



DEARNE VALLEY ECO-VISION



'The future of the Dearne Valley will be re-imagined by an eco-vision.

The vision is of a place transformed by the know-how of its people and by the imagination and commitment of its communities and enterprises.

It will be a place defined by action, in the knowledge that time is running out for the status quo. Within a decade it will be the lowest carbon community of its kind in the country. A pioneer proud to tell its story and share its experiences.

Using its distinct resources, assets and potential as a foundation, the Dearne will build a lean, green economy in preparation for the challenges that lie ahead.

But above all the eco-vision will rekindle the work ethic of the Dearne's forefathers, providing a renewed sense of purpose and inspiration for the next generation.'



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Cover photo credited to Thomas Ley. Inset photo of birds over RSPB Old Moor credited to Steve Greaves, back cover photo of the Mallard credited to Ian Britton.

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Foreword

by the Rt Hon John Healey MP



The Dearne Valley is a very special place. It sits in the heart of South Yorkshire between the boroughs of Barnsley, Doncaster and Rotherham. Its mining and heavy industry once powered much of the country. Although this made the Dearne one of the most heavily polluted areas in Western Europe, it also provided people with a strong sense of identity and community.

Thanks to local efforts led by the three councils and strong government support, the Dearne's economic and environmental regeneration in recent years has been dramatic. But restoration of former pit sites, business investment and thousands of new jobs have not been matched by a fresh sense of purpose or a confidence that the Dearne Valley has a distinctive and important role for the future.

The leaders of our local councils and senior managers of our local agencies have joined forces because we believe it is time to develop a new identity and definition for the Dearne, for the next decade and beyond. We want to propose and consult widely within the Dearne Valley on a new vision, on new opportunities and on making the area a place where people want to live and work to bring up their families.

This is a project which could once again place the Dearne on the national map. The eco vision will see a move to a high quality, low carbon environment bringing new jobs and leading technologies and

techniques to tackle climate change. There will be opportunities for everyone in the Dearne to become involved.

As MP for the Dearne and Chair of the Dearne Valley Special Board which is leading the development and delivery of the vision, it is my job to bring together senior people to work in partnership to achieve our goals.

We need to have commitment from Central Government, local authorities, businesses, community groups and local people to drive these ideas and make them work. If we get this right, the Dearne Valley can again be a very special – but a very different – place, improving the quality of life for residents and providing opportunities to the wider South Yorkshire and Sheffield City Region.

I look forward to a wide debate on this vision and all that could follow from it. And I look forward to seeing the prospects for the Dearne being as strong in the future as they have been in the past.

John Healey MP

Chair of the Dearne Valley Special Board
Minister for Communities and Local Government

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THE WORLD IS CHANGING

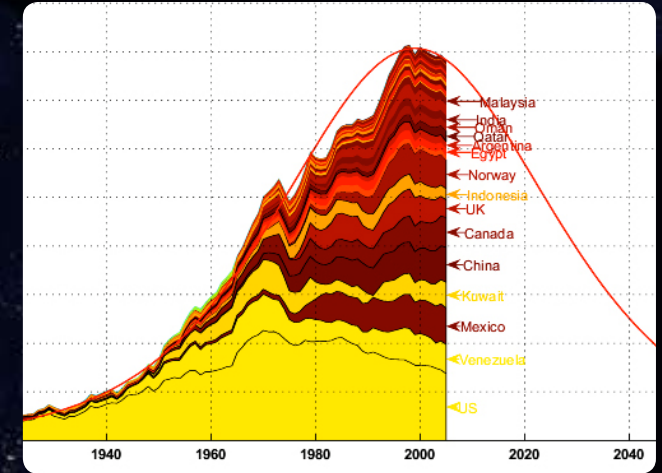
The turn of the century has brought significant new global challenges the likes of which we have not seen before. Our economy is more fragile and interconnected than we thought and our way of life threatens the environment we depend on.



Russian gas supplier Gazprom



Kings Dock coal bunker, Humberside



Peak oil projection



The threat of climate change caused by CO₂ emissions from our energy use could have dramatic implications for our way of life. It will demand a fundamental rethink of the basis for our economy, the resources we use, our lifestyles and our aspirations.

And other starker choices also lie ahead. In the post-war era our economic development has been subsidised by cheap energy from fossil fuels. With increasing global competition for resources, and the peaking of oil production, we can no longer rely on this economic certainty.

Energy security is a new threat. Coal, oil and uranium are now shipped in from around the world to meet our needs. Russia has already demonstrated that it has the capability to disrupt Europe's gas supply. China's demand for energy has pushed energy prices to unprecedented levels.

Experts have talked about the need for a fundamental change in how we use energy and resources, accompanied by new economic models, in order to face up to the challenges that lie ahead. We will need a 'lean' economy, one in which our reliance on fossil fuels is reduced, and ecological know-how is used to make more from less.

These are big challenges. Their effects are only now starting to influence our day to day lives. The weather isn't what it used to be. Flooding has become a greater threat. The cost of living has risen dramatically.

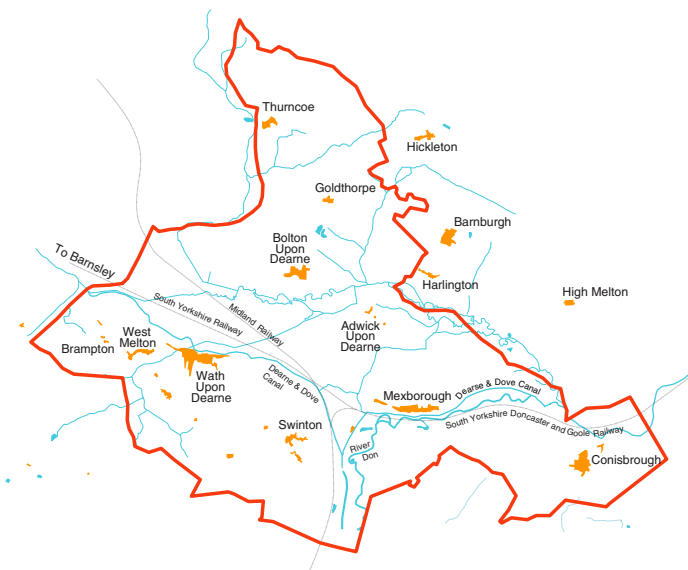
The time is now right to make bold decisions. To look to the future and how things could be different. Even to learn from how things used to be done.

An aerial, black and white photograph of an industrial landscape in the Dearne Valley. The scene is dominated by large industrial buildings, numerous tall chimneys emitting smoke, and a complex network of railway tracks. In the foreground, there are rows of residential houses. The background shows a wide river and more industrial structures. The overall atmosphere is one of a heavily industrialized area.

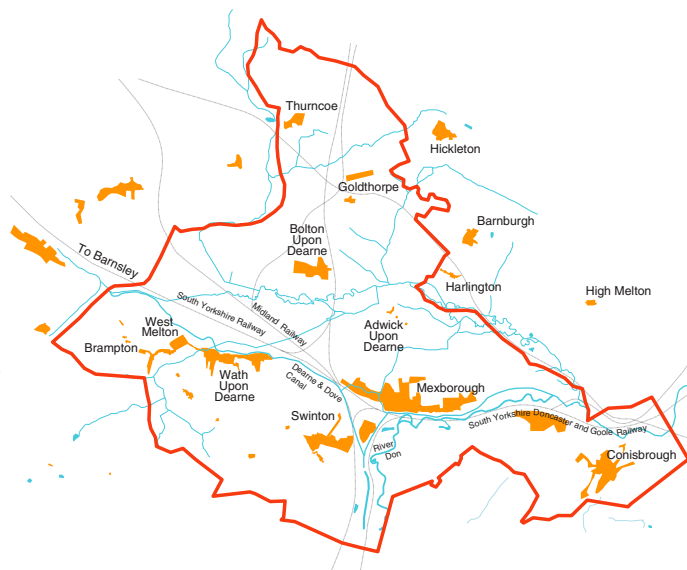
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RE-IMAGINING THE DEARNE

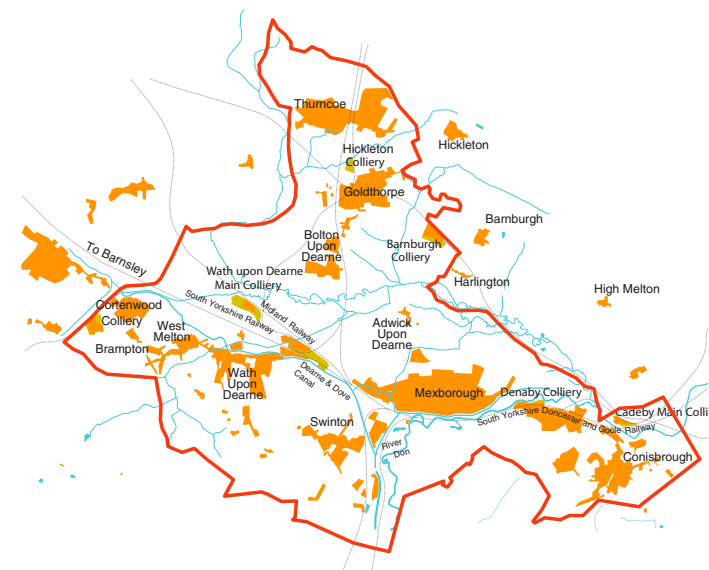
The history of the Dearne Valley is one of environmental change. Witness to a dramatic and unprecedented transformation of the landscape, and the influence of an industry that shaped whole communities



1855 *The Dearne Valley is still largely a rural area characterised by market towns.*



1908 *The towns and railways grow rapidly in response to the coal industry's needs.*



1938 *The area is dominated by industry and large new areas of coal worker housing.*

From the felling of the first oak, ash and lime trees for firewood and charcoal nearly 4,000 years ago, to the planting of crops in the exposed, tilled earth, and the excavation of the first coal from the ground, the history of the Dearne Valley has been about the pursuit of natural resources.

In fact the story starts over 290 million years ago in the Carboniferous Period, when wooded swamplands stood where the river Dearne now flows. Over millions of years these woods would be transformed into coal. But coal's time would not come until the need was great enough.

At first pollarded woods and charcoal would have met the needs of the Roman settlements that would grow up along the Roman Road that threaded through the valley, and later the Anglo-Saxon farmsteads. But with the onset of the industrial revolution, and the growth of nearby towns such as Doncaster and Rotherham, the need for energy grew rapidly.

A fuel was needed that could drive the economy. The energy demand of industries such as steel and glass manufacturing was growing. Coal was the fuel, and investment was rapidly made to exploit the many different seams of coal that lay under the Dearne Valley. An industrial infrastructure that would criss-cross and scar the landscape grew up in less than 50 years.

The Barnsley coal seam was the richest, and provided hard coal that would be used to drive steam trains such as the record breaking Mallard, which were engineered in nearby Doncaster. With each new investment and each new coal face the Dearne Valley became more dependent on a single natural resource.

The settlements of the Dearne Valley grew rapidly, providing the workforce to mine and process the coal resource. From their early existence as market towns with a strong link to agriculture, they would be transformed into self-contained dormitories serving the industrialisation of the Dearne Valley.



The Mallard - engineered and built in Doncaster, driven by coal from the Dearne Valley.



Denaby Miners Social Club - Similar clubs across the Dearne played a strong role in the community.

The workforce was proud and committed, re-enforced by the identity of each mine, the Dearne Valley's towns, and their strong and close knit communities. The mines provided steady employment, better quality housing and facilities, acting as a social glue that brought people together.

But with the decline of the UK's coal industry in the face of a struggle for the country's very identity and ethos, and as international energy markets blew the cold winds of a new economic reality, the Dearne Valley's communities were left isolated and stranded without a reason to exist.

This recent history may have come to an end only a decade ago, but its legacy holds many important lessons, and raises important questions about the future.

Defining the place that is the Dearne Valley depends on your viewpoint. The core area for the eco-vision has been formally defined as seven wards, indicated by the red outline:

- **Barnsley:** Dearne North (*Dearne Thurnscoe pre 2004*) and Dearne South;
- **Doncaster:** Conisbrough & Denaby (*Conisbrough pre 2004*) and Mexborough;
- **Rotherham:** Hoober (*Brampton pre 2004*), Swinton and Wath.

Geographically the Dearne Valley stretches from its confluence with the River Don near Denaby, upstream through the Barnsley Dearne, and then to the furthest extent of the river valley at the Dearne Valley Park on the outskirts of Barnsley.

