



ECOSPATIAL SOLUTIONS LTD. G-CLOUD 15 CLOUD SUPPORT

Spatial Analysis Services Service Definition Document



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1 About EcoSpatial Solutions

EcoSpatial Solutions Ltd. is a UK-based environmental GIS consultancy specialising in the design, implementation, and optimisation of spatial data systems for the public sector. Founded with the purpose of improving the quality, accessibility, and intelligence of environmental and land-related data, EcoSpatial brings together deep technical expertise in ESRI technologies with a strong understanding of UK environmental legislation, biodiversity policy, and digital transformation needs across government and infrastructure sectors.

We are an ESRI Bronze Partner with established capability in ArcGIS Online, ArcGIS Enterprise, Experience Builder, Field Maps, Survey123, and enterprise geodatabase design. Our work spans end-to-end cloud GIS delivery, from data discovery and readiness assessment through to system architecture, application development, analytics, reporting dashboards, and long-term support.

Our consultancy model emphasises:

- **Data quality and governance:** ensuring that environmental, estates, and operational datasets are structured, validated, and maintained to support auditability, regulation, and long-term value.
- **Cloud-first architecture:** helping organisations get the fullest value from ArcGIS Online or ArcGIS Enterprise through scalable, secure, and user-friendly GIS solutions.
- **End-user accessibility:** creating intuitive applications, dashboards, and workflows that allow non-GIS specialists to explore, update, and act on spatial information confidently.
- **BNG and nature recovery expertise:** providing sector-leading capability in BNG data optimisation, habitat baselining, condition assessments, survey systems, and metric calculations.
- **Training and capability building:** empowering internal teams to maintain, grow, and leverage their spatial data systems independently.

EcoSpatial works with clients across utilities, local authorities, national agencies, charities, estates teams, and infrastructure owners, supporting both strategic and operational decision-making. We bring a strong track record in implementing geospatial systems that improve environmental compliance, streamline data workflows, reduce risk, and support nature recovery objectives.

Our valued clients



Partnerships



2 The Service

2.1 Service Overview

EcoSpatial provides advanced geospatial analytical services to support operational decision-making, strategic planning, estates management, and environmental assessment. Our work is grounded in robust GIS methodologies and delivered using repeatable, auditable workflows built with Esri geoprocessing tools, ModelBuilder, and arcade-based automation.

We support clients across utilities, government, environmental organisations, infrastructure delivery, and land management.

2.2 Service Scope

EcoSpatial's analytical services span three primary domains:

Environmental and BNG Analysis

EcoSpatial delivers high-quality ecological and environmental spatial assessments to inform policy, land management, and statutory reporting.

Key Capabilities

- Creation of spatial baselines using UKHab or client-specific habitat classification frameworks.
- GIS outputs for habitat condition scoring, integrating field survey data and remote sensing.
- Calculations aligned with statutory biodiversity net gain requirements, including metric preparation and scenario comparisons.
- Identification of priority locations for habitat creation, restoration, or enhancement.
- Landscape-scale assessments that evaluate ecological linkage, fragmentation, and movement pathways.

Estates and Asset Analysis

EcoSpatial supports asset-rich organisations in understanding ownership, land value, accessibility, constraints, and operational risks.

Key Capabilities

- Integration of cadastral, Land Registry, and internal estate datasets for comprehensive estate visibility.
- GIS-based routing, travel-time analysis, and accessibility scoring for staff, vehicles, or public users.

- Identification of hazards, regulatory constraints, environmental sensitivities, and buffer-based risk zones around operational assets.
- Analysis of influence zones, hydrological or service catchments, and upstream/downstream network impacts.

Operational and Strategic GIS Analysis

EcoSpatial supports decision-making at project, programme, and organisational levels through spatial modelling and scenario testing.

