larger urban communities like Carlisle city (population 70,000) to market towns like Penrith (population 14,700), but many people live in small rural communities or in isolated dwellings with a few houses. Overall the catchment has one of the lowest population densities in the UK, with just 0.2 people per hectare in Eden District, rising to one person per hectare in Carlisle district. Many small rural communities have not grown, but Carlisle district's population has grown by nearly 7% since 2001 with further growth predicted.

Using ACORN data on levels of affluence 54% of residents in Eden District are described as 'wealthy achievers' and another 28% as 'comfortably off'; the respective figures for Carlisle are 28% and 27%. Those described as 'hard pressed' in Carlisle make up 23% of the population, whereas in Eden only 6% of residents are described this way. The economy of the catchment is dominated by small businesses, many of which are family-run, with only a small number of employers with more than 250 employees. Key employment sectors are transport and logistics, manufacturing, farming, tourism and food and drink. The catchment has relatively low unemployment, but like other rural areas often has only modest levels of productivity, resulting in relatively low wages.

WATER CONSUMPTION AND THE RIVER EDEN

Around 400 million litres of water is taken from Haweswater every day – much of this is consumed by people in South Cumbria, Greater Manchester, Merseyside, Lancashire and Cheshire. For many others in the Carlisle area, 20 million litres a day comes from the River Eden at Cumwhinton and the River Gelt. That's enough water being taken out of the catchment to fill 168 Olympic-sized swimming pools every single day. That's a lot of water to take out of a river system.

Abstraction from the catchment is done under license by United Utilities. Over recent years much work has been done to address the pressures of abstraction and move United Utilities towards a more 'sustainable abstraction' approach as part of the review of their 2015 license agreements.

Although the summer and autumn of 2012 will be remembered for being two of the wettest on record, it should be remembered that in the spring of that year plans were being made in anticipation for drought in Cumbria. Whatever challenges climate change throws at us, be they wetter summers or drier winters it makes good sense to manage uncertainty in a pro-active manner.

WASTEWATER AND THE RIVER EDEN

When we flush it, pour it and drain it away, our wastewater goes on a journey back to the river – which starts the moment it leaves our properties and enters the sewage system. And this wastewater has to be treated.

Thirty years ago the heaviest pressure on the catchment was untreated, or insufficiently treated, sewage from larger communities finding its way into the rivers. Almost 20 years ago a co-ordinated response was developed, with the utility companies guided by the Environment Agency. Millions of pounds have been invested to provide communities like Penrith and Shap with treatment works that can strip out chemicals that would have once degraded the rivers. The results are impressive – today almost all the larger communities have efficient wastewater treatment works.

Today the problem lies with the smaller unsewered communities, many of which have inferior or poorly maintained septic tanks or treatment works. In the future these should be the areas of focus to increase the uptake of First Time Rural Sewage schemes and encourage proper maintenance of septic tanks in areas where population and tourism growth is planned.

WHY DOES THE COMMUNITY MATTER FOR THE PLAN?

Everyone in the catchment community has a role to play. Even though a lot of the Eden catchment has a very low population density there are still around 150,000 people living here and seven million visitors each year. On top of this, pressure is put on the catchment because it supplies water to the rest of North West England through the Haweswater/Ullswater system. Those delivering conservation objectives through land use change need to deliver multiple benefits to help build resilient climate change communities – prevention is better than cure.

WHAT THE COMMUNITIES SAY

Eden Rivers Trust has already consulted over 1,000 people and asked them for their views. We asked "Why do you care about rivers?" A tiny percentage (about 1%) of those asked said they didn't care about their river, another tiny percentage (c.4%) were too shy, busy or disinterested to speak to us at length, but approximately 95% were positive about their river – and their enthusiasm was infectious and extremely encouraging.

The people of Eden told us they cared about rivers for four relatively simple and overwhelming reasons: wildlife, recreation, utility and aesthetics. In fact, 95% of respondents listed one or more of these four reasons. The key point of note is that what the people of Eden care about sounds very different to the technical concerns of the Water Framework Directive. Of the 1,000 people we consulted no-one spoke of 'diffuse pollution' or 'modified water courses'.

We asked "What do you think is the biggest threat to the Eden?" Pollution was the answer from 79%, citing farming, domestic and industrial sources. Litter scored 18% with invasive species coming a close third at 12%. Interestingly, people ranked themselves at fourth in the impact table at 11%. Issues such as climate change and flooding were mentioned but only in around 5% of responses, perhaps reflecting the sense that individuals feel powerless to solve these issues alone. Again, no-one really used insider jargon like 'diffuse pollution' or 'phosphates'.

IT WOULD TAKE THE RESIDENTS OF EDEN 27 YEARS TO DRINK THE VOLUME OF WATER IN LAKE ULLSWATER BUT IT WOULD TAKE THE POPULATION OF GREATER MANCHESTER JUST 1.5 YEARS TO DRINK THE SAME AMOUNT.

Our final question was “How do you think you could help to save your river?” Most people were unsure what they could do to help but the overwhelming majority thought they could and should be doing something – 55% stated they would like to get involved with direct conservation tasks on the river and 19% stated that they would reduce their ‘water and chemical footprint’ at home. 28% felt that the key to saving a river was to raise awareness and getting the messages out early to primary and secondary school age groups.