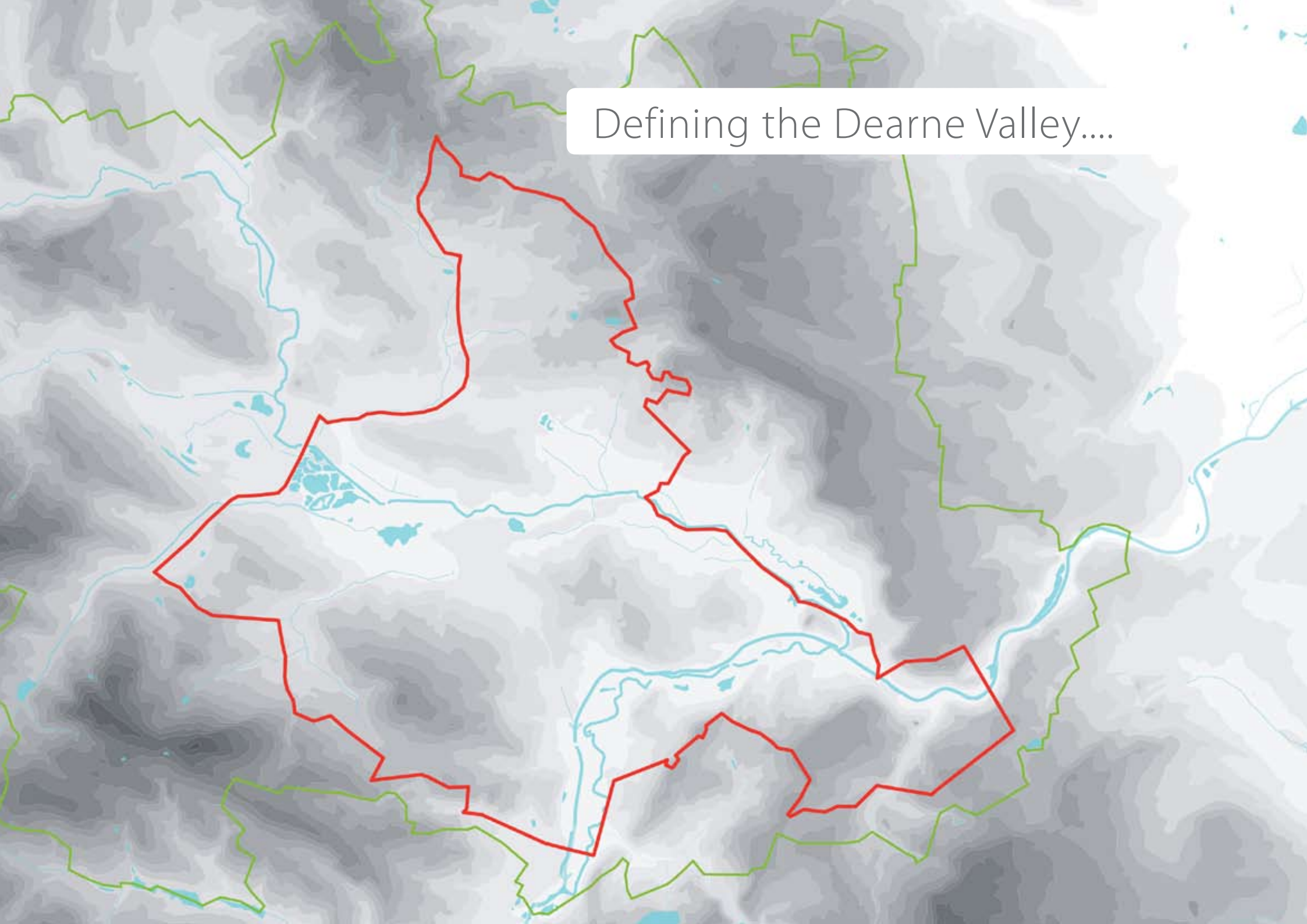
The rivers source is north of Barnsley. The Dearne's main tributary, the Dove, arises from Silkstone Common and flows into the Dearne between Wombwell and Darfield.

For local communities the Dearne Valley has strong associations with the mining towns of the Barnsley Dearne, as well as Mexborough and Denaby in Doncaster, and Swinton and Wath in Rotherham.

Towns are also defined by their postcode associations, with Wombwell, Darfield and Great Houghton identifying themselves as part of Barnsley.

From outside, the Dearne Valley tends to be perceived by older people as a former mining area. For younger people with less knowledge of its history, it is a rural area with no unifying identity.

Defining the Dearne Valley...



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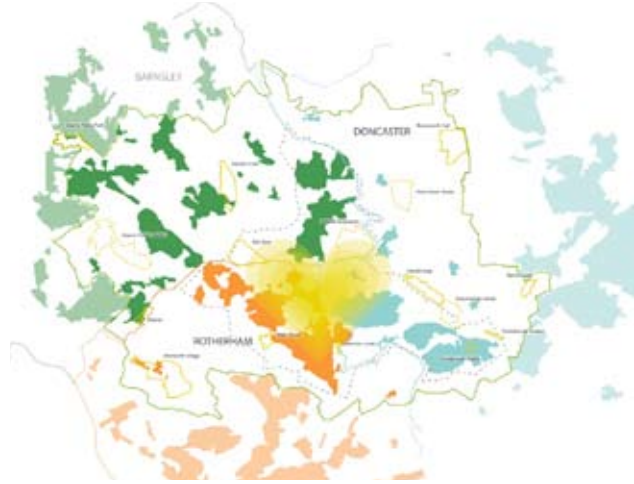
AN ECO-VISION FOR THE DEARNE VALLEY

The future of the Dearne Valley will be re-imagined by an eco-vision. The vision will be of a place transformed by the know-how of its people and by the imagination and commitment of its community and its enterprise.

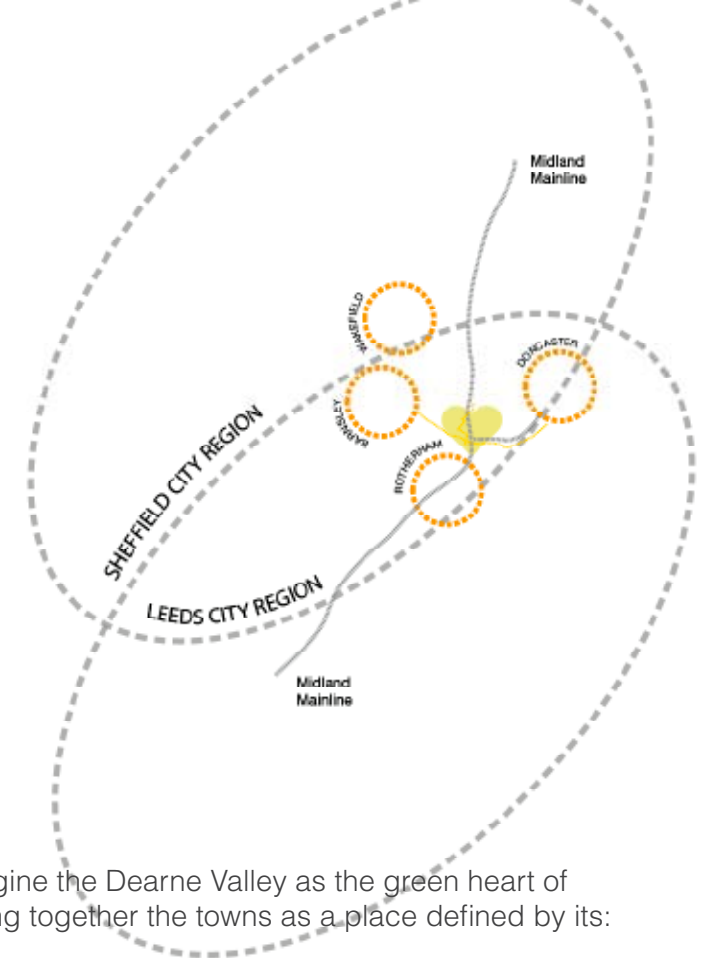




The Dearne Valley is perceived as a marginal area, a place on the periphery of each of the three Boroughs.



The eco-vision would bring together the Dearne's communities - one entity at the heart of two city regions.



The eco-vision will see the Dearne Valley as a pioneer in the Sheffield City Region. Grasping the opportunities and applying the solutions needed to reduce the community's CO₂ emissions over 80% by 2050.

It will be place defined by action, in the knowledge that time is running out for the status quo. Within a decade it will be the lowest carbon community of its size in the UK. Using its distinct resources, assets and potential to meet the challenges ahead.

This will represent a scale of practical action not seen in the UK, or even in Europe. It would put the Sheffield City Region on the map, and would be used to attract and bring together ecological experts and practitioners from across the world, and harnessing the economic benefits.

It would seek to re-imagine the Dearne Valley as the green heart of the City Region, bringing together the towns as a place defined by its:

- **Unified new identity and reason to exist**, drawing on the spirit of the past whilst looking to the future;
- **Pioneering 'can do' spirit**, instilled by a rekindled work ethic and by lifelong education to empower and inspire the community;
- **Position ahead of the curve** in understanding the new economic realities, and the need for stewardship of our natural resources.

Above all the eco-vision will be rooted in new economic thinking. It will be about investing not just to meet today's needs, but with the next generation in mind.



'The eco-vision will provide a sense of purpose and aspiration for the existing communities, and for the next generation'

The eco-vision will see the Dearne Valley make a transition from carbon production to carbon reduction in three big moves:

- **Nurturing ecological awareness and know-how**, by engaging and inspiring the whole community to put the vision into practice;
- **Growing a low carbon infrastructure**, in order to connect the towns and communities of the Dearne;
- **Seeding a natural regeneration of the landscape**, in order to create a destination and an asset to enjoy and benefit from.

The Dearne Valley will become a living and learning landscape, putting into practice the ideas that other communities are only talking about. The eco-vision will provide a sense of purpose and aspiration for the existing communities, and for the next generation.

ECO-VISION INSPIRATION MAP

Learning from eco-pioneers

In order to develop the eco-vision for the Dearne Valley we sought inspiration, and wise council, from pioneers across Europe.

Whilst the eco-vision will be unique in its scale of achievement, there is much that can be learnt from other places that have also sought to transform themselves, to find a new purpose and place in the world, and to explore the potential of the lean green economic model.

We have carefully selected inspiring, and relevant, examples of eco-pioneers from across Europe. Here we describe four which illustrate how different facets of the eco-vision can be brought together in order to transform an area, and more examples are presented under each of the three eco-vision themes.

The eco-vision will seek to network the Dearne Valley with these, and other practitioners and pioneers. The Dearne Valley will be outward looking, willing to learn from and work closely with others in order to avoid making mistakes, and willing to pioneer and to share its experience.

Above all it will seek to inspire other communities and city regions by showing what is possible.

UK inspiration

Dyfi 'eco-valley', Wales

Located in Powys mid-Wales in an area of outstanding natural beauty and nature conservation value, the eco-valley project builds upon the pioneering work of the Centre for Alternative Technology (CAT) at Machynlleth.

Spin-out projects from CAT have included the Dyfi eco-business park and the new Welsh Institute for Sustainable Education. The wider eco-valley project has sought to develop green tourism and outdoor leisure pursuits, and has championed an application for UN 'Biosphere' status.



EU inspiration

'100% sustainable energy island', Denmark

Located 9 miles from mainland Denmark, Samsø island won a competition in 1997 to become the country's pilot project for a 100% energy self-sufficient community.

Over the last ten years islanders have worked together to develop a range of renewable energy projects. These include biomass fuelled heating networks, biodiesel production for transport, and wind farms for electricity.

The projects have been delivered by a mix of local authority, private and community-owned structures. A sustainable energy academy was opened in 2007 to share islanders' experience.



Gelsenkirchen 'solar capital', Germany

Located in the industrial heartland of the Ruhr Valley, the town of Gelsenkirchen was a former centre for the coal, steel and glass industries – a place where 'a thousand fires burned'.

Since the loss of its industry it has looked to low carbon energy for the future, establishing a new solar science park, higher education academy and manufacturing site, as well as building solar suburbs.

Participation in the wider Emscher Park plan to cleanup and restore the landscape has also been a major priority.



Grünwald 'city forest', Germany

Established on land bought by the city of Berlin in 1915, the Grunwald is a true community forest, planted to provide greenspace for Berlin, and managed to provide a sustainable timber supply.

The Berlin forest of Grunwald covers an area of 17,500 hectares. It is managed as a commercial forest following the principles set out by the Forestry Stewardship Council (FSC).

Access to the forest by visitors is a key consideration, with facilities provided at the most popular forest and waterside destinations. Some areas are protected habitats and access is restricted.



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THE LEAN GREEN ECONOMIC MODEL

At the heart of the vision will be a new economic model. The model will be forward looking, shaped by the key opportunities and threats that face the local and city-regional economy over the next decade.





Creating distinctive settings and destinations



Harnessing the natural resources of the valley



Investing in the know how of the future

Investing in a new model

The lean green model will reject any stark choice between the 'old' economy of manual labour and the 'new' economy of knowledge. Instead it will seek to develop the broad range of skills and know-how required to deliver the eco-vision.

The eco-vision will be about investing not just to meet today's needs, but with the next generation in mind. Investment not just in the low carbon infrastructure to bring together the Dearne's towns, but in awareness, skills and know-how to do things differently, to live well by demonstrating to others how things can be done differently.

But above all it will be about creating value added from stewardship of the assets of the Dearne Valley – its people, the places that define its character, and the landscape and natural resources. This value will be used to create a spectrum of economic activity serving not just the Dearne, but the City Region as a whole.

Opportunities created by the eco-vision will include:

Growing and managing natural assets

- Forestry and agriculture,
- Specialist biosciences,
- Eco-design and engineering,
- Conservation and habitat management,
- Visitor economy and destination management.

Developing new low carbon infrastructure

- Skilled trades associated with buildings and services,
- Specialist energy and transport engineering services,
- Supply chain for low carbon products and technologies,
- Facilities management and maintenance,
- Eco-design and consultancy services.



Bringing together leading ecological thinking



Building community capacity

- Health, education and training programmes,
- Low carbon services for the community and businesses,
- Social enterprises managing community and natural assets,
- Business support for new eco-enterprises.

