

FLOOD RISK ASSESSMENT (FRA)

Location: Lower Moor, Oaksey, and Clattinger Farm Reserves, Wiltshire
Prepared For: Wiltshire Wildlife Trust
Date: September 2026

1. Executive Summary

This Flood Risk Assessment (FRA) evaluates the hydrological conditions and flood hazards associated with Lower Moor Farm, Oaksey Moor, and Clattinger Farm nature reserves in North Wiltshire. Given their location within the upper reaches of the Thames catchment and the Cotswold Water Park region, these sites play a critical dual role: they serve as vital ecological havens and function as natural flood storage assets.

2. Sources of Flood Risk

Fluvial Flood Risk (Rivers and Watercourses)

Fluvial flooding represents the primary risk vector for the reserves. Clattinger Farm acts as a natural floodplain for the Swill Brook, meaning it is expected to flood systematically during prolonged winter rainfall. Lower Moor is directly influenced by the Flagham Brook. Rapid discharge from the nearby Cotswold limestone and clay catchments frequently fills the former gravel pits, which function as an expanded balancing buffer for the wider upper Thames system.

Groundwater Flood Risk

The reserves sit over highly permeable river terrace gravels overlying impermeable Oxford Clay. This creates a high, fluctuating water table. During peak winter months, groundwater levels mirror surface lake levels, leading to extended saturated conditions independent of direct overground river breaches.

Pluvial and Surface Water Risk

Surface water flooding is generally low across the open fields but poses localized risks to infrastructure, such as the Dragonfly Café and visitor car parks at Lower Moor. Heavy convective downpours can result in localized pooling where soil saturation has reached 100%.

3. Flood Risk Management and Management Strategies

Rather than standard engineered defenses (such as hard bunds or concrete barriers), flood management across these reserves relies on Nature-Based Solutions (NBS) and climate-adaptive infrastructure:

Natural Flood Management (NFM): Utilizing leaky woody dams, wetland scrapes, and broadleaf woodland margins to slow the flow of floodwaters entering the Flagham Brook corridor.

Resilient Infrastructure: The Dragonfly Café is elevated above known historic flood levels.

Controlled Floodplain Storage: Clattinger Farm is intentionally managed to accept seasonal floods. This reduces peak river flows downstream, directly protecting nearby residential areas like Oaksey and Minety.

Hydrological Controls: Active monitoring and maintenance of sluices and historical ditches ensure water can drain efficiently once peak river levels recede, preventing prolonged stagnation that could damage rare wildflower topsoils.

4. Conclusion and Recommendations

The Lower Moor, Oaksey, and Clattinger Farm complex exhibits a high probability of seasonal flooding, placing significant portions within Flood Zones 3a and 3b. However, because the land use is categorized as 'Water-Compatible' (nature conservation and open space), this risk is highly appropriate and ecologically necessary. The built visitor assets are securely positioned or constructed to resilient standards.

Key Recommendations: Continuously clear Flagham Brook debris channels; maintain emergency evacuation protocols for the Dragonfly Café during extreme weather alerts; and further optimize the wetland scrapes for expanded flood volume attenuation.

ADDENDUM - EA MAP OF SURFACE WATER FLOOD ZONE