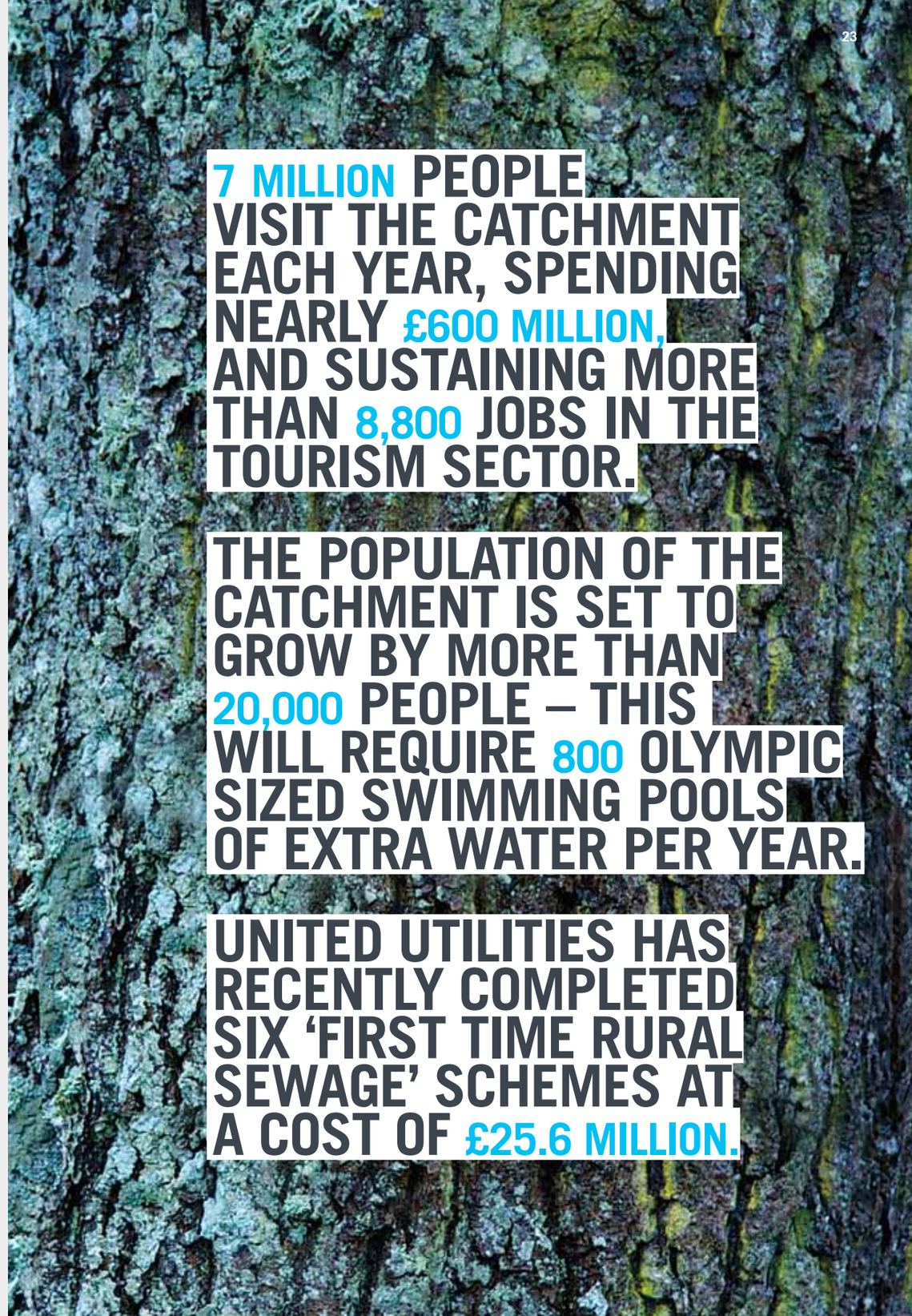
Our consultation found that very few people understand where their drinking water comes from, where their dirty water goes, or how they personally impact on the river system – in the past we haven’t had to think about it. A key finding of our research has been that the future health of the Eden and its tributaries may be dictated by how people use water far beyond the immediate catchment area; an effective catchment plan for the Eden needs to reach lots of people who may live a long way away and may not realise they affect our catchment.

HOW ARE WE GOING TO WORK WITH THE COMMUNITY?

We will involve the community with the development of the plan. A series of local community consultation events will be publicised over the next two years to share updates on the status of their river, the local pressures identified by the experts, and the proposed local solutions. We know that our 98 desk-based studies are just the beginning of the process, and that any analysis of a river is partly a best guess in an office building until the local community have had their say. This plan won’t work if it's just experts telling everyone what’s wrong and what we all need to do. There are no greater experts on the catchment than the people who live, work and play in the catchment. That's you and me, so we all have to step up and have our say.

WHAT WE WANT COMMUNITIES TO DO

- READ 'MAKING IT HAPPEN: THE NEXT THREE YEARS'
- USE LESS WATER IN YOUR DAY-TO-DAY LIVES
- TAKE PART IN OUR COMMUNITY CONSULTATION
- TELL YOUR LOCAL POLITICIANS AND AUTHORITIES THAT YOU WANT GREEN CITIES AND TOWNS
- GET INVOLVED IN THE CHERISH EDEN PROJECT
- ENJOY THE RIVER RESPONSIBLY
- INCLUDE THE RIVER IN ARTS AND CULTURAL PROJECTS
- ‘HEALTH CHECK’ AND MAINTAIN YOUR SEPTIC TANK
- APPLY FOR A FIRST TIME RURAL SEWAGE SCHEME
- INCLUDE RIVER-BASED LEARNING IN THE CURRICULUM
- SUPPORT WATER-FRIENDLY BUSINESSES AND PRODUCTS
- SUPPORT WATER-FRIENDLY TOURISM BUSINESSES
- PRODUCE AN INDEPENDENT FISHERIES PLAN



7 MILLION PEOPLE VISIT THE CATCHMENT EACH YEAR, SPENDING NEARLY £600 MILLION, AND SUSTAINING MORE THAN 8,800 JOBS IN THE TOURISM SECTOR.

THE POPULATION OF THE CATCHMENT IS SET TO GROW BY MORE THAN 20,000 PEOPLE – THIS WILL REQUIRE 800 OLYMPIC SIZED SWIMMING POOLS OF EXTRA WATER PER YEAR.

UNITED UTILITIES HAS RECENTLY COMPLETED SIX ‘FIRST TIME RURAL SEWAGE’ SCHEMES AT A COST OF £25.6 MILLION.

FARMING AND LAND MANAGEMENT

"THE EDEN PILOT HAS HELPED US ALL CONSIDER DIFFERENT PERSPECTIVES ON ISSUES THAT WE HAVE WORKED ON FOR MANY YEARS, AND WITH THAT NEW UNDERSTANDING COLLECTIVELY DELIVER BETTER WAYS TO IMPROVE THE ENVIRONMENT WITHOUT HAVING AN IMPACT ON THE LOCAL ECONOMY, OF WHICH FARMING IS A KEY PART."

