



PostFlightStudio

Backpack-to-Baseline Ecological Surveying

Rapid, Repeatable Ecological Monitoring Using Consumer drones

If environmental change can be observed, it should be possible to record it. PostFlightStudio and EcoSite enable environmental professionals to move from **backpack to baseline**: transforming a short drone flight into a repeatable spatial record of environmental change using nothing more than a lightweight drone and a web browser.

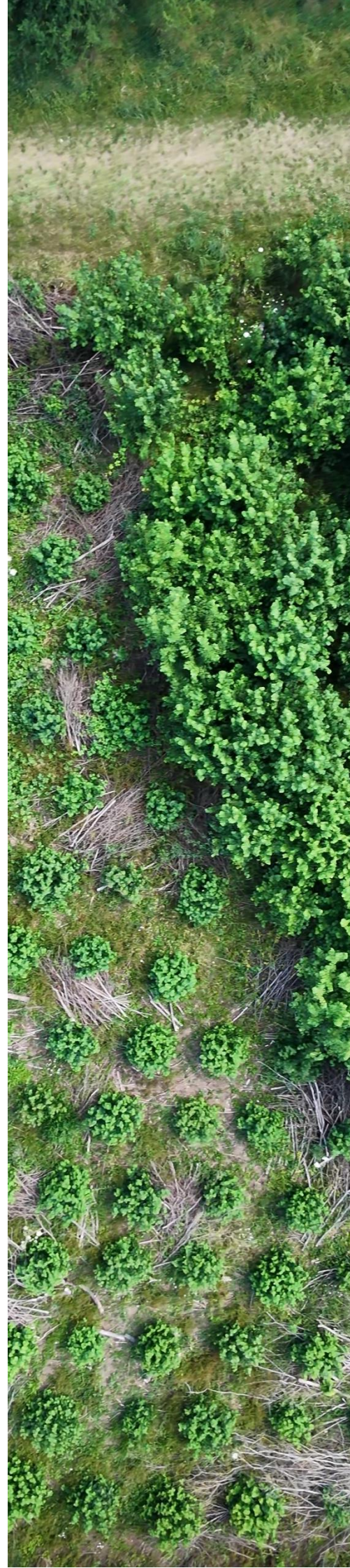
Platform Status: PostFlightStudio and EcoSite are currently in Closed Beta. Spatial baselining and ecological desk study workflows are actively being refined in collaboration with environmental practitioners and academic researchers.

Why "Backpack-to-Baseline" Matters

Traditional ecological monitoring is often constrained by high hardware costs, complex GIS workflows, and time-intensive processing. As a result, site baselines are captured infrequently, leaving critical gaps in longitudinal data for habitat restoration, species management, and natural capital tracking.

PostFlightStudio and EcoSite bridge this gap by enabling rapid, low-friction spatial record-keeping:

1. *Carry everything in a backpack.*
2. *Fly for five minutes using consumer-grade hardware.*
3. *Establish a repeatable spatial baseline during a routine site visit.*
4. *Return weeks, months, or years later to track habitat change over time.*





Our Three Core Pillars

1. **Pillar 1: Accessibility & Privacy:** Data never leaves your device during processing. All operations occur locally in your web browser using off-the-shelf, backpack-friendly drones.
2. **Pillar 2: Rapid Field-to-Desk Speed:** Review flight footprints instantly in the field and generate complete evidence packs before leaving the site.
3. **Pillar 3: Repeatability at Scale:** Built specifically to revisit sites over weeks, months, and years to construct a clear visual history of habitat change.

Environmental monitoring is only valuable if it is repeated. By reducing the cost and time required to establish a spatial baseline, PostFlightStudio aims to make repeat ecological surveying practical rather than aspirational - ensuring environmental change can be monitored, communicated, and better understood.

