



The following cases were cited:

*Cooke v Secretary of State for the Environment* (1974) 27 P&CR 234

*Bolton MBC v Waterworth* (1981) 42 P & CR 289

*Bwlfa and Merthyr Dare Steam Collieries (1891) Ltd v Pontypridd Waterworks Co* [1903] AC 426

*James v United Kingdom* (1986) 8 EHRR 123

## DECISION

### Introduction

1. This is a reference to determine the compensation payable by the Secretary of State for Transport (the acquiring authority) arising from the compulsory acquisition of approximately 36 acres (14.57 hectares) of land forming part of Ashcroft Farm, Shenstone, Lichfield, Staffordshire for the construction of the M6 Toll road (the M6 (T)). The claimants are Mr Fred Saxton, Mr William Henry Saxton, Ms Frances Saxton and Mr Frank Saxton, who trade together as Messrs F Saxton & Sons. The claimants' overall farming enterprise extends to approximately 1,600 acres, all of which is devoted to arable production. Part of their freehold ownership at Ashcroft Farm was compulsorily acquired under the Birmingham Northern Relief Road (Burntwood to Weeford Section) Compulsory Purchase Order (No.PS3) 1998. Notice to treat was served on 27 June 2000 and the acquiring authority entered the land on 3 November 2000, which is the valuation date.

2. On 29 September 2006 the parties agreed to settle the claimants' compensation claim in the sum of £750,000. The heads of claim covered by this agreement were compensation for the land taken, injurious affection and severance, crop loss and other disturbance, accommodation works, new farm plans and time spent by the claimants in dealing with the acquisition. This agreement expressly excluded any compensation which might be payable for injurious affection to the claimants' retained land. The claimants alleged that, as a result of the construction of the new road in cutting across their farm, the water table beneath the adjacent land has been lowered, with the result that the previous level of cropping is no longer sustainable. The issue to be determined in this reference is whether this allegation is well-founded and, if so, the amount of compensation (if any) which should be paid by way of injurious affection. The additional compensation claimed is £383,560. The acquiring authority contend that no further compensation is payable.

3. Mr Patrick Green of counsel appeared for the claimants. He called three witnesses of fact, Mr Frank Saxton, Mr Robert Burtonshaw, the managing director of Farm Services Limited and Mr Paul Bettson, the managing director of Tappenhurst Agricultural Limited. Farm Services Limited have carried out drainage works to Ashcroft Farm over the last forty five years, under the supervision of either Mr Burtonshaw or his father. Since about 1997 Mr Bettson has contracted with the claimants to spray their crops with pesticides.

4. Mr Green also called three expert witnesses. They are Mr Philip Smart, a technical director of Faber Maunsell Limited (hydrogeology), Mr F T Tyler, founder of Advisory Consultancy and Research Services (ACRS) (agronomy) and Mr C P Meynell, BSc (Est.Man.), FRICS, FAAV, a member of Fisher German LLP.

5. Counsel for the acquiring authority, Mr Timothy Mould QC, did not call any factual witnesses. He called expert evidence from Mr Andrew Parkes, a director of operations in the Environment Business Unit of Jacobs Engineering UK Limited (hydrogeology), Mr Jim

Blaylock, an independent agronomist, Mr A Oliphant BSc (Hons), Agric Dip Surv, MRICS of Savills (valuation) and Mr G T Coster, BSc, MRICS FAAV, senior agricultural technical adviser working as part of the Valuation Office Agency Chief Executive's Office, Senior Professional Support Team (valuation).

6. I inspected the subject land, in company with Messrs Saxton, Meynell and Coster, on 27 January 2009.

## Facts

7. In the light of the evidence I find the following facts. Ashcroft Farm is located approximately 4km south of the centre of Lichfield, to the north-west of the large village of Shenstone. It is bisected by the M6(T) running north-west to south-east and by a railway line running on an embankment north-south. To the east is the Birmingham Road, which rises from field level at Shenstone onto an embankment at the junction with the A5 to the north of the M6(T). The M6(T) lies within a cutting beneath the railway line, extending several metres below the original ground level. It is now agreed that, allowing for the effect of natural groundwater level changes, dewatering has occurred to an area extending between 350m and 400m from the cutting and reducing from 3m to nil as one moves away from the cutting across that area. This area has been referred to throughout as the affected area.

8. The affected area lies to the south-west, south-east and north-east of the M6(T)/railway junction, as follows:

	<b>Field</b>	<b>Ha</b>	<b>Acres</b>
South-west	pt.7471	4.72	11.66
	pt.5152	2.35	5.81
	pt.7438	0.30	0.74
South-east	pt. 0143	10.00	24.71
North-east	pt. 9986	<u>3.23</u>	<u>7.98</u>
		<u>20.60</u>	<u>50.90</u>

9. The claimants have been paid the full value of part of field 7600, to the north-west of the junction and having an area of 1.97ha (4.87 acres), by way of severance. This area of land does not form part of the present claim.

10. At the valuation date the affected area formed part of a high quality arable unit which produced field scale vegetable crops and roots and combinable crops, all of excellent quality and with excellent skin finish. The land benefited from underground irrigation mains and had been comprehensively underdrained with field drains. The farm had an open irrigation reservoir, some 0.44ha in extent and capable of storing 20 million gallons of water. The claimants had two boreholes tested to produce 25,000 and 15,000 gallons per hour. The farm enjoyed the right to abstract water subject to Environment Agency abstraction licences. It

benefited from modern, temperature-controlled storage and processing buildings and an established market for sale of produce at Birmingham wholesale market as well as supermarkets. Birmingham city centre is about twelve miles to the south and well connected by road.

11. At the valuation date the soil at Ashcroft Farm (including the affected area) was of a quality that was both very high and scarce in this part of the West Midlands. Although the farm appears formerly to have been poorly drained, the introduction of land drainage and the general lowering of the water table due to extraction for public water supply contributed toward the provision of prime arable land on a mainly level terrain and in field sizes which were good for modern intensive farming methods. It would be necessary for the claimants to purchase land much further away if they wished to replace the affected land.