JEREMY WESTGARTH, AREA ENVIRONMENT MANAGER CUMBRIA, ENVIRONMENT AGENCY WITH ROB FAWCETT AT LITTLE BLENCOWE FARM

THERE ARE MORE THAN 2,000 FARM HOLDINGS IN THE EDEN CATCHMENT.

FARMING IS A KEY PART OF THE ECONOMIC, SOCIAL AND CULTURAL IDENTITY OF THE CATCHMENT – SUSTAINING JOBS, PRODUCING HIGH QUALITY FOOD AND HIGH QUALITY BREEDING STOCK, AND A RANGE OF ECO SYSTEM SERVICES.

Of the 550,000 acres that make up the catchment, 97% are farmed, and the health of the river is affected by the activities that take place in the catchment. Unfortunately, some farming practices can negatively impact on the river – and the problem is less about major pollution incidents from farms (thankfully relatively rare), than the cumulative impact of too many phosphates in the river, drainage, overgrazing riverbanks, or siltation from the way land is farmed or grazed. Because each farm's impact may be small on its own, many farmers are genuinely surprised that they collectively might be creating a larger problem.

The bottom line is that this is overwhelmingly a farming landscape, and if we are to make a difference we need to find ways to help farm businesses to make changes. This plan is not about 'farmer-bashing', it's about how we help the industry to bring about environmental changes to the catchment, at the same time as they fight to remain productive and profitable.

OVERVIEW

The Eden landscape ranges from very extensive, high conservation value heather moorland and fell to intensively farmed and incredibly fertile, deep-soiled grade 2 arable land. In the upland areas of the Lake District and the North Pennines, sheep farming and some cattle farming are the dominant farm types. 900,000 sheep live in the valley and the annual 'Harvest of the Hills' mule sheep sale at Lazonby is one of the largest breeding sheep sales in the UK. The management of sheep in the uplands is also of great cultural significance, with local dialect finding its roots in ancient sheep farming terminology.

The fertile tracts of lowland farmland in the valley bottom are home to one the UK's most important milk fields, with the fertile soil and adequate rainfall making the valley a supreme grass growing area. Combined with the location of the valley in terms of logistics, this makes it ideal for dairy and beef production – it's home to well over 200,000 head of cattle.

The Eden Valley farming community is still dominated by family farms. The skill and dedication of the Eden Valley's stock men and women is evident in the fact that some of the highest prices achieved for livestock in the world are for stock that has either been bred in the Eden or been purchased by Eden-based farms. Farm businesses make up over 30% of the valley's VAT registered businesses and, although farming is not the huge industry it once was, agriculture is still an important contributor to the economic and social health of the whole community.

Farming in the Eden, like anywhere in the world, has been and will continue to be a tough way to make a living. However, the commitment of the Eden's farming families to stay the course in farming for many generations should give us confidence that they will be ready for the next challenge, producing food profitably whilst protecting our rivers and water supplies for wildlife and for people living in the valley and beyond.

WHY DO FARMERS MATTER FOR THE PLAN?

The way we manage the land has a profound impact on the catchment landscape and the rivers and streams which drain it. At its most basic, the landscape is a huge filter for rainwater and how the land is managed affects the route that water takes through the landscape, how quickly it moves, what it picks up or deposits along the way, and ultimately what ends up in the river.

Here are just some of the ways in which farming practices and the chemicals, nutrients, and waste the industry uses and produces can affect our rivers.

Nutrients found in fertilisers, slurries and manures, like phosphates and nitrates, help crops to grow, but if washed into the river encourage algae to flourish.

Small quantities of silage effluent can deplete oxygen in the water, damaging wildlife.

Ammonia in animal waste is toxic to fish.

Pesticides can be lethal to fish and invertebrates and even very low concentrations can impact drinking water.

Soil and silt washing in from land can rob riverbeds of oxygen and suffocate invertebrates and fish eggs.

Overgrazed river banks lacking vegetation and trees are poor for wildlife habitat.

River straightening, inappropriate bank reinforcement and clearance of ditches has led to a loss of habitat diversity.

Pipe bridges, culverts and fords restrict the migration of fish through our river system.

Compaction of soil impedes the water flow through the soil, reducing water storage, increasing surface run-off and speeding up river level rise during heavy rainfall.

Natural features like hedgerows and wetlands have been lost to intensive agriculture.

Farming has a PR issue. Our consultations suggest that poor farming practices are seen as a key source of river pollution. Other industries react very quickly to negative public opinion, farming should be no different.

WHAT THE FARMERS SAY

Eden Rivers Trust has worked with farmers for over 15 years. Throughout 2012, we spent a lot of time talking to them about WFD and this plan. We attended agricultural shows, food events and established a Farmer Think Tank with representatives from across the industry. What farmers told us is critical: about half had not heard about WFD, and few understood its potential impact. There was also a feeling that there was no real partnership between farmers and catchment managers. The messages from the Think Tank were as follows:

Demand for more knowledge about what WFD means for farming businesses.

Acknowledgment that farming contributes to problems and has to be part of the solution.

Demand for evidence of farming impacts to aid decisions on remediation and mitigation.

Agreement that farming solutions should be proportionate to the farming impact.

Agreement that incentives are critical and that agri-environment/other grant sources should be better co-ordinated to deliver WFD.

Concerns about the ability of some farms to make major capital investment, and the need to recognise different priorities because of farmer age, succession, etc.

Demand to see best practice on commercial farm businesses to provide credibility, along with local forums to make WFD relevant.

Widespread agreement that when all reasonable measures have been exhausted, regulation and a 'big stick' approach was necessary.

THE EVIDENCE THAT POOR FARMING PRACTICES CAUSE SIGNIFICANT AND NEGATIVE IMPACTS WAS GREETED WITH A MIXTURE OF SUPER-SCEPTICISM, GENUINE INTEREST AND DEBATE.

HOW ARE WE GOING TO WORK WITH FARMERS?