The Dearne's employment sites will form 'green seams' of economic activity to underpin delivery of the vision. Investment will be attracted on the basis of the demand created by the vision for low carbon products and services. And new enterprises will be established and spun-out in order to exploit new opportunities.

All investment opportunities will be scrutinised by an ecological oversight board, judged against policies set out in a new Ecological Development Framework. Ecological design, planning and engineering solutions will be the priority. This approach will ensure that decisions take the long view.

Future economic drivers

The lean green economic model of the Dearne Valley will have four underlying economic drivers:

1. Energy security,
2. City-regional connectivity,
3. Eco-industrial revolution,
4. Natural regeneration.

The model will anticipate future influences on the national, city regional and local economy, planning to create a resilient local and sub-regional economy based on a spectrum of economic activities.

In response the eco-vision will seek to use the settlement pattern of the Dearne to its advantage, positioning it as a connected economy at the heart of the Sheffield and Leeds city-regions. A renaissance of its local centres and zero carbon, fibre connected housing will retain people with aspiration and attract knowledge workers.

Driver 1: Energy security



- Peak oil followed by 200% oil and gas price rises;
- Negative economic growth and stagflation from 2011 onwards;
- Decline in 1990's economic base including call centres and logistics;
- Russian gas pipeline used to wield political influence.

In response the eco-vision will seek to make the Dearne Valley more energy secure in an unstable world, with private and social enterprise playing a role in reducing its reliance on imported gas, coal and oil, as well as improving the housing stock and developing a local food economy.

Driver 3: Eco-industrial revolution



- Climate change policies require 'decarbonised' products and services;
- Peak oil drives demand for sub-regional 'decarbonised' manufacturing;
- EU Directives and Regional Economic Strategy supports eco-industries;
- Local and city-regional growth in demand for eco-products and services.

In response the eco-vision will seek to restructure and reposition the local economy to benefit from the opportunities created by the 'green' industrial revolution. The Dearne Valley would position itself to attract a broad range of industry dedicated to servicing demand in the city-region.

Driver 2: City-regional connectivity



- Continued growth of Sheffield and Leeds city-regions' major centres;
- Fuel prices drive teleworking and demand for high bandwidth services;
- Onset of EU Directive requiring domestic carbon allowances;
- Climate change policies require zero carbon new homes.

In response the eco-vision will seek to use the settlement pattern of the Dearne to its advantage, positioning it as a connected economy at the heart of the Sheffield and Leeds city-regions. A renaissance of its local centres and zero carbon, fibre connected housing retains people with aspiration and attracts knowledge workers.

Driver 4: Natural regeneration



- Significant policy focus on quality of life and healthy living;
- Growth in demand for local/regional short stay holidays and eco-tourism;
- Increased value of ecological 'services' provided by natural systems;
- EU Directives drive holistic habitat and catchment area management.

In response the eco-vision will seek to realise the potential value from a regeneration of the natural and heritage assets of the Dearne Valley. The valley would be developed as an accessible green heart of the city region, linking together natural and heritage assets, and creating a setting for tourism, business and new homes.

A man with short blonde hair, wearing a dark green t-shirt and blue overalls, is sitting on a metal platform high up on a white wind turbine tower. He is looking off to the side with a serious expression. The background shows a vast green valley with rolling hills and a few scattered trees. Another wind turbine is visible in the distance. The sky is a pale blue.

5

NURTURING ECO-AWARENESS AND KNOW-HOW

Driven by ecological know-how and a keen sense of the future, the eco-vision will see the Dearne Valley become a place where things happen, and there is a sense of pride in a job well done.

Taking action together

Every member of the community, and every business in each town will be empowered to reduce their carbon emissions, and to play their part in the Dearne's new lean green economy.



Gwyn Teg Cwni - a community-owned wind farm in Wales

Setting the Carbon Challenge

Surveys across the UK confirm that whilst awareness of environmental issues has undoubtedly increased significantly, many are still confused about what they could do in their own lives to make a difference.

The Dearne will be different. Every member of the community – households, public services and businesses alike - will be empowered with information and knowledge to make a difference, and to realise the economic benefits, if they choose to.

The starting point would be the use of state-of-the-art technology to monitor and provide data on the energy use and carbon emissions of every household and every business.

This would then be used as the basis for a range of different projects:

- **Town team carbon challenge:** A competition would be set up between the Dearne's towns to reduce their carbon emissions and increase their self-sufficiency by the greatest amount, and any savings would have a tradeable value. Town teams would be supported to engage with their communities to devise projects and initiatives;
- **Friends and neighbours:** People would be able to easily access information about their energy and carbon emissions through the internet, their mobile phone or on their energy bill. In addition there would be the ability to compare your home with the rest of

the street and neighbourhood, and the carbon challenge would be linked to school projects;

- **Home improvements:** Energy and carbon information would be complemented by updates and home audit services, supported by the involvement of local business such as the Co-operative, to promote the range of things a household can do to reduce their carbon emissions. This could range from simple advice on buying appliances, to grant funding, loans and installers for solar panels.



Households empowered through training and IT systems.



Engagement to deliver energy efficiency programmes.



Communities will develop their own energy projects.

The carbon challenge would form a pilot application for the Digital Region project, making use of its state of the art fibre optic infrastructure, and allowing researchers access to one of the largest databases of home energy use anywhere in Europe.

Creating a business eco-system

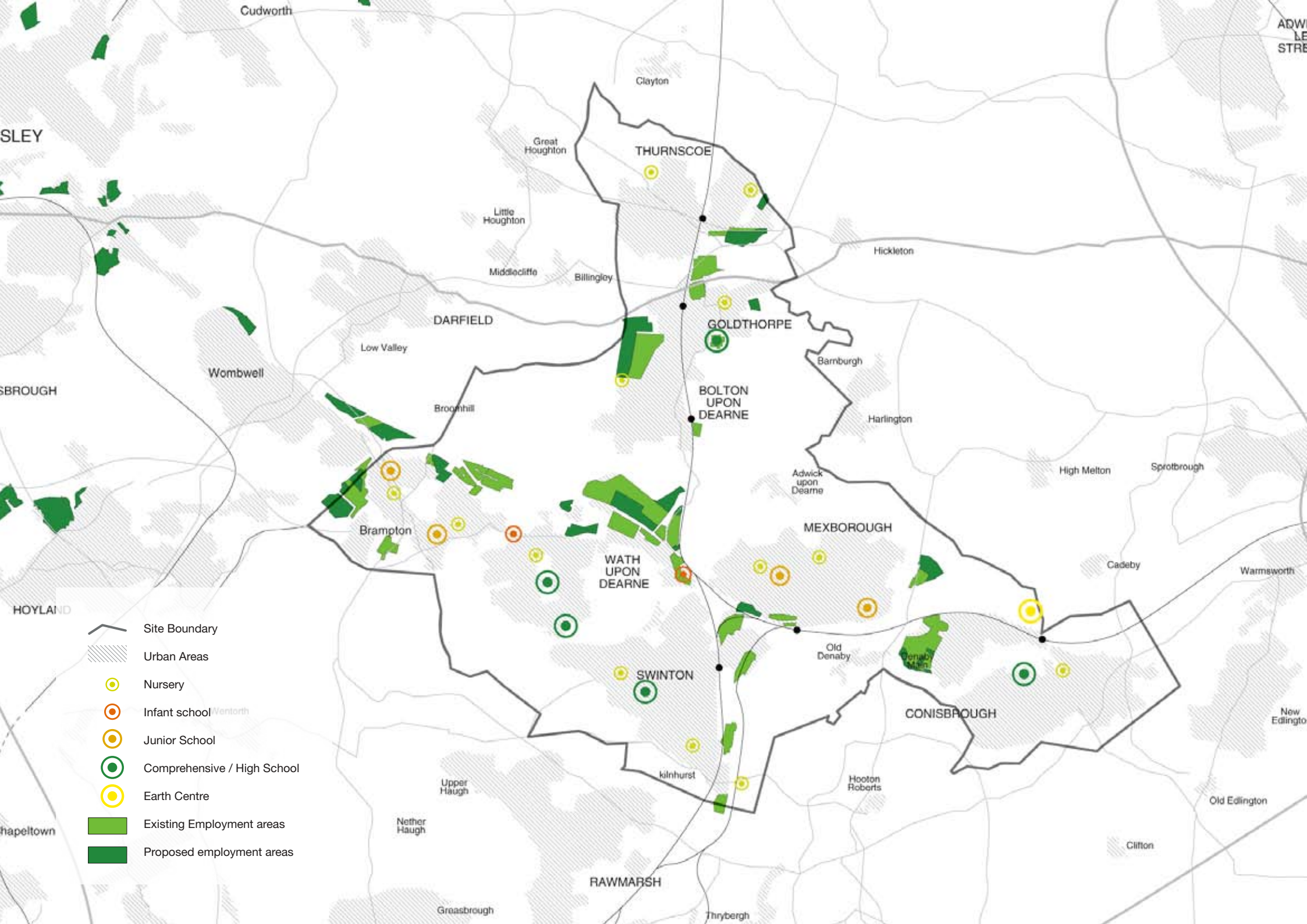
The businesses of the Dearne would be networked in order to encourage the sharing of good practices. This could include energy efficiency measures applicable to the different workplaces, green travel plans to encourage people away from the car, and the potential for renewable energy generation.

The business eco-system network would also be used to spin-out new eco-design ideas emerging from the network into new enterprise

opportunities. Collaboration over the network would shape and form new ideas to support the eco-vision, and identify sources of startup support and investment available in Yorkshire.

How will success be measured?

- Development and monitoring of action plans by town teams;
- Number of homes with access to energy and carbon network;
- Number of businesses participating in the eco-system network;
- Number of new investment and enterprise ideas spun-out.



High attainments in eco-literacy

A new curriculum will be introduced, designed to encourage and inspire attainment in eco-literacy at all ages, and the development of skills that will be in demand in the years to come.



Eco-schools will be a key early starting point for taking forward an eco-literacy programme

Creating a new basis for the curriculum

The next generation will be vital in seeking to carry forward the legacy of the eco-vision. Whilst overall attainment across the Dearne has improved over time, and joint working through the Dearne Valley Education Partnership has helped each school build on its specialisms, levels of qualifications at A level and NVQ level 3 and above, and the numbers going on to study at University are still low.

The challenge therefore still remains to capture the imagination of young people and to inspire them to achieve more. The environmental agenda has the power to inspire, dealing as it does with possibilities for the future.

A key investment will therefore be made in the development of a new Dearne Valley curriculum.

The aim will be to promote high attainment in eco-literacy, building on the programmes set out by the Eco-schools and Education for Sustainable Development initiatives.

But the concept of eco-literacy will go a step further, using eco-vision projects being taken forward as a real-life classroom. Projects could range from conservation and forestry, to renewable energy and community food growing. The aim throughout would be to provide students with a thorough, and practical, grounding in all aspects of ecological thinking.

In order to engage secondary school pupils as they approach working age, a new series of Dearne Valley Diplomas would be created. These would support themes being supported by the Learning and Skills Council such as construction and the built environment. The

Diplomas would be jointly developed with specialist companies in South Yorkshire so as to encourage the development of the practical skills needed to deliver the vision.

Leading by doing

The eco-vision would see school buildings transformed into demonstrators of low carbon energy and sustainable construction. Building Schools for the Future and further investment in primary schools create the opportunity to put into practice the government's commitment to 'green procurement' and the creation of buildings that can play an educational role in their own right.

The new Dearne High school in Goldthorpe will be the first project, and this could make use of biomass fuel to supply not just the school, but



Outdoor classrooms will teach practical know-how.



Children will learn from their school buildings.

also homes and buildings in the wider town. Northcliffe School in Conisbrough has also been earmarked for redevelopment under Building Schools for the Future. The Earth Centre site was well used by schools, and the eco-vision would see the site re-opened as a Centre of Excellence and local resource for ecological thinking and solutions.

How will success be measured?

- Overall attainment at GCSE and A Level;
- Number of schools adopting new curriculum elements;
- Number of children meeting the eco-literacy standard;
- Take-up and business participation in specialist new diplomas;
- Carbon emissions reductions from school buildings against benchmark.

Rekindling the work ethic

The strong work ethic of the coal mining communities will be rekindled by a new sense of purpose and aspiration, driven by the know-how to deliver the eco-vision. This will be based on a 'ladder of eco-opportunities'.



Cadeby home coal - the collieries served the wider community

Belief in a 'job well done'

Until the late 20th Century the coal mining communities of the Dearne had a clear reason to exist and feeling of certainty. Each new generation knew that they had a job waiting for them, and that they would be trained to do that job. Apprenticeships were the well trodden route into working life, meeting the range of skills needed to support the mining operations.

The work ethic of the mining communities was strong, complemented by a long tradition of literacy and self-education, promoted through the Unions and mineworkers clubs and societies, and later the National Coal Board. Vocational skills were also valued, and these included pioneering programmes to

support women. Investment in facilities such as Carnegie Libraries in the area provided facilities for learning and betterment.