12. In March 1994 the claimants instructed Mr Meynell to make representations on their behalf to the acquiring authority in connection with the draft compulsory purchase order and associated orders for the M6(T). Mr Meynell submitted a formal objection on 31 March 1994 on seven grounds, of which the sixth read as follows:

“We note the proposals include for a pumping station in plot 34/46 together with a right to construct and maintain an access road and a rising main outfall drain. We understand the pumping station is to drain the motorway as it passes beneath the railway line. Our clients’ land in this area is a peat and sandy loam which requires careful management of water to ensure efficient and productive cropping. Our clients are extremely concerned that the pumps installed on their land will dewater the adjoining land and possibly dewater the bore holes which are sunk on the holding. Our clients strongly object to the installation of a pumping station on their land and request that the Inspector puts the Department and Midland Expressways Limited to proof that the proposed pumping will not dewater or in any way injuriously affect our clients’ land.”

13. The Highways Agency replied to this objection on 31 August 1994 as follows:

“Whilst your clients’ concerns in relation to the effect of the pumping station are noted, the function of this installation would be to ensure drainage of the carriageway of BNRR. A statement concerning the likely effect of the motorway cutting upon the drainage of your clients’ adjacent land will be prepared.”

14. On 9 January 1995 Mr H J R Burton, Consultation Manager to Midland Expressway Limited – which had been given a 50-year concession to design, build and operate the M6(T) – wrote the following letter to Mr Meynell:

“You will recall that your client is concerned about the nature of the pumping station proposed to be built adjacent to the southern end of the proposed railway bridge over BNRR.

The ground investigation carried out in September 1992 established the groundwater level at approximately 90.5-91mOD. The lowest point of the BNRR carriageway is at 91mOD.

Carriageway drainage would be directed to a sealed pumping chamber and there would therefore be no significant drawdown effect on the water table in the surrounding area.”

15. In the light of that assurance Mr Meynell was instructed to withdraw the claimants’ objection to the CPO.

16. Despite the indication given in the Highways Agency’s letter of 31 August 1994, no statement regarding the likely effect of the cutting on the claimants’ land has ever been provided to them. In July 2001 the land on which the contractors were working in connection with the motorway cutting became flooded. In an attempt to remedy the position the contractors broke into a drain on the claimants’ land. Despite this action, and although there had been no rainfall for several days, the contractors had to install pumps which were used 24 hours a day to remove the remainder of the water.

17. On several occasions over the last four years the claimants’ advisers requested information on the operation of the Shenstone Pumping Station, and in particular the volume of water pumped during periods of dry weather. On 4 September 2007 Mr Jon Langham of MEL prepared a note in response to a letter from the claimants’ solicitors dated 21 June 2007. It said:

“MEL does not have records of how much water has been pumped by the Shenstone pumping station and none is needed. All that is needed is to look at the trickle of water issuing from Pond 6 in dry weather and to determine what proportion of that enters the pipe work as it passes Mr Saxton’s field. My assessment is that Mr Saxton’s fields occupy about one third of the 2.5km drained length.

It does not seem plausible to me that such a small quantity of water could have any measurable effect on Mr Saxton’s crops or the frequency with which he decides to irrigate.”

18. On 18 August 2008 the acquiring authority’s solicitors finally provided the claimants’ solicitors with the information which they had been requesting. This showed that during dry weather periods only one pump was operational and it was sufficient to control the volume of water ingress to the shaft. This pump runs intermittently and an abstraction rate of approximately 3,420m<sup>3</sup> a day was sufficient to control the water flow. Such an abstraction rate is equivalent to the discharge from a moderately sized public water supply source and would supply a population of approximately 25,000. It is now agreed that the pumping station serves 1.5km of the M6(T), of which the frontage to the affected land is 730m.

## **Issues**

19. There were three main issues between the parties. The first was the pre-scheme depth beneath ground level of the water table underlying the affected area. The second was whether the lowering of the groundwater table had reduced the crop rearing capability of the affected land. The third issue was whether, in the light of the answers to the first two issues, the lowering of the groundwater table had affected the market value of the affected land. I consider each issue in turn.

### **The pre-scheme level of the water table beneath the affected land**

20. The claimants' case was that, prior to the construction of the M6(T), the groundwater level in the affected area was within 1m of the ground surface. The acquiring authority, on the other hand, contended that the original groundwater level was between 2 and 3.5m below ground level. The difference is important because, although crops vary in their depth of rooting, the crop rooting zone is normally in the first 1m of soil depth. If the acquiring authority are right, therefore, the reduction in groundwater levels would have had little or no impact on the ability of the land to sustain the growth of crops, since the original groundwater level was already too low to have been accessible to root crops.

21. Mr Burtonshaw said that his firm installed clay drainage pipes on the affected land between 1963 and 1965. In 1999 and 2001 they installed plastic drainage pipes in the fields to the south of the proposed route of the M6(T). All these drains were laid at a depth of 0.9m below the surface of the land. As a specialist in farm drainage Mr Burtonshaw said that the only reason that a farmer would install drains into this type of agricultural land would be to lower the water table in order to gain the optimum conditions for crop growth. Thus the very fact that such drains were installed meant that the water table was very high in this area. As a result of the installation of the drains the water table would have remained around the level at which the drains were installed. The water table remained close to the surface of the land for nearly forty years.

22. Mr Burtonshaw added that the land drains did not dry the land out completely, but simply reduced the saturation level in the soil. Indeed, even with the drains installed the water table level was so high that in the winter and early spring of each year the land was difficult to traverse with machinery or on foot. The water level had decreased dramatically by February 2003 and Mr Frank Saxton instructed him to inspect the land to try to discover the cause of the problem. As part of that inspection Mr Burtonshaw's company dug out four 2 metre deep trial pits with their 360 degree excavator. The pits were dug out at various positions across the field to the south of the M6(T) and the west of the railway line. Mr Burtonshaw said that he had been shocked to find no water whatsoever in three of the four pits. In the fourth pit, which was situated furthest away from the M6(T), he found the water table at 1.7m below the surface of the land. He had never previously seen the water table that low across that field.

23. In the last 25 years, up until the construction of the M6(T), Mr Burtonshaw said that he had seen the drain flowing to the railway culvert running with a very good flow of water, even in the summer. Since the construction of the M6(T) he had not seen water running from that drain at all.

24. Mr Bettson said that he personally carried out much of the crop spraying on Ashcroft Farm. Before the construction of the M6(T) the claimants' land on either side of the railway, running adjacent to the new road, was always very damp, especially after rainfall. As a result the land could be extremely difficult to cross with agricultural machinery. In periods of prolonged wet weather he would have to delay carrying out work on the land, as there was a high risk that his equipment would become stuck. There had been a dramatic difference since the M6(T) was constructed. Even after a heavy rainfall the land was now more secure and it was capable of holding the machinery without the risk of it becoming stuck.

