

## 14.0 INTERACTIONS OF THE FOREGOING

### 14.1 INTRODUCTION

None of the foregoing topics exists in isolation from the others and, because of this, any impact on one element of the environment may also impact on another. The cumulative slight impact on a number of topics may result in a significant impact on another topic.

### 14.2 PREDICTED IMPACT

A matrix of all topics is presented in **Table 14.1**, which illustrates the overlap or interaction of topics. Interaction in the matrix, however, does not imply a cumulative impact.

TOPIC	HB	F&F	S&G	Water	A&C	L	CH	MA
Human Beings		*	*	*	*	*	*	*
Flora and Fauna	*		*	*		*		
Soils & Geology	*	*		*		*		*
Water	*	*	*					
Air and Climate	*							
Landscape	*	*	*					
Cultural Heritage	*							
Material Assets	*		*					

**Table 14.1 Interaction matrix**

As each diagonal half of the matrix is a mirror image of the other only the vertical side will be described in descending order from the first interaction – Human Beings and Flora and Fauna etc.

#### **Human Beings and:**

- i.** Flora and Fauna
- ii.** Soils and Geology
- iii.** Water
- iv.** Air and Climate
- v.** Cultural Heritage
- vi.** Material Assets
- vii.** Landscape

Any negative affect on the environment as a result of this project is produced by Human Beings and, because it is the environment we live in, any negative affect will also affect us as Human Beings. For example, the use of fossil fuels (Material Assets) for electricity generation produces greenhouse gases and fumes (Air and Climate affect) which affects weather patterns and, in turn, agriculture (Human Beings). The partial removal of the reliance on fossil fuels for electricity generation as a result of the project can therefore be seen as having positive overlapping impacts on Material Assets, Air and Climate and Human Beings. Because no negative affect has been predicted for Human Beings there are no negative interactions with the other overlapping topics.

No further mitigation measures are proposed.

**Flora and Fauna and:**

- viii. Human Beings
- ix. Soils and Geology
- x. Water
- xi. Landscape

The interrelationship of Flora and Fauna with the topics Soils and Geology and Water is very close. A negative affect on one topic has the potential to affect the other two and vice versa. This is particularly true where vegetation removal decreases soil stability, which can result in surface water runoff with high suspended solids content. Conversely, reduced water quality or the removal of large areas of soil would result in negative effects on plant and animal species.

It is anticipated that this complex interrelationship will be dealt with by reducing the vegetated area which is to be affected, by carefully controlling the movement of vehicles during construction. Any surface water runoff, which originates at, or passes over exposed soil or peat, particularly at road construction, will be drained into settling ponds to allow the suspended solids to be removed before joining natural watercourses.

These potentially negative affects are only expected to occur at construction stage and are considered to be adequately mitigated by the measures outlined in the respective chapters.

Affects on Flora and Fauna can also affect landscape in terms of vegetation. In the case of this site there is a small proportion of conifer trees to be removed and replanted, the majority of the site is unenclosed bogland. The total area to be removed from existing land use within the site will be a small proportion of the available habitat, taking up approximately 3 %, therefore no significant negative effects can be predicted and no mitigation measures are proposed.

**Soils and Geology and:**

- xii.** Human Beings
- xiii.** Flora and Fauna
- xiv.** Water
- xv.** Landscape
- xvi.** Material Assets

Several of these interactions have been described above.

The reaction between Soils and Geology and Landscape is concerned with the changes the landscape undergoes as a result of changes in the soil coverage or geological makeup. Landscape is usually viewed at a distance and the removal of small quantities of soil and rock should not be visible from even nearby viewpoints.

The interrelationship of Soils and Geology and Water is also very close. A negative affect on one topic has the potential to affect the other and vice versa. This is particularly true where soil removal can result in surface water runoff with high suspended solids content.

No negative effects are predicted and no further mitigation measures are proposed.

**Water and:**

- xvii.** Human Beings
- xviii.** Flora and Fauna

**xix.** Soils and Geology

These three interactions have been discussed above. No negative effects are predicted and no further mitigation measures are proposed.

**Air and Climate and:****xx.** Human Beings**Landscape:****xxi.** Flora and Fauna**xxii.** Soils and Geology**Cultural Heritage and:****xxiii.** Landscape**xxiv.** Human Beings**Material Assets:****xxv.** Human Beings**xxvi.** Soils and Geology

These interactions have been discussed above. No significant negative impacts are predicted for these sections and as a result no negative interaction can be foreseen.

**14.3 MITIGATION MEASURES**

No mitigation measures are required.

**14.4 CONCLUSION**

Following the assessment of the interactions of the foregoing topics it can be concluded that no significant interactive negative effects from the proposed Yellow River Wind Farm are predicted.