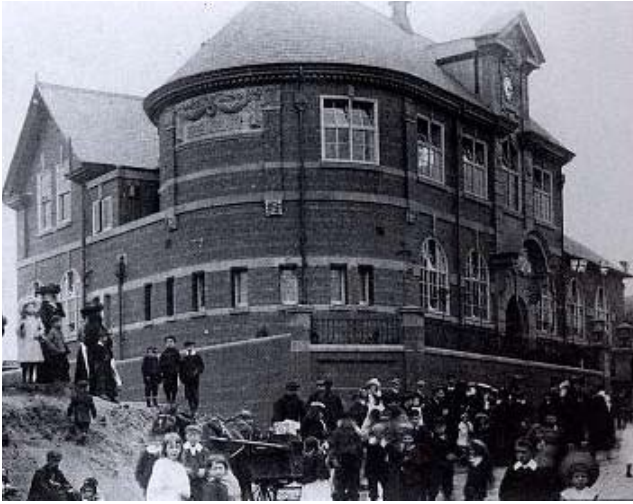
The closure of the coal mines, and the loss of direct and indirect employment associated with the collieries, resulted in the rapid loss of the certainty they provided. The investment through City Challenge and agencies such as English Partnerships quickly arrested the situation with the creation of many new jobs.

But despite this raft of investment there still remains an endemic problem of low skills and high levels of economic inactivity, with twice the UK average for incapacity claimants.

Creating a ladder of eco-opportunity

The eco-vision would see the work ethic of the Dearne's forebearers rekindled, and given a new purpose and direction. The aim would be to ensure that people from across the community are able to access the spectrum of opportunities that implementing the eco-vision would create.

The ladder of eco-opportunity would be developed in collaboration with the Dearne Valley College and the Education Partnership. The opportunities would reflect the range of projects being taken forward - from agriculture, forestry and conservation, to destination management and hospitality, and through to specialist engineering and bioscience research.



Opening of the Carnegie Library, Swinton



Skilling up to bring home the low carbon economy

A broader vocational and lifelong focus would be developed, to include placements and voluntary projects with community projects and social enterprises. Broadening the spectrum of employment opportunities will create greater potential to engage the wider community, including those who have not worked for some time or are on incapacity benefit.

How will success be measured?

- New positions (paid and voluntary) created by eco-vision projects;
- Number of school leavers entering eco-vision related employment;
- Impact on economic inactivity rate and profile of benefit claimants;
- Number of incapacity benefit claimants active in eco-vision projects.



ECO-VISION INSPIRATION MAP

Nurturing Eco-awareness and Know-how

The Dearne will work to join pioneers from across the UK and EU who have demonstrated the value of engaging with and inspiring communities to take ownership of projects, and to explore how action can support the future of their town and community.

UK inspiration



Ayrshire Energy Agency

Scotland

A community fund from a local wind farm has been used to support an energy efficiency programme for three towns, with high levels of take-up achieved.



Education for Sustainability Network

Rochdale

By bringing together teachers and children to provide training workshops the network has achieved 68 registered eco-schools.



Dyfi 'eco-business park'

Wales

Know how developed at the Centre for Alternative Technology has been spun-out to establish and attract new businesses to an eco-business park.



Totnes 'transition town'

Devon

The community of Totnes has organised to develop a long-term strategy for its transition to a future without oil.

EU inspiration

Samsøe Island

Denmark

In order to become a pioneer for energy self-sufficiency the island of Samsøe needed to engage the whole community's know how to develop projects.



Gelsenkirchen 'solar capital'

Germany

As the new solar industries have grown so has the know how of the workforce which has been retrained to participate in the new economy.



Nuenen community broadband

Netherlands

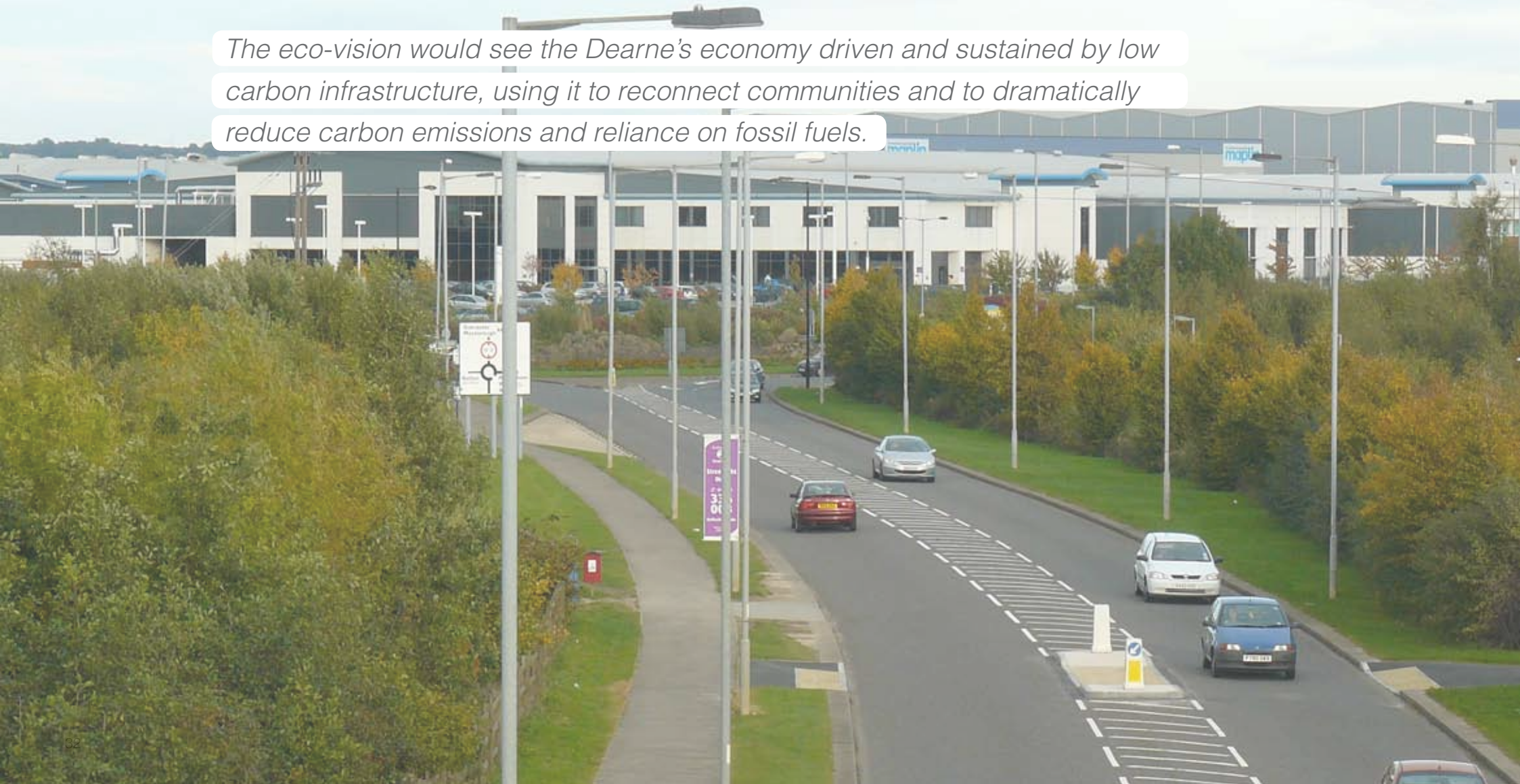
The town of Nuenen has developed its own community-owned broadband network which provides services that bring together the community.

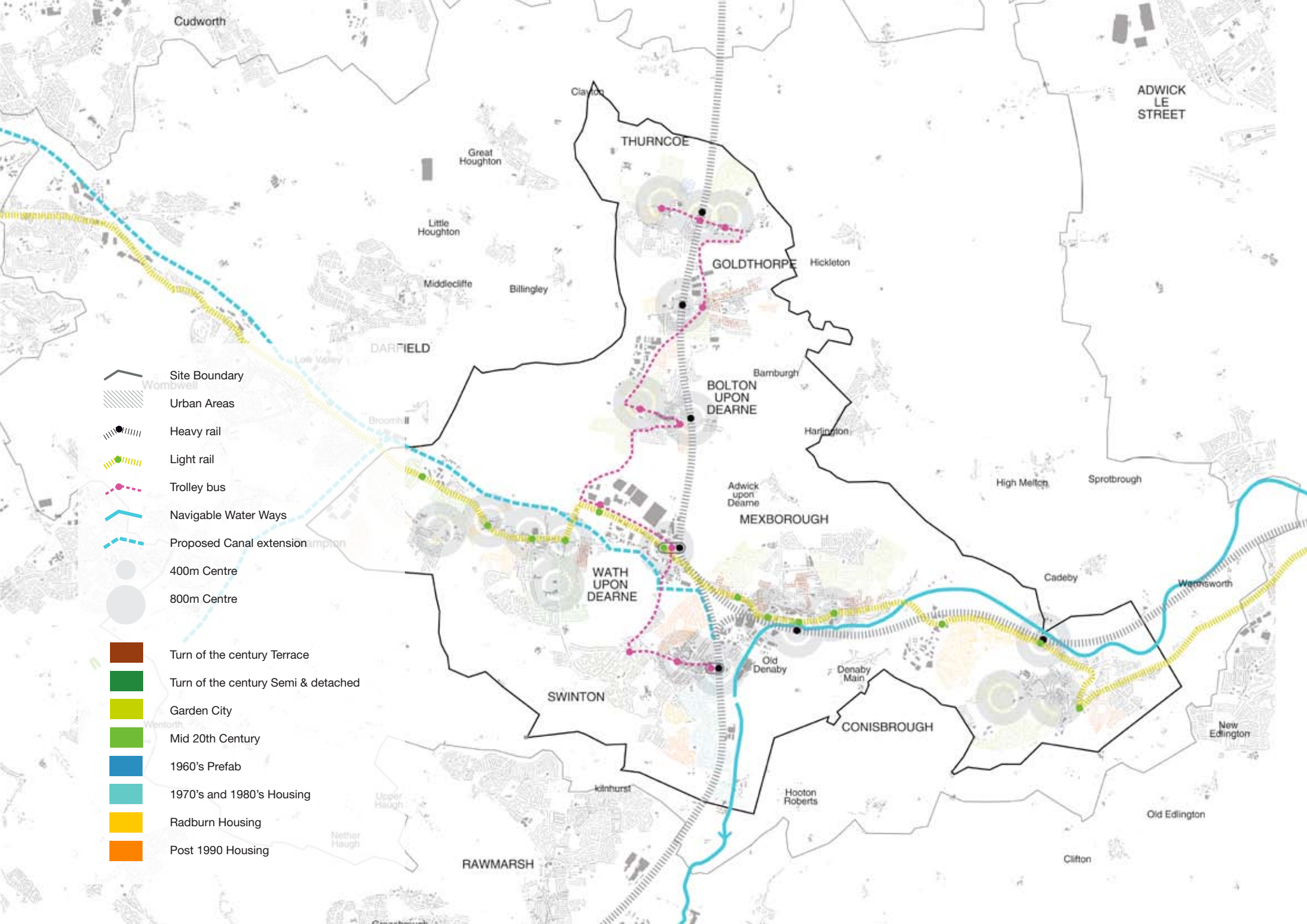


6

GROWING LOW CARBON INFRASTRUCTURE

The eco-vision would see the Dearne's economy driven and sustained by low carbon infrastructure, using it to reconnect communities and to dramatically reduce carbon emissions and reliance on fossil fuels.





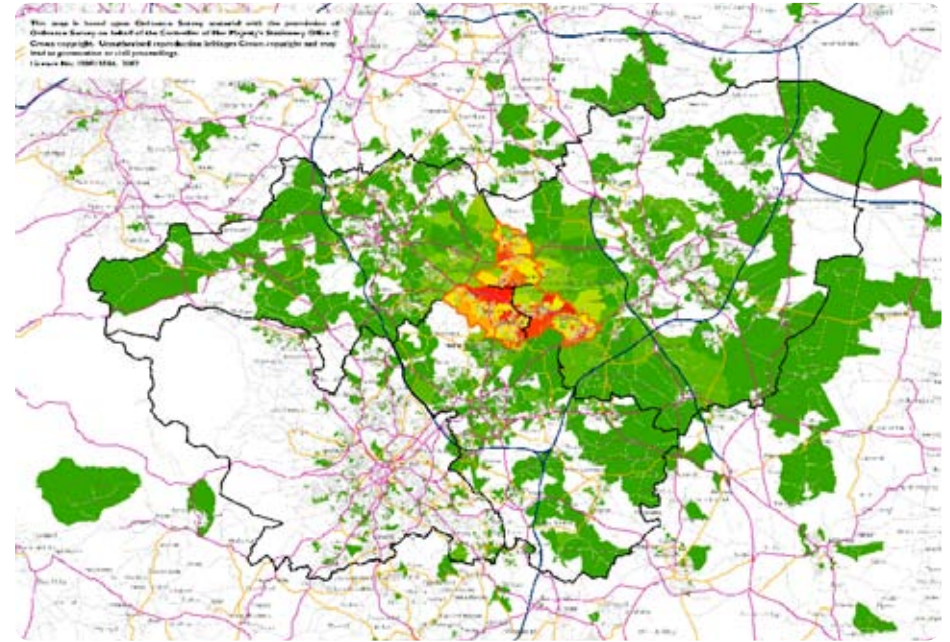
- Site Boundary
- Urban Areas
- Heavy rail
- Light rail
- Trolley bus
- Navigable Water Ways
- Proposed Canal extension

- 400m Centre
- 800m Centre

- Turn of the century Terrace
- Turn of the century Semi & detached
- Garden City
- Mid 20th Century
- 1960's Prefab
- 1970's and 1980's Housing
- Radburn Housing
- Post 1990 Housing

Moving away from the car

A comprehensive public transport network will be developed in order to connect communities in the Dearne Valley, and to reduce car use dramatically for journeys in and out of the area.