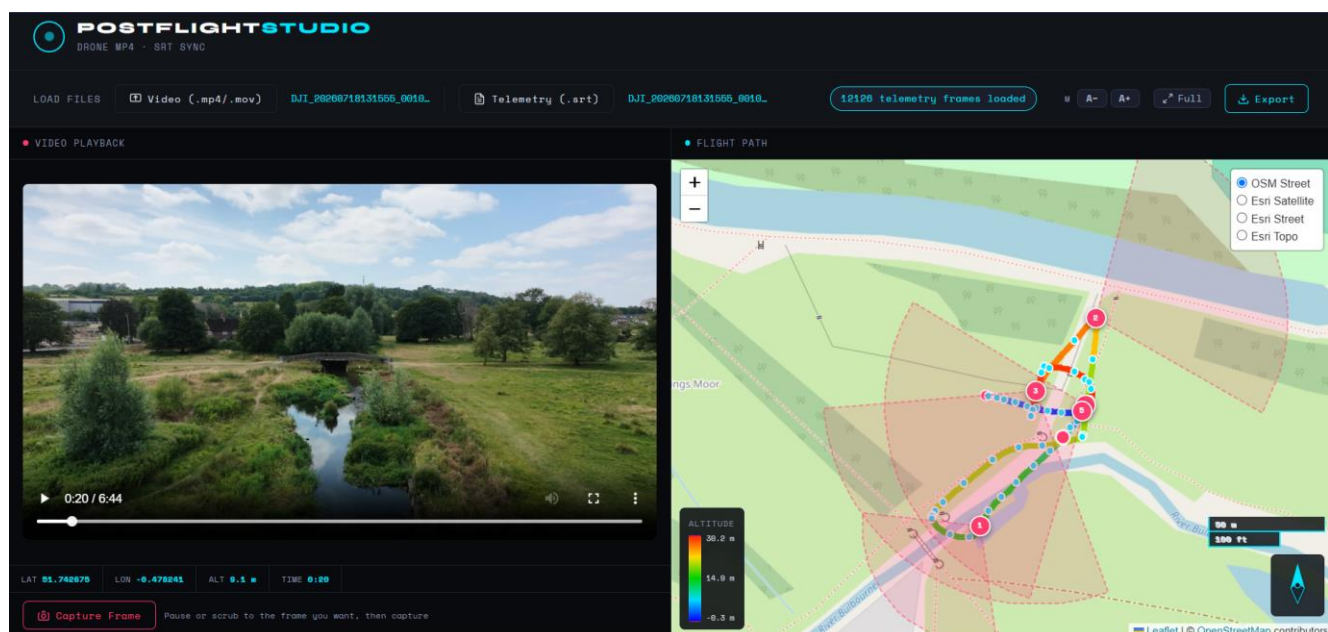


Image 1: PostFlightStudio User Interface, showing synchronised video playback alongside a live flight path, featuring dynamic field-of-view (FOV) cones, colour-coded altitude profiles, and click-to-jump spatial linking.

Who is PostFlightStudio for?

Organisation	Example Use Case
Ecological Consultancies	Habitat baselining, restoration tracking, and site constraint screening.
Rivers & Wildlife Trusts	Repeat monitoring of chalk streams, reserves, and riparian corridors.
Universities & Research Labs	Undergraduate dissertations, MSc field modules, and PhD longitudinal studies.
Local Authorities & BNG Leads	Verification and monitoring of Biodiversity Net Gain baseline sites over time.
Conservation Charities & NGOs	Tracking rewilding schemes, peatland recovery, and habitat restoration.
Community & Volunteer Groups	Empowering non-specialists to capture audit-ready spatial records.



Image 2: 2D Orthomosaic map, created using a DJI Neo2 and PostFlightStudio, investigating drought impact on heathland at Nomansland Common, Wheathampstead.