Until very recently it was difficult because the evidence and analysis for the catchment did not provide very clear or convincing answers. We knew that we had too many phosphates or too much siltation in various water bodies, but we weren't able to say how much this was caused by the way the land is managed.

But the evidence, and most importantly its accessibility, is improving by the day, thanks to good work by the Environment Agency, encouraged by the work of this plan. A source apportionment tool has been developed, which allows us to identify what the sources of chemicals are likely to be and to what extent. The early outputs of this have been very impressive and models for phosphate and nitrate are now available. These clearly show the large and cumulative effect that farming makes to the loadings of these nutrients throughout the Eden, compared to other contributions from sources such as Waste Water Treatment Plants and septic tanks. In many cases United Utilities has delivered, or has plans to deliver, multi-million pound programmes of investment to upgrade Treatment Plants and first time rural sewage in villages.

The source apportionment evidence was welcomed by members of our Farmer Think Tank, despite the challenging findings.

By participating in the Think Tank farmers will help to set the strategic agenda for catchment management in a way that works for the environment and the rural economy.

WHAT WE WANT FARMERS TO DO

- BECOME A WATER-FRIENDLY FARM BUSINESS
- ASK FOR AN ERT OR CATCHMENT SENSITIVE FARMING ADVICE VISIT
- TAKE PART IN OUR COMMUNITY CONSULTATION
- JOIN THE FARMING THINK TANK DIALOGUE ON HOW POST CAP REFORM AGRICULTURE AND AGRI-ENVIRONMENT SCHEMES COULD WORK
- GET INVOLVED WITH THE EDEN EVIDENCE & IMPACTS FORUM TO IDENTIFY THE IMPACTS OF FARMING AND DEVELOP SUSTAINABLE WIN:WIN SOLUTIONS
- DEMONSTRATE WATER-FRIENDLY IMPROVEMENTS ON YOUR FARM TO OTHER FARM BUSINESSES AND POLICY MAKERS/CATCHMENT MANAGERS

THE SECTOR DIRECTLY EMPLOYS OVER 5,000 PEOPLE IN THE CATCHMENT, AND MANY HUNDREDS MORE INDIRECTLY.

THERE ARE MORE THAN 200,000 CATTLE IN THE CATCHMENT, NEARLY 900,000 SHEEP, MORE THAN 30,000 PIGS AND APPROXIMATELY 2 MILLION POULTRY.

FARM BUSINESSES ARE UNDER GREAT COMMERCIAL PRESSURE. TO BE VIABLE THEY MUST INCREASE LIVESTOCK NUMBERS AND LABOUR EFFICIENCY. IT'S A SIGNIFICANT INVESTMENT AND AN OPPORTUNITY OR THREAT TO RIVERS. ERT HELP MAKE THIS AS WATER-FRIENDLY AS POSSIBLE.

MAKING INVESTMENT WORK BETTER

"THE EDEN CATCHMENT HAS A WEALTH OF SPECIAL AREAS THAT SUPPORT SOME OF EUROPE'S MOST RARE AND ENDANGERED HABITATS AND SPECIES. CONSERVING THESE FOR CURRENT AND FUTURE GENERATIONS REQUIRES THE SUPPORT, INTEREST AND SKILLS OF A RANGE OF ORGANISATIONS, FARMERS AND THE LOCAL COMMUNITY. WE ARE KEEN TO WORK WITH ERT TO DEVELOP THE PLAN FOR THE CATCHMENT AND SUPPORT ITS IMPLEMENTATION."

SIMON HUMPHRIES, NATURAL ENGLAND
NEXT TO WET SLEDDALE RESERVOIR

IN MARCH 2012 WE ORGANISED A WORKSHOP FOR MANAGERS FROM ACROSS PUBLIC, PRIVATE, ACADEMIC AND THIRD SECTORS, KNOWN AS THE 'CATCHMENT BRAINS', TO GIVE US THEIR VIEWS ON HOW WE COULD IMPROVE CATCHMENT MANAGEMENT AND DEVELOP A PLAN FOR THE EDEN.

Our best guess is that between them this group invests well in excess of £50 million annually (capital and revenue) to target a bewildering array of European Directives, agri-environment schemes, rural development projects, special initiatives, business drivers, campaigns, advice and regulatory activities.

HIGH LEVEL INVESTMENT: THE THREE SECTORS

1

PUBLIC SECTOR

This is mainly driven by the organisations collectively known as the 'Defra Family' – the Environment Agency, Natural England and Forestry Commission. Within these there are a wide range of priorities and funding mechanisms that can deliver WFD outcomes.

ENVIRONMENT AGENCY

The Environment Agency (EA) is the Competent Authority regarding the implementation and delivery of primary actions to meet WFD objectives on Eden. Many capital projects are routed via Eden Rivers Trust, which is able to deliver cost effective and efficient solutions, particularly those needing farming community involvement. Current examples of this are the River Petteril Evidence & Measures Project (£540k 2011-13) which offers integrated catchment solutions involving the farming community; and the River Restoration Strategy (£1.5 million 2011-13), a collaborative project with both Natural England and ERT. Indirect support for WFD objectives comes from an extensive programme of regulation and monitoring activities for a variety of drivers including water quality, water resources, flood risk management and fisheries. This is co-ordinated by the EA's Penrith Office, whose geographical area of responsibility is North Cumbria, making it difficult to allocate specific costs of these activities to the Eden Catchment.

NATURAL ENGLAND

Natural England (NE) manages and invests capital and revenue through four primary mechanisms:

1. **Management of Defra Entry Level & Higher Level Stewardship: £9 million per year**
2. **Catchment Sensitive Farming: £600k+ per year**
3. **Additional Protected Area Management / Species Protection: £100k per annum**
4. **Advisory and Licensing Work**

Stewardship: an agri-environment scheme that provides funding to farmers and land managers in England to deliver environmental management. There are four elements, all of which are utilised on Eden. Entry Level Stewardship (ELS) provides a straightforward approach to supporting the good stewardship of the countryside; Organic Entry Level Stewardship (OELS) is the organic strand of ELS; Uplands Entry Level Stewardship (Uplands ELS) supports hill farmers with payments for environmental management; and Higher Level Stewardship (HLS) involves more complex types of management and agreements are tailored to local circumstances.

