



ATKINS

Member of the SNC-Lavalin Group

Transforming Communities & Environment



Here's the problem...

Climate change and environmental degradation are putting our society at risk from flooding, heatwaves, and extreme weather - and this volatility makes protecting and futureproofing these communities increasingly complex.

For builders and operators of major assets, the challenge is clear: to invest in infrastructure that provides real social and environmental benefits while also embedding climate change resilience in the planning and design process, to be better prepared for future challenges.

Yet without integrated, data-driven decision-making processes, builders and operators of infrastructure will struggle to win consent, meet rising expectations of social value and deliver the sustainable, resilient outcomes the world desperately needs.



Why is enabling resilient communities through infrastructure so challenging?

1. Growing uncertainty about climate change regulations is making planning harder than ever:

Multiple uncertainties are making investments hard to plan. How strong, for example, do our flood defences need to be and how confident do we need to be of their performance under what conditions? The instability caused by growing volatility is making it harder to plan ahead, win investment, and gain confidence.

2. Pressure is growing to deliver impactful social value programmes:

As our measurement of value grows more nuanced, so does the pressure on firms. No longer is simple return-on-investment enough - now, major projects must deliver a range of social, economic, and environmental benefits, while proving they are doing so. But traditional delivery models, narrow business cases, and old fashioned notions of value are proving hard to shift.

3. Aligning stakeholders is hard if not done at the start:

Major projects are complex, partly because they involve so many stakeholders. Aligning stakeholders and getting their input early is vital, yet time-consuming and difficult. Many projects forego early stage stakeholder engagement because of its complexity, and miss out on the benefits that it can bring. Without their input, schemes risk costly re-work further down the line.

4. Decision-making is complicated by a lack of good data:

Today, major projects must make choices that will help determine quality of life for years to come for local communities. To make difficult decisions, construction firms need reliable, accessible, and properly processed data, to give them the environmental baselines and insights they need to create a positive impact. But too few projects are capable of harnessing this data from multiple stakeholders at an early stage, limiting their impact.

...all of which makes winning investment harder.



How we can transform our communities and the environment

Creating new infrastructure fit for tomorrow's world demands greater environmental expertise to ensure the best outcomes for communities and the environment.

We enable real transformation by restoring the role of nature in future-proofing against climate change. Putting the environment first will lock-in sustainability and social impact from the start.

Our integrated, multidisciplinary digital approach gives you the information you need to align stakeholders, balance competing priorities and make better decisions.

1. Using a holistic approach tailored to your needs, we distil complex issues into a range of different options to consider, clearly demonstrating how to maximise economic, social and environmental value.
2. Deploy environmental and social expertise to build confidence of assets' performance in volatile future conditions.
3. Reliable data to demonstrate sustainability, increasing buy-in from stakeholders, regulators and investors to deliver more streamlined project approvals.

So that you can deliver more resilient, sustainable outcomes to people and planet, while proving that you're doing so along the way.



From uncertainty...to community

From uncertainty and doubt...