The catchment area for the Dearne's employment sites extends beyond South Yorkshire, and incommuting is over 80% car-based

Isolation by disconnection

A legacy of the Dearne's mining history is its relatively poor public transport connectivity with the Sheffield and Leeds city-regions. The towns grew up in a very self-contained way and people did not need to travel. The mining industry was more reliant on rail freight links and many linkages that the Dearne had, such as the Midlands mainline rail service to London which called at Swinton, were lost in successive rationalisation of the network and the Beeching cuts of the 1960's.

The public transport network within the Dearne was a different story. As recently as 1953 both trams and electric trolley buses connected all of the towns. Mexborough and Swinton Tramways

operated trams between Rotherham Bridge and Conisbrough, and 'trackless' electric trolley buses between Mexborough and Manvers Main colliery. The Dearne District Light Railway ran trams between Swinton and Barnsley, and between Swinton and Thurnscoe.

A car dependant economy

The recent legacy of development of the Dearne's mine sites as employment centres has been a large increase in car use, with a 71% in-commuting rate for a workforce of more than 15,000. The Manvers site in particular creates significant inward commuting by car from across the city region. Difficulties accessing new local employment and the increasingly footloose nature of the employment market has

also meant that Dearne residents are travelling further afield by car, with 33% out-commuting.

Although there has been investment in public transport improvements, such as the interchange at Swinton, the level of public transport use for commuter journeys, both in and out of the Dearne is still low at, on average, around 18%. Recent housing developments in the Dearne have also tended to be car orientated, and spatially have not been located to benefit from public transport connections.

Creating a new network and hub

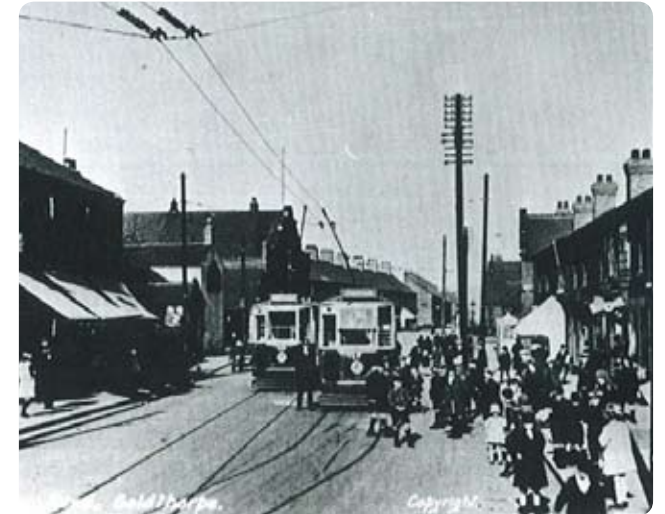
The eco-vision would see the creation of a new public transport network that would knit together the Dearne's towns, and create modern, high



Patterns of recent development support a car-based economy



Electric trolley buses served Mexborough and Manvers



Dearne Light Railway trams served Swinton and Thurnscoe

quality links to Barnsley and Sheffield, and to the Leeds city-region. With a combined population greater than the towns of Doncaster or Barnsley, this would enable the Dearne's towns to function as a single entity.

The network 'hub' would be the Manvers employment site, dramatically improving its accessibility, supported by three new links routed through the Dearne's towns and employment locations to maximise patronage:

- **City-regional axis:** Creation of a mainline station at Manvers which would have a journey time of 15 minutes to Sheffield and 35 minutes to Leeds;
- **East-West axis:** Development of an ultra light tram link between Conisbrough and Wath,

running at street level along Doncaster Road and Manvers Way. A tram-train option could extend the route to Barnsley and Doncaster;

- **North-South axis:** Development of an electric trolley bus link between Thurnscoe and Swinton, routed through Bolton, Goldthorpe, Highgate and Hickleton employment sites.

An additional benefit of the network would be to complement Growth Point proposals by creating a string of new housing locations along the tram and trolley bus corridors. So, for example, new frontage and public realm could be created at Mexborough between the existing station and the centre.

The network would be re-inforced by the formalising and improvement of the series of

informal walking and cycling routes across the Dearne Valley. Many routes that could be used are perceived to be unsafe and are underused. The eco-vision would re-inforce the culture of walking that still exists in the Dearne Valley, and encourage increased cycling between towns, linked to public transport nodes.

How will success be measured?

- Modal shift to public transport, and other non-car modes, over time;
- Investment achieved in new public transport linkages and corridors;
- Investment stimulated by development of public transport corridors;
- Journey time and changes to key centres against benchmark.

BARNSELY



Tram-train linking Barnsley and Doncaster

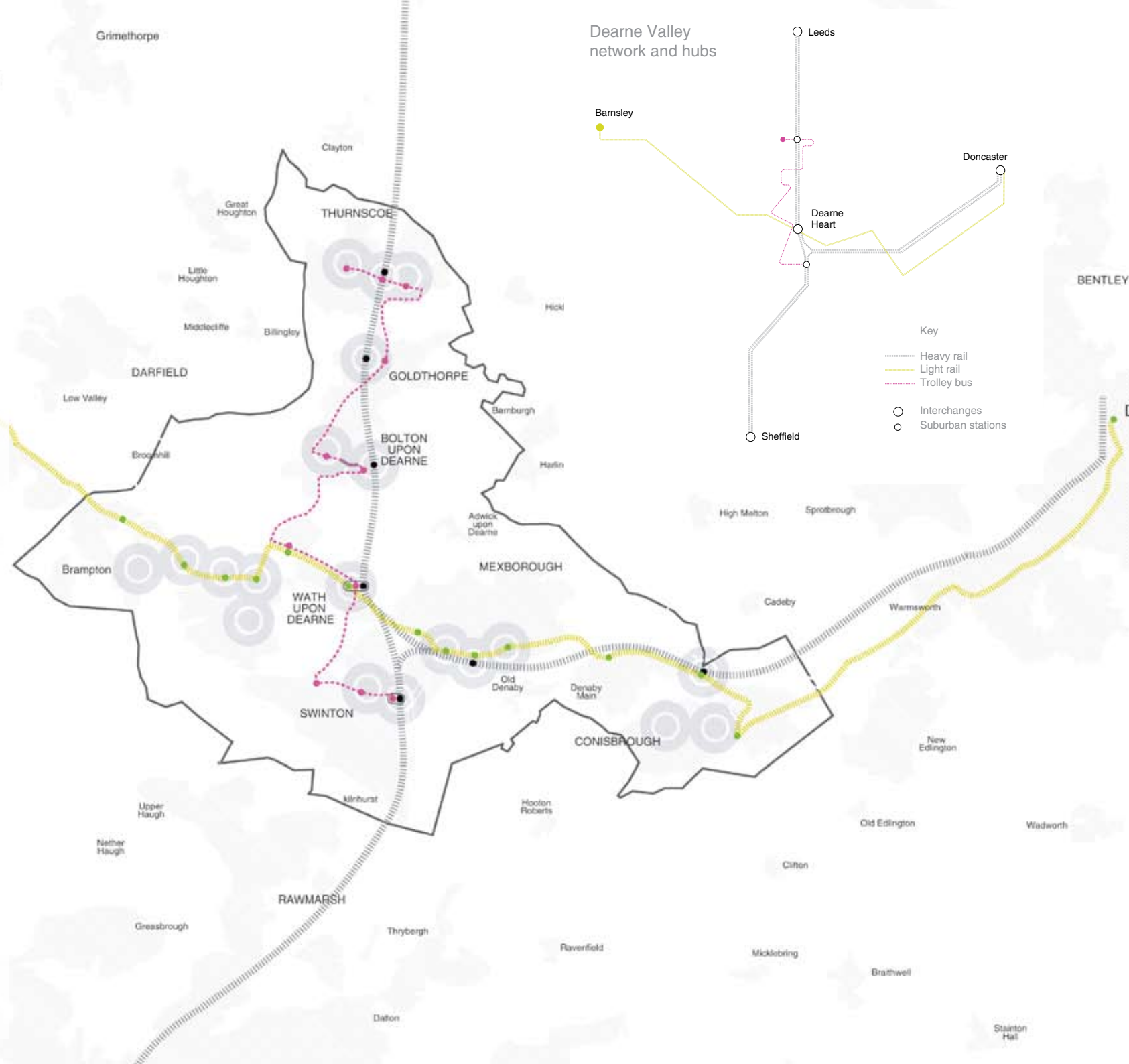


Tram-train corridor as a focus for growth



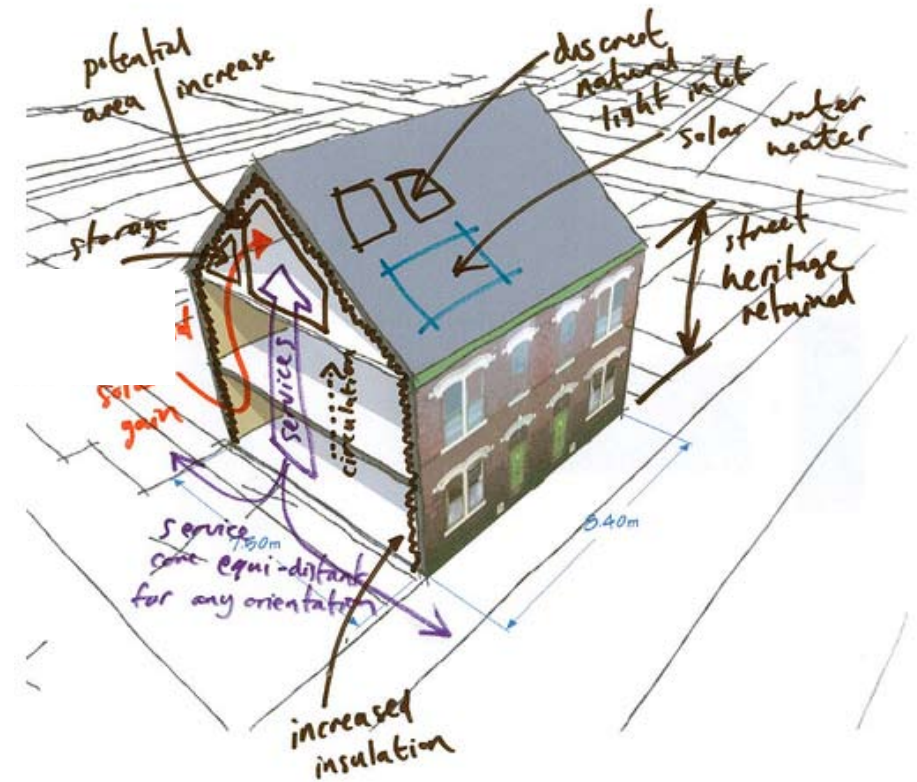
Clean electric trolley buses link homes and jobs

Ecclesfield



Beyond decent homes

Decent Homes will be redefined as part of a much wider programme to bring all of the homes in the Dearne up to a new low carbon standard. The programme will be used to generate demand for local skilled trades.



Taking stock of existing homes

The existing 38,000 homes of the Dearne display a rich diversity of different types and ages. From turn of the century red brick terraces and garden city-type semi-detached properties, to system built and Radburn-type National Coal Board (NCB) and Council built 20th Century properties, and the standard pattern book of modern house types by mainstream housebuilders.

Much of the older housing stock was built to meet the needs of the mining community, including the 'model' garden city semis. Recent investment in a range of improvements to meet the Decent Homes standards has been made by the Arms Length Management Organisations

(ALMOs) of each Borough and the Housing Market Renewal (HMR) Pathfinder Transform South Yorkshire. These include new glazing, loft insulation and heating systems.

But budgets have been limited, and although Decent Homes includes a requirement to improve heating and insulation, stock condition surveys still suggest there is a long way to go, with the typical home in the Dearne still only likely to achieve an Energy Performance Certificate (EPC) of D or E, against a scale from A to F. An average D or E rated semi-detached home might typically cost nearly £1,000 to heat each year.

And whilst the stock has a relatively high proportion of social renting (over 30%), enabling

improvements to be co-ordinated, some areas have high levels of absentee landlords. The main challenge, however, will be the 60% of the housing stock which is owner occupied.

Meeting the standard

The eco-vision would see a new low carbon standard set for the homes of the Dearne. This would apply to all homes, redefining what a 'decent home' is, and providing direct health and financial benefits.

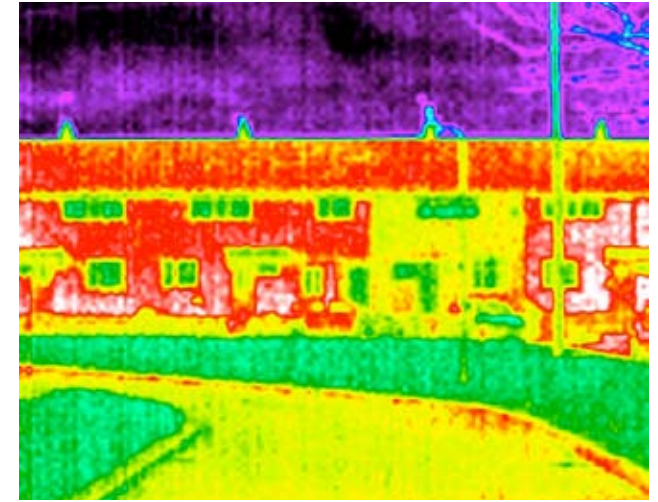
In order to meet the standard homes would need to be fitted with a full range of measures required to reduce the CO₂ emissions of homes by at least 60% (an EPC standard of C+).