Catchment Sensitive Farming (CSF): a joint project between the Environment Agency and Natural England, funded by Defra and the Rural Development Programme for England, working in priority catchments within England. CSF delivers practical solutions and targeted support to enable farmers and land managers to take voluntary action in order to reduce diffuse water pollution from agriculture to protect water bodies and the environment.

Protected Area Management/Species Protection and Advisory and Licensing: the Eden is a Special Area of Conservation (SAC) and a Site of Special Scientific Interest (SSSI). SACs have been given special protection under the EU's Habitats Directive. They provide increased protection to a variety of wild animals, plants and habitats and are a vital part of global efforts to conserve the world's biodiversity. Natural England is duty bound to ensure that SACs are managed favourably for conservation. Every SSSI notification contains a list of potentially damaging operations. By law Natural England must be informed in writing and permission obtained before carrying out any of these listed operations.

FORESTRY COMMISSION

The Forestry Commission (FC) is responsible for protecting, improving and expanding woodlands to ensure that they can flourish in the face of climate change, pests and diseases, and to maximise their potential to support biodiversity, to provide other ecosystem services and to contribute to jobs and the economy. In the Eden catchment this is primarily delivered through landowner uptake of the English Woodland Grant Scheme, worth £1.2 million between 2009-12.

2

PRIVATE SECTOR

UNITED UTILITIES

United Utilities (UU) makes major annual investments for both the drinking water and wastewater side of their business activities in the Eden catchment. Much of this investment directly and indirectly benefits local river water quality and quantity. Current investment of £47.9 million reflects the funding spent on projects including First Time Rural Sewage projects; Shap Wastewater Treatment Works; Briggle Beck Habitats Project; and improvements to Penrith sewerage networks.

UU's Sustainable Catchment Management Programme (SCaMP) is an ongoing capital investment – predicted spend is around £4.8m to protect the Haweswater drinking water supply and improve biodiversity.

The Eden is also designated as a Safeguard Zone due to issues affecting raw water quality (pesticides/colour) at the Cumwhinton and River Gelt abstraction points. Action plans are currently being developed by EA and UU, with advice from Eden Rivers Trust, to inform the targeting of mitigation measures, advice and incentive schemes for landowners/managers as well as regulatory inspections and enforcement.

3

THIRD SECTOR

Eden Rivers Trust delivers capital investment programmes throughout the entire catchment. Funding comes from a variety of routes including public, private and third sector funders. Projects can range from a one-off costing a few hundred pounds through to multi-year partnership projects with budgets in the millions.

Programme spend has increased year on year and for 2013 is forecasted at £2 million+. In many cases this funding is geared and can achieve further matched investment of anywhere between 1:1 and 1:5 (i.e £1 raised turns into £5). A minimum estimate for total investment unlocked by ERT's capital could be £4 million per annum.

ERT works very closely with partner organisations to maximise investment opportunities. We have very strong working relationships with business critical partners including the Environment Agency and Natural England (including CSF). The development of this plan is also facilitating the development of new investment relationships with the Forestry Commission, United Utilities, Carlisle City Council, National Farmers Union, Dairy Co and many organisations representing the farming industry. Typically ERT would fund a maximum of 50% of capital or revenue costs; farm businesses would finance the remainder.

WHY DOES INVESTMENT MATTER FOR THE PLAN?

We are convinced (and our Catchment Brains are too!) that focusing on existing investment and making it work better and faster is a critical approach of this plan. It is too easy to fall into the 'new resources trap', often at the expense of realising the full potential of what is currently available.

WHAT THE INVESTORS TOLD US

In an attempt to gain a better understanding of their roles and responsibilities we asked the group three key questions:

1. **What are the key solvable issues facing the catchment?**
2. **What do solutions to these issues/ challenges look like?**
3. **Who needs to be an active part of the solution?**

During consultations with our Catchment Brains Group it became apparent that, whilst there were examples of brilliant projects and initiatives, there was a distinct lack of co-ordination of these activities between organisations involved in managing the Eden Catchment – a fact widely acknowledged as a major factor limiting the ability to deliver better and faster outcomes for both WFD and the Eden Protected Area.

Encouragingly, there was a unanimous belief that there were several opportunities to better co-ordinate these activities, which could, and should, enable existing investment currently targeted at the Eden to work better.

HOW CAN WE MAKE INVESTMENT WORK BETTER?

Our approach over the next three years will be to better understand all elements of existing investment networks, make the connections and to then identify any gaps.

Our plan will drive this. It's a definite challenge – it requires total commitment and there are no short-cuts! We have made some great progress with our partners but much work still needs to be done in terms of capital and revenue investment.

We need a new approach to catchment management if we are to meet the challenges. The plan is a great start but it is our aspiration that, by 2015, a multi-organisational team will be formed, under one roof, to co-ordinate and drive progress with regard to better catchment management that is not just confined to WFD. This is very about much WFD+ and, most importantly, the solution should be to make the catchment plan hang on what people care about – because this is the best way to deliver WFD.

We are calling for a fundamental shift in the working practices and culture of those responsible for catchment management on Eden. The time has come for a new approach if we are to Save The Eden.

We have some of the pieces of the jigsaw in place in terms of skills and some high levels of current investment. However, the missing pieces are co-ordination, shared objectives, structure, targets and accountability. Get these in place and better, faster outcomes will be delivered.

There are major opportunities for greater private sector investment. United Utilities could become a significant investor in farm infrastructure. Improvement of agricultural practices tackles nutrient pollution at source as opposed to more costly treatment at waterworks or, in the case of pesticides, at abstraction points.

Lastly, there are a great many other organisations in the catchment whose operations are important to efforts to Save The Eden. Over the next three years we will engage the local political leaders, council officials and organisations that are responsible for the maintenance of infrastructure such as the West Coast Main Line, M6 and road networks. Some unlikely alliances will be formed if we are to achieve 'Good' ecological status.