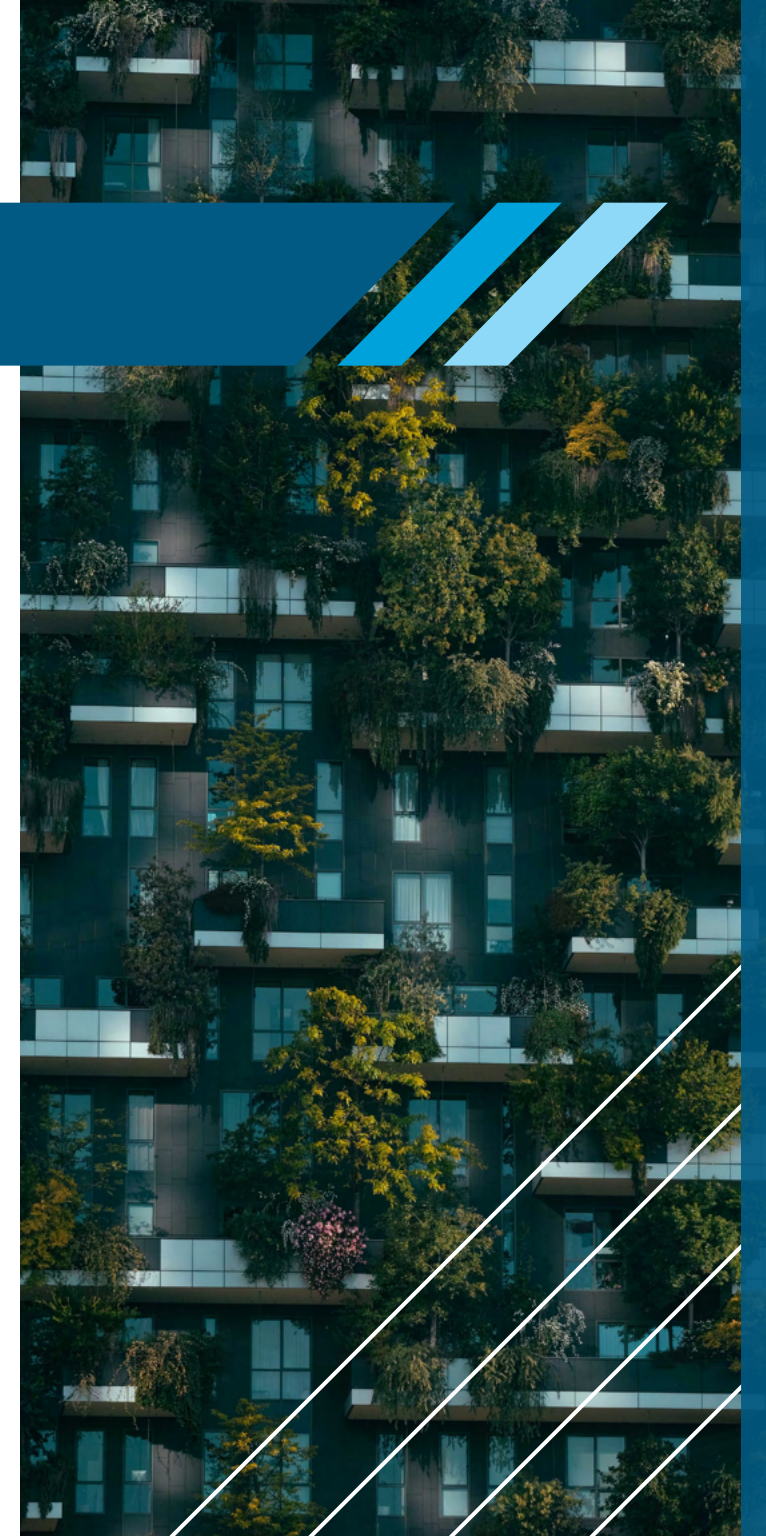
...to informed decision-making

With the climate and environment degrading rapidly, designing environmental solutions is much more challenging. We help you to understand and ascertain how to deliver assets resilient enough to endure these volatile conditions, and communicate their resilience to communities effectively. Our experience across infrastructure and understanding of current and future drivers (regulation and targets) enables you to distil complex issues and make informed decisions.

From conflicting priorities...

...to collaborative progress

Competing stakeholder needs prevent major projects from uniting behind common goals, obstructing investment, and hampering environmental objectives. Combining digital tools capable of harnessing and sharing data with a multidisciplinary expertise, we help you to make more informed decisions and then demonstrate them to the wider public. So that you communicate your vision effectively, get locals on board with your project and win the backing you need to deliver.





From uncertainty...to community




From environmental and social damage... ...to restoration and high impact net gains

Major projects must demonstrate a biodiversity net gain (BNG), and soon, an environmental net gain as well. Our economists, planners, and environmental scientists guide you to transformational, future-proofed and holistic solutions - creating communities and restoring habitats. Establishing environmental benchmarks, we enable our clients to make sustainable, long-term decisions. So that they can meet regulations, deliver social and environmental benefits, and build a better world.

From low visibility... ...to real line of sight

Without harnessing reliable data, processing it, and applying its insights early on, we cannot build thriving communities. We take complex client data and utilise a range of digital tools and approaches to demonstrate the achievable outcomes from each option. This increases stakeholder buy-in, resulting in faster, more streamlined approvals and attractive investment propositions.



An aerial photograph of a modern building complex. The building features large glass windows and a prominent green roof. A courtyard with trees and a paved walkway is visible between the building sections. A person is walking on the courtyard path. The image is overlaid with a blue geometric pattern in the top left and bottom right corners.

- We will proactively and rapidly identify the most promising areas for environmental gains...

...enabling development that restores communities and builds their resilience to the threats of a volatile climate, achieving lasting social value and helping places to thrive - even in an uncertain world.



Transforming Communities and Environment

What

Transforming Communities & Environment is an approach to construction that aligns stakeholders, mitigates environmental impact, and enables innovation.

How

We provide transformational, futureproofed and holistic solutions that respond to today's challenges, from flooding and coastal erosion to industrial degradation and water supply

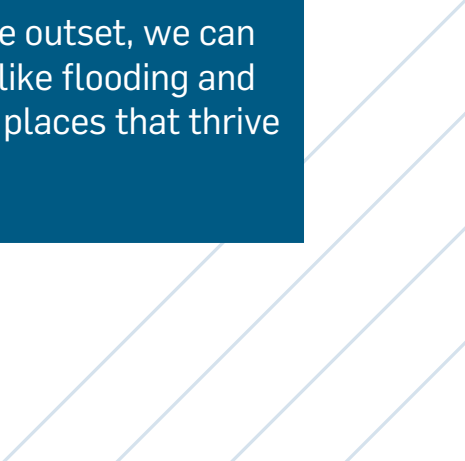
Why

So that you can develop resilient schemes that strengthen communities and the wider environment - increasing sustainability, reducing risk, and leading the way to a better future.