Case Study: River Bulbourne Chalk Stream

Hardware Platform: Lightweight consumer drone (DJI Neo2) carried in a backpack

Flight Duration: ~5 minutes

Processing Time: ~35 minutes (100% local browser execution, zero cloud upload)

Area Covered: ~1.2 hectares of restored river channel

Outputs Generated: Ecological Orthomosaic Map, Preliminary Desk Study, Field Evidence Pack, PDF Summary

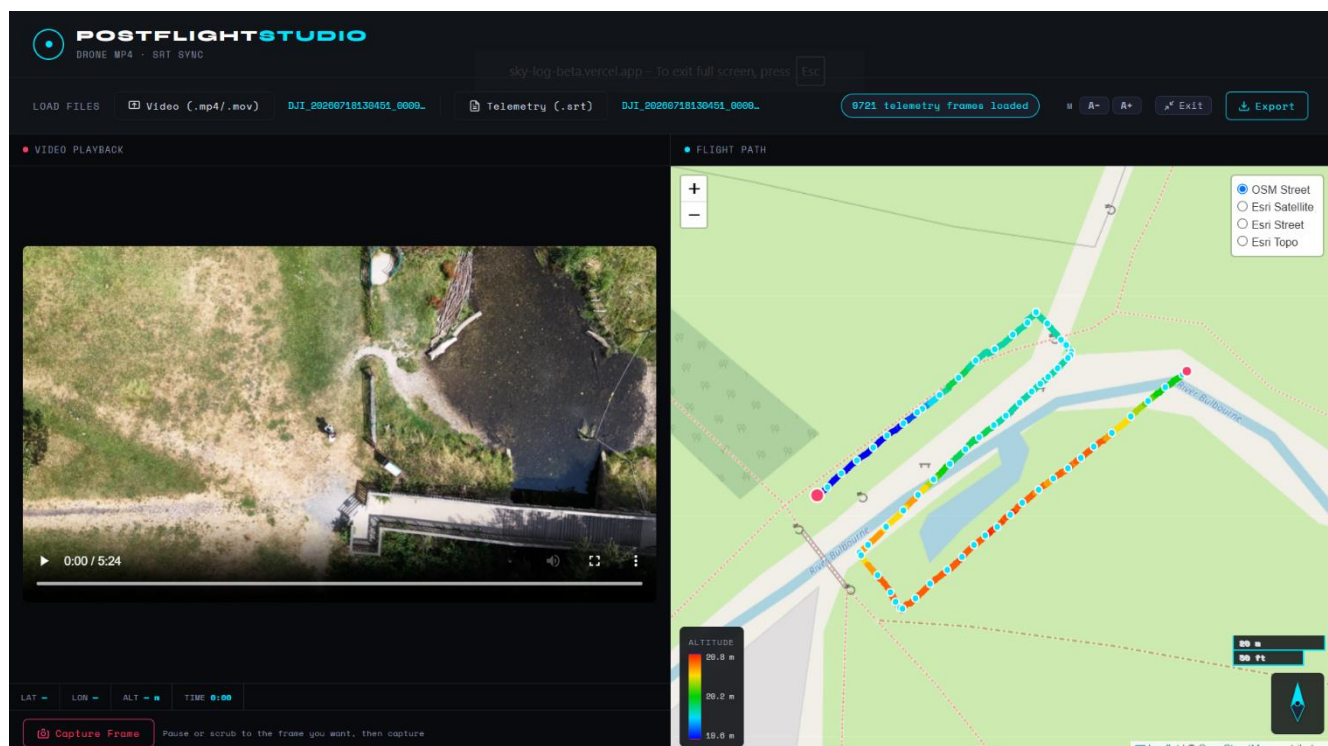


Image 3: PostFlightStudio user interface, illustrating a manual 'mow-the-lawn' spatial survey path and synchronised video capture along the River Bulbourne.