WHAT WE WANT INVESTORS TO DO

- JOIN THE CATCHMENT COALITION, SUPPORT THE MANIFESTO AND 'SIGN-UP' TO PROVIDE MEANINGFUL STAFF TIME AND FUNDING
- FULLY INTEGRATE AND RESOURCE THE PLAN INTO THE SOLWAY TWEED RIVER BASIN MANAGEMENT PLAN
- START DISCUSSIONS ON FUTURE INVESTMENT IN THE EDEN CATCHMENT
- COMMIT TO AND FUND EXISTING INITIATIVES THAT ARE WORKING WELL AND SHOUT ABOUT THEIR SUCCESS
- CO-ORDINATE DELIVERY OF INVESTMENT ON FARMS
- DON'T BE SHY OF REGULATION AND MAKE IT MORE EFFECTIVE

PLANNERS AND POLITICIANS

"OUR AMBITION IS TO MAKE CARLISLE ONE OF THE BEST PLACES IN THE UK TO LIVE, WORK, INVEST, VISIT AND ENJOY LIFE. IT IS A GROWING CITY, AND MAKING SURE THAT ITS GROWTH IS DONE SUSTAINABLY AND IN A WAY THAT IS WATER-FRIENDLY IS CRITICAL."

DARREN CROSSLEY, DEPUTY CEO, CARLISLE CITY COUNCIL

IT IS CRITICAL THAT WE USE THE PLANNING PROCESS TO ENSURE THAT NEW DEVELOPMENT IN THE CATCHMENT AND END-USER COMMUNITIES IS AS WATER-FRIENDLY AND SUSTAINABLE AS POSSIBLE.

If we want to ensure that future development avoids the mistakes of the past, and is built to cope with the challenges of the future, then we have to work with planners and the politicians who shape development policy and implementation.

OVERVIEW

There are plans for an additional 10-20,000 people to live in the catchment in the next 20 years, particularly in and around Carlisle, but also planned for other communities. Without sympathetic development, incorporating sustainable design, the growth of communities may result in more hard surface areas, creating more surface run-off. New or upgraded sewers are also needed, at a cost of over £1,500 per metre. Carlisle City Council recently published a 'Green Infrastructure Strategy' setting out how growth can be done in ways which build on its key strengths – not least its relationships with rivers and green spaces. These challenges can be met, but they require intelligent design based on an understanding of water issues. You might wonder how a place as rainy and wet as this has a water supply issue, but millions of people across the North West consume water from this catchment, and the ecological quality of some of our rivers is already being negatively affected by current abstraction. So, even here water is a finite resource and one we need to manage more carefully.

WHY DO PLANNERS AND POLITICIANS MATTER FOR THE PLAN?

We could stand back, leave planners to publish Local Plans, and then criticise them for not understanding the water issues as well as we would have liked. But then the things we care about would be poorly represented and would ultimately suffer. Or, we can get involved to help them to understand the issues, the challenges, and how they might play an important role in the catchment plan. We will need to communicate clearly to planners and developers what water-friendly development looks like – so they can create plans and guidance that lead to sustainable and resilient communities. This is a process that works – developers now design in sustainable urban drainage systems (SUDS) because they know that planners expect it. We need to broaden Local Plans to include other outcomes that are critical to our plan, like developing the network of habitats, and reducing surface run-off.

The key is to encourage local authorities to work within partnerships at a catchment scale (and beyond for end-user issues) to address flooding, abstraction and water quality issues. Urban areas are affected by issues many miles beyond administrative boundaries further up the catchment, so they have to be engaged in the wider catchment management planning. Planners and politicians are critical to effective catchment planning.

Because most of our water is consumed outside the catchment, we also need to influence planning strategy across the North West to move towards more sustainable abstraction. We need a louder voice in every community that consumes our water.

WHAT PLANNERS AND POLITICIANS TOLD US

We have consulted with planners and politicians and a simple message emerges: they are increasingly overwhelmed by the diverse and complex policy agendas they are supposed to control. Local authority resources are increasingly stretched, and often planners are left to react to development proposals with limited time or expertise to explore complex issues. The result is sometimes a sense that they are fire fighting, rather than making informed strategic decisions or shaping the development agenda. But planners and politicians cannot be experts on everything – they need guidance and support from external specialists.

HOW ARE WE GOING TO WORK WITH THEM?

The period 2013-15 is a critical one for our local authorities, because during that time Local Plans will be developed that will shape planning policy and implementation for the next 10-15 years. The driver for this is the Government's National Planning Policy Framework, which makes clear that the planning system has an environmental role:

"Contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy."

Through this guidance planners are now tasked with securing environmental gains, where possible creating coherent ecological networks and pro-actively working to mitigate and adapt to climate change. Planners are tasked with "taking full account of flood risk… and water supply and demand considerations". This is on top of a statutory responsibility to undertake flood risk assessments and manage development to minimise flood risk. We believe that we can help local authorities to meet these challenges and develop effective and water-friendly Local Plans that meet statutory obligations.

WHAT WE WANT PLANNERS TO DO

THIS IS REALLY SIMPLE: WE WANT PLANNERS AND POLITICIANS TO EMBED WATER-FRIENDLY DEVELOPMENT PRINCIPLES AND PRACTICES IN THEIR DEVELOPMENT CONTROL SYSTEMS. WE WANT LOCAL PLANS FOR THE CATCHMENT AND THE END-USER COMMUNITIES TO HAVE A CLEAR FOCUS ON SUSTAINABILITY WITH REGARDS TO WATER USAGE, WASTEWATER, FLOODING AND RIVER MANAGEMENT. WE THEN WANT PLANNERS AND DECISION MAKERS TO ENSURE THAT THE PLANS ARE DELIVERED.

“UNITED UTILITIES IS COMMITTED TO WORKING IN PARTNERSHIP WITH DIFFERENT STAKEHOLDERS IN ORDER TO DO OUR FAIR SHARE TO SAFEGUARD THE NATURAL ENVIRONMENT IN THE EDEN VALLEY AND SURROUNDING AREA, AND ENSURE THE RIGHT SOLUTIONS ARE EMPLOYED IN THE RIGHT PLACE.”