25. Mr Smart said that in February 2008 he had jointly inspected the field drainage system with Mr Parkes, in order to ascertain the depth of the drains. Observations were made in trial pits excavated in the western edge of the field adjacent to the railway embankment. From these observations it was agreed that the drains in the northern part of field 0143 were at a depth of approximately 0.8m below ground level and that the drains were laid at intervals of approximately 8m. The drains were surrounded by gravel and the trenches excavated to install the drainage pipes had been backfilled with gravel. The drains in the northern part of the field ran in an approximately west to east direction to a manhole chamber located in the north-eastern corner of the field, which the drains entered at a depth of approximately 1.3m.

26. Mr Smart added that land drainage was required where the groundwater level was shallow and it was necessary to lower the water level to allow farm machinery access to the land. In the northern part of the field the land drains were at a depth of approximately 0.8m below ground level. To operate efficiently the level of the drains must be below the level of the water table which is to be controlled. Installation of drains above the water table would be ineffective and constitute abortive expenditure. Accordingly, he concluded that when the drains were installed (1960-1999), the groundwater level in the northern part of the field was shallower than 0.8m below ground level.

27. Mr Smart said that insufficient data was available to permit modelling of the water table across the area of the road/railway intersection prior to the construction of the M6(T). He considered, however, that the most relevant groundwater level data was provided by the ground investigation borehole BH6295, which was located at the intersection of the M6(T) and the railway line, approximately 75m north of the north-western corner of field 0143. The original ground level at this location was 96.56m AOD and the recorded groundwater level over the period to 2 August 2000 to 8 September 2000 was between 94.21m AOD and 94.26m AOD, that is between 2.3m and 2.35m below ground level. Mr Smart did not visit the site before the motorway was constructed. However, since the railway was on embankment to the north and south of the cutting he assumed that the borehole location was higher than the surrounding land.



28. The true groundwater level was often several metres higher than the level of the water strike, that is where the borehole first hits water. This was because the varying bands in the strata produce barriers to the vertical movement of water. Once these barriers are breached water can rise to the true rest level. The assessment of ground conditions along the route of the M6(T) prepared for MEL showed that the sandstones passed into thin siltstone and mudstone beds, less than 2m thick. This was quite enough to form a barrier.

29. Mr Smart thought that one of the borehole readings produced by Mr Parkes and taken along the route of the proposed motorway was significant. It related to borehole 4406 in the field to the south-east of the junction with the railway. The water level observations at 12.55pm on 7 July 1992 showed a depth to water of 2.65m. Drilling then stopped for 20 minutes, at which time a further reading showed no apparent change in the water level. The first recorded data on the following day, 8 July, at 3.00pm, showed a depth of 5.40m to water. By the end of the shift, at 6.00pm, this had fallen to 1.0m. When work started at 8.00am on 9 July the water level was only 0.9m below ground level.

30. In Mr Smart's opinion it was not possible to draw reliable conclusions from the 1992 borehole readings relied upon by Mr Parkes, since these had not been installed for the purpose of monitoring groundwater levels. Nevertheless it was reasonably possible to interpret the information from the available borehole readings to suggest a similar groundwater level to that reflected in the level of the drains. Moreover, neither the level of the water table nor the level of the ground were fixed. Both would be expected to vary across a field.

31. In his first report dated 23 July 2008 Mr Parkes expressed the view that the available evidence pointed strongly towards pre-construction water levels being more than 2m below ground level. This evidence included BH6295, referred to in para 27 above, upon which Mr Smart also relied. It also included:

- (i) rest water level recorded at 4.63m below ground level in 1984 in the Ashcroft Farm borehole to the west of the affected area.
- (ii) Rest water levels recorded in the Birmingham Nursery borehole (to the east of the affected area) at 3.35m below ground level on 14 April 1964 and between 3.17m and 3.20m below ground level between 23 and 25 May 1984.
- (iii) Twenty boreholes, trial pits or trial trenches along the cutting adjacent to or between the boundaries of the claimants' land, where no water was encountered above a depth of 1.9m below ground level and the shallowest recorded groundwater level was 2.1m. The average was 2.56m below ground level for the 7 excavations where groundwater was encountered.
- (iv) The statement in a report on the assessment of ground condition prepared for MEL by Trafalgar House Technology Limited in July 1993 that  
"the piezometric surface is inferred to lie within 3-5m of existing ground level between chainage 28+ 250 and chainage 29+ 250".

These chainages included part of the affected area.

32. In Mr Parkes's opinion the available evidence indicated that original groundwater levels in the vicinity of the cutting were between 2 and 3.5m below ground level. Any water encountered at shallower levels than this was likely to represent either:

- “a) perched water resting on top of the peaty clay deposits which occur over much of the area and act as a barrier to the downward seepage of water from surface to the main aquifer below; or
- b) deeper groundwater which is locally confined or held at depth by the lower permeability peaty clay deposits and only encountered closer to surface when the barrier formed by these confining deposits was punctured by a borehole.”

33. In a statement of facts and issues agreed and not agreed and prepared after exchange of expert reports, the parties agreed that

“the logs of the twelve boreholes drilled in March 2004 show no evidence of the presence of clay layers which could have supported perched groundwater above the main sandstone water table.”

34. In oral evidence-in-chief, however, Mr Parkes referred to Mr Burtonshaw's oral evidence to the effect that the land drains had been designed at intervals twice as close together as others in the area and that the drains had been covered with gravel to within twelve inches of the surface. In Mr Parkes's opinion that was exactly what would be required to underdrain perched water. The drains which he and Mr Smart had seen on 6 February 2008 had all been made of plastic. He had not seen any clay drains. Presumably the clay drains had been retained at a lower level, since there would be no point in removing them if they were still of some value.

35. In answer to a question from me Mr Parkes explained that what he now described as perched water was different from that which had been discounted in the statement of facts and issues. He agreed that there were no clay layers which could support a perched water table. He was now referring to a much looser form of perched water, where water was held close to the surface by pockets of low permeability material held within the soil, or alternatively barriers to vertical flow which sometimes resulted in water taking time to regain its natural level in a borehole.