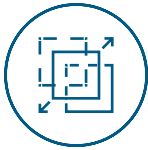
Drawing upon cross-sector expertise, our service enables you to deliver cost-effective solutions that maximise positive environmental and social impact - while also meeting environmental regulations, anticipating future demands and challenges, and uniting stakeholders behind common goals.

To do this, we work closely with our clients to understand their drivers and objectives for each project before assembling a team of specialists across multiple disciplines. By taking a holistic approach to our clients' needs, we provide a range of different options for them to consider, demonstrating the economic, social and environmental value achieved from each approach.

By establishing a high-level environmental baseline from the outset, we can make better decisions that protect communities from risks like flooding and extreme heat, strengthen community resilience, and create places that thrive - even in an uncertain world.



It delivers benefits across the project lifecycle...



Transform

embed sustainable thinking into the design process, and enhance your ability to deliver real socio-environmental benefit to stake-holders.



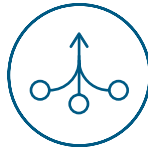
Collaborate

align stakeholders from the start, harness their insights, and report relevant data in formats that they understand, improving relationships and avoiding conflicts.



Automate

Quickly process complex data to demonstrate the impact of decisions at each stage of the project.



Integrate

inform your decision making with insights gained from disparate sources, and reveal opportunities for environmental gains.



Secure

reduce risk, anticipate challenges before they arise, and go through the planning and consent process with confidence



Comply

meet your environmental duties, demonstrate compliance through robust evidencing, and win consent more easily.



...tailored to your organisation



Infrastructure knowledge

We take complex issues and distil them into the critical set of options enabling you to make informed decisions that deliver maximum return on investment.



Sector-specific expertise

Through consultative workshops, our engineers, designers and digital experts bring their knowledge to your project, with sector-specific insights gained from projects around the world.



Collaboration

We design information management processes according to your specific organisational need, so that you receive a service genuinely tailored to your organisation.

Our approach

We believe that, together, innovation and collaboration have the power to create more effective and efficient ways of working. We work with clients to guide them through the complete process. We coordinate the different moving parts and draw on our breadth of expertise to make the right decisions, based on interpretation of the best available data.

We unlock hidden potential, so that our clients can enact programmes that are leaner, less environmentally disruptive, and more cost effective, giving their customers – the general public – an improved experience.



Sustainable by design

sustainability is embedded like a watermark in everything we do as part of achieving planning consent for development - from initial design consultancy to completion.



Asset management expertise

our team is led by world-leading specialists in asset, cost, and programme management, with support from our in-house partners Faithful+Gould.



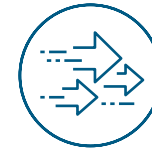
Collaborative

our consultative approach facilitates early stage stakeholder engagement to maximise value.



Digital innovators

turn complex information into easy-to-understand content that clearly demonstrates the project's value.



Diverse skills

from geospatial specialists to software development and product management, we bring a range of abilities to your project.




Environmental knowledge

with experience gained from projects around the world, over 1700 environmentalists on staff globally, and a track record of pioneering sustainable innovation, we deliver nature positive solutions and help our clients on their journey to net zero.



Technical expertise

drive innovation to release benefits such as increased productivity, cheaper solutions or faster implementation.

- 
- The background of the slide features a photograph of two young men in a workshop or laboratory setting. The man in the foreground is wearing clear safety glasses and a blue shirt, smiling at the camera. The man in the background is also wearing safety glasses and a blue shirt, smiling. The image is slightly blurred, giving it a candid feel. There are decorative white diagonal lines in the top left and bottom right corners of the slide.
- We're proud to have been recognised by the industry for our work...


...because behind every great innovation, every impeccable safety accolade, every award-winning design, are excellent people.



Our team

They're at the heart of everything we do, because we understand that every project is all about how the wider team works together. It's the relationships between individuals and teams, infrastructure and environment, stakeholders and society that enables a project to succeed.

From ecologists to architects, data scientists to geospatial engineers and creative strategists, we're uniquely able to connect people, data and technology, transforming the world's infrastructure and engineering a better future for our planet and its people.



Enabling biodiversity net gain for Redrow



Problem

Redrow is one of Britain's largest housebuilders. So how could they continue to build while also incorporating Biodiversity Net Gain (BNG) principles into their projects? And with the government announcing in 2019 plans to mandate Biodiversity Net Gain (BNG) for all new developments in England, the pressure was on.