Making the Garden City fit for the 21st Century



Developing the kit of parts for upgrading



Thermal imaging to pinpoint heat loss

Higher standards of insulation and air tightness would be required, as well as the installation of low carbon energy technologies – either on individual homes, or for whole streets or communities.

The new standard would be accompanied by a 10 year programme to improve all the homes in the Dearne Valley. The programme would work home by home, street by street, and neighbourhood by neighbourhood, to meet the standard.

The costs of meeting the standard would need to be shared between public funds and householders, but special low or even no cost loans would be made available to help owner occupiers.

The programme would require a significant number of skilled trades and a range of modern building products and technologies. Working with installers and suppliers a 'kit of parts' would be developed, adapted to the different house types of the Dearne Valley in order to meet the standard.


The economies of scale from working across the Dearne Valley would be used to capture the economic benefits by seeking to attract investment from manufacturers, and to create apprenticeships and training so that people from the Dearne Valley develop the skills and know how to provide services to City Region.

Low carbon product manufacturing is already well developed in pioneering countries such

as Germany and Japan. This early advantage makes it difficult to compete with them, but one possibility could be to 'franchise' manufacturing for Sheffield City Region. 'Off the shelf' production lines for products such as insulation and photovoltaic modules could be licensed if there was sustained and committed demand.

How will success be measured?

- Number of homes meeting/exceeding the low carbon standard;
- Rate of improvement of homes to the low carbon standard;
- Private investment levered in as proportion of subsidy;
- Number of people engaged in contracted employment services.

An aerial photograph of a suburban town, likely in the Dearne area. The town is characterized by dense residential housing, including many terraced houses and some larger buildings. A river, the Dearne, flows through the town, winding between fields and housing. The surrounding landscape is a mix of green fields and patches of trees. The sky is clear and blue. A white-bordered box in the top right corner contains a quote.

'The eco-vision would see a new low carbon standard set for the homes of the Dearne. This would apply to all homes, redefining what a 'decent home' is, and providing direct health and financial benefits for everyone.'

Zero carbon infrastructure

New and existing communities of the Dearne Valley will be supported by zero carbon energy infrastructure, using local resources and creating strong differentiation for new housing by applying an A+ rating.

Meeting the challenge

With planning for greater housing numbers to meet demand, and the Growth Point raising numbers even higher, at least 4,500 new homes are planned for the Dearne Valley. With onset of the Code for Sustainable Homes there is now a timeline for all new homes to be zero carbon. This will be a challenge for the housebuilding industry, one which many have said can't be delivered, let alone in a Housing Market Renewal area.

But the eco-vision would see the Dearne meeting the challenge of delivering zero carbon homes ahead of the Government's 2016 target. This would be achieved by working with the housebuilding industry to plan the zero carbon

infrastructure for new development sites, and by establishing a new investment vehicle – an Energy Service Company (ESCo) – to ensure that the costs and benefits are shared

Community energy

The eco-vision would look to ensure that the benefits of zero carbon are spread wider through effective energy planning. The eco-vision would put into practice the new PPS1 supplement on Planning and Climate Change, identifying how local energy resources could meet demand, and how existing buildings could be linked into new local energy networks.

A project would be developed in every town, starting with areas of change such as



HMR masterplans in Thurnscoe, Goldthorpe and Mexborough, and responding to local opportunities for renewable energy and Combined Heat and Power (CHP), including:

- Use of waste heat from the mine gas plant at Hickleton, which would be enough to heat neighbouring Thurnscoe;
- Incorporation of biomass heating using local wood chip into the proposed new High School at Goldthorpe, which would then also supply new homes;
- Development of a wind farm north of Barnburgh which could supply zero carbon electricity to new and existing homes, as well as providing a new source of income;
- Biogas heat and power from organic waste collected from households across the Dearne



Servicing the new low carbon infrastructure



Biomass Combined Heat and Power (CHP) plant



Wind cluster supplying the local community

Valley, and then fermented to produce methane as part of a 'mini' waste PFI.

Innovative new energy sources would also be explored alongside tried and tested solutions. These could include the use of minewater for heating and cooling, such as that required for the large call centres at Manvers, and the insitu use of remaining coal seams as a source of coal bed methane. Hydrogen would be extracted from the methane and used to produce clean energy from fuel cells (an electrical engine with no moving parts).

Following on from the hydrogen project at the Energy Technology Centre of the Advanced Manufacturing Park in Rotherham, a second hydrogen 'mini-grid' could be created to supply

the Manvers employment hub, and electrified public transport. This would be a project of European importance in seeking to demonstrate the concept of the 'hydrogen economy'.

Differentiating the Dearne

The zero carbon infrastructure of the Dearne would set it apart from other locations. Developers would be able to deliver Code for Sustainable Homes level 6 earlier and at less cost than any other location in the north of England, giving them experience and competitive advantage.

It would also help to differentiate the Dearne as a location. As homebuyers become more environmentally aware, Energy Performance

Certificates (EPCs) will help to identify better homes. The Dearne's zero carbon homes would be rated A+, setting them apart as homes that will hold their value in the years to come.

How will success be measured?

- Energy self-sufficiency of the Dearne Valley;
- Proportion of heat and power from renewable and/or low carbon sources;
- Reduction in CO2 emissions attributable to new energy sources;
- Proportion of new homes delivered to specific Code level;
- Value added and/or role of A+ EPC rating in sales of new homes.



ECO-VISION INSPIRATION MAP

Growing a low carbon infrastructure

The Dearne will work to join pioneers from across the UK and EU who have demonstrated the importance of long-term investment in low carbon infrastructure, supported by careful planning and co-ordination, and engagement to inspire local communities.

UK inspiration



Biomass supply chain

Barnsley

Working with South Yorkshire Forest Partnership, Barnsley MBC have invested in establishing a fuel supply chain based on local resources.



Kirklees solar programme

Yorkshire

Leading the largest solar programme in the UK, Kirklees has co-ordinated the installation of solar technology on homes, schools and community buildings.



Aberystwyth biomass heating

Wales

Determined to lead by example the Welsh Assembly Government has worked with Aberystwyth Council to install biomass heating for new civic buildings.



Ail Wynt wind farm

Wales

Initially developed by three farmers who needed new sources of income, their small wind farm has expanded with the support of the local community.



'Target 2050' programme

Stroud

Stroud District Council has sought to lead the way with its comprehensive programme to reduce the CO₂ emissions from its homes by 60%.

EU inspiration

Samsøe Island

Denmark

Energy self-sufficiency has required Samsøe to invest in a range of renewable technologies using local resources to meet its needs.



Heerlen 'minewater' project

Netherlands

The former mining town has pioneered the use of geothermally heated mine water to heat homes, commercial offices, shops and a library.



Karlsruhe 'tram-train'

Germany

Providing inspiration for the Penistone line's tram-train trial, Karlsruhe pioneered a network to link the city region's towns and cities.

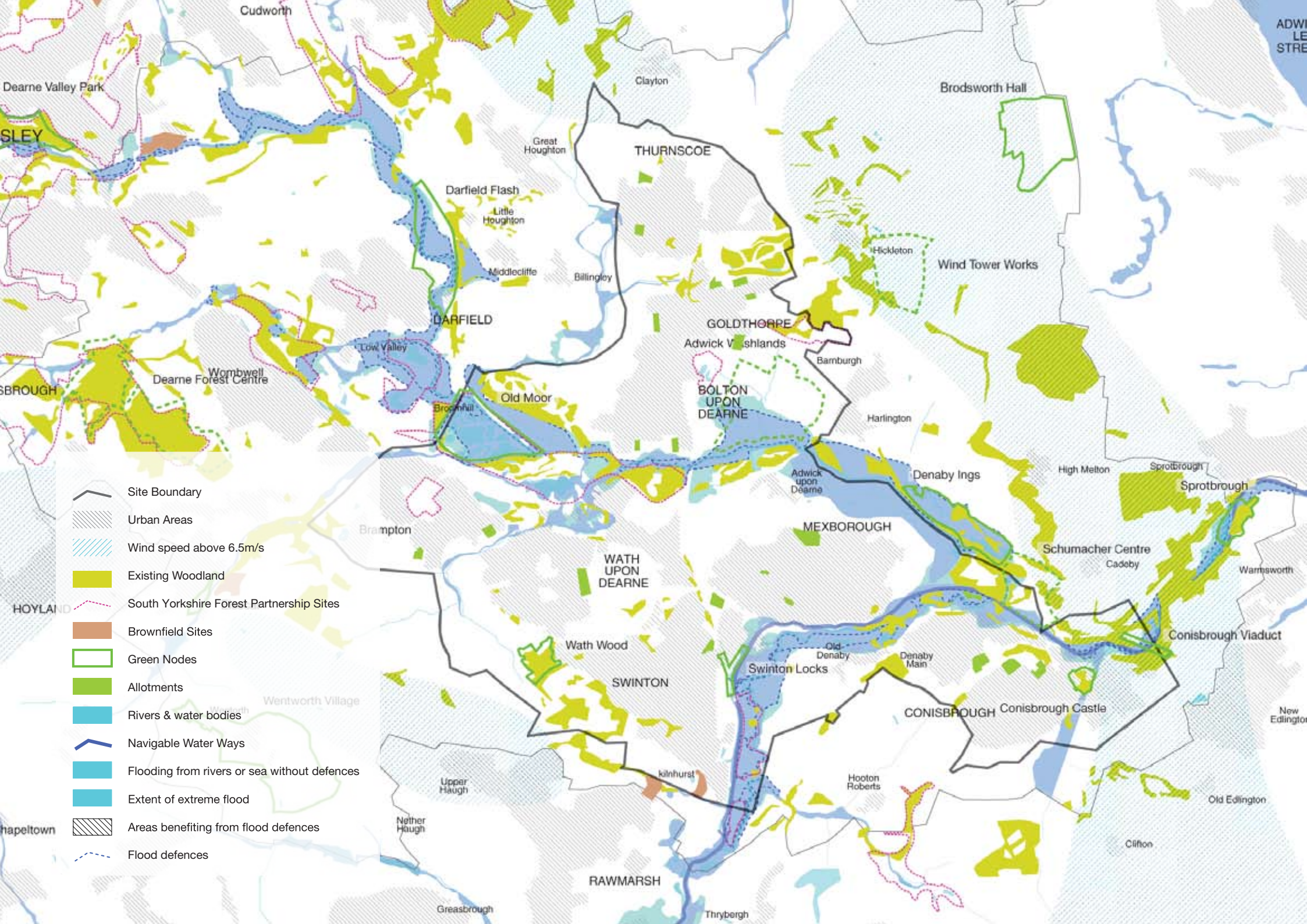


7

SEEDING A NATURAL REGENERATION

The eco-vision will see a unique and unprecedented natural regeneration and revealing of the landscape, creating a green heart of the City Region where the stewardship of natural resources is second nature.





A growth point for nature

The Dearne Valley will become a growth point rich in nature, a biodiverse living and learning landscape where a new balance between people and nature's needs will be found.



Creative adaption of buildings to places as part of a regenerated landscape

Letting nature reclaim its place

Over the last two centuries the natural elements of the valley became subservient to our needs. Water was diverted and channelled, abstracted and polluted, and the risk of flooding increased. The forests dwindled as the needs of agriculture laid bare the soil, and their value diminished, falling to only 6% cover across the length of the valley – less than half the UK average and only 20% of the European average.

The eco-vision would see nature encouraged to reclaim its place in the Dearne Valley and providing valuable ecological services to underpin economic and social progress. Stretching from Dearne Valley Park in Barnsley, through Darfield, Old Moor, Bolton-upon-

Dearne, Adwick, Denaby and all the way to Sprotbrough, the natural assets of the valley will be regenerated and revitalised.

Forests would once again frame the landscape, following the line of the valley edges, and joining together to form a community forest covering over 30% of the landscape. From ancient woods such as Wath Wood and Cliffe Wood, views across the rolling landscape from Barnburgh and High Melton, to the plantations of the restored Manvers Main, each will be seen as an asset by the community.

The river Dearne will be revealed and allowed to follow its natural course, spilling onto washlands in times of spate, and in so doing creating a mosaic of wetland habitats rich in wildlife. The

introduction of fish passes along the whole stretch of the river, supported by continuing improvements in water quality, would symbolise natural regeneration by establishing the river Dearne as a salmon fishing destination

A living landscape and built environment

But the natural regeneration of the Dearne will not just be about nature existing in splendid isolation. The washlands and forestry will provide a range of valuable ecological services – from flood alleviation and fuel production. It will also enhance the environment of the Dearne and create a unique setting for investment.