36. In the light of the evidence I find that the pre-scheme level of the water table beneath the affected land was generally within 1m of ground level. In arriving at this conclusion I have been influenced particularly by the factual evidence given by Mr Burtonshaw, who has been concerned with drainage works to Ashcroft Farm for a quarter of a century. I accept his evidence that he was astonished to find no water in three of the four trial pits which he dug out in February 2003 and that the good flow of water in the drain to the railway culvert ceased after the M6(T) was constructed. I also accept his evidence, and that of Mr Smart, to the effect that there would have been no point in positioning land drains at 1m below ground level if the groundwater was at a deeper level. Mr Green objected to Mr Parkes's suggestion, made in oral evidence-in-chief, that the clay drains installed in the 1960s were at a lower level than the

plastic drainage installed in 1999, since that theory had not been put to either Mr Saxton or Mr Burtonshaw in cross-examination. It was agreed that Mr Burtonshaw Senior could be called to give evidence on the matter. Mr Burtonshaw Senior subsequently prepared a witness statement in which he said:

“with great confidence that the drains installed in the 1960s were installed at around 3 feet below soil surface.”

That statement was accepted by the acquiring authority.

37. Both Mr Smart and Mr Parkes agreed that the available borehole information was not ideal. Mr Parkes accepted that, whilst he strongly disagreed with Mr Smart’s opinion, that opinion was one which could reasonably be held by an expert on the basis of the available information. In this case I find that the clear evidence of Messrs Burtonshaw Senior and Junior is more persuasive than that of the experts, who necessarily came to the scene after the affected land had been dewatered and who were working with borehole readings which, for the most part, were obtained over too short a period to provide a reliable indication of groundwater levels. I find that the pre-scheme water table was within 1m of the ground surface.

### **Effect of dewatering on crop productivity**

38. Mr Tyler said that he first met Mr Frank Saxton when he was team manager for scientists and crop consultants responsible for horticultural advice in the Midlands, North West and North Wales areas. Mr Saxton is noted for the quality of crops he produces for sale on the claimants’ stand at the Birmingham Wholesale Market. Since the formation of ACRS Mr Saxton has consulted Mr Tyler on many issues. For the past five seasons Mr Tyler has managed the weather monitoring unit on Ashcroft Farm. This is downloaded by modem and used to forecast any likely infection periods for disease, for which appropriate programmes have been developed.

39. In his first report, dated 20 July 2008, Mr Tyler said that he had consulted the following professors and consultants for their opinion on the effects of the dewatering in their respective subject areas: Professor Bill Davies (irrigation), Professor Geoff Dixon (vegetable production), Professor Duncan Greenwood (soils and plant nutrition), Ian Gillott (measuring irrigation needs), David Norman (irrigation programming) and Tom Will (remote monitoring of irrigation needs).

40. Mr Tyler said that Mr Frank Saxton’s view that the value of the affected land for intensive vegetable production had been reduced was supported by all the independent experts he had consulted and was quantified by a formula used by Professor Kefeng Zhang of Warwick University and Professor Greenwood. These gentlemen had concluded that the lowered water table would lead to a reduction of 60% in transpiration and 70% in dry matter yield for Brussels sprouts grown in a year with an average annual rainfall without irrigation.

41. Mr Blaylock has 30 years experience as an agronomist working in Northamptonshire, Lincolnshire and Nottinghamshire. He is FACTS and BASIS qualified and his speciality crops are brassica, onions and potatoes. Many of the crops he manages are irrigated. Mr Blaylock's report was dated 30 July 2008. He expressed the view that, while lowering the water table would potentially reduce the available moisture in the soil for optimum crop growth, it would also improve the drainage and therefore reduce the chances of waterlogging. Any soils with a high enough water table to allow for an appreciable quantity of water to be supplied to the rooting area had a high inherent risk of waterlogging. If there had been a significant reduction in the water table after construction it would have been entirely possible to apply extra water to achieve full crop potential. Optimum water application would compensate for the lack of water uplifted from the water table. It would also compensate for lack of rainfall.

42. In Mr Blaylock's opinion there may have been other factors apart from water which could have reduced the viability of growing certain crops on the affected area. He mentioned three soil borne pests and diseases which could cause crop loss – potato cyst nematode (PCN), violet root rot (parsnips and sugar beet) and club root (cabbage and sprouts). The rotation on Ashcroft Farm had been quite close and the claimants had used fumigation to control PCN in some fields. Fumigation was expensive, and was only used when high levels of pest were present. Mr Blaylock considered that better crops could be produced on the affected area if the rotation were extended to eight or more years. This would lead to a marked reduction in the levels of PCN as well as violet root rot and club root.

43. Mr Tyler produced a rebuttal report dated 24 September 2008. He said that he had been involved in planning crop protection programmes at Ashcroft Farm for ten years. Before that he had been line and functional manager for the consultants who had previously undertaken that work. He had never found any evidence of violet root rot or club root on any crops growing in the affected area. PCN levels were monitored on Ashcroft Farm to avoid their level becoming a problem. The claimants grew high yields of good quality potatoes using a variety susceptible to PCN. If the levels did increase, consideration could be given to growing a more resistant variety or applying a suitable plant protection product.

44. During the course of the hearing Mr Tyler and Mr Blaylock agreed that the volume of water available to irrigate the affected area was approximately 5% more than the volume that was required. Mr Blaylock said that the claimants had successfully irrigated their land for fifty years and it was no more difficult to design an irrigation scheme now than it had been in the past. Mr Tyler said that the water table had not been lowered in a linear pattern but reduced as the distance from the cutting increased. He knew of no irrigation system that could overcome this variability in irrigation need. At the meeting of experts in January 2008 it was agreed that Mr Blaylock would suggest a suitable design of irrigation that could overcome this difficulty, but he did not do so. When Mr Blaylock was asked in cross-examination why this was, he replied that he had not been paid by Mr Saxton to design an irrigation scheme. That was an unhelpful answer from an expert witness, whose duty is to assist the Tribunal in arriving at the correct conclusion.

45. I regret that I did not find Mr Blaylock a convincing witness. His evidence appeared to me to be more a search for alternative explanations for the difficulties which the claimants have encountered than an objective attempt to assess what in reality might have been expected to result from the dewatering of their land.

