Biodiversity Net Gain Rivers Metric

Our Expertise

Jacobs' expertise in delivering MoRPh Pro surveys and River Condition Assessments as part of the Rivers and Streams Metric within Natural England's BM3.0 tool for calculating Biodiversity Net Gain includes being:

- One of the first environmental consultants in the UK to work with Cartographer on MoRPh Pro, aiding development of training and guidance by "test-driving" the method on real-world applications
- One of the first consultants to begin achieving accreditation in use of the MoRPh Pro field survey and RCA River Type desk study methodologies

Applications of MoRPh Pro and BNG Rivers and Streams Metric include:

- Flood alleviation schemes for the Environment Agency
- Infrastructure projects for National Highways
- Treatment works upgrades for United Utilities and Thames Water

Assisting Cartographer with future developments of the MoRPh Pro tools and training through:

- Beta testing the on-site MoRPh Pro survey app
- Providing regular feedback on the MoRPh Pro method and data environments
- Working with Cartographer, Environment Agency, River Restoration Centre and other practitioners to deliver the BNG Rivers and Streams workshop for the 2021 River Restoration Conference

Following the adoption of the Environment Bill into legislation, it will be mandated that all developments in England achieve a 10% biodiversity net gain (BNG). Many government authorities, and organisations have adopted this early and require specialist services to deliver BNG.

BNG is demonstrated using the biodiversity metric developed by Natural England. Notably this includes a "Rivers and Streams Metric" assessing linear units of the river environment. This uses the Modular River Physical (MoRPh Pro) survey method for environmental professionals ,developed by Queen Mary University of London in partnership with Cartographer and the Environment Agency to calculate river condition and demonstrate BNG.

Jacobs offers multidisciplinary specialist staff, who are accredited to undertake the river condition assessments using the MoRPh methodology, and who can advise on interventions to achieve the required gain in biodiversity.

ABOUT JACOBS

At Jacobs, we're challenging today to reinvent tomorrow by solving the world's most critical problems for thriving cities, resilient environments, mission-critical outcomes, operational advancement, scientific discovery and cutting-edge manufacturing. With $14 billion in revenue and a talent force of approximately 55,000, Jacobs provides a full spectrum of professional services including consulting, technical, scientific and project delivery for the government and private sector.

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DELIVERING VALUE – PROJECT EXAMPLES

Sankey Brook Flood Risk Management Scheme: Baseline BNG study (Environment Agency)

- Assessment of Sankey Brook, a tributary of the River Mersey, and its tributaries
- Part of a Flood Risk Management Scheme in Warrington
- Baseline MoRPh Pro field surveys and RCA River Type desk studies
- Calculation of baseline and modelling post-intervention target condition scores
- Next stage would be to advise on enhancements to achieve BNG

Betley WwTW: Baseline and with-scheme BNG assessment (United Utilities)

- Increased capacity of wastewater treatment works (WwTW)
- Baseline MoRPh Pro survey of watercourse adjacent to WwTW
- Assessment of impact of scheme on rivers metric
- Collaboration with ecology team to establish BNG and prevent impacts on Betley Mere Ramsar
- Achieved net gain with the addition of hedges on the bank tops

Other projects

- Have undertaken several surveys for baseline river metric scores
- Currently working on with-scheme assessment of condition scores for a large flood alleviation scheme and establishing locations for BNG
- Upgrading assessment of a flood alleviation scheme to incorporate changes in the Biodiversity Metric v3.0., particularly the inclusion of ditches
- Working at various locations in England: Hartlepool, Cumbria, Lancashire, Greater Manchester, Cheshire, Staffordshire, Suffolk, Hertfordshire, Bedford, Oxford, Buckinghamshire, Berkshire, Surrey

Modular River Survey

cartographer

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