Nature will permeate and soften the built environment, greening the roofs of the sheds of



Sprotbrough Locks, waterside gateway from Doncaster



Barnburgh Crags with sweeping views of the valley



Wombwell Wood, growth point for a community forest

Manvers Main, and seeding street trees along the boulevards, avenues, streets and lanes. The green spaces and routes on everyone's doorstep will be improved to make them safe havens for people and wildlife, and no-one will be further than 10 minutes walk from a safe greenspace and walking route.

The landscape of the Dearne Valley will be a living, learning landscape providing an outdoor classroom for the younger generation, and a workplace that could provide a range of opportunities for those of working age.

It will be a place for healthy living, providing a green gym to promote outdoor pursuits, and a breathing space for people from across the city-region.

How will success be measured?

- Proportion of landscape with forested cover;
- Connectivity of habitat and landscape character areas;
- Functional value and value added of ecological services supplied;
- Proportion of built environment with green infrastructure elements.

Dearne Valley eco-park masterplan

Dearne Valley Park

Woodland walks form the gateway to the eco-park from Barnsley.

Darfield Flash

Wetlands and boardwalks linked by the mineral line cycleway.

Old Moor

An outdoor classroom and venue at the heart of the eco-park.

Adwick Washlands

Wetlands and boardwalks create setting for leisure and recreation.

Brodsworth Hall

A complete day out steeped in Victorian history.

Dearne Valley Forest Centre

The perfect getaway for business and leisure, with shortstay facilities.

Barnburgh Wind Tower

Views as far as the eye can see from the wind turbine platform.

Denaby Ings

Pristine wetlands that create a haven for wildlife.

Elsecar Heritage Centre

The history and story of Dearne Valley's industry and heritage.

Sprotbrough Locks

Doncaster's waterside gateway to the ecopark

Conisbrough Viaduct

Landmark heritage, vantage point and cycle route

Wentworth Village

A picture perfect model village and the magnificent Woodhouse.

Wath Wood

An ancient woodland and Roman Ridge make this a hidden treasure.

Swinton Locks

Sheffield's gateway to the eco-park, a waterside community.

Schumacher Centre

The City Region's focal point for ecological know-how.

Conisbrough Castle

One of the country's finest Norman castles.



A City Regional destination

The vision will seek to realise the potential of the Dearne Valley's landscape and heritage, creating a destination and setting for investment in the city-region.



The sweeping structure of Conisbrough viaduct

A heritage landscape

The Dearne Valley's landscape holds a rich legacy of man-made influence and heritage. From the first fortified settlements built along the confluence of the rivers Dearne and the Don, and the later development of the Royal Castle at Conisbrough, to the aristocratic lineage of Wentworth Village and the dramatic industrial interventions such as the Conisbrough viaduct, seen as a whole the wider valley offers a spectrum of significant destinations.

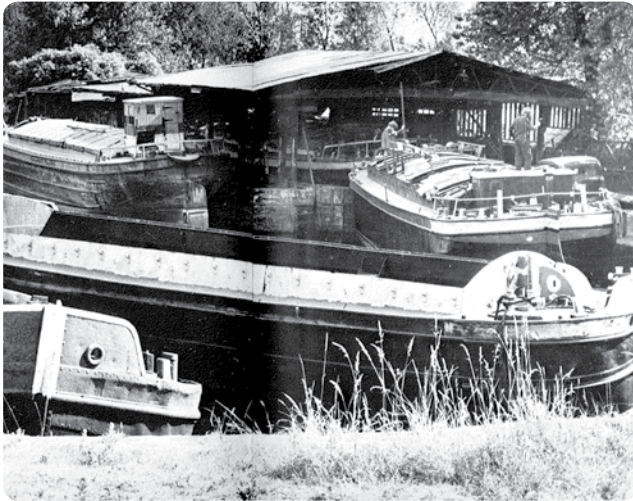
The national revival of canals as a leisure destination creates further potential. The Don Navigation is well used for both leisure and commerce, but it relates poorly to the settlements of the Dearne. Proposals for the

re-instatement of the Barnsley, Dearne and Dove Canal create the potential to develop new waterside destinations up the length of the valley, starting with Swinton Lock which could serve as a gateway and destination in its own right.

A breathing space away from it all

The eco-vision would see the Dearne Valley's regenerated natural landscape provide a breathing space and green heart of the Sheffield and Leeds City-Regions.

Sites such as Adwick Washlands and Wombwell Wood could be developed as important attractors, forming part of a network of landscapes and habitats within the valley. People would be able to access the facilities of the Dearne Valley by public transport, arriving at a number of different 'gateways' from which they could cycle or walk along trails, green lanes, old mineral rail lines and waterside routes, or use a new circular bus route to move between destinations.



Swinton Lock in its heyday as gateway to the Dearne



Cycle routes will link the destinations of the Dearne



A place for outdoor pursuits and recreation

The attractions of the Dearne Valley would be presented as a coherent whole, interpreted as a network of linked destinations, and linked in to wider networks such as the Trans Pennine Trail.

The destination sites within the valley would be complemented by the development of new places to stay in a range of different natural settings. This will include short-stay accommodation for outdoor pursuits, weekend breaks, as well as business events and away weekends. Sustainable building techniques would complement the natural landscape setting.

How will success be measured?

- Visitor numbers, length of stay and catchment area;
- Breakdown by nature of stay against target groups;
- Investment in and number of short stay accommodation beds;
- Linkages between attractions, destinations and accommodation.

A productive landscape

The vision will see the Dearne Valley become a productive landscape, based on the stewardship of its natural resources.



Realising the potential of the Dearne's natural resources

Harnessing new and old forms of energy

The eco-vision would see a range of different forms of renewable energy being harvested, based on locally available resources. The new forests of the Dearne Valley would be managed to yield wood chip fuel which would be used to heat homes, schools and workplaces - building on the work of Barnsley Council to make the switch from coal and gas for heating. Energy crops such as coppice willow could also be grown as part of the mix of agricultural land uses.

An initial scoping of the wind resource of the Dearne suggests that there could be the potential to develop a small wind farm along the ridge to the north of Barnburgh.

The project could generate a new source of income for the Dearne, and could incorporate an observation platform to benefit from views across the valley. It would be a visible demonstration of how renewable energy can be harnessed to the benefit of the community.

The potential for hydro-electric power is more limited in the valley, with the most significant local potential to be found upstream of the Don in Rotherham and downstream at Crimpsal in Doncaster.

Weirs at Darfield and Adwick could make a small contribution if the head of water could be increased and the engineering did not affect their current flood monitoring role. Run of river turbines could also be investigated for the Don, but would require significant engineering works.



Coal and the mines continue as a source of local energy



Sustainable forestry managed using the latest technology



Shifting the focus from lorries to canal barges

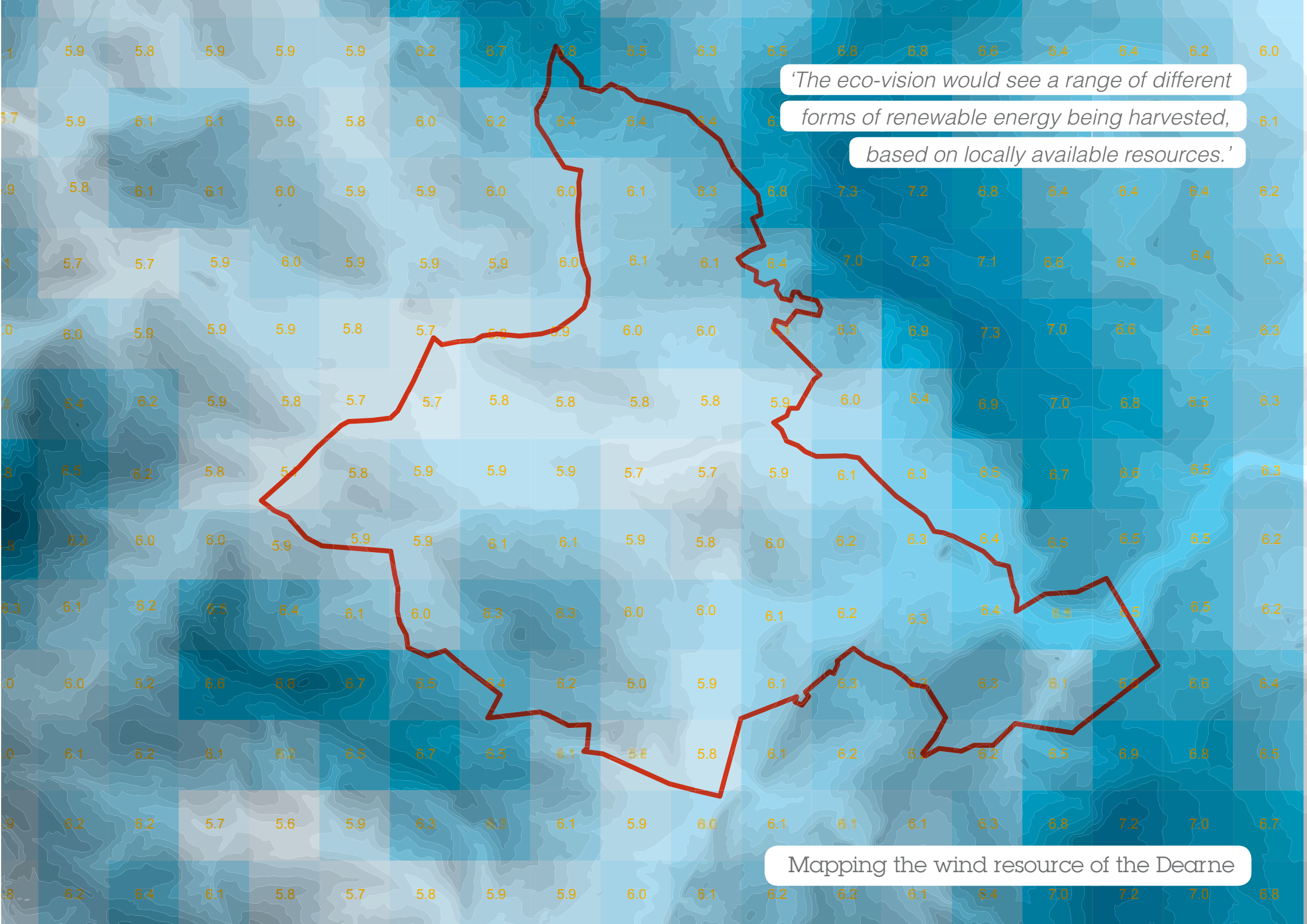
Re-awakening coal

The closure of the mines was not the end of energy generation from coal workings. Mines continued to vent methane gas, which if not put to productive use is a potent greenhouse gas. At Hickleton the methane is used to generate electricity in gas engines. Greenpark Energy currently hold the government license to use any coal gas resources in the Dearne Valley area.

And further opportunities exist to use both the abandoned mine workings, and unworked coal seams. Mine water is warmed by the earth and can be pumped to the surface in order to heat buildings. By drilling into remaining seams 'coal bed methane' could be extracted in-situ from coal. This would require the use of novel fuel cell technology to ensure it was a low carbon option.

How will success be measured?

- Proportion of heat and power from renewable and/or low carbon sources;
- Reduction in CO₂ emissions attributable to new energy sources;
- Utilisation of waste heat from coal mine gas generation;
- Proportion of heat and power from clean coal technologies.



'The eco-vision would see a range of different forms of renewable energy being harvested, based on locally available resources.'

Mapping the wind resource of the Dearne

A fresh look at food

The vision will see the Dearne Valley develop a new food economy, in order to be more self-reliant and above all to promote healthy local food.



Historically produce markets were at the heart of the Dearne's towns

Growing a new food economy

The eco-vision would take a fresh look at the local food economy. The aim would be to reconnect the community with the source of their food, reducing food miles whilst promoting healthy eating.

The new food economy of the Dearne would work in a number of different ways to support the production of fresh food, but also to develop a range of outlets to bring the food to local communities.

Innovative new forms of ecological food production would be supported as well. This could range from the transition of existing farms to organic status, to the establishment of

modern aquaculture facilities to farm fish. An aquaculture project could utilise the facilities established as part of a research project by the Earth Centre in the later 1990s.

- **Agriculture:** Whilst much of the land is of Grade 3 there is still potential for organic farming to produce some staple crops;
- **Horticulture:** Greenhouse horticulture could be established as market gardens to supply fresh fruit and vegetables;
- **Community gardens:** Community-led smallholdings could bring people together to work but also to learn new skills;
- **Allotments:** Allotments held a strong significance for the mining community, and support would be given to allotment holders.

An emphasis on food growing would support the rural community, but it could also create opportunities to engage older members of the former mining communities who may be economically inactive, but also the younger generation in an educational role, seeking to reconnect them with where their food comes from. In turn this could contribute to the NHS aims through Primary Care Trusts to promote healthy lifestyles and choices.



The Co-operative has a strong presence in the community



Allotments are a popular legacy of the mining era



Aquaculture research was pioneered at the Earth Centre

Creating the market

The eco-vision would also seek to establish a clear identity for the Dearne as a place of market towns. The retail base of the Dearne's local centres has been eroded by the opening of a number of large supermarkets. Access to a range of fresh produce may require a car journey, so the promotion of local centres will be important to reduce further carbon emissions.

- **High streets:** The Co-operative retains a retail presence in most of the Dearne's centres, and would play a key role in promoting fresh produce;
- **Produce markets:** Goldthorpe and Wath markets continue to be popular and the format would be expanded to the rest of the Dearne's towns.