Solution

Atkins undertook a pilot study to gather information on existing Redrow development sites, supporting the ultimate aim of utilising the findings to push forward the BNG approach and support Redrow's aspirations. To give an initial indication of the challenges Redrow could face in incorporating net gain on their schemes, we retrospectively applied the Defra biodiversity metric on three existing Redrow development sites, to assess whether there was an overall net gain of biodiversity following construction.



Result

Atkins provided Redrow with an in-depth insight into how it can achieve BNG in future developments.

› **Confident evidencing:** Redrow then progressed their biodiversity strategy based on the information gathered by Atkins and are developing measurable targets to enhance biodiversity on all their developments.

› **Transforming aspirations:** Redrow's ultimate aim is to seek net gain by designing developments in a way that benefits both people and nature.

Transforming Fulham's former gasworks

Problem

The former gasworks at Fulham is one of the most complicated brownfield projects in Britain. Occupying a large area in a desirable part of west London, the site had huge potential to provide housing, public space, and utilities. But to release the land for development, over 1,000 metres of high, medium, and low-pressure gas pipelines was required to safeguard the energy supply for 250,000 homes, while simultaneously clearing the site of contaminated soil and waste.

Solution

A project of such complexity required significant commitment across the entire project team to approach the work with care, diligence and to meet all their responsibilities in relation to current best practice and legislation. All phases of the work - from demolition to depot relocation to remediation - were driven by exacting planning conditions in accordance with the requirements of the National Planning Policy Framework.

Adopting specific consideration and working methods, including remote telemetry strain gauges fitted directly onto the high pressure gas main, we helped safely remove live buried gas mains throughout the demolition and infilling works.

Using live feed remote monitoring points placed on two gasholders and the surrounding ground, we produced a Ground Movement Assessment Report to assess the potential ground movement effects of dewatering, demolition and infilling.

Result

We delivered a number of social and environmental benefits, including:

- Removal of over 8,400m³ of hazardous soils from the site, including tar and sludge from numerous previously unidentified below-ground tar tanks which will have a knock-on positive impact on the quality of the groundwater in the area.
- Removal of asbestos from a number of buildings and overhead gas mains across the site, making the future redevelopment works safer for workers and the surrounding communities.
- Preparation of 5.7 ha of land within a highly populated area of West London for mixed use residential development, providing housing, open parkland, and commercial opportunities to the community.



Mytholmroyd Flood Alleviation Scheme



Problem

In December 2015, the village of Mytholmroyd was devastated by significant flooding. In the aftermath, the Secretary of State for the Environment committed increasing the protection for the village's 400 properties. But with Mytholmroyd vulnerable to further floods, and with environmental and climactic volatility increasing, the project faced significant pressure from the outset to deliver to a significantly accelerated programme - including the delivery of an Action Plan, and the start of works on-site by December 2016.



Solution

Accelerated delivery, rigorous environmental assessment, and meaningful engagement with the community: Atkins' Planning Team worked with the client and contractors to establish a programme of works to meet these demands.

Approximately 2km long, the linear scheme runs through the centre of the village, including the Conservation Area at the historic core. Given the scheme's prominent location in the village and the sensitivities of the Conservation Area, we were challenged to explore innovative alternative flood defence measures and construction methods minimising impacts both during the construction phase and after. Numerous buildings which suffered flood damage were Listed, including the Grade II Listed St Michael's Church.

This included the demolition of buildings to allow for the widening of the river channel at its narrowest points as well as opportunities for public realm improvements.



Result

We delivered a number of social and environmental benefits, including:

➤ **Innovative consenting strategy, effective programme:** Working collaboratively with Calderdale Council, Atkins' Planning Team developed an innovative consenting strategy for the Scheme which included for a series of works packages along the river to be consented separately - enabling an early on-site start for the appointed contractors and a continuous programme of works, minimising the risk of costly down time. In turn, this ensured that the Scheme could achieve some early programme wins on-site, delivering much-needed defences to the village and maintaining delivery momentum throughout the programme.

➤ **Benchmarking best-in-class:** Having ensured programme delivery at speed, this approach is being used as an exemplar by the Environment Agency, who have sought to adopt the same approach on other schemes throughout the country. That's why the Mytholmroyd Flood Alleviation Scheme won ICE Yorkshire and Humber Centenary Award 2022.

Get in touch, and discover
how **Atkins** could help you



Vicky Hutchinson,
Environmental Practice Director

Victoria.HutchinsonEnvironment@atkinsglobal.com



We're always keen to work with clients wanting to deliver greater social and environmental benefits.

If you want to explore how to enable more sustainable, cost-effective solutions, get in touch today.



ATKINS

Member of the SNC-Lavalin Group

snclavalin.com
atkinsglobal.com