KEVIN SAYERS, AREA BUSINESS MANAGER CUMBRIA, UNITED UTILITIES

LIMITS TO OUR KNOWLEDGE

WHAT WE DON'T KNOW…YET

One of the hardest lessons we have learnt in the pilot year has been that we need to know a lot more about some key issues to be able to complete the catchment planning process. There are many variables affecting our 98 water bodies; from weather, farming practices, the age of sewage systems, and the recovery time after historic pressures are removed, that it is difficult to be sure whether a water body is improving, stable, or deteriorating.

Stakeholders will always want to know how robust and accurate the evidence is. When people are challenged with the impacts they may be having on rivers, they want to be sure that we know what we are talking about, that our analysis is sound and that we have the evidence to back it up. People won't accept evangelism, eco-idealism or faith alone: they want hard, factual, and proven answers, and then they become more willing to take responsibility and to act.

Despite our enthusiasm, we have to accept that more research is needed to develop a plan that is credible, targeted and evidenced. There are just too many questions that we don't yet have clear answers to.

WHY DON'T WE KNOW MORE?

The data we have on our rivers are periodic snapshots in time at specific geographic locations and, if we are lucky, they produce consistent data on key issues for several years. The resulting evidence tells us many valuable things, but it is also extremely limited. The monitoring regime does not measure the impact of different individual businesses or allow us to pinpoint the cause of the pressures, simply that they have happened somewhere above the monitoring point. To be sure of our conclusions we'd need to monitor many more things in the catchment – and the experts would love to do this. So, one of the key challenges for the plan is to reduce the number of 'grey' areas and shed light on the key issues.

BUT WE CAN'T WAIT FOR 'PERFECT' EVIDENCE

We have to face the fact that the evidence will never be perfect, complete, or beyond challenge. That's just not how river science works; it will always be about making judgments based on the best available knowledge. However, we do know enough to have credible working assumptions. But we have to make the evidence as good as we can with the resources we have, and agree some basic assumptions that are credible enough to drive forward our actions.

The good news is that the evidence is getting better – late in our pilot year we had the first indication of 'source apportionment' in the catchment for each water body. This enables us to say with some confidence how much of the problem, e.g. phosphate on any given water body, is caused by sewage or the way the land is farmed. The reaction from our Farming Think Tank has been fascinating and, whilst it reveals that farming is a major source of the pressures, the group's reaction was extremely pragmatic and responsible. We have to keep listening to key stakeholder groups and work with them to improve our evidence and understanding.

HOW THE PLAN WILL WORK

THE BIG LESSON

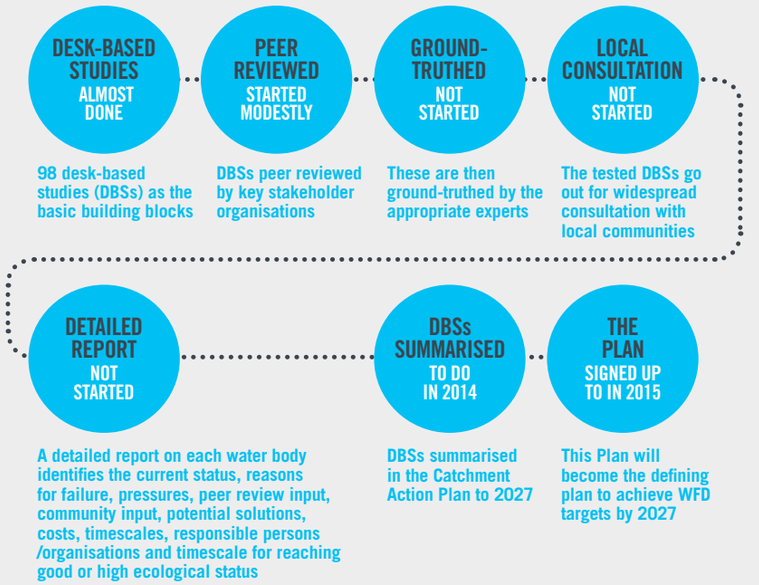
One of our biggest achievements has been to explore what is and isn't possible in terms of catchment planning, as well as encouraging other partners to provide the evidence needed to start this process. Learning what we can't do yet has been a frustrating, but valuable, process.

The biggest lesson has been that you can't devise a catchment action plan for an area as big and complex as the Eden in a few months from the starting point that existed in late 2012, when the evidence and knowledge base were insufficient. This isn't one stretch of water, but 98 water bodies with many thousands of landowners and residents. We don't believe that the old ways of planning are credible; this requires a process that people can engage with over three years, that is open to all. Having the courage to say this is something new.

We believe that to plan effectively for 2027 you need to pause, think about the long-term processes and structures, and start to plan accordingly. So, this isn't a technical plan that tells everyone what to do in 2013-15, it is about looking further ahead and starting to think about how we change some fundamental things in the catchment. We have to step back from the immediate concerns and constraints and look at the bigger picture.

That doesn't mean that we all stop trying to make things better in the next three years, far from it in fact. But if we focus too much on short-term delivery we miss this critical opportunity to think about the big changes. We would suggest that our proposed, robust structure for long-term change will also help stakeholders to add value to initiatives in the next three years to December 2015.

THE PLAN WILL EMERGE THROUGH THE FOLLOWING PROCESS…



WHETHER THE PLAN TO SAVE THE EDEN IS A GOOD PLAN DEPENDS ON WHETHER YOU – AND HUNDREDS OF OTHER PEOPLE LIKE YOU – HELP US MAKE IT BE WHAT IT NEEDS TO BE. WE WANT YOU TO TAKE THESE CRITICAL STEPS...

1. START TO THINK ABOUT YOUR, OR YOUR BUSINESS'S, IMPACT ON THE RIVER

2. ATTEND OUR CONSULTATION EVENTS AND REVIEW THE PLANS THAT COVER YOUR LOCAL STRETCH OF RIVER

3. TALK TO US IF YOU NEED ADVICE OR HELP WITH POTENTIAL SOLUTIONS

4. TELL US WHAT SHOULD HAPPEN ON YOUR STRETCH OF RIVER TO MAKE IT BETTER

WHAT DO WE WANT YOU TO DO?