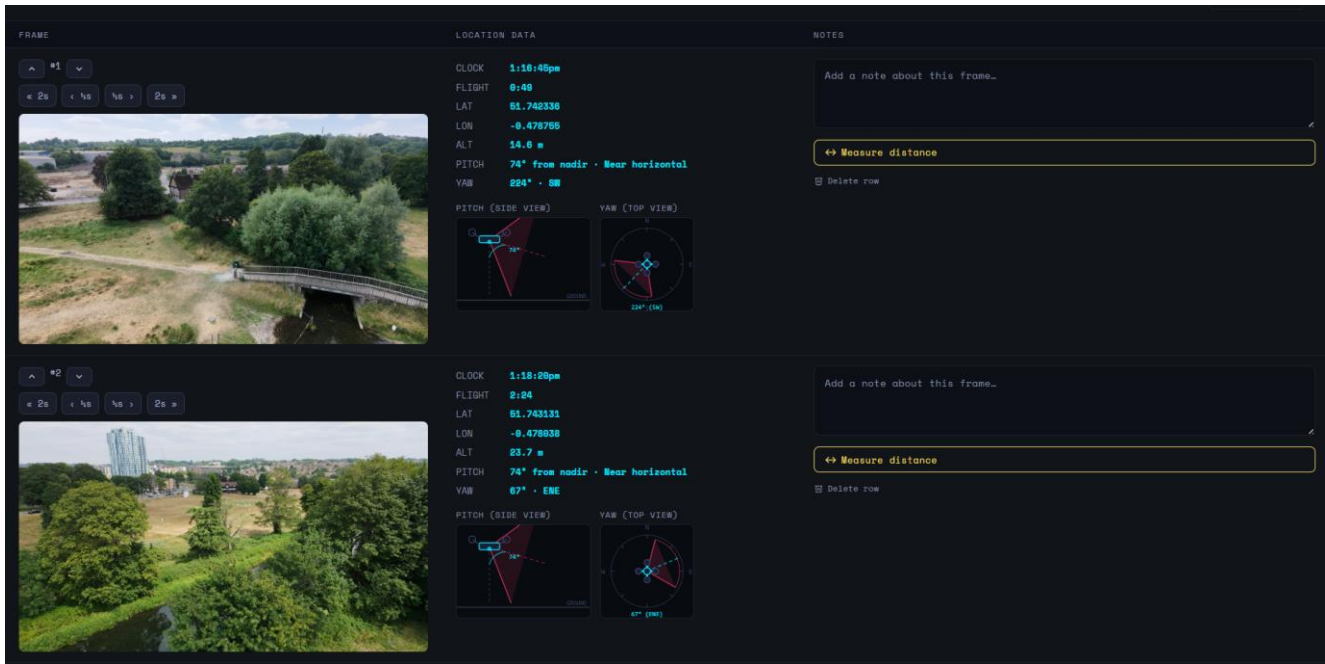


Image 4: PostFlightStudio frame exporter interface, displaying captured high-resolution keyframes alongside precise spatial telemetry, pitch/yaw camera bearing visuals, 3D distance measurement tools, and field notes for audit-ready reporting.



Image 5: High-resolution 2D orthomosaic map of the River Bulbourne restoration site, generated entirely in-browser using PostFlightStudio to allow monitoring of chalk stream channel health, marginal habitat growth, and in-stream features.

