Appendix H Ecological Impacts of the Drainage Proposals for the Proposed New Runway Extension

The Environmental Statement 2006; the Supplementary Environmental Information 2007 (Volume 3A, Appendix 15.1); the Statement to Inform 2007 and Supplementary Environmental Information 2008 (Volume 6, Appendix 3) have assessed ecological impacts on the existing and proposed drainage ditches of the proposed runway extension.

Whilst most of the information set out in Volume 6, Appendix 3 of the August 2008 submission, "*Impacts of the runway extension on designated sites, drainage ditches and great crested newts*", still stands, the table below sets out some changes, in response to the updated drainage proposals for the runway extension. The following summary sets out the ecological impacts of the drainage proposals for the new runway extension.

In summary, the updated proposals for the new runway will result in the realignment of 801m of ditches that provide habitat for a number of aquatic species (though not great crested newt, medicinal leech or water vole and therefore not for any SAC designated species). The new realigned drainage ditches now proposed are 1,300m in length. Whilst the new ditches will provide some wildlife habitat, especially as they mature, their value will not equate for some time to that of the ditches lost. Therefore, it remains appropriate to mitigate this loss with additional appropriate wetland habitat on the airfield. The mitigation proposed is a new ditch length of some 450m (as previously described in Appendix 3 to Volume 6 of the 2008 Supplementary Information), created and managed solely for the purposes of creating wetland habitat for key species such as water vole, great crested newt, medicinal leech and a range of other aquatic and terrestrial invertebrates. Additionally, Pond A and other ponds on the airfield are proposed to receive management treatment which would improve habitat for key species.

Given the principle of new wetland habitat creation and management, it is proposed that the detailed design should be finalised under the aegis of the Biodiversity Action Plan (Supplementary Environmental Information 2008, Appendix 5) previously proposed, which would require the convening of stakeholders to decide the details of habitat management planning.

If the 'in principle' proposals are carried out, they would result in a net improvement of wetland habitat on the airfield, and an improvement in the condition of the SAC, especially in respect of the designation for great crested newts, and for aquatic invertebrates.

Refinements to Supplementary Environmental Information (2008) Volume 6, Appendix 3, "Impacts of the runway extension on designated sites, drainage ditches and Great Crested Newts".

Sections 1-3 remain as written, except for paragraph 1.1.4 which, following this Strategy, is refined in terms of the length of ditch network that is to be realigned. The second sentence of paragraph 1.1.4 should now read "*The total length of the ditches which are proposed for realignment is 801m, 250m of which is located within the Dungeness SAC.*" The figures have, therefore, decreased from the 2008 Supplementary Information following the work carried out for this Strategy.

Paragraph Number	Comment
1.1.4	This Strategy has refined the length of ditch network
	that is to be realigned.
4.1.1	Remains valid.
4.1.2	Further information is supplied with this report on the details for preventing pollutants washed off from the proposed new runway into the ditches. These measures would be effective in ensuring that water quality in the new ditch network would be maintained to support aquatic flora and fauna.
4.1.3	Remains valid.
4.1.4	Remains valid.

Section 4.1

Section 4.2

Paragraph Number	Comment
4.2.1	Remains valid.
4.2.2	Remains valid.
4.2.3	Remains valid. Regarding reference to Figures 1A, 1B and 1C in paragraph 4.2.3, the drainage proposals show on these Figures are superseded by WSP drawing number 1559-GA-01 rev A 'Drainage Strategy - Ditch to be Removed / Realigned', WSP drawing number 1559-GA-02 rev A 'Drainage Strategy – Proposed Ditch System' and WSP drawing number 1559-GA-03 rev A ' Drainage Strategy – Proposed Runway Drainage'. These drawings are included within Appendices B, C and D of this Strategy. The designation of the ecological areas as shown on Figures 1A, 1B and 1C of Appendix 3 of Volume 6 of the 2008 Supplementary Information, however, remain and Figures 1A, 1B and 1C should only be referred to in this regard
4.2.4	Following discussions with the Internal Drainage Board, the preference is that the new ditch network would not be netted, in order to allow access and

	maintenance activities. The impact of this on bird strike risk has been evaluated. Since the new ditch network would be no nearer to the new runway extension than existing ditches are to the existing runway, there would be no net increase in bird hazard risk over present conditions, but the new ditches would be subject to active bird control by the bird control team. This would compensate for netting, by ensuring that bird strike risk species would be regularly deterred from the new ditches.
4.2.5	Remains valid.
4.2.6	Paragraph superseded, though Figure 2 remains valid with respect to proposed ecological features. The new realigned drainage ditches now proposed are 1,300m in length, an increase in 44m from that originally proposed. Whilst the new realigned ditches will provide some wildlife habitat, especially as they mature, their value will not equate for some time to the 801m length to be removed. Therefore it remains appropriate to mitigate this loss with additional appropriate wetland habitat on the airfield as described
4.0.7 4.0.40	below.
4.2.7 - 4.2.12	All remain valid.
4.2.13 – 4.2.15	Superseded by the following comments. Target Species. It is expected that the ditch will be amenable to water vole, great crested newt, medicinal leech, and a range of aquatic invertebrates.
4.2.16	Remains valid.
4.2.17/18	Remain valid.
4.2.19/20	Fish Eradication. Some consultees have responded that eradicating fish from the ponds may not be practical or even desirable. It is proposed that such decisions be taken under the aegis of the Biodiversity Action Plan previously proposed in Supplementary Environmental Information 2008, Appendix 5, which would require the convening of stakeholders to decide the details of habitat management planning.
4.2.21/22	Remain valid.
4.2.23 – 4.2.32	Superseded. As a result of consultation and further field inspections, the creation of scrapes is proposed not to be required, as long as new wetland habitat in the form of a ditch specifically created to provide habitat for a range of protected species is provided; and the existing ponds are improved by habitat management.
4.2.33 - 4.2.37	Remains valid.
4.2.38 – 4.2.41	Superseded by pollution prevention proposals contained in the updated drainage proposals. It is predicted that water quality in the new ditches will be protected from pollution run-off.

4.2.42	Remains valid.
4.2.43 - 4.2.44	Superseded by the updated drainage proposals.
4.2.45	Proposals remain valid, but the choice and detail of appropriate wetland creation features should be finalised under the aegis of the Biodiversity Action Plan previously proposed (see Supplementary Environmental Information 2008, Appendix 5) which would require the convening of stakeholders to decide the details of habitat management planning.
4.2.46	As above (4.2.45)
4.2.47	Superseded. As a result of consultation and further field inspections, the creation of scrapes is proposed not to be required, as long as new wetland habitat in the form of a ditch specifically created to provide habitat for a range of protected species is provided; and the existing ponds are improved by habitat management.

Section 4.3. 4.4, 5

Section Number	Comment
4.3, 4.4, 5	Remain valid.

Dr. Mark McLellan

Gutteridge Haskins & Davey Limited