46. Mr Tyler was a straightforward witness. The only aspect of his evidence which I do not prefer to that of Mr Blaylock was his suggestion that the amount of water that the claimants apply to potatoes and Brussels sprouts could be classified as cosmetic irrigation. I find that the dewatering had a serious adverse effect on the quality of Brussels sprouts which could be grown on the affected land without irrigation; that it is not possible to design an irrigation scheme which would compensate fully for the loss of ground water; that the productivity of the affected area has not been reduced by pests or disease and that it is no longer possible to cultivate the affected area to the high standards that were achieved before the cutting was constructed.

### **Valuation - evidence**

47. Mr Meynell estimated that the market value of the affected area had been depreciated by £383,560 as a result of the dewatering. This figure was arrived at as follows:

#### Pre-scheme value

Area with prime soils	31.92 acres at £10,000 per acre	£319,200	
Remaining area	18.98 acres @ £5,000 per acre	£94,900	
Apportioned value of specialist fixtures and fittings:			
50.90 acres @ £5,000 per acre		<u>£254,500</u>	£668,600
<u>Residual value (reflecting dewatering)</u>			
50.90 acres @£3,100 per acre		£157,790	
Apportioned value of fixtures & fittings			
50.90 acres @ £2,500 per acre		<u>£127,250</u>	<u>£285,040</u>
Diminution in value			<u>£383,560</u>

48. Mr Meynell said that his pre-scheme values were those which had been agreed for the main claim. The Adventurers' and Isleham soil types were valued at £10,000 per acre, reflecting their prime productive capacity. The remaining soil types, reflecting a lower productive capacity but nevertheless the ability to grow high value root and brassica crops, were valued at £5,000 per acre. It had also been agreed that the land in vegetable and root production had an enhanced value of £5,000 per acre. This reflected the value of the claimants' capital investment in fixtures and fittings on the holding, including potato store, potato boxes, specialist grading plant and equipment, irrigators, harvesters, chillers and specialist machinery for handling root and brassica production. This investment was made primarily to support the vegetable production on the best and most versatile land upon the

holding, including the affected area. The agreed figure of £5,000 per acre had been adopted taking into account finance costs and depreciation based on an average life span of 15years.

49. In order to assess the residual value, Mr Meynell said that he had researched comparable evidence of land sales in the locality as at the relevant date. There was no evidence of the sale of this soil type within this area of Staffordshire. There was, however, evidence of sales by auction of two blocks of similar size suitable for the growing of combinable crops but not high value root and brassica crops. The sale price achieved an average of £3,100 per acre and Mr Meynell adopted this figure.

50. The claimants were not able to mitigate their loss by leasing out surplus capacity of their investment in fixtures and fittings, or to purchase commodities from other growers to ensure the investment was operated at full capacity. The claimants did purchase root and brassicas from other growers to “buffer” their own production and extend the period during which they could supply fresh produce through their wholesale outlet in Birmingham Market. It was not practical, however, to let out surplus capacity, as the grading line and packhouse were used to process several different types of crop in any one day. The design of the store was such that it was not possible to separate and handle produce from different growers.

51. The claimants had been unable to acquire similar land upon which to grow crops to maintain production to utilise their investment fully. It was possible that with improved technology yields on land outside the affected area would increase to utilise some of the excess capacity, but this would take many years to achieve. Mr Meynell considered it reasonable to assume that half of the over-capacity would be used in the long term, resulting in a loss of fifty per cent of the enhanced value of fixtures and fittings.

52. Mr Coster’s expert report was dated 21 July 2008. Until that time the claim for compensation was approximately £1,350,000, or £26,500 per acre, based on a capitalisation of future losses, not a reduction in land values. Mr Coster said that he had considered in detail the various reports and other information which had been supplied by the claimants. Despite a number of specific requests no evidence had been provided of any effect on the actual farming performance of the affected area. Without details of reductions in crop yields, or increased costs of crop inputs and irrigation water applications, it was impossible to say that any effect from the cutting or pumping station upon the farming performance of the adjacent land had been proven.

53. Mr Coster said that he had also considered the other experts’ reports concerning hydrogeology, agronomy and farm business matters. Again, these experts had been hampered by the lack of actual evidence of proven loss to the claimants’ farming activities. In Mr Coster’s opinion the conclusions of these reports offered no support for the claim, and strongly indicated that there had been no proven loss. Despite the lack of technical and crop production evidence, however, in order to give the claim the fullest possible consideration Mr Coster had also taken into account the reaction of a prospective purchaser at the valuation date. The presence of the deep cutting, pumping station and associated drains directly adjacent to the land in question would all be matters of concern to a potential purchaser. The extent of the

cutting and location of the pumping station would only be available to view on the construction drawings for the new road. In practice a vendor of such retained land, in order to achieve the best price, was likely to wait until the new road was completed and opened, because the situation always appeared worse during construction. This would particularly apply to this high quality arable land, in view of the potential for dust damage to crops from construction operations.

54. The quality of the subject land made it likely that a prospective purchaser would be another intensive arable farmer specialising in high value vegetable crops. Such a purchaser would be likely to want to buy an area of significant size, particularly if he would be required to travel from his main farming base to work the land. As the Environment Agency no longer granted abstraction licences for agricultural purposes in this area, the best price would be achieved by ensuring an irrigation water source was included within any lot targeted at a commercial arable farmer.

55. Upon asking the motorway operator about the pumping station, the purchaser would be told that the pumping station storage well was sealed and that the system was only taking water from the drains within the motorway boundary. The maximum depth of these drains could be confirmed. MEL would be able to provide upon request details of the pre-scheme ground investigation data, such as the groundwater levels established from the boreholes drilled before the scheme and referred to in Mr Parkes's report. From this information a purchaser would be likely to conclude that the original groundwater level was already too low to have been accessible to the crop roots, and thus the probability of the motorway impacting upon the cropping of the land would be minimal.

56. There were many other deep cuttings on the national road and rail networks. Mr Coster was not aware of any land adjacent to such cuttings which had suffered loss in the way alleged by the claimants. Following these enquiries, Mr Coster considered that a prudent purchaser would stand back and look at his or her bid for the retained land. The prospective purchaser would not have any more information than had been provided to Mr Coster concerning the farming effect of the cutting, pumping station and associated drainage.

