

UWF Grid Connection EIA Report (2019)

Volume C2: EIAR Main Report

Chapter 18: Interaction of the Foregoing



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Glossary of Terms

<u>Term</u>	<u>Definition</u>
Environmental Factors	The factors in the environment required to be identified, described and assessed during the EIA process. These are specified in Article 3 (1) of the EIA Directive as Population and Human Health; Biodiversity; Land; Soils; Water; Air; Climate; Material Assets; Cultural Heritage and Landscape.
Whole UWF Project	Project made up of 5 No. elements – UWF Grid Connection; UWF Related Works, UWF Replacement Forestry, Upperchurch Windfarm (UWF) and UWF Other Activities.

List of Abbreviations

<u>Abbreviation</u>	<u>Full Term</u>
EMF	Electromagnetic Fields
GHG	Green House Gasses

Executive Summary

Interaction between the Environmental Factors relates to cross-factor effects. A cross factor effect occurs when the effect on one Environmental Factor causes an indirect effect on another Environmental Factor.

In Chapters 6 to 17, the potential for likely direct and indirect effects was evaluated. Cross-factor effects are indirect effects. Potential cross factor effects were identified during EIA Team meetings and evaluated by the authors of the receiving environmental factor topic chapter.

In summary there are no effects on one Environmental Factor likely to cause significant indirect effects on another Environmental Factor.

18 Interaction of the Foregoing

18.1 Cross Factor effects between the Environmental Factors

Interaction of the foregoing Factors, or interaction between the environmental factors, relates to cross-factor effects, which are indirect effects. A cross factor effect occurs when the effect on one environmental factor causes an indirect effect on another environmental factor.

In Chapters 6 to 17, the potential for likely direct and indirect effects was evaluated. Potential cross factor effects were identified during EIAR Team meetings and evaluated by the authors of the receiving environmental factor topic chapter.

Likely cross factor effects that were examined in the environmental factor topic chapters are identified and summarised in the sections below, presented by receiving environmental factor.

18.1.1 Potential Cross-Factor effects to Population (Chapter 6)

- Potential cross-factor effects to **Population** (reduction in tourism revenue), caused by effects to **Air** (increased levels of ambient dust and ambient noise).
- Potential cross-factor effects to **Population** (business disruption), caused by effects to **Material Assets - Roads** (increased traffic and road works).
- Potential cross-factor effects to **Population** (reduction in tourism revenue), caused by effects to **Land-scape** (visual impacts).

18.1.2 Potential Cross-Factor effects to Human Health (Chapter 7)

- Potential cross-factor effects to **Human Health** (improved health prospects), caused by effects to **Population** (increased spending and employment opportunities in the Local Economy),
- Potential cross-factor effects to **Human Health** (impacts on gastrointestinal health), caused by effects to **Water** (water quality or quantity effects to local wells and springs)
- Potential cross-factor effects to **Human Health** (impact on health, respiratory, cardiovascular and mental health), caused by effects to **Air** (increase in ambient dust, noise, EMF)
- Potential cross-factor effects to **Human Health** (impacts on gastrointestinal health), caused by effects to **Material Assets - Built Services** (contamination or disruption of public piped water supply)
- Potential cross-factor effects to **Human Health** (risk of injury), caused by effects to **Material Assets - Roads** (increased risk of road traffic accidents).

18.1.3 Potential Cross-Factor effects to Biodiversity (Chapter 8)

- Potential cross-factor effects to **Biodiversity** (habitat loss, fragmentation or degradation, loss of flora species, physical injury), caused by effects to **Soils** (excavation, relocation, erosion and contamination effects to soils at the Mountphilips Substation Site).
- Potential cross-factor effects to **Biodiversity** (aquatic habitat degradation), caused by effects to **Water** (decreases in water quality as a result of cross factor soil effects and morphological impacts to water-courses during crossing works).
- Potential cross-factor effects to **Biodiversity** (habitat degradation and disturbance), caused by effects to **Air** (due to dust soiling, increased ambient noise and vibration levels).

18.1.4 Potential Cross-Factor effects to Land (Chapter 9)

- Potential cross-factor effects to **Land** (reduction in grass growth rates), caused by effects to **Water** (change in drainage regime at Mountphilips Substation Site).

18.1.5 Potential Cross-Factor effects to Soils (Chapter 10)

No cross-factor effects to **Soils** caused by effects to the other Environmental Factors were identified by the EIAR Team.

18.1.6 Potential Cross-Factor effects to Water (Chapter 11)

- Potential cross-factor effects to **Water** (decreases in water quality due to sedimentation or contamination), caused by effects to **Soils** (earthworks, groundworks, storage of overburden, erosion and contamination effects to soils from fuel, oil and cement).

18.1.7 Potential Cross-Factor effects to Air (Chapter 12)

- Potential cross-factor effects to **Air** (increased ambient levels of dust), caused by effects to **Soils** (earthworks, groundworks, storage of overburden, erosion).
- Potential cross-factor effects to **Air** (increased ambient levels of dust and noise), caused by effects to **Material Assets - Roads** (increase in traffic volumes).

18.1.8 Potential Cross-Factor effects to Climate (Chapter 13)

- Potential cross-factor effects to **Climate** (Increases in GHG emissions), caused by effects to **Soils** (due to excavations) and effects to **Material Assets - Roads** (increase in traffic volumes).

18.1.9 Potential Cross-Factor effects to Material Assets - Built Services (Chapter 14)

- Potential cross-factor effects to **Material Assets – Built Services** (risk of damage to water pipes and subsequent contamination of public water supply), caused by effects to **Material Assets - Roads** (excavation of road pavements).

18.1.10 Potential Cross-Factor effects to Material Assets - Roads (Chapter 15)

No cross-factor effects to **Material Assets - Roads** caused by effects to the other Environmental Factors were identified by the EIAR Team.

18.1.11 Potential Cross-Factor effects to Cultural Heritage (Chapter 16)

- Potential cross-factor effects to **Cultural Heritage** (visual setting), caused by effects to **Landscape** (visual impact of above ground structures).

18.1.12 Potential Cross-Factor effects to Landscape (Chapter 17)

Potential cross-factor effects to **Landscape** (visual impact), caused by effects to **Biodiversity** (severance of hedgerows and removal of mature trees) and effects to **Land** (change of use).

18.2 Potential Cross Factor Effects – Other Elements of the Whole UWF Project

Cross factor effects to environmental factors associated with the Other Elements of the Whole UWF Project can be found in the corresponding EIAR Main Report Chapter 18 of the UWF Related Works EIA Report and UWF Replacement Forestry EIA Report, both of which are included in **Volume F: Reference Documents**.

