

REPORT TO THE ECOLOGICAL & GREEN SPACES COMMITTEE

Subject: Environmental Assessment of November Firework Displays and Feasibility of Alternative Community Events **Date:** July 2026

1. Purpose of Report

To present the Ecological & Green Spaces Committee with an evaluation of the environmental, ecological, and social impacts associated with conventional firework displays. Furthermore, this report proposes alternative, budget-neutral community event formats for November that align with Bradford on Avon Town Council's Climate and Ecological Emergency (CEE) declaration while maintaining popular, free-to-attend civic gatherings supported by local trading pitch revenues.

2. Background & Policy Context

In response to growing public awareness and ongoing concerns - most notably those highlighted repeatedly by Councillor Alex Kay - the Town Council must review its support for traditional firework events.

While council officers have historically operated under the assumption that annual firework displays would continue standard operations, our commitment to the Climate and Ecological Emergency requires all council-backed activities to undergo environmental scrutiny. Continuing traditional displays without reviewing low-impact alternatives presents a policy contradiction for a council dedicated to biodiversity protection and carbon reduction.

3. Environmental & Ecological Impact Assessment

3.1 Air & Water Quality

- **Particulate Matter:** Traditional fireworks release substantial concentrations of fine particulate matter into the immediate microclimate, causing temporary spikes in localised air pollution.
- **Chemical Contaminants:** The combustion process disperses metal salts (used for coloring, such as strontium, copper, and barium) along with perchlorates. These fall back to ground level, risking contamination of local soils and washing into the River Avon catchment area.
- **Debris:** Spent casings and plastic wadding frequently contribute to microplastic pollution in surrounding green spaces.

3.2 Impact on Local Fauna & Biodiversity

- **Bat Populations:** Bradford on Avon and the surrounding Avon Valley are critical habitats for protected bat species, including Greater and Lesser Horseshoe bats. The combination of intense, sudden light flashes and high-decibel detonations disrupts nocturnal flight paths, roosting behavior, and late-autumn foraging prior to hibernation.
- **Wildlife & Waterfowl:** The acoustic shockwave triggers panic responses in nesting birds

and small mammals across local green corridors (including the River Avon, Barton Farm Country Park, and Poulton Park), leading to disorientation and displacement.

- **Pets & Domestic Animals:** High-decibel explosions cause widespread distress to domestic pets and livestock in adjacent agricultural fields, leading to anxiety and risk of injury.

4. Alternative Event Options Analysis

To adhere to council requirements, any alternative event format **must remain free to access for the public**, operate within **existing budget limits (net-zero additional cost to the council)**, and incorporate **trader and food stall pitches** to maintain essential revenue generation.

Below is a comparative breakdown of alternative options utilising key town spaces (e.g. Poulton Park, Victory Field, or the Tithe Barn / Barton Farm area):

Event Format	Ecological & Environmental Impact	Financial Feasibility & Revenue Potential	Community Appeal
Option A: Community Lantern Procession & Light Trail	Extremely Low: Zero noise, zero toxic chemical fallout, minimal energy use (LEDs). Fully biodegradable materials (paper & willow).	High Efficiency: Low capital outlay. Highly lucrative for food/drink traders at a central hub (e.g. Tithe Barn/Barton Farm). Community/school workshops can be run at minimal cost.	Very High: Intergenerational, highly participatory for local families and schools, quiet, pet-friendly.
Option B: Building Projection Mapping / Light Festival	Very Low: Zero chemical fallout or air pollution. Controlled directional light avoids sensitive roosting zones. Zero noise pollution.	Moderate-High: Equipment hire costs offset by pitching trader hubs across central sites (e.g. Town Bridge, St Laurence's Church, or Tithe Barn).	High: Creates a town-wide, accessible "night walk" economy that boosts footfall for local high-street businesses.
Option C: Low-Noise / "Silent" Pyrotechnics	Moderate: Retains chemical particulate fallout, but drastically reduces acoustic impact (kept under 85\text{ dB}, eliminating explosive mortar bursts).	Budget-Neutral: Direct 1:1 replacement cost for standard fireworks. Retains existing pitch structures at Poulton Park or Victory Field.	Moderate-High: Retains traditional visual spectacle while protecting wildlife, pets, and sensory-sensitive residents.

5. Financial & Operational Implications

- **Cost Control:** Transitioning to an alternative event will not increase the council's baseline budget allocation.
- **Trader Income:** Food stalls, pop-up bars, and craft vendors will remain a core component of the event layout. Pitch fees charged by the council will continue to offset event operational expenses (such as stewarding, waste management, and licensing).
- **Location Flexibility:** Expanding the footprint beyond a single site (e.g., using Barton Farm precinct or a town-wide light trail) allows for a wider distribution of crowd footfall,

creating additional pitch opportunities for local traders without overcrowding green spaces.

6. Recommendations

It is recommended that the Ecological & Green Spaces Committee resolves to:

1. **Formally recognise** the environmental and ecological impacts of conventional high-decibel firework displays as inconsistent with the council's Climate and Ecological Emergency declaration.
2. **Phase out** traditional high-decibel fireworks for future council-managed or supported November events.
3. **Instruct Officers** to develop a detailed proposal for a low-impact November alternative - focusing primarily on a **Community Lantern Procession & Light Trail** or a **Low-Noise Pyrotechnic/Projection display** - to be presented at the next committee cycle.
4. **Ensure** the proposed alternative preserves free public entry, includes robust vendor pitch layouts to maintain income streams, and operates within existing budget allocations.