57. In addition to the total absence of any significant evidence of the effect of dewatering on the cropping performance of the affected area, Mr Meynell referred in particular to two pieces of comparable evidence. The first was the auction of two lots of land at Clifton Campville near Tamworth on 15 October 2001. Lot 1, with an area of 26.61 acres, was sold for £3,006 per acre. Lot 2 extended to 36.82 acres and fetched £2,580 per acre. Mr Coster said that he inspected this land on 16 July 2002 and happened to meet the purchaser of Lot 2. He was told that Lot 1 had achieved a higher price per acre because it was sold to a farmer who had irrigated land directly adjacent. He was therefore able to irrigate Lot 1 with relatively small extra cost being required.

58. Lot 1 was smaller by some 10 acres than Lot 2 and it therefore might be expected that on a per acre basis it would sell for more. However, this auction of two neighbouring lots of arable land, on the same day, one to a purchaser who could bring irrigation to it, shows that the

ability to irrigate commanded a premium. In this instance, however, the premium was relatively small, a maximum of £426 per acre, which illustrated the high level of demand for arable land in this area.

59. Mr Coster considered that the best comparable evidence was provided by the purchase under the statutory blight provisions and subsequent re-sale of Barn Farm, Cranebrook Lane, Hilton Lichfield. This consisted of an arable farm growing field-scale vegetables, sugar beet and cereals. It extended to approximately 135 acres and included two farmhouses and an extensive range of arable buildings. The land was farmed together with a further 51 acres, held under a fully protected agricultural tenancy. The farm had an irrigation borehole and underground irrigation mains to most of the fields. The soil types included a large area of Isleham peat soil to the centre and east of the farm. The soils were more sandy on the western side. The extraction licence governing the borehole allowed the pumping of 22,000m<sup>3</sup> per annum.

60. The owners served a blight notice on the Highways Agency on 22 December 1999. The notice required the purchase of the whole farm and was accepted. Total compensation was agreed in March 2000 at £765,000. Mr Coster's breakdown, not formally agreed with the vendor's agent, attributed £4,029 per acre to the land and buildings excluding the two farmhouses. In July 2004 Mr Coster was instructed to open negotiations for the re-sale at market value to the former owners of the surplus land not required for the motorway. This totalled approximately 110 acres and included the houses and the buildings. A price of £740,800 was agreed in September 2005 and the re-sale completed on 17 March 2006.

61. During negotiations for the disposal of the freehold interest to the original owning family, their agent raised their concerns that the water level in the borehole had dropped by some ten feet. The motorway at its closest point to the borehole ran in a deep cutting with a maximum depth of 14m, although the section closest to the borehole was at a depth of 12m. The farmers' concern was that, as a result of the reduction in the water level in the borehole, there was now insufficient pressure to maintain the required rate of discharge from the irrigators at the furthest point of the farm from the borehole. The owners initially sought a reduction in the re-purchase price in the order of £70,000 to reflect the cost of providing a replacement borehole. They were keen to conclude terms for the re-purchase. The re-sale was therefore completed on 20 March 2006 and did not include any reflection of the borehole.

62. Mr Coster sought advice from MEL's consultants, Babtie (now Jacobs) and the Environment Agency, who confirmed that the water volumes abstracted from the Barn Farm borehole had not fallen but increased. There then followed a lengthy period of discussions about possible alternative solutions and, indeed, whether the water had dropped as far as claimed in the borehole and whether the motorway cutting was solely responsible. It was considered that there may have been other reasons for the changes in the water level, notably climatic changes and/or abstraction rate changes. On 16 January 2007 Mr Coster agreed with the owners a total compensation sum of £135,000. This included £10,000 for the effect of the motorway cutting on the borehole. This agreement was based on full and final settlement of all heads of claim. The claimants wanted to reserve the right to make claims for further silt



escapes from the balancing pond into their drainage outfall ditch and for reductions in water levels in the farm borehole. The Highways Agency was not prepared to settle the claim on this basis. The claimants then pointed out that they reserved the right to make further claims at common law for damages for nuisance arising from these matters, which they were entitled to do.

63. The cutting adjacent to Barn Farm did not have a pumping station within it. Nevertheless, in Mr Coster's opinion this case did represent an example of a negotiated claim for alleged loss in groundwater as a result of a cutting constructed on the M6 Toll scheme. The agreed compensation of £10,000 where an actual borehole, rather than just a claimed reduction in groundwater in adjacent fields, was involved, was very much less than that claimed in the current reference. Whilst the circumstances were not the same, Mr Coster felt that there were a number of similarities between the current claim and the situation at Barn Farm regarding alleged loss of groundwater. Similar problems arose of the claimant being unable to prove an actual effect on its farming system. Mr Coster considered that the claim submitted for Ashcroft Farm was disproportionate compared to the amount agreed for any loss of water for the farm borehole at Barn Farm.

64. The combination of the absence of any significant evidence showing an effect on the cropping performance of the subject land and the modest price differences indicated by the Clifton Campville auctions and the Barn Farm borehole compensation led Mr Coster to conclude that a purchaser would not discount his bid to reflect the alleged losses.

65. In Mr Coster's opinion it was difficult to value the subject land for sale to a commercial arable farmer at the date of entry. There had been few transactions of sizeable blocks of land in the area. He was not aware of the recent sale of any land of such high quality as this, the nearest comparable being the Barn Farm sale at around £4,000 per acre excluding the buildings. Not all of the retained land consisted of the very high quality peat soils. He regarded a figure of £5,000 to £5,500 per acre overall as being a realistic value as at 3 November 2000. In his opinion a lot size of 50.9 acres would not have sold for as much as the £10,000 per acre claimed. There was no evidence for such levels of value being paid for large sized blocks of commercial farmland in this area, and he was not aware of any such sales. High quality double cropping grade 1 silts in East Anglia, such as around Boston in Lincolnshire, did sell for £9/£10,000 per acre. During negotiations for the other heads of claim it was considered whether this level of value would apply to the subject land. It was possible that if such land had been available in this area at the date of entry, in a reasonably sized block, these values might have been achieved, but there was no market evidence to prove this.