Key Capabilities

- Structured spatial scoring frameworks to identify preferred locations, prioritisation zones, or investment options.
- Detection of land-use, infrastructure, or environmental changes using multi-temporal datasets.
- GIS support for environmental, social, or physical impact assessments linked to infrastructure upgrades or new developments.
- Evaluation of alternative scenarios to understand trade-offs, risks, and optimal pathways.

2.3 Technical Approach

Workflow Design

All analytical outputs are delivered using:

- Esri Geoprocessing Tools for transparent, step-by-step analysis.
- ModelBuilder workflows where visual, repeatable processing is required.
- Automation to ensure scalability, reproducibility, and auditability.

Quality Assurance

- Version-controlled workflows
- Documented assumptions and parameters
- Metadata creation for all outputs
- Full reproducibility using scripted or modelled processes

2.4 Service Outputs

Depending on client needs, outputs can include:

- Interactive web maps (ArcGIS Online/Enterprise)
- Spatial datasets, layers, and geodatabases

- Technical reports or dashboards
- Scenario comparison summaries

2.5 Service Features

- Advanced geospatial analysis within the ESRI environment
- Biodiversity Net Gain baseline, loss, and gain calculations
- Habitat suitability, opportunity, and connectivity analysis
- Land ownership, tenure, and estates mapping
- Asset risk, proximity, and constraint assessments
- Multi-criteria analysis for planning and investment
- Temporal change detection and trend analysis
- Infrastructure impact and scenario modelling
- Repeatable, auditable analytical workflows

2.6 Service Benefits

- Improved confidence in environmental and operational decisions
- Accurate, auditable BNG and habitat evidence
- Better understanding of estates, assets, and spatial risk
- Stronger strategic planning supported by clear spatial insight
- More efficient identification of opportunities and constraints
- Robust analysis aligned with ESRI best practice
- Consistent, repeatable workflows that reduce error
- Enhanced reporting for compliance and governance
- Greater visibility of trends, changes, and future scenarios
- Supports long-term environmental and organisational resilience

3 Support

3.1 Cloud hosting service support

We will support you with upkeep and maintenance post implementation as set out in the project scope. Our team can assist with operational support and troubleshooting as required, as well as including ESRI technical support in the case of software-specific faults.

3.2 Email support

We provide email support with a response target of 4 hours if within office hours, otherwise the next working day– response within 1 working day if on weekend or bank holiday. Support may be continued via phone or web chat is suitable, however, support requests must first be made via email. This single tier of support is a consistent standard

across our clients. The client has direct contact with the principal consultant on their project, giving clear and direct results. The support package is included in our day rate.

4 Social Value

EcoSpatial is committed to delivering high-quality cloud GIS services while generating broader social, economic, and environmental benefits aligned with the UK Government's Social Value Model. Our approach focuses on creating measurable, contract-specific contributions across four core areas that align strongly with both the original Social Value Model themes and the updated government missions under PPN 002.

4.1. Climate Action & Environmental Sustainability

As an environmental GIS consultancy, EcoSpatial is uniquely positioned to help public sector clients achieve climate-positive outcomes. We embed sustainability into our technical delivery by enabling data-driven carbon reduction, supporting biodiversity initiatives, and providing geospatial evidence for nature-based solutions.

4.2. Economic Growth, Digital Skills & SME Support

EcoSpatial contributes to economic resilience by supporting the growth of digital skills in the public sector and local communities. Through GIS and Python training, mentoring, and strategic use of SME subcontractors, we strengthen local supply chains and improve digital capability.

4.3. Equality, Diversity & Inclusive Opportunity

We are committed to fair, inclusive, and accessible working practices. EcoSpatial promotes equitable recruitment, flexible working, and opportunities for individuals from underrepresented groups to enter or progress within the geospatial profession.

4.4. Wellbeing, Community Engagement & Responsible Delivery

EcoSpatial strengthens local communities and improves wellbeing by offering volunteered geospatial expertise to environmental and civil society groups. Internally, we uphold modern, healthy working practices that support mental wellbeing, flexible work, and high-quality work-life balance.