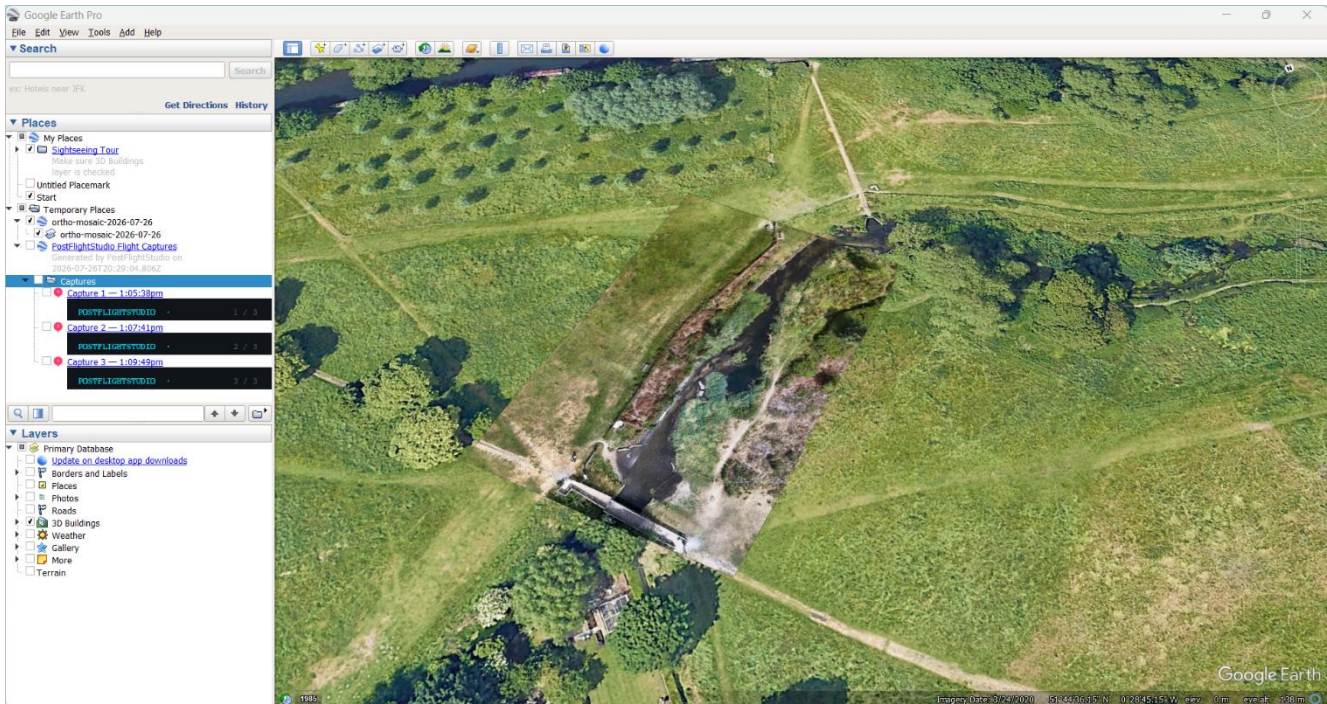


Image 6: 2D orthomosaic maps are exported as high-resolution PNGs paired with PGW world files for professional GIS software (such as QGIS or ArcGIS), alongside KMZ files for direct 3D and spatial analysis in Google Earth Pro.