66. Mr Coster's rebuttal report dated 18 August 2008 included the following observations:

“At paragraph 17 Mr Meynell says that when he and I met in September 2003 I generally accepted the gross margin figures. This was true at the time but at that stage I had not had the benefit of the specialist advice from the Highways Agency's agronomist and farm business expert. It is highly probable if I return to look at these figures with the benefit of that advice now I would not necessarily accept they were as high as those used to agree the remainder of the claim during negotiations. In particular, the advice of

Mr Blaylock, the agronomist, on the frequency of growing high value crops during a realistic rotation at the farm in question would probably mean a lower overall gross margin. I now know from Mr Blaylock that the claimants had been conducting soil sterilisation for potato cyst nematode, which is very relevant to the question of how I would view rotation periods and the frequency of growing the same crop.

In paragraphs 20-22 Mr Meynell considers a differential valuation of the retained land based upon the varying soil types. I can accept this in principle as a reasonable approach but would have to place a reservation on it that there was no market evidence at the time of entry for prices as high as £10,000 per acre being paid for commercial farmland in Staffordshire, although they had been placed in some areas of East Anglia, particularly the Fens.”

67. In oral examination in chief Mr Coster said that, if the pre-scheme groundwater level had been between 0.8m and 1.3m below ground, a prospective purchaser might have made a robust assessment and reduced his bid by £1,000 per acre in respect of that part of the affected land lying within 100 metres of the line of the new road. This would produce about £18,000, which he would round up to £20,000.

### **Valuation – conclusions**

68. Mr Coster and Mr Oliphant placed considerable emphasis on the claimants’ failure to produce evidence of crop production or yields from the retained land, or evidence of spray fertiliser or water applications over the eight years since the valuation date. Whilst at first sight there is some force in that criticism, it is in my judgment necessary to consider it in the context of the negotiations conducted by Mr Coster with Messrs Meynell and Simpson of Fisher German, which eventually resulted in settlement of the principal compensation claim on 29 September 2006. Mr Coster said that between 10 July 2000, when he first went to Ashcroft Farm and 29 September 2006, he visited the farm on eleven occasions to meet Mr Saxton and his agent and discuss the claim. The majority of these meetings were followed by an inspection of the affected areas, usually in Mr Saxton’s four-wheel drive vehicle. During the same period, Mr Coster had five further meetings with the claimants’ agents, one at the MEL site offices and the others at Fisher German’s offices in Stafford. He also had at least thirty-eight telephone conversations with the claimant.

69. In oral evidence Mr Coster agreed that these meetings were fairly cordial and positive throughout. It is in my view unlikely that Mr Coster would have so characterised them if, over a period of some six years, he had regularly asked the claimants to provide important information which had not been forthcoming. It was clear to Mr Coster from the outset that the claimants were seeking compensation for the alleged lowering of the water table. Mr Coster stated that the claimants provided no evidence of any effect on the farming performance of the affected area. He accepted in cross examination, however, that on 25 June 2003 Mr Saxton showed him a wheat crop by the railway, extending over a distance of 500 metres, where the peat soil contained cracks up to half an inch deep which had never been seen before. At a meeting on 16 July 2002 he inspected the land on both sides of the railway line south of the motorway. He saw that the culvert beneath the railway, which the claimants had deepened by

two feet and always ran with water, had now dried up completely. On 21 March 2003 he was shown a large field with sugar beet and was told that it now had to be irrigated for the first time.

70. Mr Oliphant accepted that farmers did not normally keep separate yield records of individual fields, although he said they should keep fertiliser and spray records. In the course of his oral evidence-in-chief, Mr Saxton gave detailed evidence as to the poor quality of different crops produced on the affected land following construction of the cutting. That evidence was not mentioned in his witness statement and I attach little weight to it. It is clear, however, that after he had settled the main claim Mr Coster concluded that he had agreed to pay the claimants too much compensation. He then focused his attention on the lack of detailed information to support the claim for dewatering. I am not persuaded that, before he decided that the original settlement had been too high, he had repeatedly asked the claimants for information which they declined to produce at any of the unusually large number of site meetings. Moreover, I am satisfied that he had been shown evidence which suggested that there was an increased need to irrigate the affected area and that the lowering of the water table had adversely affected production in the summer of 2003.

71. That said, what has happened on the affected land subsequent to the acquisition, whilst of assistance by way of background, is of less importance now that the claim is being pursued on the basis of an alleged diminution in value at the valuation date, rather than lost profits after that date.

72. I now turn to the question of the reduction in value and consider first the value of the affected area in the no scheme world. Mr Meynell's valuation approach is simple. He values the best land at £10,000 per acre, the remainder at £5,000 per acre and he adds £5,000 per acre to both figures to reflect the additional value of specialist fixtures and fittings. He adopts this approach because, he says, those were the values he agreed with Mr Coster when settling the main compensation claim.

73. In his rebuttal report dated 18 August 2008 Mr Coster said that he accepted Mr Meynell's approach of valuing the varying soil types on different bases. He added, however, that he

“would have to place a reservation on it that there was no market evidence at the time of entry for prices as high as £10,000 per acre being paid for commercial farmland in Staffordshire, although they had been placed in some areas of East Anglia, particularly the Fens.”

74. As for the additional value to reflect the claimants' considerable investment in fixed equipment, he said

“I would want to reconsider what was discussed at the time in the light of the evidence of the other HA (Highways Agency) experts, especially Mr Oliphant who is an expert on farm business and who would be able to advise whether the figure of investment at

£5,000 per acre (which Mr Meynell and I discussed during negotiations) was correct and how much mitigation of loss could be achieved to possibly reduce this head from the total loss which is claimed.”

75. In oral evidence-in-chief Mr Coster said that, so far as he was aware, a figure as high as £10,000 per acre had still not been paid for bulk agricultural land in the West Midlands. He would value the best land in the affected area at £7,500 per acre. He agreed with Mr Meynell’s figure of £5,000 per acre for the sandier soils. In re-examination he said that he would be very surprised if £5,000 per acre were added to the basic land value to reflect fixed equipment, unless the land being sold actually contained buildings.

