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Question to Dr Annette Abbott [RR- 0320], The Applicant

" Will the Applicant comment on the relevant representation from Dr Abbott, [RR-0320] particularly what she writes in relation to the loss of 10ha of SSSI, M22 Fenland habitat, rare freshwater plants and insects sensitive to pH changes, detriment to "rare Red listed birds, barbastelle and other bats, rare endangered insects such as white admiral butterfly and Norfolk hawkers and incredibly rare plants.―

Dr Annette Abbott's response to the Examining Authority:

The fen-meadows, with rush pasture and associated mires, are component communities of the the UK Biodiversity Action Pan (BAP) purple moor-grass and rush pasture (PMGRP) priority habitat (http://www.ukbap.org.uk/UKPlans; http://ukbars.defra.gov.uk/plans/national_plan - purple moor-grass and rush pastures). It is acknowledged that they are very difficult to restore and creating new fenland meadow is not possible in the short term.

The proposed footprint and surrounding works including the culvert for the new access road – for Sizewell C will destroy most of the fenland meadow (M22) (10 hectares of the wider area and 1.7hectares of the fenland meadow) of Sizewell Marshes. This land is part of a mosaic of habitats with reedbed, wet woodland, heathland and beach, provides unique and irreplaceable habitat and is a wildlife corridor linking the habitats to Minsmere and Walberswick marshes and a Site of Special Scientific Interest. This means it is protected and therefore the proposal to destroy it, its wildlife -plants, invertebrates, birds and mammals should never be allowed.

IUCN Red listed birds which use this habitat include Curlew, lapwing, nightingale, woodcock and skylark. (BTO wetland birds survey for the last five years confirm the presence of Curlew lapwing and woodcock at this site). Amber listed birds such as the Marsh harrier will also be affected – see Natural Englands concerns.

Water vole and Barbastelle bats are present in fen meadow and are on the IUCN Red List for mammals in the UK.

143 invertebrate species are mentioned to be of conservation concern by the Applicant, which are at risk from Sizewell C development of which 23 are Red listed insects and are at risk. In particular the rare Endangered (IUCN) Norfolk hawker dragonfly is regularly seen and breed here. The Norfolk Hawker needs aquatic plants including water soldier and frogbit. The fenland meadow water supports these plants.

Intensification of agricultural practices, plus increasing pollution from domestic sources, has led to a rapid increase in the levels of nitrates and phosphate entering the aquatic systems of this country. This has led to a loss of aquatic vegetation and an increased incidence of algal blooms. Additionally, the runoff from agriculture (pesticides), industry, road run-off and domestic sources all pollute the aquatic environment. Changes in water level caused by pumped drainage systems and lowered water tables also disrupts suitable habitat. As a result it is very difficult indeed to create a suitable replacement fen meadow habitat and there are very few areas of lowland fen meadow of this quality and biodiversity left.

White Admiral butterflies (protected species listed under section 41 of the NERC ACT 2006) and Grayling butterflies (Vulnerable on IUCN criteria. (Red Data Book 2 species are present close to the meadow and the in the neighbouring woodland and are also endangered and rare.

The Fenland meadow in the SSSI at Sizewell Belts, is irreplaceable and no mitigation or alternative site provided by EDF can replace this meadow. The meadow is fed by a very pure water aquifer, which regulates the pH of the wetlands and the groundwater is very low in nutrients and determines the flora and fauna. Agricultural run off, or replacement of the water with ditch water will destroy the unique extremely sensitive biodiversity of this and the surrounding site. The effect of the building of Sizewell C will disrupt the water flows and drain the site (drawdown due to the insertion of the cut off wall around the station platform) such that the proposal to replace that clean ground water with unsuitable ditch water which is contaminated and richer in nitrogen will destroy the plant ecology and as a result the insect and aquatic invertebrate ecology.

The proposed sites at Halesworth and Benhall will prove impossible to make equivalent in biodiversity value because of the absence of the groundwater aquifers and presence of nitrogen and other agricultural run off. Natural England recognises this and has insisted on nine times the area lost at Sizewell in the false hope that there will be biodiversity gain but this is impossible. The proposed sites are fragmented. There is no continuity of the wildlife corridors as there currently is at Sizewell with adjacent wet woodlands, heaths and beach. The proposed sites for replacement fen meadow are fragmented sites and will not form an appropriate wildlife corridor to maintain genetic diversity and EDF's record in managing sites for wildlife is currently very poor (witness the sites intended for reptile relocation for Coronation wood and Goose Hill which are meant to be heathland and are now grown up with birch) and where is the proof that they will be any different in the future -both in the short and long term. Setting aside land elsewhere in the hope it might become by magic a biodiversity gain is unrealistic and will fail to ever compensate for the fenland meadow biodiversity loss.

If the Government has agreed to keep to international obligations to protect biodiversity and respect the Bern convention (Conservation of European Wildlife and Natural Habitats) how can the blatant destruction of this SSSI be allowed, and by extension putting internationally important bird reserves such as Minsmere (Britains most important bird reserve) under significant threat of irreversible biodiversity loss. The Planning Inspectorate must not allow the construction of Sizewell C.