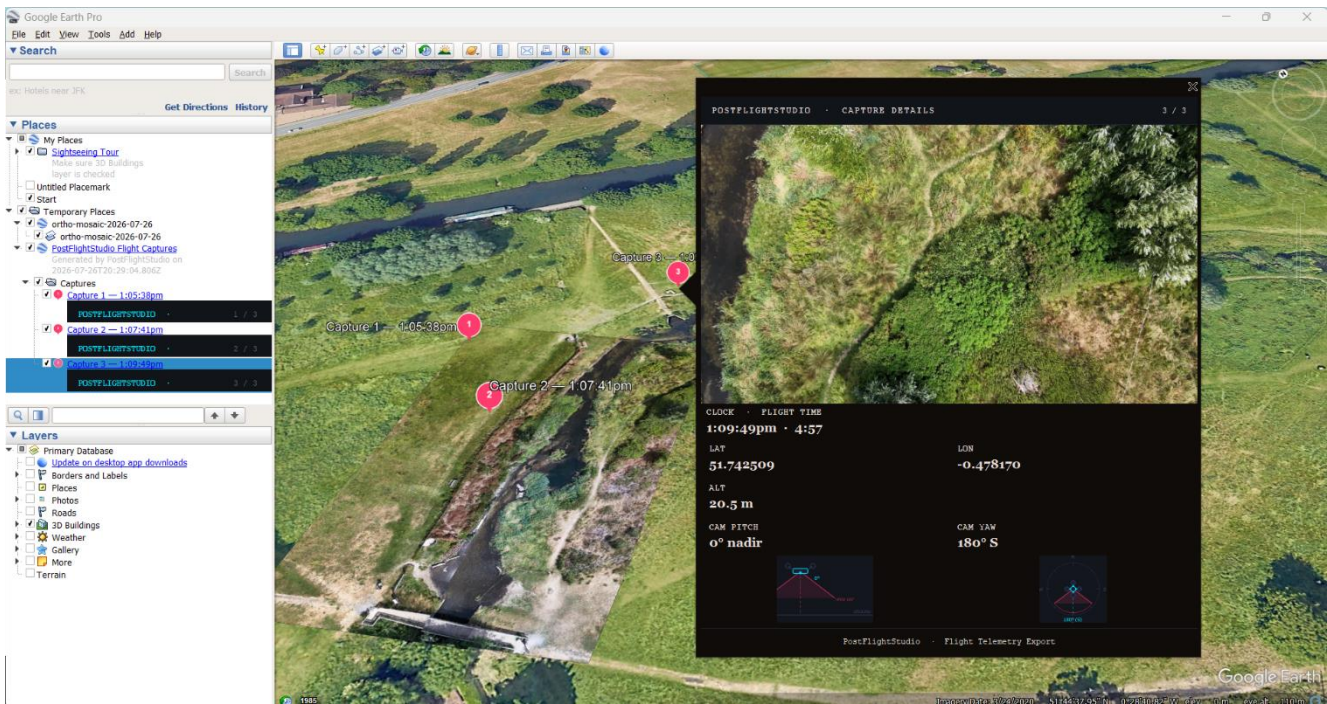


Figure 7: PostFlightStudio data seamlessly integrated into Google Earth Pro via KMZ export. This view demonstrates clickable visual overlays showing the snapshot, altitude, camera pitch, yaw, and FOV cones for complete auditability.

