Biodiversity Credit Verification Protocol - BlueSwallow Framework

Version: 1.0

Effective Date: June 11, 2025

Framework Owner: BlueSwallow Biodiversity Initiative

Applicable To: All current and future conservation projects added to the BlueSwallow portfolio

1. Purpose

This protocol outlines the methodology for self-certified biodiversity credit verification under the BlueSwallow framework. It ensures transparent reporting, ecological integrity, and accountability in the generation and issuance of blockchain-based biodiversity credits across diverse project types.

2. Baseline Assessment (Year 0)

For each new project, the following initial steps are required:

- Mapping: Use satellite imagery (e.g., Sentinel-2) and drones to create a habitat map.

- Zone Classification: Divide land into ecological zones (forest, grassland, wetland, etc.).

- Biodiversity Inventory:

- Field surveys to record species presence (flora and fauna).

- Identify threats (invasive species, erosion, poaching, etc.).

- Baseline Report: Publish a document with maps, images, and data.

3. Annual Monitoring and Verification

Each credit corresponds to a measurable contribution to the preservation or restoration of biodiversity, with the area of land protected per token varying depending on project complexity and threat level. Annual monitoring includes:

- Satellite Vegetation Indexes (NDVI)

- Drone Imagery (minimum twice per year)

- Camera Traps and/or Acoustic Sensors for species presence

- Field Logs using Open Data Kit (ODK) or equivalent

- Conservation Actions: E.g., anti-poaching patrols, fencing, invasive species removal

Each project must publish a public annual verification report including:

- Habitat condition change

- Wildlife indicators

- Summary of conservation interventions

- Satellite/drone comparison images

Reports must be accessible through the BlueSwallow platform and linked to each NFT token via metadata. Blockchain hashes ensure tamper-proof verification.

4. Transparency and Community Oversight

- All ecological and financial reports are open-access.

- Token holders and the public receive direct links to project data and visuals.

- Third-party reviews are encouraged (universities, NGOs, community groups).

5. Financial Transparency

Each project must publish:

- A summary of funds received per credited area

- Detailed use of funds (operations, restoration, monitoring, admin)

- Forecasted budget for the following year

Standard Pricing:

Each BlueSwallow biodiversity credit is priced at $1,000. Rather than representing a fixed area, each credit reflects the real cost of delivering effective biodiversity protection or restoration, with the area covered adjusted accordingly based on:

- The level of threat to the land

- Restoration versus maintenance efforts

- Habitat type and required interventions

This flexible model allows the framework to balance affordability with the true cost of delivering meaningful biodiversity outcomes.

A full financial report must be submitted annually and published alongside the ecological report.

6. Unique Value for Credit Buyers

Buyers of BlueSwallow biodiversity credits receive:

- Private Access to Live Data: Exclusive access to a list of live data feeds including webcams, audio monitors, and drone flyovers within the supported conservation project.

- Recognition as Project Sponsors: Public acknowledgment on the BlueSwallow website, reports, and outreach material, including optional logo or name listings.

- Direct Ecological Impact: A token linked to a specific hectare of conservation work with transparent, verifiable results.

- Priority Invitations: First access to reports, project visits, and new biodiversity credit launches.

7. Future Development

- The protocol will evolve to align with emerging standards such as Verra, Plan Vivo, IUCN STAR.

- Independent third-party certification is encouraged for projects exceeding $1,000/ha.

- Integration with platforms like EcoRegistry will be used for traceability and visibility.

Contact: Visit us at blueswallow.org

Website: https://www.blueswallow.org

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