76. In my judgment Mr Coster’s evidence on this aspect of the valuation was less than satisfactory. His main report listed seven farm sales by auction around the valuation date; three auction sales after the valuation date; five auctions of small parcels of land in Staffordshire, mainly targeted at the equestrian market; three areas of agricultural land purchased by the acquiring authority following service of blight notices and three settlements of compensation for large arable farms near Lichfield. His written references to the figure of £10,000 per acre for the claimants’ best land did not state in terms that that figure had been agreed with Mr Meynell. I was not sure whether £10,000 had in fact been agreed until Mr Meynell was being cross-examined when, in response to my query, Mr Mould confirmed that it had. In the course of his oral evidence Mr Coster sought to distinguish this agreement from the circumstances of the current reference on two grounds. Firstly, he said that the prime land to the east of the railway had been agreed at £10,000 per acre because it adjoined three dwelling houses. It was to be expected that one or more of the house owners would bid for the land if it came on the market, in order to realise marriage value by incorporating it within their curtilage. Secondly, he said that the value of £10,000 was only appropriate for lots of between 10-15 acres, and a lower rate would be appropriate for the reference land, which was larger.

77. I am unable to accept either of these explanations. Mr Meynell did not consider that there was a case for a quantity allowance and no evidence was produced to support one. Mr Coster explained that the value of £10,000 had been derived from the price of £11,000 per acre paid for the best land at Tofts House Farm in Lincolnshire, since there was no evidence of land of similar quality being sold in the West Midlands. He said that he did not know the area of the land sold at Tofts House Farm. In those circumstances his suggestion that the agreed value of £10,000 related only to land of a specific area is fanciful. Secondly, in answer to a question from me, Mr Coster said that, whilst he had agreed a value of £10,000 per acre for prime land to the west of the railway line, the land to the east of the railway would only have been worth between £5,000 and £7,000 had it not been for the presence of the neighbouring houses. He was unable to provide any satisfactory explanation for the discrepancy in value between two parcels of land of identical quality, whose only physical difference was that they were on opposite sides of a railway line.

78. Mr Coster emphasised that there had been no sales of agricultural land in the West Midlands at £10,000 per acre since the valuation date. That is no doubt true, but the position

today is not materially different from what it was in 2006, when he agreed that level of value with Mr Meynell.

79. There being no convincing evidence to demonstrate that the agreed value of £10,000 per acre was too high, I accept Mr Meynell's pre-scheme land valuations, subject to one qualification. That arises from the fact that the negotiations on the main compensation claim were conducted on the assumption that the water required to irrigate the land was available to the farmer free of charge. It has subsequently emerged that that assumption was incorrect, and that the abstraction licences obliged the claimants to pay for the water that was taken. Mr Meynell accepted that land would be more valuable if there were no requirement to pay for water. In the absence of any evidence as to the difference in value, I find that the best land was worth £9,500 per acre. It is not necessary to make a comparable deduction in respect of the remaining land, because Mr Coster agreed with Mr Meynell that it was worth £5,000 per acre.

80. In their negotiations on the main claim Mr Coster and Mr Meynell agreed an additional value of £5,000 per acre attributable to fixtures and fittings. Mr Oliphant agreed that the claimants' investment in fixed costs associated with their packing and marketing operations was considerably greater than on comparable farms. In the absence of any more convincing evidence I find that Ashcroft Farm had an additional value of £5,000 per acre attributable to fixtures and fittings.

81. I now consider the blighted value of the affected area at the valuation date. It is agreed that the hypothetical purchaser would be prudent and well-informed. He would know that the quality of much of the soil was exceptionally high. He would see that a pumping station was proposed and he would ask the motorway promoters for further details. He would not be given the misleading information which MEL provided in January 1995. Instead, he would be advised that very substantial quantities of ground water would be removed from the land, that the water table would be reduced at varying rates up to a maximum of 3m over an area of 50.9 acres and that it would not be possible to overcome the irrigation problems resulting from this. He would be able to ascertain the existing level of the water table by inspection and therefore be aware that it was accessible to root crops. He would be advised that the quality of crops produced on the land would decline after the cutting had been constructed.

82. Mr Meynell assessed the post-scheme value of the land at £3,100 per acre overall. In his expert report he said that he had been advised by Mr Tyler that the water table had been lowered "to the extent that the yields of high value root and brassica crops will be reduced." His valuation, however, was based on comparables which were not suitable for such crops at all. The value of £3,100, therefore, is too low.

83. Mr Coster was of the view that the dewatering would have no effect on the post-scheme value. His two best comparables which led him to that conclusion were the sale by auction of two parcels of land at Clifton Campville and the compensation paid for the alleged loss of groundwater at Barn Farm. I do not consider that either is conclusive. Lot 1 at Clifton Campville was purchased by a farmer who was able to bring irrigation to it. Nothing is known about the identity of the under-bidder. Unless the under-bidder was also in a position to

irrigate the land, the price paid merely reflected one bid more than that made for land without irrigation potential. This evidence does not show what price might have been achieved if the successful bidder had been in competition with a farmer in a similar position to himself.

84. The owners of Barn Farm were clearly dissatisfied with the compensation offered by the acquiring authority. Their only alternative to accepting that offer was to refer the matter to this Tribunal. The experience of the present reference, which involved evidence from ten witnesses over a five day hearing, shows why the claimants may well have decided to accept the best offer available, rather than run the risk of incurring costs which would be disproportionate to the sum of £60,000 which was in issue. Mr Coster referred to the fact that the former owners of Barn Farm did not seek to reduce the price when they agreed to repurchase the land which was not required for the motorway. I do not attach any significance to that approach by a party which had a longstanding connection with the land and wished to agree terms quickly.

85. In my judgment, the negative effect of the matters mentioned in para 81 above on the perception of value by a potential purchaser of what was formerly an exceptional area of farmland, justifying a premium value, would have been considerable. In the absence of any truly comparable evidence I consider that a purchaser would have been prepared to pay 25 per cent less for the affected land than if the water table had not been lowered. I am unable to accept Mr Meynell's opinion that the additional value of the fixtures and fittings would have been halved as a result of the claimants' inability to operate them at full capacity. There was no significant supporting evidence to identify the capacity and degree of utilisation of these facilities prior to and after the valuation date. This aspect of the claim has not been made out. I therefore assess the depreciation in value of the affected area at £100,000, as follows:

31.92 acres	@ £9,500 per acre	£303,240	
18.98 acres	@ £5,000 per acre	<u>£ 94,900</u>	
		£398,140	
Depreciation in value – 25% of £398,140			£ 99,535
			<b>say £100,000</b>

86. I determine the compensation payable to the claimants for injurious affection due to dewatering to be £100,000. Statutory interest will be payable in addition in the usual way. A letter on costs accompanies this decision, which will take effect when the question of costs is decided.

Dated: 30 January 2009

N J Rose FRICS