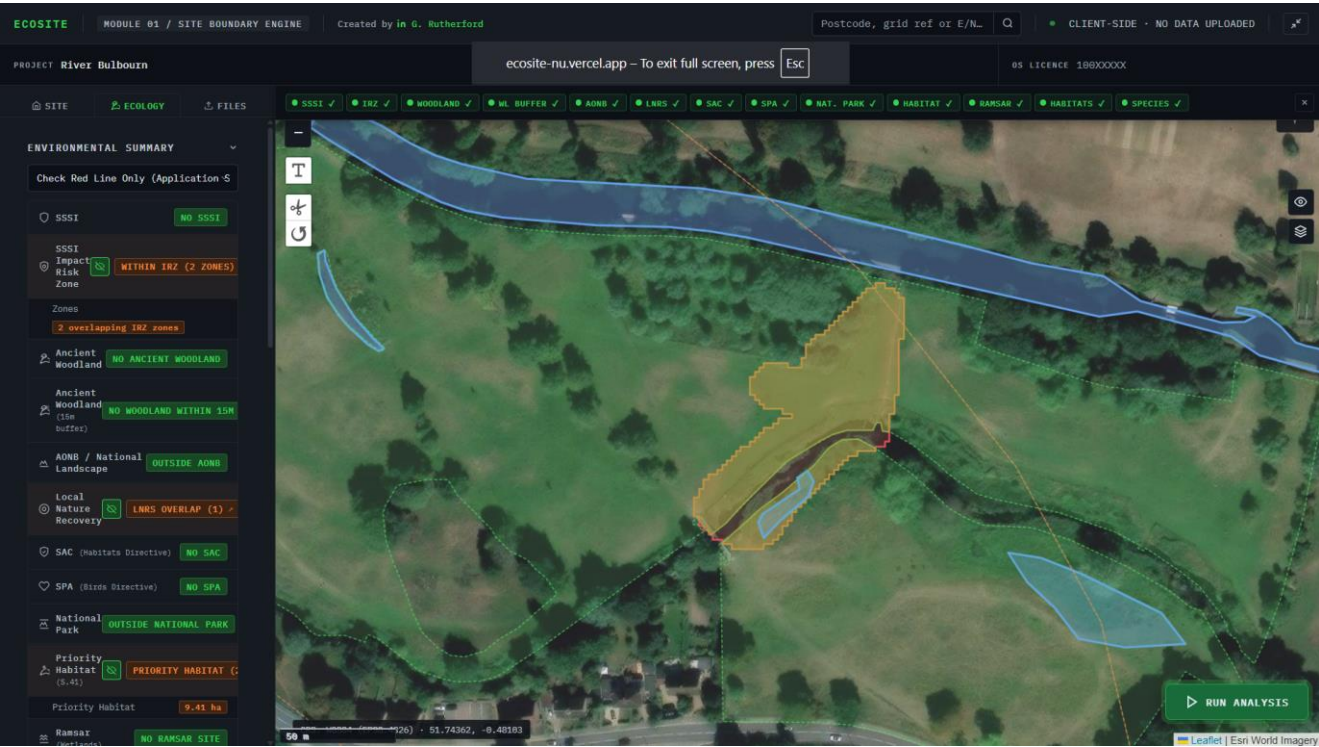


Image 10: EcoSite Site Boundary Engine, featuring automatically generated flight site overlays and integrated environmental datasets (e.g. Natural England and Defra) to produce an instant, client-side preliminary desk study.

ECOSITE ECOLOGICAL CONSTRAINTS REPORT River Bulbourn		
PRELIMINARY DESKTOP DATA SCAN — NOT A STANDALONE ASSESSMENT — FOR SCOPING USE ONLY		
Ecological Constraints Summary Results of automated desk study checks against public-domain datasets The following table summarises the results of spatial intersection checks against designated site and habitat datasets maintained by Natural England, the Environment Agency, and the National Biodiversity Network Atlas. All data sourced from publicly available APIs as at the date of this report. Checks are performed against the red line boundary only unless otherwise stated.		
Designation / Dataset	Status	Summary
Sites of Special Scientific Interest	CLEAR	—
SSSI Impact Risk Zones	WARNING	Zones: 2 overlapping IRZ zones
Ancient Woodland	CLEAR	—
Ancient Woodland — 15m Buffer Zone	CLEAR	—
AONB / National Landscape	CLEAR	—
Local Nature Recovery Strategy	WARNING	—
Special Areas of Conservation	CLEAR	—
Special Protection Areas	CLEAR	—
National Parks	CLEAR	—
Priority Habitat Inventory	WARNING	Coastal and floodplain grazing marsh (0.43 ha)
Ramsar Wetland Sites	CLEAR	—

CONFLICT = direct intersection detected. WARNING = proximity or lower-risk intersection. CLEAR = no features found within the search area. See subsequent pages for full detail.

Image 11: EcoSite automated desk study summary matrix, providing an instant visual audit of site constraints across SSSI risk zones, Local Nature Recovery Strategy overlaps, and habitat inventories.

The Field Workflow

What previously required specialist software, photogrammetry expertise, or outsourced processing can now be completed during a routine site visit:

"A repeatable spatial baseline can typically be established in 25–45 minutes using a consumer drone costing less than £200."

Stage	Typical Time	Action / Output
Arrive on Site	0 mins	Unpack a lightweight consumer drone from a backpack.
Fly Mission	5 mins	Capture low-altitude aerial video/telemetry across the target habitat.
Generate Orthomosaic	15–30 mins	Stitch georeferenced 2D maps 100% locally in your web browser.*
Generate Evidence Pack	2 mins	Export PDF summaries, high-res frames, and telemetry CSV logs.
Generate EcoSite Report	2 mins	Import site boundary to screen statutory constraints (SSSIs, IRZs, Ancient Woodland).
Leave Site	<45 mins	Walk away with a complete, repeatable spatial baseline in hand.

No cloud processing. No specialist GIS software. No enterprise hardware.

***Processing runs smoothly on standard modern laptops; output resolution automatically optimises to match device hardware.**