How will success be measured?

- Proportion of food sourced from local production;
- Proportion of food purchases made in local centres;
- Proportion of food sourced from Yorkshire and North of England;
- Number of residents engaged/employed in food production.



ECO-VISION INSPIRATION MAP

Seeding a natural regeneration

The Dearne will work to join pioneering projects from across the UK and EU which have demonstrated the potential to transform landscapes, to the benefit of the environment, but also as assets for local and city regional economies.



Lakeside Centre

Cumbria

Lakeside has become one of the UK's most popular outward bound centres, with a range of accommodation and facilities for business and leisure groups.



Rother Valley Country Park

Rotherham

Created by a joint board of Rotherham, Sheffield and North East Derbyshire, the Park is the outcome of the restoration of 300 hectares of open cast mine.



Cotswolds Water Park

Gloucestershire

Creation of the water park, and its many attractive waterside settings, has stimulated the local demand for new housing and raised values.



Nene Valley Country Park

Northampton

Created to provide a park for the public good of the expanding new towns, it is now run by a Trust which was endowed with assets to secure its future.



Grünwald 'city forest'

Germany

Established by Berlin as an asset and resource for the growing city, the forest is both a destination, biodiverse habitat and a financially viable industry.



Bay of Somme

France

With the decline of its traditional fishing and agriculture the Bay has sought to attract tourists to its unique wetlands linked by a network of cycleways.



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TAKING FORWARD THE ECO-VISION

The eco-vision will require new ways of thinking and working.

Specific new forms of governance and planning powers will be required in order to guide implementation of the vision.

WALK AS YOU TALK
TEACH AS YOU DO
DO AS YOU LEARN
LEARN AS YOU WALK

Windmille

The philosophy of the eco-vision

The eco-vision will be supported and underpinned by world class ecological thinking, drawing inspiration from the work of influential National Coal Board advisor E.F.Schumacher.



Ernst Schumacher (1911-1977) Chief Technical Advisor to the National Coal Board 1950-1970, and staunch supporter of the coal industry.

Making the link

There is a strong link between the recent history of the Dearne and the green movement through the thinking of Ernst Schumacher. Schumacher was Chief Economic Advisor to the National Coal Board between 1950 and 1970, pioneering management techniques aimed at delegating responsibility to each pit and increasing safety and productivity.

Schumacher was a tireless supporter of the coal industry and the need for national energy security. After leaving the Coal Board he went on to write 'Small is beautiful' which is recognised as one of the most important and influential writings on sustainable development. The Dearne Eco-vision would represent a living embodiment of his ideas.

A centre for ecological know-how

The eco-vision could be supported by networking the Dearne with practices and ideas in the wider world. A centre for ecological know-how could be established.

This would be a place where practical ideas and solutions could be showcased and brought together. It could also be a place that could act as a meeting point for influential ecological thinkers and designers from across the world.

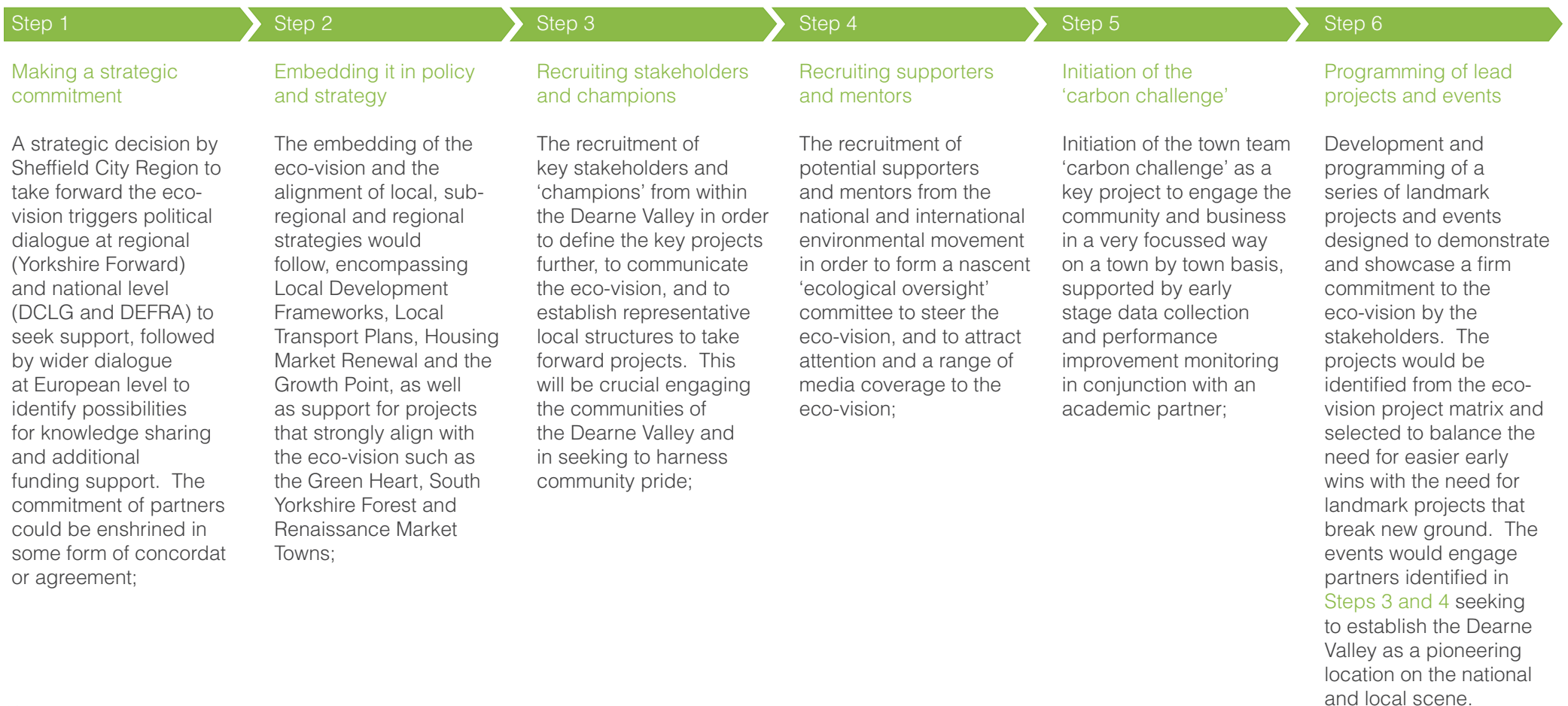
Schumacher College in Devon is a place which attracts people from across the world to study ecological ideas. It runs courses aimed at graduates, but also companies and local authorities, as well as employing teachers that are amongst some of the leading ecological thinkers and designers in the world.

The Earth Centre, with its exemplar buildings, could provide the basis for a new Schumacher centre that could extend the work of the existing Schumacher College, creating a meeting point for global and local ideas, experience and solutions.

In order to do this it would work at a local level with the Dearne Valley Education Partnership and the College, as well as making links with Yorkshire Universities and recognised training locations such as Losehills in the Peak District. It would also develop links with European centres of expertise aligned with the eco-vision.

Timeline for engagement & startup

Realising the vision will require the engagement and drive of stakeholders across South Yorkshire, supported by the strategic commitment of government at a national, regional and local level.



Creating a new form of governance

A new form of governance will be needed to manage the transition to the eco-vision, and create a platform for joint working across the Dearne Valley. Planning, investment and stewardship will be key functions.

A dynamic planning framework

The governance structure for the eco-vision will be designed to manage a transition. Unlike the UK's National Parks it will not be about protecting that which is pristine. Instead the aim will be to steward the assets of the Dearne to ensure that they are protected and enhanced for the next generation, using strategic powers akin to Urban Development Corporations.

The governance structure will bring together representatives from each Borough, as well as strategic project stakeholders, and it will be tasked with oversight of the transition plan, which in the long-term will transform the valley over 20-30 years, and in the medium term co-ordinate investment in low carbon infrastructure.

The transition plan will require ecological foresight to keep it on track. Underpinning these governance arrangements will need to be new criteria for decision-making. An ecological oversight committee of leading independent experts would therefore be appointed to scrutinise major decisions.

Ecological Development Framework (EDF)

At the heart of the Dearne Valley's new governance arrangements would be an 'Ecological Development Framework' - a new tool that would form the statutory strategic planning basis for the eco-vision, with a status similar to an LDF Core Strategy, overseen by a joint strategic planning committee.



Cotswold Water Park demonstrates what is possible with collaboration

The EDF would create a statutory planning basis for the transition plan and would contain spatial policies for the natural regeneration of the valley, as well as the development of renewable energy resources. Development Plan Documents would focus on specific assets of the Dearne and challenges for the future.

This could include area-specific proposals plans covering changes of land use, spatial locations of uses, permitted development, design codes and low carbon infrastructure requirements.



The Earth Centre - an under utilised asset



Welsh Centre for Sustainable Education - leading the way



Sherwood Energy Village - community re-investment

Investment and stewardship

But planning will not be enough. Investment will be required to develop the assets of the Dearne, and ongoing stewardship to maintain and nurture those assets to the benefit of the Dearne.

Whilst specific levies or rates could be diverted or ring-fenced to fund projects, it is likely that a longer term vehicle will be needed that could co-ordinate community investment.

The Dearne 'ecological steward' could be a social enterprise or development trust. Modelled on the Sherwood Energy Village, an Industrial & Provident Society, with a

Board constituted from key stakeholders and community representatives, it would be dedicated to creating a virtuous cycle of re-investment in the Dearne, building an asset base for the future. Assets could range from a community-owned wind farm to smallholdings.

How will success be measured?

- Agreement and establishment of joint governance structures;
- Establishment and monitoring of transition plan and EDF;
- Number of low/zero carbon planning requirements met;
- Investment and asset value apportioned to Dearne Trust.

Key consultees to date

The eco-vision concept was developed with the input of a range of consultees, including the local MP, representatives from Sheffield City Region, Yorkshire Forward, the three Local Authorities, local Councillors and key project stakeholders.



The vision emerged from dialogue with a range of stakeholders

James Allison, *Yorkshire Forward*,
Jill Arkley-Jevons, *Doncaster MBC, Councillor (Mexborough)*
Steve Avery, *Barnsley MBC, Regeneration Programme Manager*
Ann Beddoes, *Barnsley MBC, Transportation Group Leader*
Sharron Brook, *Barnsley MBC, Councillor (Dearne South)*
Martin Cantor, *Barnsley MBC, Principal European and Regional Strategy Officer*
Celia Cashman, *Transform South Yorkshire, Strategy Manager*
Charles Clover, *University of Essex (Visiting Professor), Marine and river fisheries expert*
Miles Crompton, *Rotherham MBC, Research Co-ordinator*
Steph Cunningham, *Rotherham MBC, Communications Officer*
Keith Davies, *Environment Agency, Don Gorge Partnership*
Graeme Dent, *Director, Digital Region*
Arnold Drakeley, *Doncaster PCT, Head of Strategic Partnerships*
Julianne Duffy, *Dearne Valley Education Partnership*
Chris Dungworth, *Future Investment Team, Doncaster MBC*
Claire Gannon, *Doncaster MBC, Conisbrough & Denaby Neighbourhood Manager*
Guy Gibson, *Yorkshire Forward, Strategic Relationship Development Manager*
Paul Gibson, *Rotherham MBC, Senior Transportation Officer*
Gail Hancock, *Doncaster MBC, Pathfinder Assistant Programme Manager*
Janice Hancock, *Barnsley MBC, Councillor (Dearne North)*
Alice Hetherington, *Barnsley MBC, Policy Development Manager*
Sandra Holland, *Doncaster MBC, Councillor (Conisbrough and Denaby)*

Vic Holbury, *Doncaster Chamber, Head of Project Management*
Stuart Jenkinson, *Environment Agency, Programme Development Officer*
Bob Johnson, *LSC, Partnership Director (Rotherham)*
Rachel Jones, *Yorkshire Forward, Renaissance Market Towns Project Manager*
Andrew Klinkenberg, *Rotherham MBC, Rotherham Investment and Development Agency*
Christine Mills, *Doncaster MBC, Councillor (Conisbrough and Denaby)*
Mike Moir, *Barnsley Development Agency*
May Noble, *Barnsley MBC, Councillor (Dearne South)*
Sue Phillips, *Doncaster MBC, Councillor (Mexborough)*
Phil Turnidge, *Rotherham MBC, LDF Manager, Forward Planning*
Sue Ransom, *Dearne Valley College, Principal*
Craig Sahman, *Doncaster MBC, Councillor (Conisbrough and Denaby)*
Ken Sanderson, *Barnsley MBC, Councillor (Dearne South)*
Mike Silk, *Barnsley, Dearne and Dove Canal Trust, Engineer*
Edwin Simpson, *Doncaster MBC, Councillor (Mexborough)*
Kevin Swift, *Barnsley MBC, Planning and Transportation*
Nicola Ward, *Doncaster MBC, Strategic Planning*
Richard Walker, *South Yorkshire Forest Partnership, Director*
Joanne Wehrle, *Rotherham MBC, Principal Officer (International and Regional Affairs)*
Neil Wilson, *Barnsley MBC, Area Forum Officer*
Paul Woodcock, *Rotherham MBC, Director of Planning & Regeneration*
Jennifer Worton, *Barnsley MBC, Councillor (Dearne North)*