WE CAN ALL MAKE CHANGES FOR THE BETTER

We all need to look again at our impacts on the river, and start to make changes to reduce these where possible. If you are a business, farmer or landowner then get in touch and we'll come and help you assess the difference you can make, starting now. We might even be able to find investment to help you make changes. This is not about catching people out; it's about working together to nudge things to a better place. If you are an organisation that invests in the catchment then we want to talk about how your investment can make things better – through partnership we can make existing investment do amazing things. And finally, communities are crucial – we will take the plan on the road to people.

WHAT'S NEXT?

The next three years will see us take the draft plan out on the road. We will subject the Environment Agency's evidence and desk-based studies to the scrutiny and review of local communities and businesses. If we invite you to take part in this process please do. If we don't, then you have our permission to pester us about why not!

After three years the plan will genuinely be OUR plan. Each local area of Eden will have a simple plan that has been approved by local people, based on local knowledge and awareness (as well as the best science and expertise available). This plan really is important – it will direct the investment of a range of organisations towards your river and its hinterlands for the next decade or more.

HOW DO WE KNOW IF IT'S WORKING?

THE FIRST SIX MONTHS...

Produce and launch a Manifesto that engages and inspires new and existing audiences.

Secure formal Defra Family support for the manifesto and 'sign-up' to provide meaningful staff time and funding to support development of the Plan to 2015.

Form the Coalition, four Audience Working Groups and the Evidence & Impacts Forum.

Deliver short-term actions outlined in 'Making it happen: the next three years'.

WITHIN THREE YEARS...

The Eden Plan will shape and inform the Environment Agency's statutory obligation to produce an updated River Basin Management Plan by end of 2015, known as 'Second Cycle'. In many respects this puts Eden ahead of the curve in terms of the structures the EA would be required to set up locally to deliver on this obligation. The Eden Plan will both add value and drive a cost effective approach to Second Cycle planning.

This can be broken down further to:

February 2013 – Response to EA's 'Working Together' consultation

December 2013 – Agree Significant Water Management Issues and set out a 'Pathway to Good Status' with the Environment Agency

December 2013 – Agree with Natural England which water bodies with Protected Area Status drive higher standards than those prescribed by WFD (Good Ecological Status)

December 2014 – Submit Eden Plan V2.0 in support of the Second Cycle (2015-21) Solway Tweed River Basin Management Plan (First Draft)

December 2015 – Formal adoption of Final Plan (2015-21)

AND WHILST ALL OF THIS PLANNING STUFF IS GOING ON....

ERT will strive to secure funding and co-ordinate the opportunities and resources to manage and improve the Eden Catchment with our partners.

TWELVE GUIDING PRINCIPLES TO SAVE A RIVER

1

HONESTY ABOUT WHY MOST PLANS FAIL

Institutional top down models just won't work. This isn't about any one person or organisation grandstanding or showing off.

2

DARE TO DO IT DIFFERENTLY

The partnership behind this process of change needs to be bold enough to look at new and different ways of delivering solutions.

3

LISTEN MORE, LISTEN WELL

The people and businesses in the catchment are the key to success, listen to what they have to say.

4

MEASURE BETTER TO MANAGE BETTER

For effective and proportionate buy-in, you need targets and priorities. And for targets and priorities you need robust measures and an evidenced approach.

5

PRIORITISE SOLUTIONS

Asking for everything isn't the best idea and it stretches eco-credibility. Be clear at a strategic and catchment scale where we can and should change things first.

6

INCENTIVISE POSITIVE CHANGE

It's all about nudging the real world closer to the ideal through financial levers and support.

7

COMMUNICATE WIDER AND BETTER

Be honest, get rid of all the jargon and target your messages based on the audience, not the issues or pressures.

8

CATCHMENT SCALE PARTNERSHIPS

Strategic joint efforts and investment, at the public, private and third sector scale, will help to achieve your goals.

9

PARTNERS DELIVER TO THEIR STRENGTHS

Find out what they're good at and stick with it. It's not replacing individual efforts but adding value to them.

10

SET CLEAR TARGETS

What are we aiming for and by when? Think about the present day to 2027. It must be clear what needs to change and when it needs to happen.

11

CLEAR COMMITMENTS

Partners need to commit staff time and investment to make the plan work.

12

HONESTY MILESTONES

Commit to publicising your targets and then be judged against them.

THANKS MUST GO TO THE FOLLOWING WHO HAVE PROVIDED US WITH FINANCIAL SUPPORT, INSPIRATION, WISE WORDS, ADVICE, DATA, FEEDBACK AND EVEN THE ODD AWKWARD QUESTION...

...BUT MOST IMPORTANTLY FOR 'KEEPING THE FAITH' AND STICKING WITH US OVER THE LAST YEAR!

WE OWE YOU ALL A HUGE DEBT OF GRATITUDE.

SIMON JOHNSON
DIRECTOR, EDEN RIVERS TRUST

Rebanks Consulting, James Rebanks. **Creative Concern,** Chris Dessent, Neil Frost, Rebecca Nicholl, Claire Bend. **Photography**: Jill Jennings (Charles Rangley-Wilson, The Next Three Years, page 14), **Fog Farm, Kirkoswald,** James Raine. **Castlesteads Farm,** The Gibson Family. **Little Blencowe Farm,** Rob Fawcett. **Hilltop Organics,** Kevin Beattie. **National Farmers Union,** Helen Forrester. **Dairy Co,** Laura Teesdale. **National Centre For The Uplands,** Julia Aglionby. **Lancaster University,** Professor Phil Haygarth. **Newton Rigg College,** Wes Johnson, Jonathan Fisher. **Lowther Estate,** Richard Price. **Brakenburgh Estate,** James Turner. **Cumbria Farmer Network & Herdwick Sheep Breeders Association,** Will Rawling. **Cumbria Farm Environment Partnership,** Paul Arkle. **H&H Land & Property,** Andrew Jamieson. **Carlisle City Council,** Darren Crossley. **Eden Rivers Trust,** staff and trustees.

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