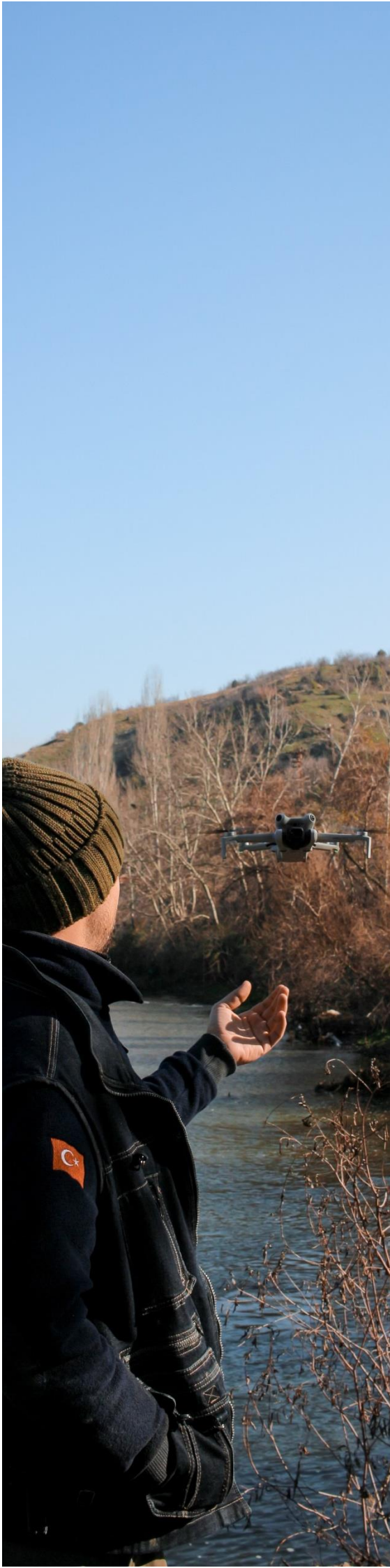
Purpose-Built for Ecological Workflows

Existing platforms like Pix4D, DroneDeploy, or DJI Terra are built primarily for engineers, surveyors, and construction sites- focusing on centimetre-level volumetric accuracy, heavy cloud processing, and high annual subscription fees.

PostFlightStudio is deliberately tailored to spatial tracking and habitat assessment, complementary to - rather than replacing - traditional field ecology methods and legal surveys.

<i>Designed For</i>	<i>Operational Focus</i>
Habitat & Restoration Monitoring	Visual tracking of habitat succession, channel restoration, and invasive species.
Desk Study Screening	Rapid preliminary spatial overlays for project scoping and initial assessment.
Longitudinal Studies	Consistent, repeatable aerial visual history across months and years.
Stakeholder Communication	Clear, high-impact spatial imagery for funder updates, committee reports, and client presentations.

(Note: PostFlightStudio is designed for spatial monitoring and is not intended for engineering-grade land surveys, legal boundary determinations, or statutory species/UKHab mapping).



Core Field Deliverables

Instead of requiring multiple disconnected software packages, PostFlightStudio groups your field outputs into four clean, outcome-driven bundles:

Bundle 1: Habitat Mapping

1. *Ecological Orthomosaic Maps: Georeferenced orthomosaic maps generated directly in your browser. Designed for habitat monitoring, providing sufficient spatial fidelity to identify habitat boundaries, restoration progress, access routes, and vegetation change over time.*
2. *Flight Footprint & Site Boundaries: Automatically trace the exact coverage area to establish spatial boundaries for repeat survey comparisons.*

Bundle 2: Field Evidence & Audit Trails

1. *PDF Field Summaries: Structured documents capturing flight boundaries, key frame snapshots, and positional metadata to maintain a clear field audit trail.*
2. *Full-Resolution Evidence Packs: High-resolution frame exports paired with a Master Telemetry CSV mapping every observation directly to its GPS coordinate, altitude, and camera bearing.*

Bundle 3: Stakeholder Communication Tools

1. *Client & Funder Presentation Decks (.PPTX): Automatically formatted PowerPoint slides featuring site map overviews and frame-by-frame callouts-ready to share with local authorities, trustees, or funding bodies.*
2. *Community Engagement Video Summaries (.MP4): Automatically spliced video reels connecting short clips around your tagged points of interest - ideal for community engagement and funding bids.*

Bundle 4: Ecological Desk Studies (EcoSite Integration)

1. *Statutory Constraint Screening: Screen site boundaries against Priority Habitat Inventories, SSSIs, Impact Risk Zones (IRZs), Ancient Woodland, and statutory designations in under two minutes.*
2. *Immediate Field Outcome: Leave the site with a clean, spatially verified context map - ready to insert immediately into preliminary site appraisals, client proposals, or project scoping notes the same afternoon.*

PostFlightStudio

Apply at www.postflightstudio.com